## The University Calendar, 2009-10

Calendar subject to change as conditions may require.
Please see online schedule/registration guide for registration, fee payment, drop/add, and other important dates.

## Fall Semester 2009

August 29
Sept Classes Begin
Labor Day Holiday-no classes
October 17-20 Fall Break-no classes
November 26-28 Thanksgiving Holidays-no classes
December $9 \quad$ Last Day of Classes
December 10 Study Day-no classes
December 11-17 Final Examinations
December 19 Commencement
December 21 Deadline for Final Grades

## Spring Semester 2010

November 9-20 Early Registration
January $14 \quad$ Classes Begin
January 18 Martin Luther King Holiday-no classes
March 8-14
March 12
April 28
April 29
April 30-May 6
May 8
May 10

Spring Break
University Holiday
Last Day of Classes
Study Day-no classes
Final Examinations
Commencement
Deadline for Final Grades

## Summer Full Term 2010 (1-Full Term) 13 weeks

May 17
May 31
July 5
August 12
August 13
August 14

Classes Begin
Memorial Day Holiday-no classes Independence Day Holiday-no classes Final Exams for classes meeting M-R Final Exams for classes meeting M-F Commencement

## Summer June Term 2010 (S2-June Term) 5 weeks

June 7
July 5
July 8
July $9 \quad$ Final Exams for Classes Meeting M-F

## Summer July Term 2010 <br> (S3-July Term) 5 weeks

July 12
August 12
August 13

## Summer June/July Term 2010 (S4-June/July Term) 10 weeks

June 7
July 5
August 12
August 13

Classes Begin
Independence Day Holiday-No Classes
Final Exams for classes meeting M-R
Final Exams for classes meeting M-F

## Summer RODP Term 2010 (R-RODP) 10 weeks

June 7
July 5
August 13

Commencement for Summer Term is August 14, 2010.
Deadline for Submission of Final Grades is August 16, 2010.
Classes Begin
Independence Day-No Classes
Final Exams

## Summer May Term 2010 (S1-May Term) 3 weeks

May 17
May 31
June 4
June 5

Classes Begin
Memorial Day Holiday-no classes
Final Exams
Final Exam for classes meeting Saturday

[^0]
## 2009-2011 Undergraduate Catalog MIDDLE TENNESSEE STATE UNIVERSITY

established 1911 Murfreesboro, Tennessee

## Statement of Mission

Middle Tennessee State University unites the closeness of a small college with the opportunities of a large dynamic public university where students explore their intellectual potential and realize the promise in their futures. Grounding students in the arts and sciences, the University offers an integrated, technological, innovative education that prepares leaders for the economic, political, civil, and social life of the region and beyond.

The University is dedicated to promoting openness and educating a diverse student body from across the nation and around the world through comprehensive undergraduate and select masters and doctoral programs. MTSU prepares students to live productively and to become lifelong learners; to employ scientific knowledge and an understanding of culture and history; to think logically, critically, and creatively; to communicate clearly; to make sound judgments; to acquire working knowledge of a discipline or group of related disciplines; and to participate as citizens in the global community. The MTSU community creates knowledge through research and uses scholarship to enhance teaching and public service.

The University fosters an environment conducive to learning and personal development; recruits exceptional faculty and maintains support services to assist instruction; provides re-
sources to encourage research, creative activity, and service; develops individual, corporate, and public support; encourages excellence in athletics and recreational activities; establishes academic partnerships that support student-centered learning; works continually to strengthen and enhance the academic core; and supplies resources to accomplish its mission.
A major public institution of higher learning, MTSU is a member of the State University and Community College System of Tennessee.

## Vision

The Academic Master Plan creates a strategic blueprint that defines the University's vision, underscoring MTSU's commitment to leadership in higher education and to building Tennessee's future. It commits the University to achieving excellence in academics and to advancing student-centered learning. To this end, the University employs emerging technologies while honoring a sense of community, history, and tradition. Selective new academic programs strengthen partnerships with appropriate constituencies.

Approved December 2004


## Table of Contents

Directory of Information ..... 4
History of the University ..... 5
Administrative Officers, Tennessee Board of Regents, and Tennessee Higher Education Commission ..... 6
Accrediting Agencies and Memberships ..... 8
Academic Support ..... 9
College of Graduate Studies ..... 16
A Student at MTSU ..... 17
Degrees Offered ..... 18
Academic Inventory ..... 18
Requirements for Admission ..... 25
Required High School Courses ..... 25
Application Information ..... 30
International Admissions ..... 31
Advanced Standing ..... 32
Expenses ..... 35
Financial Aid ..... 41
Aid Available ..... 45
Housing and Residential Life ..... 47
Reservations ..... 50
Registration Procedures ..... 51
Academic Regulations ..... 52
Undergraduate Degree Requirements ..... 60
General Education ..... 64
How to Correct High School Deficiencies ..... 68
Campus Life ..... 69
Division of Student Affairs and Enrollment and Academic Services ..... 70
Student Life ..... 70
Academic Support Services ..... 74
Enrollment Services ..... 76
Beyond the Classroom ..... 77
Academic Life ..... 79
Interdisciplinary Majors and Minors ..... 80
African American Studies ..... 92
Aging Studies ..... 93
Global Studies ..... 93
Middle East Studies ..... 95
Women's Studies ..... 95
University Honors College ..... 97
McNair Program ..... 98
Academic Enrichment Support Unit ..... 98
Experiential Learning (EXL) ..... 100
University Courses ..... 101
International Education ..... 102
Army ROTC/AFROTC ..... 103

Credits: Compiled and prepared by MTSU Publications and Graphics, Suma Clark, director; edited by Bill Fisher and Mitzi T. Brandon; layout by Mitzi T. Brandon, Judith Shook, and Sherry Wiser George; cover design by Sherry Wiser George; photographs provided by MTSU Photographic Services; printing by Rich Printing Co., Nashville, Tenn.
College of Basic and Applied Sciences ..... 105
Microanalysis and Imaging Center (MIMIC) ..... 106
Aerospace ..... 106
Agribusiness and Agriscience ..... 111
Biology ..... 114
Chemistry ..... 116
Computer Science ..... 123
Engineering Technology ..... 125
Mathematical Sciences ..... 131
Military Science ..... 135
Nursing ..... 136
Physics and Astronomy ..... 139
Jennings A. Jones College of Business ..... 141
Accounting ..... 145
Business Communication and Entrepreneurship ..... 146
Computer Information Systems ..... 149
Economics and Finance ..... 150
Management and Marketing ..... 153
College of Continuing Education and Distance Learning ..... 157
Credit Area ..... 158
Professional Development ..... 160
College of Education and Behavioral Science ..... 161
Criminal Justice Administration ..... 165
Educational Leadership ..... 166
Elementary and Special Education ..... 167
Health and Human Performance ..... 170
Human Sciences ..... 175
Psychology ..... 181
College of Liberal Arts ..... 185
Art ..... 186
English ..... 189
Foreign Languages and Literatures ..... 192
Geosciences ..... 193
History ..... 197
Music ..... 198
Philosophy ..... 204
Political Science ..... 205
Social Work ..... 208
Sociology and Anthropology ..... 209
Speech and Theatre ..... 21
College of Mass Communication ..... 215
Electronic Media Communication ..... 217
Journalism ..... 221
Recording Industry ..... 225
Courses-Academic Abbreviations ..... 231
Course Descriptions ..... 232
The Faculty and Administration ..... 345
Student Access to Educational Records ..... 399
Index ..... 402
How to Obtain Applications ..... 408

## Directory of Information

The course offerings and requirements of Middle Tennessee State University are continually under examination and revision. This catalog presents the offerings and requirements in effect at the time of publication, but there is no guarantee that they will not be changed or revoked. Students are encouraged to contact the departments and areas listed below for current information. This catalog is not intended to state contractual terms and does not constitute a contract between the student and the institution.

Middle Tennessee State University reserves the right to make changes as required in course offerings, curricula, academic policies, and other rules and regulations affecting students to be effective whenever determined by the institution. These changes will govern current and formerly enrolled students. Enrollment of all students is subject to these conditions.
The institution does not warrant or represent that any student who completes a course or program of study will necessarily acquire any specific skills or knowledge or will be able to successfully pass or complete any specific examination for any course, degree, or license.
General Inquiries ........................................ Campus Operator
(615) 898-2300


## Middle Tennessee State University <br> Murfreesboro, Tennessee 37132 <br> MTSU Web site: www.mtsu.edu

## The History of the University

In 1909, the General Assembly of the State of Tennessee moved "to provide for the improvement of the system of Public Education of the State of Tennessee, that is to say, to establish a General Education Fund." The major thrust of this "improvement" embodied in the legislative act that was to become known as the General Education Bill of 1909 was the establishment of three normals or teacher-training institutions. Following the intent of the act that one was to be located in each of the grand divisions of the state, the State Board of Education assigned the middle Tennessee institution to Murfreesboro.

Opening on September 11, 1911, with a two-year program for training teachers, Middle Tennessee State Normal School evolved into a four-year teachers college in 1925 with the power of granting the Bachelor of Science degree. In 1943, the General Assembly designated the institution a state college. This new status marked a sharp departure from the founding purpose and opened the way for expanding curricular offerings and programs. In 1965, the institution was advanced to university status.
During the progressive movement from a two-year normal to a university, several significant milestones may be identified. In 1936, the Bachelor of Arts program was added. Responding to the expressed needs of the institution's service area, the Graduate School was established in 1951. To effect better communications and improve administrative supervision, the schools concept was introduced in 1962.

As Middle Tennessee State University developed and grew, the prestigious Doctor of Arts program was added in 1970 and the Specialist in Education in 1974. These
two degree programs became attractive centerpieces for other efforts to improve and enhance institutional roles. Library resources were dramatically increased and sophisticated computer services were developed to aid instruction and administration. A highly trained faculty enabled the University to continue growth in program offerings. In 1991, the University's six schools-five undergraduate and the graduate school-became colleges. In 1998, MTSU's Honors Program became the Honors College, the first in the state. In 2006, the Division of Continuing Studies and Public Service changed to the College of Continuing Education and Distance Learning. In 2002, approval was granted to redesignate three D.A. programs to Doctor of Philosophy programs, expanding the progressive institution's offerings.
Since 1911, MTSU has graduated more than 100,000 students. Despite the University's growth from a campus of 100 acres, 125 students, and a faculty of 19 , to an academic city of over 500 acres, more than 23,000 students, and a faculty of over 900, the institution is still essentially a "people's university" with a concern for the diverse needs of the area that it serves. In the 1980s and '90s, the institution dedicated resources to become a leader in technology, both in the classroom and in many services to students. In 1986, James McGill Buchanan ('40) became the first MTSU alumnus to be awarded the Nobel Prize. Buchanan received the Nobel Memorial Prize in Economic Sciences for his development of the theory of public choice, a way of studying the expenditure of public funds. As the University approaches its centennial in 2011, the theme Tennessee's Best sums up the institution's goal that everyone-students, faculty, staff, alumni, and friends-strive to be the best.


## University Administrative Officers

## Office of the President

Sidney A. McPhee, president
Kimberly S. Edgar, executive assistant
Frances R. Rich, administrative assistant
Institutional Equity and Compliance, Forrestine Williams, special assistant to the president
Athletics, Chris Massaro, director
Audit and Consulting, Brenda Burkhart, director
Community Engagement and Support, Gloria Bonner, assistant to the president
University Counsel, James Floyd, assistant to the president
Tennessee Small Business Development Center (Lead Center), Patrick R. Geho, director

## Office of the Executive Vice President and Provost Academic Affairs, Division of

L. Diane Miller, interim executive vice president and provost William J. Badley, assistant vice provost
Rebecca Cole, associate vice president for academic resources
Faye Johnson, assistant to the executive vice president and provost for special initiatives

Academic Enrichment Support Unit, Marva Lucas, interim director
Adams Chair of Excellence in Health Care Services, Martha Jo Edwards, chairholder
African American Studies, Adonijah Bakari, director
Aging Studies, J. Brandon Wallace, director
Centers of Excellence
Historic Preservation, Carroll Van West, director Popular Music, Paul F. Wells, director

Continuing Education and Distance Learning, College of Mike Boyle, dean
Dianna Z. Rust, associate dean
General Education, William J. Badley, director
Graduate Studies, College of,
Michael D. Allen, vice provost for research and dean
Peter H. Cunningham, associate dean
Institutional Diversity, Sharon Shaw-McEwen
Institutional Effectiveness, Planning, and Research Fay S. Parham, executive director
Institutional Research, Cornelia Wills, director
International Education, vacant
Middle East Center, Allen Hibbard, director
Research Services, Myra Norman, director
Transfer Student Services, E. Michelle Blackwell, director
University Honors, College of, John R. Vile, dean
Scott A. Carnicom, associate dean
Walker Library, Don Craig, dean
Women's Studies, Newtona (Tina) Johnson, director

Basic and Applied Sciences, College of
Thomas J. Cheatham, dean
Saeed Foroudastan, associate dean
Aerospace, Wayne A. Dornan, chair
Agribusiness and Agriscience, Warren Gill, school director
Biology, George G. Murphy, chair
Chemistry, Earl F. Pearson, chair
Computer Science, Richard Detmer, chair
Engineering Technology, Walter Boles, chair
Mathematical Sciences, Terrance Quinn, chair
Military Science, Michael Walsh, chair
Nursing, Lynn C. Parsons, school director
Physics and Astronomy, Ron Henderson, interim chair
Business, Jennings A. Jones College of
E. James Burton, dean

Dwight Bullard, associate dean
Accounting, Jeffrey L. Hamm, chair
Business Communication and Entrepreneurship, Stephen D. Lewis, chair
Computer Information Systems, Stanley E. Gambill, chair
Economics and Finance, Charles Baum, chair
Management and Marketing, Jill Austin, chair
Business and Economic Research Center, David A. Penn, director
Tennessee Center for Labor Management Relations,
Barbara Haskew, interim director
Education and Behavioral Science, College of
Harold D. Whiteside, interim dean
Rick Short, associate dean for program planning, accreditation, and assessment research
Phillip Waldrop, associate dean for teacher education
Criminal Justice Administration, Deborah W. Newman, chair
Educational Leadership, James O. Huffman, chair
Elementary and Special Education, Connie A. Jones, chair
Health and Human Performance, Dianne Bartley, chair
Human Sciences, Dellmar Walker, chair
Psychology, Dennis R. Papini, chair
Homer Pittard Campus School, Stan Baskin, principal
Instructional Technology Support Center, Connie Schmidt, director
Liberal Arts, College of
John N. McDaniel, dean
Mark Byrnes, associate dean
Hilary Stallings, manager, recruitment and resources
Art, Jean Nagy, chair
English, Tom W. Strawman, chair
Foreign Languages and Literatures, Thomas Heine, interim chair
Geosciences, Ronald L. Zawislak, chair
Global Studies, Douglas Heffington, director
History, Amy Sayward, chair
Music, George T. Riordan, school director
Philosophy, Ron Bombardi, chair
Political Science, Clyde Willis, interim chair
Social Work, Rebecca Smith, chair
Sociology and Anthropology, Jackie Eller, interim chair
Speech and Theatre, Rebecca Fischer, chair
Mass Communication, College of
Roy Moore, dean
John Omachonu, associate dean
Electronic Media Communication, Dennis Oneal, chair
Journalism, Zany Panol, interim school director
Recording Industry, Chris Haseleu, chair
WMOT, John Egly, general manager

## Business and Finance, Division of

John W. Cothern, senior vice president
Mike Gower, associate vice president
Administrative Services, Deborah D. Roberts, director
Budget Office, Kathy R. Thurman, director
Campus Planning, Patricia S. Miller, assistant vice president
Events and Transportation Services, Ron Malone, assistant vice president
Facilities Services, David W. Gray, assistant vice president
Human Resource Services, Kathy Musselman, assistant vice president
Public Safety, Carl S. Peaster, chief
Procurement and Auxiliary Services, Joe Hugh, assistant vice president

## Development and University Relations, Division of

William J. "Joe" Bales, vice president
Tonjanita L. "Tonja" Johnson, associate vice president for marketing and communications

Advancement Services, Tammie Allen, director
Alumni Relations, Ginger C. Freeman, director
Development, Nicholas J. Perlick, director
Marketing and Communications, Doug Williams, executive director
News and Public Affairs, Tom Tozer, director
Photographic Services, Jack Ross, director
Publications and Graphics, director

## Information Technology, Division of

Lucinda T. Lea, vice president for information technology and CIO
Tom Wallace, associate vice president
Academic and Instructional Technologies, Barbara Draude, assistant vice president
Communication Support Services, Robin Jones, director
Database Administration Services, James Foster, director
Enterprise Resource Planning Systems, Lisa Rogers, assistant vice president
Network and Information Technology Security, Greg Schaffer, assistant vice president
Server, Classroom, and Desktop Services, Tom Wallace, associate vice president
Telecommunications Services, Steve Prichard, director

## Student Affairs, Division of

Debra Sells, vice president and vice provost for enrollment and academic services

Academic Support Center, Laurie Witherow, director
Career Development Center, Bill Fletcher, director
Counseling Services, Jane Tipps, director
Day Care Center, Nancy James, director
Disabled Student Services, John Harris, director
Housing and Residential Life, Sarah Sudak, executive director
New Student and Family Programs, Gina Poff, director
Student-Athlete Enhancement Center, Jim Rost, director
Student Support Services, Crickett Pimentel, director

## Enrollment Services

Sherian Huddleston, associate vice provost for
enrollment services
Admissions, Lynn Palmer, director
Financial Aid, David Hutton, director
Records, Teresa Thomas, director
University Withdrawals, Becky Garrett, coordinator

## Student Life

Gene Fitch, associate vice president and dean of student life
Dan Kelley, associate dean, Student Involvement and Leadership
Campus Recreation Center, Charles Gregory, director
Greek Affairs, director
Health Services, Rick Chapman, director
Intercultural and Diversity Affairs, Vincent Windrow, director
International Student Programs, Tech Wubneh, director
Judicial Affairs, Laura Sosh-Lightsy, assistant dean
Leadership and Service, Jackie Victory, director
Spirit Coordinator, Douglas Daigle
Student Government, Lisa Simons
Student Publications, Steven Chappell, director
Student Unions and Programming, Rich Kershaw, director
June Anderson Women's Center, Terri Johnson, director
Off-Campus Student Services, Carol Ann Baily, director

## The Tennessee Higher Education Commission

Katie Winchester, Chair, Dyersburg
Jack Murrah, Vice-Chair, Hixson
A. C. Wharton, Jr., Secretary, Memphis

Tre Hargett, Secretary of State
Justin P. Wilson, Comptroller
David H. Lillard, Jr., State Treasurer
Robert White, Johnson City
Charles Mann, Columbia
Sue Atkinson, Nashville
Gregory P. Isaacs, Knoxville
Carolyn Morrison, Cookeville
Cato Johnson, Bartlett
David C. Holt, voting ex-officio, UT Memphis
Gary Nixon, non-voting ex-officio, Executive Director, State Board of Education
Jessica Brumett, non-voting ex-officio, Tennessee Technological University

## The Tennessee Board of Regents

The Honorable Phil Bredesen, Governor and Chair Gionni Carr, Student Regent
Agenia Clark, 7th Congressional District
Gregory Duckett, 9th Congressional District
Pamela Fansler, 2nd Congressional District
John Farris, At-Large West Tennessee
The Honorable Ken Givens, Commissioner of Agriculture
Judy T. Gooch, 3rd Congressional District
Jonas Kisber, 8th Congressional District
Fran Marcum, 4th Congressional District
Paul W. Montgomery, 1st Congressional District
Millard Oakley, 6th Congressional District
Richard Rhoda, Executive Director, Tennessee Higher Education Commission
Howard Roddy, At-Large, East Tennessee
J. Stanley Rogers, At-Large, Middle Tennessee

Ed Stevens, Jr., Faculty Regent
Robert P. Thomas, Vice-Chair, 5th Congressional District
The Honorable Tim Webb, Acting Commissioner of Education

## Accrediting Agencies and Memberships

Middle Tennessee State University is accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS) to award associate's, bachelor's, master's, specialist's, and doctoral degrees. The Commission on Colleges can be contacted at 1866 Southern Lane, Decatur, GA 30033, (404) 679-4500, for information regarding MTSU's accreditation status. Admission and other inquiries should be directed to the appropriate MTSU office. Other accrediting agencies and memberships are listed below.

AACSB International - The Association to Advance Collegiate Schools of Business
Accrediting Council on Education in Journalism and Mass Communications - ACEJMC

Accreditation Board for Engineering and Technology/ Computer Accreditation Commission
American Alliance for Health, Physical Education, Recreation and Dance
American Association of Airport Executives
American Association of Colleges and Universities
American Association of Collegiate Registrars and Admissions Officers
American Association of Colleges for Teacher Education
American Association of Colleges of Nursing
American Association of Family and Consumer Sciences
American Association for Leisure and Recreation
American Association of State Colleges and Universities
American Chemical Society
American College Testing Program
American Council on Education
American Dietetic Association
Aviation Accreditation Board International
Aviation Technician Education Council
Commission on Accreditation of Allied Health Education Programs
Commission on Collegiate Nursing Education
Council for the Advancement and Support of Education
Council of Graduate Schools
Council of Southern Graduate Schools
Council on Social Work Education
Foundation for Interior Design Education Research
Fuld Institute for Technology in Nursing Education
National Air Transportation Association
National Association for the Education of the Young Child
National Association for Sport and Physical Education
National Association of State Universities and Land-Grant Colleges
National Association of Industrial Technology

National Association of Schools of Art and Design
National Association of Schools of Music
National Association of Student Personnel Administrators
National Athletic Trainers' Association
National Business Aviation Association
National Collegiate Athletic Association
National Collegiate Honors Council
National Commission for Health Education Credentialing
National Council for Accreditation of Teacher Education
National Intercollegiate Flight Association
National League for Nursing Accreditation Commission
National Recreation and Parks Association
ORAU - Oak Ridge Associated Universities, Partnerships for Innovation
Southern Association for College Student Affairs
Southern Association of Collegiate Registrars and Admissions Officers
SREB Council on Collegiate Education for Nursing
Southern Regional Honors Council
Sun Belt Conference
Teachers College Association of Extension and Field Services
Teacher Education Council of State Colleges and Universities
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology
Tennessee Association of Colleges for Teacher Education
Tennessee Association of Collegiate Registrars and Admissions Officers
Tennessee Association of Science Department Chairs
Tennessee Association of Veterans Programs Administrators
Tennessee Conference of Graduate Schools
Tennessee College Association
Tennessee Collegiate Honors Council
The College Board
The Renaissance Group
United States Army, Cadet Command
University Aviation Association

## Academic Support

Middle Tennessee State University has a large and beautifully landscaped campus of approximately 500 acres and 179 permanent buildings totaling over 4.6 million square feet. Campus buildings are shown on a map printed in this catalog.

## Academic Advising

In addition to the academic assistance provided by the faculty, MTSU has academic college advisors in each undergraduate college. Academic college advisors assist students in their academic growth and adjustment to university life. The advisors work primarily with freshmen, transfers, and potential majors within a specific college, as well as with students in academic difficulty. Advisors counsel students regarding correct college courses, make referrals to faculty major advisors, assist students during CUSTOMS orientation and registration activities, and make referrals to Counseling Services.

The Academic Support Center (ASC) provides academic advising services for MTSU students with undeclared majors, students with ACT prescribed courses, and other special populations. In addition to course selection and registration, ASC advisors provide guidance and information to help students select appropriate majors early in their academic careers. Students interested in changing a major or exploring the majors MTSU has to offer should also visit the center. The Academic Support Center also coordinates learning communities, the community reading program, and other academic initiatives. Students seeking academic assistance are encouraged to contact an academic advisor through their colleges or the Academic Support Center at (615) 898-2339.

## Department of Art Visual Resource Center

Located in Andrew L. Todd Hall 223, the Visual Resource Center creates digital images for the art faculty and provides a digital database of art images for use by Department of Art faculty and students. The expanding digital database comprises over 25,000 art images from prehistoric to contemporary eras. It offers images in a variety of formats for study or use in presentations. Other resources include over 50,000 analog slides available for checkout to the University population at large. Hours are Monday through Friday from 8:00 a.m. until 4:30 p.m. Contact the curator at (615) 898-5532.

## Center for Energy Efficiency

The Center for Energy Efficiency, established in 1998 under the vice president for Finance and Administration in cooperation with Academic Affairs, supports the overall education and community service mission of the University by implementing energy efficiency activities designed to improve campus facilities and by providing educational opportunities to students and the professional community. The multifaceted center provides
engineering and management services that promote efficient practices and environmental awareness and stewardship on campus, in the classroom, and in the broader institutional and business communities.
The center develops and implements energy efficiency projects through the Facilities Services Department for campus facilities, utility systems, and infrastructure. Energy saving performance contracting, new building design, operation and maintenance support, transportation and grounds support, metering, and utility procurement are other campus areas in which the center is involved. The center offers direct support of academic activities to enhance educational and training opportunities and experiences for students and faculty in the Engineering Technology Department and Environmental Science and Technology Program. The center is involved in curriculum development, teaching, and student project support as well as providing scholarships, internships, co-op opportunities, and job placement services. The center also provides professional energy-related training and consulting services to higher education institutions, public and private sector agencies, companies, and individuals. Associations with state and federal agencies and professional energy and engineering organizations offer continuing leadership in meeting rapidly changing energy management needs.

## Center for Health and Human Services

The Center for Health and Human Services is a federation of academic units that share the common goal of preparing the health and human services workforce in Tennessee. Coordinated by the chairholder of the Adams Chair of Excellence in Health Care Services, the center encourages quality interdisciplinary education, research, and service programs in health and human service areas. The center also collaborates with public agencies and private not-for-profit organizations to develop and implement programs designed to improve the health of the middle and greater Tennessee community. MTSU programs affiliated with this center include Aging Studies; School of Nursing; Departments of Psychology, Sociology and Anthropology, Social Work, Health and Human Performance, and Human Sciences; Communication Disorders; Pre-professional Health Sciences; and graduate studies in gerontology and health care management.

## Center for Historic Preservation

One of two Centers of Excellence at MTSU, the Center for Historic Preservation (histpres.mtsu.edu/histpres) was established in 1984. It is a research and public service institute committed to the preservation, protection, enhancement, and sensitive promotion of the historic environment. Through its varied projects, programs, and activities, the center responds directly to the needs and concerns of communities and organizations working to include heritage in their future economic
development strategies. Providing leadership and assistance on a local, state, regional, and national basis, the center's work falls within four initiatives.

Rural preservation recognizes the unique heritage, resources, and problems of rural areas and small towns. The overall goal is to create a heritage infrastructure for successful, long-term project development in small towns that have outstanding resources but lack the expertise to use heritage resources for cultural and economic improvement. National Register nominations for individual buildings, historic districts, and cemeteries are an ongoing priority of this initiative. The Tennessee Century Farms Program, established in 1985 in partnership with the Tennessee Department of Agriculture, is centered on program expansion, new publications, agritourism potential, and regional conservation planning for farms that have been in the same family for at least 100 years. The Rural African American Church Project, established in 1997 in partnership with African American heritage groups and the National Trust for Historic Preservation, is a continuing project that document's the state's historic black churches.

Heritage education addresses the use of cultural heritage resources as across-the-disciplines teaching tools in the K-12 grades. The center works with school systems, community heritage organizations, and higher education teacher training programs to assist in developing and presenting materials that meet current curriculum standards. Most recently, the center entered into a partnership with the Library of Congress to direct Teaching with Primary Sources across Tennessee. Serving educators and students at all levels, the center partners with other MTSU departments and educational institutions and organizations throughout the state. The center director also serves as the senior editor of the Tennessee Historical Quarterly, a valuable tool for high school and college teachers and students.

The Tennessee Civil War National Heritage Area (histpres .mtsu.edu/tncivwar) was created by Congress in 1996. The Heritage Area focuses on the preservation, interpretation, and heritage development of the multiple legacies of the Civil War and Reconstruction era in Tennessee. The center is the only university unit in the nation to serve as the administrative head of a National Heritage Area, which are partnership units of the National Park Service. The Heritage Area provides technical services to institutions, agencies, and property owners across the state and develops funding partnerships with groups, governments, and institutions which work with the center to establish joint projects and programs of long-lasting benefit to the state and nation. As part of the Heritage Area effort, the center plays an active role in the Alliance of National Heritage Areas and assists the alliance's Heritage Development Institutes, which are professional training workshops held across the nation.

Heritage Diversity focuses on incorporating the stories and traditions of all Tennesseans into the history and preservation of the state. Identifying, documenting, and assisting in the interpretation of historic African American schools, cemeteries, farmsteads, and businesses and contributions to the arts are a part of this initiative. National Register documentation of Tennessee and southern sites associated with the civil rights
movement are continuing projects. Women in architecture and preservation as well as women involved in farming across the state address important issues. The center works with the National Park Service to document and develop preservation alternatives for National Register-eligible properties along the Trail of Tears in Tennessee. In cooperation with the MTSU Department of Sociology and Anthropology, the center has partnered with archaeology staff and students on projects associated with the sensitive interpretation of sites of prehistoric Native American habitation.
Graduate-level staff teach historic preservation courses each year for the Department of History and direct a number of theses and dissertations. The center hosts graduate assistants from the Ph.D. program in Public History as well as those studying at the M.A. level. Graduate and undergraduate students who work at the center assist staff on a variety of applied research and public service projects, gaining valuable interdisciplinary experiences to supplement their in-class training. The Downtown Heritage Center in Murfreesboro and the Glen Leven Center in Nashville provide learning labs for students to address issues and programs in preservation and history.

Our largest history project, The Tennessee Encyclopedia of History and Culture Online Edition, is a partnership among the center, the Tennessee Historical Society, and the University of Tennessee Press. Revised in 2001, the encyclopedia Web site is a comprehensive reference for the state's history.

## Center for Popular Music

The Center for Popular Music (CPM) is an archive and research center devoted to the study of American popular music from the Colonial era to the present. It was established in 1985 as one of sixteen Centers of Excellence at universities in the Tennessee Board of Regents system. The center's mission is to promote research and scholarship in American popular music and to foster an appreciation of America's diverse musical culture. To carry out this mission, the CPM maintains a large research library and archive; presents public programs that interpret various aspects of American vernacular music; engages in original research projects; and disseminates the results of research through publications in various media.

The CPM's library and archive is one of the largest and best popular music research collections in the country. Materials in the center's archive and library fall into three broad categories. First are extensive holdings of the various types of media in which music has been fixed and sold as a commodity. These include print materials such as sheet music, song books, song broadsides and songsters, and sound recordings in formats ranging from cylinders to compact discs. The center's sound archive is one of the largest in the country and consists of approximately 170,000 commercial sound recordings as well as many hours of unique unpublished recordings of music and interviews. The CPM's sheet music collection of approximately 65,000 items is the largest in the Southeast, and its library of gospel songbooks is one of the most extensive of any repository not associated with a religious organization. Second are various materials that are needed to study popular music in
all its musical, cultural, historical, technological, and commercial contexts, including items such as photographs, posters, playbills, concert programs, trade catalogs, news clippings, and personal papers of musicians, songwriters, and business people. Third are books, periodicals, and other reference materials about popular music. The center has one of the largest and most comprehensive libraries of books and periodicals about popular music in the country.
Materials in the center's collection do not circulate but are available to anyone doing research on American popular music. The center's resources support undergraduate, graduate, and faculty research in a variety of disciplines and departments. In keeping with one of the aims of the Centers of Excellence program, the Center for Popular Music serves as a research resource for people far beyond the bounds of the University. Center staff members have fielded research queries from every state in the union and from foreign countries representing every continent except Antarctica. Authors, journalists, media producers, performers, and students writing dissertations have all made use of the center's archive and library.
The center's public programs include lectures, conferences, symposia, and concerts of contemporary and historical popular music.

## Endowed Chairs

Several academic programs are enriched through the establishment of Chairs dedicated to the support of a particular discipline. The chairholders may be full-time faculty members or may be individuals from the appropriate business or professional field who are on campus for special seminars or lecture series.

Two Chairs, funded by gifts to the University Foundation, are administered through the Economics and Finance Department, of which the chairholders are members. More information is available through that department. The Chairs are

## Martin Chair of Insurance <br> Weatherford Chair of Finance

MTSU houses nine Chairs of Excellence, established with a combination of private, University, and state funds. They are

The Jennings A. Jones Chair in Free Enterprise Jennings A. Jones College of Business
The Jennings and Rebecca Jones Chair
in Urban and Regional Planning
Jennings A. Jones College of Business
The John Seigenthaler Chair in First Amendment Studies

College of Mass Communication
The Dr. Carl Adams Chair in Health Care Services Interdisciplinary
The National HealthCare Chair in Nursing School of Nursing
The Robert E. and Georgianna West Russell Chair in
Manufacturing Excellence
Engineering Technology Department

# The Katherine Davis Murfree Chair in Dyslexic Studies 

 InterdisciplinaryJohn C. Miller Chair in Equine Reproductive Physiology School of Agribusiness and Agriscience
Mary E. Miller Chair in Equine Health
School of Agribusiness and Agriscience

## Albert Gore Research Center

Named for Senator Albert Gore Sr. (B.S., MTSU '32), the Albert Gore Research Center houses a variety of historical documents, photographs, oral history recordings, and objects available to students and the public for research. The center's collections focus on the history of MTSU and its alumni, state and federal political leaders, and all aspects of life in and around Rutherford County. Center materials are especially strong in local military history, women's history, and social history. Gore's Congressional papers (1939-1970) form the single largest collection in the repository; another noteworthy addition came with the donation of the Margaret Lindsley Warden equestrian history collection. Visit gorecenter. mtsu.edu for more information.


Philip C. Howard Music Library

Located within Instructional Media Resources in McWherter Learning Resources Center, Room 101, Howard Music Library houses audio and video recordings and equipment, musical scores, and reference materials. Anyone with a valid MTSU ID may borrow scores. Recordings circulate only to faculty and staff but may be used by anyone in-house. The Howard Music Library is part of the School of Music. (See also School of Music in this catalog.)

## Information Technology

The MTSU Information Technology Division (ITD) supports computing and information technology resources of the Univeristy. ITD manages the campus network and MTSU's primary academic and administrative computing systems; provides telecommunication services for the campus; promotes and supports instructional technology, including faculty consultation and training and maintenance support for all campus technology-based classrooms; provides technical support and training for the use of computer hardware and software; provides a $24 / 7$ help desk when classes are in session; supports MTSU's primary administrative applications including RaiderNet, PipelineMT, and the data warehouse; and administers the STA (Student Technology Assistant) program, the campus ID system, and the MTSU Web site.
Any MTSU student or faculty or staff member may have an account which provides access to on-campus information technology resources as well as state, regional, national, and international networks including the Internet. Students may activate their accounts at www.mtsu.edu/changepw. The account will be ready to use within 10 minutes. Faculty and staff accounts are automatically created after job data has been set up in the administrative system. Faculty and staff may activate their accounts at www.mtsu.edu/changepw. Additional information regarding faculty and staff accounts, as well as class or organizational accounts can be found at www.mtsu.edu/itd/ facstaff_accounts_itd.shtml.
For more information, call the ITD help desk at (615) 8985345 or e-mail help@mtsu.edu.

## Office of Institutional Diversity

The purpose of the Office of Institutional Diversity is to ensure that diversity concerns remain in the forefront. The office will promote equity for all members of the University community by continuing to promote diversity as a core value that achieves a more enriching educational experience for the entire student body. An advisory committee of university and community personnel shares in the work of the office and in the design and updating of a university plan that confirms the short- and long-range educational benefits of diversity. The office will consult, monitor, evaluate, and report on progress in achieving the diversity goals and objectives of the University.

## Instructional Media Resources (Media Library)

Instructional Media Resources (IMR), located in McWherter Learning Resources Center, Room 101, manages a large collection of videotapes, DVDs, laserdiscs, audio tapes, CDs, and CD-ROMs. It also features study rooms and carrels, an open computer lab with both Macintosh and Pentium computers, laser printers and scanners, and typewriters available for walkin use by faculty and students. Faculty members may check out all materials, reserve IMR materials, and place their own multimedia resources on reserve in the Media Library for use by their students. Staff and students may view video materials in the Media Library and may check out audio materials.

## Instructional Technology Support Center

The Instructional Technology Support Center (ITSC), in the McWherter Learning Resources Center, provides computer and media facilities and support for MTSU faculty and students and $\mathrm{K}-12$ teachers. The ITSC consists of several related units and facilities, including Audio/Visual Services, Instructional Media Resources, two computer labs, a graduate student multimedia development center, an advanced technology classroom, and a satellite and webcasting center.

The ITSC manages the University lab at the LRC, which includes two PC computer labs and one PC/Macintosh computer lab. A description of the hardware and software in the computer labs and a monthly listing of open hours are posted on the ITSC Web page (www.mtsu.edu/~itsc). Graduate students can create multimedia projects or presentations at four multimedia development stations in the ITSC.

Audio/Visual Services maintains an inventory of audio/visual equipment for faculty check-out, repairs campus audio/visual equipment, provides dubbing services, records off-air programming for classroom use, and supports satellite and webcasting services. Audio/Visual Services also offers professional video production services for MTSU faculty and administrators, including studio production, remote production, postproduction, satellite uplinks and downlinks, and webcasts.
Instructional Media Resources (Media Library) - See above.

The Satellite and Webcasting Center offers quality educational programming to $\mathrm{K}-12$ schools by satellite to many rural Tennessee counties and by cable television to viewers in Rutherford and two other middle Tennessee counties. We also webcast our programs to viewers across the state. The satellite facilities can be scheduled by units across campus for local, statewide, or national broadcast of special events and programs. Both digital and analog C-band transmission options are available.

## Keathley University Center and James Union Building

The Keathley University Center and James Union Building are service-oriented buildings for the use of the campus community. Services and facilities include

- a modern, self-service bookstore;
- a complete-service post office with individual mailboxes available;
- a mini-market with a variety of snacks;
- several ATM machines;
- meeting rooms, ballroom, and auditorium for clubs, organizations, and campus-sponsored programs;
- diversified programs which include movies, musical groups, speakers, dances, and cultural events all planned and presented by student committees; and
- food services including the Keathley University Center Grill and James Union Building banquet and luncheon services.


## Libraries and Archives

Numerous library and archive resources are located on the MTSU campus. Copying of materials housed in these facilities is permitted only in compliance with federal copyright statutes and in accordance with departmental rules and regulations. Resources include the Department of Art Slide Library, Center for Popular Music, Gore Center, Howard Music Library, Instructional Media Resources, Walker Library, and Women's Studies Library. Detailed information about each is in this section.

## McWherter Learning Resources Center

The McWherter Learning Resources Center provides the opportunity for a different approach to learning. Completed in 1975 , this unique 65,000 square-foot facility received national recognition for the award-winning design and is considered a model by other institutions throughout the region. The McWherter Learning Resources Center is the primary facility for teacher education programs and provides instructional technology support to faculty and programs at MTSU as well as area school districts.
In addition to the Instructional Technology Support Center, the support areas of Photographic Services and Publications and Graphics have the dual responsibility of producing materials for classroom use and for serving the entire University community's photography and publication needs. Also housed in the facility is the WMOT-FM Radio Station.

## Murphy Center

Charles M. Murphy Center is a multipurpose building for instruction, recreation, athletics, and convocations. This versatile structure provides facilities that enhance total health, physical education, recreation, and safety programs as well as house outstanding athletic and entertainment events. The complex includes the Monte Hale Basketball Arena, two auxiliary gymnasiums, four handball courts, classrooms, two dance studios, an indoor track, men's and women's dressing rooms, and weight training equipment.

## Oak Ridge Associated Universities (ORAU)

Since 2006, MTSU students and faculty have benefited from the University's membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 96 colleges and universities and a contractor for the U. S. Department of Energy (DOE) located in Oak Ridge. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergradu-
ates, graduates, and postgraduates, as well as faculty, enjoy access to a multitude of opportunities for study and research. Students can participate in epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the ORISE Catalog of Education and Training Programs, which is available at www.orau.gov/orise/educ.htm.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's private industry and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Jr. Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, and faculty research and support programs, as well as services to chief research officers.

## Parking and Transportation Services

The Parking and Transportation Services Office issues parking permits and enforces parking regulations for the MTSU community.
All students (including part-time, full-time, graduate students, night students, etc.), administrators, faculty, and staff (whether full- or part-time) intending to park a vehicle on campus must obtain a permit through Parking and Transportation Services and place the permit on or in the vehicle being operated on campus. Each individual is responsible for violations received by any vehicle bearing his/her parking permit.

## Public Safety

The Department of Public Safety maintains 24-hour coverage with police patrol and communications operators and is responsible for the safety and protection of the MTSU community. Services provided include law enforcement, communication of emergency services, building security, escorts, and general assistance to students.

## College and University Security Information Act

Pursuant to the provisions of the "College and University Security Information Act," Public Chapter No. 317, enacted by the 1989 General Assembly, Middle Tennessee State University makes available crime rates and statistics as well as security policies and procedures to interested parties. Persons wishing to review or receive a copy of this information, may contact the Public Safety Department, Middle Tennessee State University, Murfreesboro, TN 37132, (615) 898-2424.
Information to help avoid becoming a victim of crimes such as theft and sexual assault is available in the MTSU Student Handbook and the Public Safety Orientation calendar or online at http://police.mtsu.edu.

## Religious Opportunities

The Philosophy Department offers courses for academic credit in religious studies. In addition, every MTSU student is encouraged to attend worship services of his/her choice. The University seeks neither to promote nor to exclude any creed. Campus ministries are located in facilities that border the campus; these include the Baptist Student Union, Christian Center, Wesley Foundation, Presbyterian Student Fellowship, and Catholic Student Center.

## Community Standards and Expectations, Statement of

Middle Tennessee State University is committed to the ideal of developing and nurturing a community of scholars. The choice to associate or affiliate with the MTSU community is freely made by students, staff, and faculty; nevertheless, it is assumed that each person who joins the community will accept and practice the following core values and expectations:

1. Value of Honesty. The notion of personal honesty and academic integrity is central to the existence of the MTSU community. Community members will not engage in cheating, plagiarism, or fabrications of any type. All members of the community will strive to achieve and maintain the highest standards of academic achievement.
2. Respect for Diversity. The MTSU community is composed of individuals representing different races, ethnicities, sexual orientations, and cultures. The community embraces and celebrates this diversity as a pillar of its strength.
3. Commitment to the Community. Citizens of the MTSU community will be good stewards of the University's resources and will not engage in conduct which damages or exploits the community.
4. Freedom of Expression. The MTSU community is a marketplace of ideas and opinions. Community members are encouraged to freely communicate their ideas and opinions concerning issues both within and outside the community.

## Student-Athlete Enhancement Center

MTSU's Student-Athlete Enhancement Center is the academic support program for over 400 student-athletes in 17 NCAA sports. Center personnel monitor the student-athlete's progress toward a degree and are committed to the academic growth of our student athletes.
Facilities for the Student-Athlete Enhancement Center are located at the football stadium and include administrative offices, tutoring rooms, a computer center, and a study hall open 67 hours per week.
The center provides an atmosphere of personal attention and encouragement as well as tutorial assistance, advice during registration, and recognition for academic accomplishments.

The center is also a member of the NCAA Life Skills Program, a five-point commitment program dedicated to assisting the student-athlete in developing skills to cope with every aspect of life. Some of the seminars and workshops presented to the student-athletes include instruction in communication skills, social development, value and ethics awareness, emotional health, fiscal responsibility, community outreach, and career development.

## Undergraduate Research Center

The Undergraduate Research Center (URC) fosters the implementation of active and engaging modes of learning in the curriculum. It also serves to facilitate the creation of an environment where students desiring to excel can reach their full potential through research opportunities and creative activities with inherent pedagogical value. The URC promotes change that institutionalizes a culture of inquiry and scholarship for all students. It also coordinates the integration of researchbased learning in undergraduate education, from introductory experiences to senior capstone experiences.
The URC is a clearinghouse for information regarding all such programs aimed at involving undergraduate students in research and creative activities. The center also serves as the focal point for publicity and reports activities sponsored by the center. It serves as a catalyst for the development of proposals aimed at securing funding for innovative undergraduate learning and scholarship.
URSCA. A component of the URC is the Undergraduate Research, Scholarship, and Creative Activity (URSCA) initiative. This program provides financial support to undergraduate students who want to get involved in research and creative projects at all points in their undergraduate studies. Students can apply for funding using the guidelines accessible on the URSCA Web site. A committee that includes representative faculty for all colleges reviews proposals and selects recipients. Awards are administered by the Office of the Vice Provost for Research.
URSCA's primary intent is to immerse students in a culture of research, scholarship, and/or creative activity as a part of the educational process and preparation for the workplace. URSCA-supported students carry out research under the guidance of a faculty mentor, prepare a statement of the proposed activity, and present the final result(s) of the project. Research or creative projects will typically relate to the work of one or more faculty members but may be of the student's own design. The interactions of faculty mentor(s) and student(s) should be governed by the important elements of mentoring that meet best practices for mentorship in each department/discipline.

## James E. Walker Library

The James E. Walker Library is an important resource for a quality education. The centrally located facility, opened in January 1999, contains print and electronic research collec-
tions and a variety of services to support course assignments, term papers, general reference, projects, and student research. Through partnerships and carefully selected databases, the library provides access to a broad selection of information and research from both local and worldwide sources. The building offers a variety of individual and group study areas as well as close to 300 computers for accessing information resources. Special features of the library include group studies, two instruction rooms for learning how to use library resources, Special Collections, and an Adaptive Technologies Center to meet needs of students with disabilities.
Librarians are available to help with reference, research, and information questions. Students are encouraged to ask for help. With a University ID card and PipelineMT account, students can access all books, periodicals, and electronic
databases in the library collection from within the building and from their campus dorms, and most library resources are available from off-campus locations. Classes as well as individual instruction sessions are offered on the use of library resources, and research guides are published to provide further information about collections and services.
More information can be found on the library's Web site at http://library.mtsu.edu/.

## Women's Studies Library

The Women's Studies Program, located in JUB 308, maintains a collection of books and other research materials related to women's and gender studies. Most volumes circulate. (See also Women's Studies Program in this catalog.)


## College of Graduate Studies

## Michael D. Allen, Vice Provost for Research and Dean, College of Graduate Studies <br> 2269 Middle Tennessee Blvd., MTSU Box 42

Graduates of Middle Tennessee State University and of other accredited institutions are eligible to apply for admission to the College of Graduate Studies.
All applicants for a degree program must complete an application, pay an application fee, provide official transcripts from each college or university attended (except MTSU), provide any required references, and meet entrance test requirements as set forth in the Graduate Catalog.

International students must submit a financial statement and a proof of English proficiency. Please see the Graduate Catalog for further information.
Admission to the College of Graduate Studies does not imply admission to a graduate program or candidacy for a degree.
Seniors at MTSU with 98 semester hours credit will be allowed to take graduate work for a total of no more than 12 semester hours upon approval of the undergraduate advisor, the graduate program advisor, and the graduate dean. An application form must be obtained from the Graduate Office. The Jennings A. Jones College of Business does not have such a program. Graduate work (5000-, 6000-, and 7000-level courses) may not be used toward an undergraduate degree. Not all graduate courses are offered to undergraduates. Permission is not guaranteed.

## Graduate Programs

Graduate degrees offered are listed on page 18. Details of available graduate study, courses offered, and specific degree requirements may be found in the Graduate Catalog.

## Master's Degrees

Many departments at MTSU offer graduate programs leading to a master's degree. A student's program of study is directed by the major department, subject to the approval of the graduate dean. Fields in which the degrees may be earned are listed
in the academic inventory beginning on page 18 and in the following list of graduate majors:

## Accounting/Information Systems

Administration and Supervision
Advanced Studies in Teaching and Learning (RODP)
Aerospace Education
Aviation Administration
Biology
Business Administration
Business Education
Chemistry
Computer Science
Criminal Justice Administration
Curriculum and Instruction
Economics
Engineering Technology
English
Exercise Science
Foreign Languages
Health, Physical Education, Recreation
History
Human Performance
Human Sciences
Mass Communication
Mathematics
Music
Nursing (RODP)
Professional Counseling
Professional Science
Professional Studies (RODP)
Psychology
Public History
Reading
Recording Arts and Technologies
Social Work
Sociology
Special Education

## Graduate Certificate Programs

Certificates of completion of core curricula are available in Dyslexic Studies, Gerontology, and Health Care Management.

## Specialist in Education Degree

The Specialist in Education degree (Ed.S.) is offered in Administration and Supervision and in Curriculum and Instruction.

## Doctor of Philosophy Degree

The Doctor of Philosophy degree (Ph.D.) is offered in Economics, English, Human Performance, Literacy Studies, and Public History. The Ph.D. in Human Performance includes specializations in Health, Physical Education Pedagogy, Exercise Science, Leisure Services, and Kinesmetrics.

## A STUDENT AT MTSU

Middle Tennessee State University, a coeducational, tax-supported institution, is located in Murfreesboro less than a mile from the exact geographic center of the state. Murfreesboro, a historic city of almost 100,000, is 32 miles southeast of Nashville via I-24 and is easily accessible from any direction. MTSU students and personnel can enjoy the advantages of a metropolitan atmosphere without the impersonalization associated with a big city.

The University is made up of seven undergraduate colleges-the College of Basic and Applied Sciences, the Jennings A. Jones College of Business, the College of Continuing Education and Distance Learning, the College of Education and Behavioral Science, the College of Liberal Arts, the College of Mass Communication, and the University Honors College-and a College of Graduate Studies. MTSU offers curricular breadth in a variety of programs ranging from traditional ones on which the school was founded to new, innovative ones designed for a rapidly changing society. Designated a regional university, MTSU provides services and continuing education to the central Tennessee area.

Some 80 percent of the school's more than 900 full-time faculty members hold terminal degrees. The student body numbers more than 23,000 and comes from 94 Tennessee counties, 49 states, and over 60 foreign countries.

The following section includes information to help high school students select courses they need for admission to college; the procedures and costs for becoming a student at MTSU; the ways to apply for financial aid and on-campus housing; and regulations and degree requirements for students already enrolled. The General Education requirements referred to throughout the catalog are in this section. Additional information about MTSU may be requested from the Admissions Office or found on the Web site, www.mtsu.edu.

## Academic Inventory

Middle Tennessee State University has been authorized to grant the following degrees:

## Undergraduate

Bachelor of Arts (B.A.)
Bachelor of Business Administration (B.B.A.)
Bachelor of Fine Arts (B.F.A.)
Bachelor of Music (B.M.)
Bachelor of Science (B.S.)
Bachelor of Science in Nursing (B.S.N.)
Bachelor of Social Work (B.S.W.)
Bachelor of University Studies (B.Unv.S.)

## Graduate

Master of Arts (M.A.)
Master of Arts in Teaching (M.A.T.)
Master of Business Administration (M.B.A.)
Master of Business Education (M.B.E.)
Master of Criminal Justice (M.C.J.)
Master of Education (M.Ed.)
Master of Fine Arts (M.F.A.)
Master of Professional Studies (M.P.S.)
Master of Science (M.S.)
Master of Science in Nursing (M.S.N)
Master of Science in Teaching (M.S.T.)
Specialist in Education (Ed.S.)
Doctor of Philosophy (Ph.D)

On the following pages is a summary of the degrees offered in each department or school with the available majors, concentrations, and certificate programs listed. Degree requirements are outlined in the appropriate catalog sections following.

| Department/School | Major | Concentration | Degree Offered | Undergraduate Minor | Graduate Minor |
| :---: | :---: | :---: | :---: | :---: | :---: |
| College of Basic and Applied Sciences |  |  |  |  |  |
| p. 80 | Environmental Sci. and Technology | Energy Technology <br> Environ. Health and Safety Planning and Site Analysis Water and Waste Mgmt. | B.S. <br> B.S. <br> B.S. <br> B.S. |  |  |
|  | Professional Science | Biostatistics <br> Biotechnology <br> Health Care Informatics | M.S. <br> M.S. <br> M.S. | Env. Sci. Tech. |  |
| Aerospace, p. 106 | Aerospace | Administration <br> Flight Dispatch and Sched. <br> Maintenance Mgmt. <br> Professional Pilot <br> Technology | $\begin{aligned} & \text { B.S. } \\ & \text { B.S. } \\ & \text { B.S. } \\ & \text { B.S. } \\ & \text { B.S. } \end{aligned}$ |  |  |
|  | Aviation Administration | Airline/Airport Mgmt. Aviation Asset Mgmt. | M.S. M.S. |  |  |
|  | Aerospace Education |  | M.Ed. | Aerospace | Aerospace |
| Agribusiness and Agriscience, p. 111 | Agribusiness |  | B.S. |  |  |
|  |  | Agri. Communication <br> $\ddagger$ Pre-Agri. Engineering <br> $\not \ddagger$ Agricultural Education Cert. | B.S. |  |  |
|  | Animal Science |  | B.S. |  |  |
|  | Plant and Soil Science | Agri. Communication <br> Horse Science <br> $\ddagger$ Agricultural Education Cert. | $\begin{aligned} & \text { B.S. } \\ & \text { B.S. } \end{aligned}$ |  |  |
|  |  | Agri. Communication <br> $\ddagger$ Pre-Forestry <br> $\ddagger$ Agricultural Education Cert. | B.S. |  |  |
|  |  |  |  | Agriculture | Agriculture |
| Biology, p. 114 | Biology |  | M.S. |  |  |
|  |  | Animal Biology | B.S. |  |  |
|  |  | General Biology | B.S. |  |  |
|  |  | Genetics and Biotechnology | B.S. |  |  |
|  |  | Microbiology | B.S. |  |  |
|  |  | Physiology | B.S. |  |  |
|  |  | Plant Biology | B.S. | Biology | Biology |



Department/School

| Major | Concentration | Degree <br> Offered |
| :--- | :--- | :--- |

Undergraduate
Graduate
$\underline{ }$
Major
Concentration
Offered
Minor
Minor

Jennings A. Jones College of Business


College of Continuing Education and Distance Learning, (615) 898-5611, p. 157
University Studies B.Unv.S.

## Regents Online Degree Program, (615) 898-5611

Following are degree programs offered in cooperation with the Tennessee Board of Regents. For additional information about the Regents Online Degree Program (RODP), see page 159.

| Liberal Studies |  | B.S. |
| :---: | :---: | :---: |
| Professional Studies | Information Technology | B.S. |
|  | Organizational Leadership | B.S. |
|  | Strategic Leadership | M.P. S. |
| Adv. Studies in Teach. and Learning | Early and Middle Childhood/ | M.Ed. |
|  | Literacy: Reading-Language Arts |  |
| Nursing | Nursing Administration | M.S.N. |
|  | Nursing Education | M.S.N. |
|  | Nursing Informatics | M.S.N. |
|  | Advanced Practice: |  |
|  | Family Nurse Practitioner | M.S.N. |

[^1]| Department/School | Major | Concentration | Degree <br> Offered | Undergraduate <br> Minor | Graduate <br> Minor |
| :--- | :--- | :--- | :--- | :--- | :--- |

## College of Education and Behavioral Science



| Department/School | Major | Concentration | Degree Offered | Undergraduate Minor | Graduate Minor |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Psychology, p. 181 | Psychology | Pre-graduate School | $\begin{aligned} & \text { B.S. } \\ & \text { B.S. } \end{aligned}$ |  |  |
|  |  |  |  | Mental Health Services Life Span Development Neuroscience Behavioral Research** |  |
|  |  | Clinical | M.A. |  |  |
|  |  | Experimental | M.A. |  |  |
|  |  | Indus./Organizational | M.A. |  |  |
|  |  | Pre-Spec. Ed.-Sch. Psy. | M.A. |  |  |
|  |  | Quantitative | M.A. |  |  |
|  | Indus./Organizational |  | B.S. | Psychology | Psychology |
|  |  |  | M.Ed. | Indus./Organizational |  |
|  | Professional Counseling | Mental Health Counseling | M.Ed. |  |  |
|  |  | School Counseling | M.Ed. |  |  |
|  | Curriculum and Instruction | School Psychology | Ed.S. |  |  |

College of Liberal Arts


| Department/School | Major | Concentration | Degree Offered | Undergraduate Minor | Graduate Minor |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Music, p. 198 | Music | Inst. Music Educ. <br> Inst. Perform. <br> Jazz Studies <br> Music Industry <br> Theory-Comp. <br> Vocal/General Music Educ. <br> Voice Perform. | M.A. <br> B.M. <br> B.M. <br> B.M. <br> B.M. <br> B.M. <br> B.M. <br> B.M. | American Music Studies <br> Music <br> Music Industry | Music |
| Philosophy, p. 204 | Philosophy |  | B.A. | Philosophy Religious Studies |  |
| Political Science, p. 205 | Political Science <br> International Relations | Pre-law Public Admin. | B.A.;B.S. <br> B.A.;B.S. <br> B.A.;B.S. <br> B.S. | Political Science Public Administration <br> International Rel. <br> African Studies** <br> Paralegal Studies** <br> Russian Studies** <br> Urban Studies** | Political Science |
| Social Work, p. 208 | Social Work |  | B.S.W.; M.S.W. | Social Welfare <br> Health Care Services** |  |
| Sociology and Anthropology, p. 209 | Sociology <br> Anthropology | Sociology <br> Anthropology | $\begin{aligned} & \text { B.S.;M.A. } \\ & \text { B.A. } \\ & \\ & \text { B.A. } \\ & \text { B.S. } \end{aligned}$ | Criminology <br> Sociology <br> Family Studies <br> Anthropology <br> Archaeology** <br> Asian Studies** <br> Native American Studies** | Sociology <br> Gerontology |
| Speech and Theatre, p. 211 | Speech and Theatre <br> Organizational Communication | Communication Disorders Communication Studies Theatre | B.A.;B.S. <br> B.A.;B.S. <br> B.A.;B.S. <br> B.S. | Speech and Theatre <br> Comm. Disorders <br> Dance <br> Entertainment Arts Design <br> Leadership Studies** | Speech and Theatre |
| Global Studies, p. 93 | Global Studies | Globalization and Commerce Globalization and Culture Globalization and Science | B.A. B.A. B.A. |  |  |
|  |  |  |  | African American Studies** <br> Gerontology** <br> Global Studies** <br> Middle East Studies** <br> Women's and Gender Studies** |  |


| Department/School | Major | Concentration | Degree <br> Offered | Undergraduate <br> Minor | Graduate <br> Minor |
| :--- | :--- | :--- | :--- | :--- | :--- |

College of Mass Communication

|  | Mass Communication |  | M.S. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Mass Comm | Mass Comm |
| Electronic Media Communication, p. 217 | Mass Communication | Digital Media Communication Photography Electronic Media Comm. | $\begin{aligned} & \text { B.S. } \\ & \text { B.S. } \\ & \text { B.S. } \end{aligned}$ |  |  |
| Journalism, p. 221 | Mass Communication | Adv./Public Rel. Media Design and Graphics Journalism | $\begin{aligned} & \text { B.S. } \\ & \text { B.S. } \\ & \text { B.S. } \end{aligned}$ |  |  |
| Recording Industry, p. 225 | Recording Industry Recording Arts and Technologies | Audio Production Commercial Songwriting Music Business | B.S. <br> B.S. <br> B.S. <br> M.F.A. | Entertainment Recording Ind |  |

College of Graduate Studies

| Gerontology | Grad. Cert. |
| :--- | :--- |
| Health Care Management | Grad. Cert. |
| Literacy Studies | Ph.D. |
| Women's and Gender Studies | Grad. Cert. |

**Interdisciplinary Minors


# Requirements for Admission 

Admissions Office<br>Cope Administration Building 208

## Application Filing Deadlines

The deadline for Fall Semester applications is July 1.
The deadline for Spring Semester applications is December 15.

## Required High School Courses

In addition to the admission requirements described below, all students graduating from high school in 1993 or thereafter must have completed the high school subject units listed below for regular admission to MTSU. Students graduating from high school in 1989-92 must meet the 1989 14-unit requirements-those listed below but excluding visual and/or performing arts.
Subject Area
Required Units

## English

Visual and/or Performing Arts, includes a variety
of possibilities in either performance or survey courses
Algebra I (or Math for Technology II), Algebra II, and Advanced Math or Integrated Math Sequence (Integrated Mathematics I, II, III)
Natural/Physical Sciences, including at least one unit, with lab, of biology, chemistry, physics, or principles of technology

Social Studies, (world history, ancient history, modern history, European history, or world geography)

United States History
A single Foreign Language
An additional unit in the arts, in mathematics, and in foreign languages is recommended. Applicants who attended high schools not offering the required courses may be admitted, but they must remove the deficiencies before enrolling for 64 credit hours. Different requirements may exist for some freshman applicants (e.g., early admission and international students). Students who graduated from high school prior to Spring 1989 and students who acquired a GED credential in 1988 or earlier are exempt from removing unit deficiencies. Transfer students who graduated from high school in May 1989 or thereafter are subject to the requirements.

## High School Graduate

Public School—applicants for degree admission as first-time freshmen must provide an official high school transcript showing credits earned and date of graduation. The transcript of graduates of Tennessee public high schools must include a notation indicating that the student passed the required proficiency examination.

Nonpublic School—graduates of nonpublic high schools (including private schools, home schools, and church-related schools) must submit an official transcript showing credits earned and date of graduation. The transcript of a home school applicant must be an official copy from an affiliated organization as defined by state law (T.C.A. 49-50-801) or be accompanied by certification of registration with the superintendent of the local education agency which the student would otherwise attend. Applicants who cannot provide a satisfactory secondary school credential may substitute acceptable scores on either the GED examination or the ACE examination.

NOTE: The cumulative high school grade point average is calculated based upon grades nine through twelve. However, if admission credentials are received by the Admissions Office prior to the applicant graduating from high school then the cumulative grade point average is based upon six semesters (grade nine through eleven). The review for high school unit requirements is based upon grades nine through twelve.

## Standardized Examinations

Only one valid set of ACT/SAT test scores will be used for admission purposes. Valid ACT/SAT scores are those earned within three years prior to the first day of the first term of enrollment. Students 21 years of age or older are not required to submit ACT/SAT scores, but those who elect to present valid scores may do so. SAT scores are acceptable in lieu of ACT scores for all applicants.

## Freshman Admission Standards

Each fall new applications will be admitted until a maximum number is achieved. All applicants will be considered by evaluating their likelihood of success at Middle Tennessee State University. Students should be adequately prepared to succeed as evidenced by high school grades, ACT or SAT scores, pattern of high school courses taken, special talents, and school recommendations.

## Deadlines

Students are encouraged to submit an application as early as possible to receive first consideration. Application deadline dates are

- February 15-First priority deadline for Fall semester. Applications received after February 15 will be considered until July 1 (second priority deadline) or when the undergraduate enrollment capacity is reached.
- December 15 for Spring semester.


## Admission Criteria

Freshman admission decisions are based on the following elements:

1. high school grade point average
2. standardized test scores, either ACT or SAT (students 21 years of age or older are exempt)
3. completion of the 14 units required for college admission (see above - applicable for graduates 1989 and after)
4. a personal statement form to be reviewed by the Admissions Review Board may be required of some students
NOTE: For admission and assessment purposes, MTSU will use the SAT total score calculated from the Critical Reading and Mathematics scores. The writing portion of the SAT or ACT test will not be used.

## Freshman Applicants

Following are the admission standards for all freshman applicants. The categories described below are designed to clarify the process used to evaluate undergraduate applications. It is not necessary for the applicant to choose a category in which to apply. The categories are
Honors Admission—for high-ability students Guaranteed Admission-for the majority of applicants Conditional Admission-for applicants not meeting standard admission requirements who have special talents or circumstances which may be taken into consideration
MTSU will continue to admit a very limited number of applicants who have not completed all of the specified high school units (using the Conditional Admission category). Competition for these spaces is keen. Applicants with more than two deficiencies are rarely admitted.

Guaranteed Admission—Regular admission will be granted to applicants who complete the 14 units with one of the following:

- a minimum 3.0 GPA
- a minimum composite ACT of 22
- a minimum 2.7 GPA and minimum ACT of 19

Honors admission will be granted to applicants who complete the 14 units with

- ACT composite score of 25 or higher and at least a 3.5 high school GPA.
Participation in the Honors College is not required of applicants admitted in this category.
Conditional Admission—Any student not meeting guaranteed admission requirements will be considered for conditional admission. The review will include all academic credentials as well as other special interests and skills and other non-academic factors as explained on the Personal Statement Form. Students admitted in this category will be expected to
- remove high school deficiencies (if applicable) within the first 64 hours of enrollment
- maintain academic good standing as defined by University retention standards
- receive services from the University's Academic Support Center
- enroll in University 1010 the first semester of enrollment
- meet more specific requirements as required for certain populations of students.

GED applicants will be considered for conditional admission. A minimum GED score of 45 is required. The review will include GED credentials as well as other special interests, skills, and non-academic factors as explained on the Personal Statement Form.

The Admissions Review Board may also request additional documentation specific to each individual's circumstances. It is expected that only a very small number of people in this category will be admitted. In the absence of special talents or circumstances, applicants who do not meet the requirements for Guaranteed Admission will be denied. Decisions of the Admissions Review Board are final.

## Assessment Examinations

All entering degree-seeking students less than 21 years old will be assessed for prescribed course placement initially according to valid ACT/SAT scores. Permissible scores are less than three years old. Students with ACT subscores of 18 (SAT 450 verbal and total) or lower in reading and English are required to take the Compass placement exam. Students with an ACT math subscore of 18 or lower are automatically placed in the appropriate area. Students with mathematics SAT scores of 450 or less are placed in the appropriate areas.
Applicants who will be 21 years of age or older at the time of admission are required to undergo assessment for each area or may elect to provide ACT/SAT scores that have been taken within three years prior to the first day of the first term of enrollment. Additionally, transfer students who have not earned college-level, algebra-based math or English credits must undergo departmental assessment in appropriate areas.
Transfer students without previous college-level English or mathematics coursework will be required to take the appropriate portion of the assessment test prior to registration. Transfer students whose high school transcript reflects a deficiency in either English or mathematics but whose transfer coursework includes credit in a college-level English or algebra-based mathematics course will be exempt from placement testing.
The assessment exam is administered on several dates during the Fall, Spring, and Summer semesters. A \$10 fee is charged for the assessment exam. On the basis of their test scores, students are placed in basic, developmental, or college-level courses. More information about the Academic Enrichment Program may be found on page 98.
NOTE 1: Academic assessment placement scores older than three years are not valid.
NOTE 2: After acceptance as a student, there are certain performance tests students will be required to take during their academic careers. It is a requirement of admission that students agree to take any test deemed necessary by the institution. In those instances in which tests are administered by an external entity, students hereby agree that the results of such tests be released to the institution. The purpose of this requirement is to comply with the legislature's expressed intent that institutions regularly evaluate and improve instruction at all levels. If students are under 21 years of age and are required by institutional policy to complete academic assessment placement tests, their scores on these tests and course placement may be reported to their high schools for research purposes. Any test scores will be treated confidentially as required by law.

## Transfer

An undergraduate applicant who previously has registered at any college or university must apply as a transfer student. Admission will be granted to transfer applicants who have 24 or more semester hours and a 2.00 or higher grade point average. In order to qualify for regular admission, the applicant must request that a transcript from each institution attended be sent directly to the Admissions Office. Applicants who have earned fewer than 24 semester hours or 35 or fewer quarter hours from a college or university must meet both transfer and freshman admission standards. Concealment of previous college or university attendance may be cause for rejection, cancellation of admission, or dismissal of the student.
Applicants who have not been enrolled in any postsecondary institution in the 12 months preceding the term for which they are applying will be eligible for admission, but they will be admitted on academic probation if their cumulative grade point average is less than 2.00. Transfer applicants graduating from high school in 1989 or thereafter are subject to the high school units requirement described on page 25. High school deficiencies for a reenrolling transfer student are based on the student's initial admission and enrollment at MTSU. For example, if a student first enrolls at MTSU with fewer than 60 semester hours of transferable work or without an associate's degree, upon returning to MTSU the student continues to be subject to the initial evaluation of deficiencies regardless of the number of transfer hours or earned associate's degrees.
Eligible transfer applicants who have not completed all of the required high school courses will be admitted, but they must remove deficiencies during the first 30 credit hours of enrollment at MTSU. Courses required to remove deficiencies can be used to satisfy elective credit only. Transfer students whose transfer coursework includes credit in a college-level English or algebra-based mathematics course will be exempt from placement testing. The algebra-based mathematics course will be used to satisfy the high school unit deficiency. The college-level English course will be used to satisfy the English high school deficiency. The completion of another degree-level mathematics/English course will be required to satisfy General Education requirements.
Transfer applicants who do not have a cumulative 2.00 grade point average may submit their credentials to the Admissions Review Board for review. The board will consider applications from applicants with less than a 2.00 cumulative grade point average. In addition to college transcript(s), these applicants are required to complete a transfer appeal form which will be provided to the student from the Admissions Office.
Transfer students who do not have a 2.00 cumulative GPA and those admitted by the Admissions Review Board will be admitted on probation and will be required to enroll in UNIV 2020 the first semester of enrollment. Refer to page 57 for university retention policy. Decisions of the Admissions Review Board are final.

Transfer applicants without previous college-level English or mathematics coursework will be required to take the appropriate portion of the academic assessment placement test prior
to registration. The test will assist in course placement and may result in requiring some students to enroll in prescribed courses as additions to their programs.

## Acceptance of Transfer Credit

Middle Tennessee State University accepts transfer credit from institutions of higher learning based upon the following considerations:

1. the educational quality of the institution from which the student transfers;
2. the comparability of the nature, content, and level of credit earned to that offered by MTSU; and
3. the appropriateness and applicability of the credit earned to the programs offered by MTSU in light of the student's educational goals.
When posting transfer courses to the MTSU record, all transfer courses are converted to MTSU's grading scale and repeat policy. The Admissions Office will send an e-mail message when the file is complete. The office does not evaluate credit for students who have already received a bachelor's degree; however, the quality hours and quality points are posted which calculates in the cumulative GPA.
Students who have completed coursework at institutions for which MTSU has no recent history may be asked to provide information to determine the comparability of content and level of credit presented as transfer to that credit offered by MTSU. Petition is made by submitting the Application for Acceptance of Credit Form available in the Admissions Office. Credit will be granted upon recommendation from the academic advisor and chair of the academic department in which the course is taught, approval of the academic dean of the college in which the course is taught, and approval by the associate director of admissions for transfer services.

Students who feel that they are competent in certain subject areas are encouraged to earn credit through a nationally recognized credit-by-examination program or through departmental credit-by-examination programs at MTSU.
Of the hours required for graduation, a minimum of 60 semester hours of senior college credit (credit awarded at fouryear institutions) is required of all students who transfer from accredited colleges of less than four-year designation, with at least 42 of the 60 being upper-division courses. A grade of $D$ in ENGL 1010 and 1020 is used to determine admission eligibility but does not meet degree requirements. Refer to page 189 for more details. Additional information on this stipulation is given under the requirements for graduation on page 60.
NOTE 1: All universities and community colleges in the Tennessee Board of Regents (TBR) system share a common set of minimum requirements for baccalaureate degrees or associate degrees designed for transfer. Please see page 63 for further information.
NOTE 2: MTSU honors the completion of prescribed course placement requirements from any TBR institution regardless of credit hours assigned to individual courses or interventions used to complete the prescribed course placement requirements. Successful completion of prescribed course placement requirements from non-TBR institutions is demonstrated through Compass testing.

## Reenrollee

1. Reenrollees who have not attended another institution since leaving MTSU need only complete an application for readmission. Applicants who have not been enrolled in any postsecondary institution in the 12 months preceding the term for which they are applying will be eligible for admission, but will be admitted on probation if their cumulative grade point average is less than 2.00.
2. Reenrollees who have attended another institution since leaving MTSU need to submit an application for readmission and a transcript from all institutions attended since leaving MTSU. Applicants in this category need a grade point average of 2.00 or higher on all courses attempted at all colleges. Registration cannot occur until all transcripts are received so that eligibility for readmission can be determined. Reenrollees are required to fulfill any high school deficiencies previously required regardless of the number of transfer hours or earned associate degrees at the time of reenrollment.
3. Reenrollees who wish to attend MTSU after being suspended should follow items 1 and 2 above as well as the following:
a. Students who receive their first suspension at the end of the Fall semester may not register at MTSU until the following summer.
b. Students receiving their first suspension at the end of the Spring semester will not be eligible to reenroll until the following Spring semester.
c. Students receiving their first suspension at the end of the Summer session will not be eligible to reenroll until the following Spring semester.
d. Students receiving two or more suspensions from any college(s), including MTSU, will be denied readmission for one calendar year.
e. Students who attended another institution during their suspension from MTSU will be readmitted if they have raised their cumulative grade point average (including MTSU work) to 2.00 or greater, or they have earned a minimum of 12 semester hours at the institution(s) attended since MTSU enrollment with a grade point average of 2.00 or greater.

## Programs for Academically Talented High School Students

## Early Admission

There are two ways one may qualify for early admission:

1. Those students who would like to begin college at the end of their junior year must qualify under the following conditions:
a. be at least 16 years of age;
b. have completed the junior year of high school with a minimum of 14 high school units;
c. have a 3.50 grade point average on all work taken during grades 9, 10, and 11;
d. have a minimum ACT composite score of 27 ;
e. be recommended for participation in the program by either the high school principal or guidance counselor.
2. Academically talented/gifted students enrolled in grades 9 through 12 in public or private schools in Tennessee may enroll in and receive regular college credit from Middle Tennessee State University under the following provisions:
a. The student has a grade point average of 3.20 on a 4.00 scale;
b. The student must present recommendation and permission from the high school principal;
c. Placement in college courses must be a part of the student's Individualized Educational Placement (IEP) as determined by the Multidisciplinary Team.
The University makes no inference that courses completed at MTSU would apply toward high school graduation requirements. This privilege of enrollment is granted only to students enrolled in Tennessee public or private high schools as specified in Chapter 395 of the Public Acts of 1983. Students may register for no more than nine (9) semester hours per semester when enrolled in this program.

## Dual Enrollment

Currently enrolled high school students who wish to attend MTSU must meet the following requirements:

1. be a junior or senior in high school;
2. have a minimum 3.0 high school GPA;
3. have a minimum ACT composite of 22 (students enrolling in English or mathematics must have a minimum subscore of 20 on respective subject areas).

## Special Students

## Audit

Any person who is over 18 years of age and who wishes to take a course but receive no credit (audit) may do so by applying at the Admissions Office.
NOTE: Regular registration fees will be charged for auditing courses. Specific regulations concerning the responsibilities of students who audit courses may be found on page 37.

## 60-Year/Disabled (Audit) Student

Applicants 60 years old or older or permanently and totally disabled (T.C.A., Section 49-7-113) and domiciled in Tennessee are required to pay the nonrefundable application fee but are not required to pay registration fees if they audit courses. Proof of age or disability is required annually. Registration is on a space-available basis. Regular registration fees will be charged for credit courses.

## Adult Special Student

This category is designed to serve the interests of an adult learner (age 21 or older) who does not wish to pursue a degree at the present, but who wishes to receive academic credit. To be admitted, an individual must hold a high school diploma or the equivalent and meet guaranteed admission standards (page 26). Applicants not meeting guaranteed standards can submit a personal statement form for conditional admission. The applicant who first is denied regular admission to MTSU will also be denied admission to this category for the same semester. Students in this category are not allowed to register for

1. a college-level mathematics or English course unless the appropriate portion of an academic assessment placement test is taken;
2. any college-level course which has a remedial or developmental course prerequisite;
3. any college-level course which has prerequisite courses defined by MTSU academic departments; the current catalog indicates most departmental course prerequisites.

Adult special students may complete a maximum of 16 semester hours credit at MTSU. After receiving 16 hours, the applicant, to continue enrolling at MTSU, must apply for degree-seeking classification and meet transfer admission requirements.

NOTE: Federal financial aid is not available to students in this category.

## 65-Year-Old/Disabled Credit Student

Persons 65 years of age or older or permanently and totally disabled persons (T.C.A., Section 49-7-113) who are domiciled in Tennessee may register for classes on a space-available basis for credit, paying a minimum registration fee. The cost is onehalf the semester hour rate up to a maximum of $\$ 75.00$. An application fee is also required. The applicant must be a high school graduate or the equivalent, and the applicant must submit proof of age or disability annually.

## Transient Student

An individual who is currently enrolled and in good standing at another college or university and who wishes to attend MTSU for one semester only must

1. submit the nonrefundable application fee (check or money order); 2. complete the application form;
2. submit an official college transcript from the institution last attended.

NOTE 1: Registration at MTSU includes prerequisite checking which may require validation of course completion. The submission of a college transcript provides proof of successful completion of prerequisite course(s).
NOTE 2: Federal financial aid is not available to students in this category.

## International Students

Details regarding admission of international students can be found on page 31.

## Permanent Resident Students

Permanent residents are admitted to MTSU according to the same admission requirements as U.S. citizens. Permanent residents may be asked to submit proof (green card) of status to determine residency for fee payment purposes.

## Withholding Application Information

Any student withholding application information or giving false information may be ineligible for admission and may be denied continuation of studies at the University.

## Measles Immunization

Effective July 1, 1998, the State of Tennessee requires students entering colleges, universities, and technical institutes with enrollment of greater than 200 students to provide proof of two
(2) doses of measles, mumps, and rubella (MMR) vaccine on or after the first birthday, or proof of immunity to measles if date of birth is 1957 or after. Students will not be allowed to register for classes until an acceptable form is on file in the Student Health Services Office. More information can be obtained by contacting McFarland Health Services, 898-2988.

## Residency Classification for Fee-paying and Admission Purposes

The Admissions Office is charged with the determination of an undergraduate student's residency for fee-paying purposes and as the basis for some University admission requirements. The Graduate Office is charged with the determination of a graduate student's residency for fee-paying purposes. The International Programs and Services Office is charged with the determination of a non-U.S. citizen student's residency for fee-paying purposes. Classification is determined by information submitted on the admission application and subsequent fee classification questionnaire. Notification in writing is made soon after the student applies for admission. All decisions are based on regulations established by the Tennessee Board of Regents, with the intent that all Tennessee public institutions of higher education apply uniform classification rules. Should a student be denied in-state classification, the student has the right of appeal. A written appeal should be submitted to the University Appeals Committee through the Office of the Associate Vice President and Dean of Student Life. A recommendation on the appeal will be reviewed and acted upon by the vice president for student affairs, whose decision shall be final.

## Specific Instructional Programs

Certain instructional programs of the University are subject to special admission requirements which are in addition to the general admission requirements. Three such programs are Nursing, Recording Industry, and Teacher Education; the special admission requirements for these are subject to change according to availability of institutional resources. Students wishing to enter one of these programs of study should check with the appropriate department to become familiar with any special requirements or deadlines.
NOTE 1: Acceptance from Middle Tennessee State University does not guarantee admittance to the Nursing Program - nor does rejection from the Nursing Program nullify acceptance to the University. Applicants desiring acceptance to the Nursing Program must obtain an application from the School of Nursing, MTSU, Murfreesboro, TN 37132.
NOTE 2: The Recording Industry Program requires admission to candidacy to earn a degree and as a prerequisite to enrollment in most upper-division courses. Visit www.mtsu.edu/~record/ for more information.
NOTE 3: Anyone wishing to apply for financial assistance to attend MTSU should contact the director of Student Financial Aid, MTSU, Murfreesboro, TN 37132. More information on financial aid is presented elsewhere in this catalog.
NOTE 4: Persons wishing to reside on campus should submit a housing application to reserve a room as early as possible due to a high demand for available housing. Application for admission should precede application for housing. Detailed information on housing can be found elsewhere in this catalog.

## Application Information

Information on how to obtain an undergraduate application is in the back of this catalog. See page 25 for appropriate application deadlines. An online application is available at www.mtsu.edu/admissn/apply.htm.

New Freshman (Never previously attended college)

1. Complete undergraduate application for admission.
2. Submit $\mathbf{\$ 2 5 . 0 0}$ nonrefundable application fee (check or money order).
3. Submit official ACT report (not required if 21 years of age or older). Official ACT report can be requested by writing to American College Testing Program, Box 414, Iowa City, Iowa 52240. Please ask them to send it directly to MTSU, Code \#3994. ACT scores on official high school transcripts are acceptable, as are SAT scores, Code \#1466 (www.collegeboard.com).
4. Request high school to forward official transcript. If tentative acceptance is desired, request high school transcript through the sixth semester (end of junior year). A final transcript stating date of graduation must be forwarded immediately after graduation.
5. If eligible by GED, have official copy sent directly from reporting institution. Note: If GED recipient is less than 21 years of age, ACT scores must be presented.
6. ACT reading and mathematics and English sub-scores will be used to identify students for placement. Additional information will be mailed to applicants upon receipt of official ACT scores.

Transfer [Previously attended college(s)]

1. Complete undergraduate application for admission.
2. Submit $\mathbf{\$ 2 5 . 0 0}$ nonrefundable application fee (check or money order).
3. Request an official transcript be forwarded directly to MTSU from your high school and each college, business, or technical school attended.
4. If applicant has earned fewer than 24 semester hours, an ACT score must be submitted. (ACT not required if applicant is 21 or older.)
5. Transfer students without previous English or math coursework will be required to take the appropriate portion of the placement test prior to registration. The placement test will assist in course placement and may result in requiring some students to enroll in ACT/ Compass-prescribed courses as additions to their degree programs. Students who took the placement test at another Tennessee Board of Regents institution should have pre-test scores sent to the Admissions Office.

Reenrollee (Previously attended MTSU)

1. Complete undergraduate application for readmission.
2. Applicants who have attended other institutions since attending MTSU must have an official transcript forwarded from each institution.

## Regents Online Degree Program

Go to www.tn.regentsdegrees.org for instructions. Complete the student profile and follow application instructions for New Freshman or Transfer (above).

## High School Scholars Program or Early Admission

(High-ability High School Students)

1. Complete undergraduate application for admission.
2. Submit $\mathbf{\$ 2 5 . 0 0}$ nonrefundable application fee (check or money order).
3. Request high school to forward official transcript.
4. Submit an official ACT report.
5. Submit a letter of recommendation from high school principal or counselor and Individualized Educational Program (IEP) report, if necessary.

## Special Student (Audit or noncredit)

1. Complete undergraduate application for admission.
2. Submit $\mathbf{\$ 2 5 . 0 0}$ nonrefundable application fee (check or money order). The regular registration fee will be charged. Applicants 60 years of age or older or permanently and totally disabled (T.C.A., Section 49-7-113) and domiciled in Tennessee are not required to pay registration fees. (Proof of age or disability required each year; new application each semester.)

Adult Special Student (Age 21 or older)

1. Complete undergraduate application for admission.
2. Submit $\mathbf{\$ 2 5 . 0 0}$ nonrefundable application fee (check or money order).
3. Submit official college transcript of last college attended (if college-level work not attempted, official verification of high school graduation or equivalent).
4. Students in this category are not allowed to register for mathematics or English courses or any college-level course with a remedial or developmental prerequisite unless the appropriate portion of the placement test is taken. Students also cannot register for any col-lege-level course that has a prerequisite defined by MTSU academic departments.
NOTE: A maximum of 16 semester hours credit may be taken under this classification. Refer to page 28 for additional instructions.

Transient Student (One semester only)

1. Complete undergraduate application for admission.
2. Submit $\mathbf{\$ 2 5 . 0 0}$ nonrefundable application fee (check or money order).
3. Submit an official transcript from the college currently being attended.

## 65-Year-Old/Permanently and Totally <br> Disabled Credit Student

1. Complete undergraduate application for admission each semester enrolled.
2. Submit $\mathbf{\$ 2 5 . 0 0}$ nonrefundable application fee. (Check or money order; required for first application only.)
3. Submit proof of age or disability. (Proof of disability required each year.)
4. Submit proof of high school graduation.

## International Student

The Admissions Office handles application procedures for all international students. Call (615) 898-2238. Information may be found on page 31.

# International Admissions 

Admissions Office<br>Cope Administration Building 208

The Admissions Office serves international students. All inquiries and correspondence should be addressed to this office. Application packets, including forms and requirement instructions, can be obtained by telephoning or writing Admissions or via www.mtsu.edu/~ipso. University catalogs cannot be mailed overseas. Applicants abroad can apply for the Fall and Spring semesters only. Applicants who are already in the United States and in F1 or J1 status may apply for the Summer term.

The University provides immigration advisement through the Admissions Office. The office is responsible for issuing I-20s and DS-2019 documents used for securing visas. It also evaluates college credits obtained from foreign universities and serves as a liaison among faculty members, administrators, and international students.

## Residency

The Admissions Office determines residency for international students. All international students will be considered out-ofstate for tuition purposes until they apply for and receive instate status. Those who believe they meet the in-state criteria may obtain an application and submit it to the Admissions Office. The completed form and supporting documentation should be submitted one month prior to the term. Failure to file may result in payment of out-of-state tuition. Students will be informed of the residency decision by mail.

## Immigration

It is the student's responsibility to see that he/she is in legal immigration status. All immigration documents should be kept in a safe place. According to U.S. Citizenship and Immigration Services (USCIS), F1 and J1 students must be enrolled full time (minimum 12 hours if undergraduate and 9 hours if graduate) during Fall and Spring semesters. Summer enrollment is optional. Also, USCIS requires that F1 and J1 applicants meet all admission requirements prior to enrollment. No conditional enrollment is possible.

## Proof of English Proficiency

An international student must submit a successful Test of English as a Foreign Language (TOEFL) score, International English Language Testing (IELT), ELS score of certificate level, or University of Michigan English Language Institute (UMELI)
test given by the International English Institute in Nashville, Tennessee, before he/she can register at MTSU. Applicants who cannot obtain locally a TOEFL Bulletin of Information for Candidates should write for it well in advance to
Test of English as a Foreign Language
P.O. Box 899

Princeton, New Jersey, U.S.A., 08540
Inquiries concerning the TOEFL program should be directed to TOEFL Program Director
Educational Testing Service
Princeton, New Jersey, U.S.A., 08540
For information on UMELI testing, contact International English Institute
640 Spence Lane, Suite 121
Nashville, TN 37212
Phone: 615-327-1715 or 615-327-1716
www.esInashville.org
For information on ELS testing, contact
ELS Language Centers
400 Alexander Park, Suite SUSA09
Princeton, NJ 08540-6306
Phone: 609-750-3500
Fax: 609-750-3590

## Financial Aid

International students in F1 or J1 status must provide verification of financial support prior to admission as required by the United States Citizenship and Immigration Services (USCIS). There are no academic or need-based scholarships available for nonimmigrant visa holders.

## Deadlines for Completed* Files:

Fall semester: July 1 of same year; Spring semester: November 1 of previous year; Summer semester: April 15 of same year. (Applies to students already in the United States.)
*NOTE: A completed file contains ALL acceptable materials required for admission.

## Orientation Information

All F1 and J1 students must attend international student orientation before they can register for classes. Information concerning orientation is sent with the final acceptance letter. Students who are in status other than F or J with USCIS will be invited to CUSTOMS orientation in the summer if they are entering in the Fall term.

## Health and Accident Insurance

All international students in F1 or J1 status must obtain health and accident insurance as a condition of admission and continued enrollment at MTSU. Minimum requirements for coverage set by the Tennessee Board of Regents are specified on the insurance form provided by the Admissions Office.

## Requirements

An international student will be admitted on the basis of placement recommendation by the American Association of

Collegiate Registrars and Admissions Officers. International applicants are subject to academic assessment placement testing criteria and assessment when applicable.

## Application to MTSU:

## Nonimmigrants

1. Complete undergraduate application for admission.
2. Submit $\mathbf{\$ 3 0 . 0 0}$ nonrefundable application fee (money order or check with routing numbers).
3. Submit evidence of freedom from tuberculosis.
4. Submit evidence of two rubeola vaccinations.
5. Submit a financial statement.
6. Submit official ACT or SAT score. (We do not accept any other than the ETS official test scores.)
7. Submit official English Proficiency Test score from one of the following: TOEFL paper-based score of 500; TOEFL iBT-based score of 61; TOEFL computer-based score of 173; IELT (International English Language Test) score of 5.5; ELS Language Center (completed program level 110 verified by official transcript from ELS institution); or UMELI (Michigan) test score given by the International English Institute in Nashville, Tenn. A score of 80 or above is needed for undergraduate admission.
All test scores must be received directly in the Admissions Office from the testing agency. Student copies of score results are not accepted.
8. Submit completed insurance form for F 1 and J 1 applicants.
9. Submit a front and back copy of 1-94, if applicable.
10. Submit a front and back copy of 1-20 or DS-2019, if applicable.
11. Student must have official transcripts sent from all institution(s) directly to Admissions. If transcripts are written in a foreign language, an official translation in English and an official untranslated transcript must both be sent. A syllabus of each class may be required in order to receive course substitution credit.
12. Regular admission will be granted to applicants who have one of the following: a GPA of 3.00 if a new freshman; a minimum composite ACT of 22 or SAT composite of 1020; a minimum 2.7 GPA and minimum ACT of 19; or a GPA of 2.00 if transferring from an accredited institution.
NOTE: Sending all documents except transcript(s) and test scores in one envelope will expedite processing of the application. If the student does not have a Social Security number, the office will assign a student ID number for record-keeping purposes only. The Social Security number or student ID number should be on all correspondence sent to the office. All materials received become the property of MTSU and cannot be returned to the student or forwarded to a third party.

## Special English Courses

All admitted students will be subject to an English Placement exam administered by the Department of English. Results will determine whether a student takes ENGL 1040 (for credit but not fulfilling requirements), ENGL 1010 for ESL (fulfilling requirements), or ENGL 1010. ENGL 1010 for ESL requires permission of department for registration.

## Special History Courses

Sections of HIST 2010 and 2020 are offered as international courses. HIST 2010 is a survey course focusing on the Age of Exploration (1400s) through Reconstruction (1877). HIST 2020 is a survey course focusing on Reconstruction (1877) through the twentieth century. These sections are small with no more than 20 students allowing for individual attention and increased discussion to address the lack of previous study of American history.

## Advanced Standing

## Credit by Examination

Students may earn college credit for acceptable scores on the College Level Examination Program (CLEP), the Foreign Language Tests, the Advanced Placement Examinations (AP) of the College Entrance Examination Board (www.collegeboard.org), the American College Testing Program (ACT) (www.act.org), the International Baccalaureate Program (IB) (www.ibo.org), and the DANTES Subject Standardized Test (DSST). Examinations are administered by Testing Services, 327 Keathley University Center. Additional information can be obtained by calling (615) 898-2863.
All credit-by-examination scores are submitted to the Admissions Office. The test results are evaluated and recorded on a student's transcript if credit is earned. Semester hours of credit toward graduation are earned on the basis of these tests, but no grades or quality points are given. These credits will not affect a student's academic average. A student may receive no more than 60 semester hours of credit by means of credit-byexaminations, credit for service-related experience, and flight training. Applicants must not have notation of the course on the official transcript for which credit is recommended. If a student has a "W" or " $F$ " in a course or is currently enrolled and cannot drop without a grade, CLEP credit is not allowed. (This includes both MTSU and transfer records.)

## College Level Examination Program (CLEP)

Students may earn college credit for the following examinations administered by the College Level Examination Program:

## CLEP General Examination

College Mathematics, total score of 45 or greater, three credits, in lieu of MATH 1010

## CLEP Subject Examinations

The following examinations require a score of 50 or greater.
College Algebra, three credits, in lieu of MATH 1710
Pre-Calculus, four credits, in lieu of MATH 1730
Calculus, four credits, in lieu of MATH 1910
Calculus with Elementary Functions, three credits, in lieu of MATH 1710
General Biology, four credits, in lieu of BIOL 1030/1031
General Chemistry, eight credits, in lieu of CHEM 1110/1111, 1120/1121
Business Law, Introduction to, three credits, in lieu of BLAW 3430
Financial Accounting, three credits, in lieu of ACTG 2110
Marketing, Principles of, three credits, in lieu of MKT 3820
Management, Principles of, three credits, in lieu of MGMT 3610
Macroeconomics, Principles of, three credits, in lieu of ECON 2410
Microeconomics, Principles of, three credits, in lieu of ECON 2420
General Psychology, three credits, in lieu of PSY 1410
Analysis and Interpretation of Literature-essay required, three credits, in lieu of ENGL 2030
NOTE: Essays written as part of the exam in English will be graded by full-time faculty of the English Department. To receive credit, students must write essays that demonstrate the positive qualities of superior writing defined in the English Department's Sophomore Writing Standards, in addition to scoring an acceptable score on the objective portion of the examination.

American History I: Early Colonizations to 1877, three credits, in lieu of HIST 2010
American History II: 1865 to Present, three credits, in lieu of HIST 2020
Western Civilization I: Ancient Near East to 1648, three credits, in lieu of HIST 1010
Western Civilization II: 1648 to Present, three credits, in lieu of HIST 1020
American Government, three credits, in lieu of PS 2010
Sociology, Introductory, three credits, in lieu of SOC 1010

## College Entrance Examination Board (CEEB)

MTSU participates in the Advanced Placement (AP) Program of the College Entrance Examination Board and grants appropriate semester hours credit to qualified students presenting official record of a grade of 3 or above on the appropriate CEEB examination. Semester hours credit in the amount carried by the course or courses from which the student is exempted by CEEB advanced placement examination will be awarded.
U.S. Government and Politics, three credits, in lieu of PS 2010
U.S. History, six credits, in lieu of HIST 2010, 2020

Art History, three credits, in lieu of ART 1910
Studio Art, three credits, in lieu of ART 1610 or 1620
Biology, four credits, in lieu of BIOL 1030/1031
(Science majors may receive credit for BIOL 1110/1111, 1120/1121
upon recommendation of chair, Department of Biology)
Chemistry, eight credits, in lieu of CHEM 1110/1111, 1120/1121
Comparative Government and Politics, three credits, in lieu of PS 1010
Computer Science A, four credits in lieu of CSCI 1170
Computer Science AB, four credits, in lieu of CSCI 2170*
Macroeconomics, three credits for ECON 2410
Microeconomics, three credits for ECON 2420
English Composition/Literature, three credits, in lieu of ENGL 1010
English Language, three credits, in lieu of ENGL 1010
Environmental Science, three credits, in lieu of EST 2810
European History, three credits, in lieu of HIST 1020
Foreign Languages and Literatures, six credits, in lieu of SPAN 1010
and 1020, FREN 1010 and 1020, GERM 1010 and 1020, LATN 1010 and 1020
Calculus AB, four credits, in lieu of MATH 1910
Calculus BC, four credits, in lieu of MATH 1920
Statistics, three credits, in lieu of MATH 1530
Music Theory, three credits, in lieu of MUTH 1000
Physics B, four credits, in lieu of PHYS 2010/2011*
Physics C, four credits, in lieu of PHYS 2110/2111*
Psychology, three credits, in lieu of PSY 1410
World History, six credits in lieu of HIST 1110, 1120
*NOTE: A grade of 4 or above is required to receive four credits in lieu of CSCI 2170, PHYS 2010/2011, PHYS 2110/2111

## DANTES Subject Standardized Test (DSST)

Students may earn college credit for acceptable scores on the DANTES Subject Standardized Test (DSST) if recommended by the American Council on Education (ACE). MTSU awards lower-division and upper-division credit based on the ACE recommendation. Students should submit an official DANTES transcript to the MTSU Undergraduate Admissions office for review. A student may receive no more than 60 semester hours of credit by means of DSST, credit-by-special exam, credit for service-related experience, and flight training.

NOTE: Due to accreditation requirements, the Jennings A. Jones College of Business will not allow DSST upper-division credit to count toward graduation.

## Credit by Special Examination (Undergraduate)

Any student enrolled in the University who receives departmental approval is eligible to receive credit by special examination for certain MTSU courses. Competence gained through study and/or experience may provide background for students who wish to attempt such examinations. Credit by special examination may be given for undergraduate courses listed in the catalog with the exception of

1. courses described as directed research or directed independent study;
2. any course from which student has been exempted by placement examination;
3. courses not approved by the department.

NOTE: A nonrefundable fee of $\$ 20.00$ will be charged for each semester hour of credit.
Students seeking credit by examination should, on forms provided by the Admissions Office, request approval from the chair of the department or director of the school in which the course is offered. The method for designing, administering, and evaluating the special examination will be determined by the department/school. The examination shall be comparable in scope and difficulty to a comprehensive final examination in that course. The form for approval to post credit by special examination must be received in the Admissions Office no later than two weeks prior to the first day of final exams for a specified semester. No student will be allowed to repeat a special examination in a given course within one year.
The student will receive credit, to be recorded as P (Pass) on the student's transcript, upon passing the examination with a minimum equivalent grade of C. Credit by special examination cannot be used in the determination of the 25 percent credit earned through instruction offered by MTSU.

## Credit for Freshman English

1. Entering freshmen whose standard score on the English section of the Enhanced ACT is 32 or better will be given six hours credit for ENGL 1010 and 1020. If any such student elects to enroll in composition rather than receive credit, he/she must enroll in ENGL 1010 and 1020.
2. Entering freshmen who present the SAT examination for admission shall select English based on the following:
a. Students whose SAT verbal scores are 390 through 450 or below are required to take ENGL 1009 or undergo further testing.
b. Students whose SAT verbal scores are 460 through 710 are required to complete ENGL 1010 and 1020 in sequence.
c. Students whose SAT verbal scores are 720 or above may be given credit for ENGL 1010 and 1020.
d. Students whose SAT verbal scores are below 390 are required to undergo further testing.

## International Baccalaureate Program

Students may earn college credit for acceptable scores on examinations administered by the International Baccalaureate Organization.

## IB Score/MTSU Credit:

Score of 5 or higher in Physics (higher or standard level exam)/ PHYS 2010/2011, four credits
Score of 6 or higher in Physics (higher or standard level exam)/ PHYS 2010/2011, 2020/2021, eight credits
Score of 5 or higher in Biology (higher level exam)/
BIOL 1110/1111 and 1120/1121, eight credits
Score of 4 or higher in Mathematics (higher level exam)/ MATH 1910, 1920, plus three hours lower-division mathematics elective credit, eleven credits
Score of 6 or higher in History (higher level exam)/three hours lower-division history elective credit
Score of 5 or greater in Language A1 (higher level exam)/ ENGL 1010, three credits

## Service Credits

Students who have served in the reserves, National Guard, or armed forces may receive credit as listed below:

1. Six semester hours credit (4 hours military science-MS 1010, 1020, and 2010-and 2 hours PHED elective) is granted for a minimum of three years, eleven months, and twenty days of reserve or National Guard service in the armed forces of the United States. Veterans who have fewer than three years, eleven months, and twenty days
will be awarded one semester hour credit for each year of reserve or National Guard duty.
2. Credit will be awarded for formal service schools based on recommendation from the Office of Educational Credit of the American Council on Education. All documentation supporting service-related educational experiences should be filed with the Admissions Office.
3. We recommend submitting discharge papers (or a recent pay stub if currently in service), and any of the following, as appropriate: Community College of the Air Force transcript, Army AARTS transcript, course completion certificates, and/or DD-2295, Application for the Evaluation of Learning Experiences During Military Service.

## Advanced Credit

## Aerospace Training and Experience

University credit may be granted for specific aerospace maintenance technician courses for holders of FAA Airframe and/or Powerplant Certificates. More information is available in the section on the Aerospace Department.

## Registered Nurses

R.N.s with an associate degree or diploma may receive advanced standing credit for nursing courses provided they graduated from a state-approved school of nursing and hold a current license as a registered professional nurse. See the School of Nursing section.


## Expenses

The question of costs while attending the University is important to every student. It is difficult, however, to accurately estimate yearly expenditures; expenses vary according to the nature of the curriculum, the place of residence (whether in-state or out-of-state), and the student's own habits and needs. It is possible to live simply and to participate in the life of the student community on a modest budget. The best help the University can offer the student in budget planning is to provide available figures for expenses.
Health service and admission to athletic events are available to any currently enrolled student. The payment of the appropriate fees will permit any combination of graduate and undergraduate courses to be taken that may be required or approved. Charges for all coursework will be assessed by course level. The University reserves the right to correct errors in student fee assessments and charges which are discovered subsequent to initial billings and fee statements.
All fees are for the academic year 2008-2009 and are subject to change by action of the Tennessee Board of Regents. The new fee amounts will be published each year when approved by the Tennessee Board of Regents (usually around July 1). The updated rates will be available in July on the MTSU Web site at www.mtsu.edu/~bursarmt.

## Registration Fees

## Maintenance Fees

In-State Students
Per Credit Hour Rate
Undergraduate 189.00
Graduate 305.00
Out-of-State Students*
Per Credit Hour Rate
Undergraduate 662.00
Graduate 778.00
Program Services Fee (required of all students)
Full-time 699.00
Part-time
59.00 per hour

Late Registration (nonrefundable)
\$100.00
(Late registration fee of $\$ 100$ will be charged all students who register or reregister on or after the first day of class.)
*Included in these rates are charges for out-of-state tuition which is $\$ 473.00$ per credit hour.

NOTE: The rates quoted above are those in effect for the 2008-2009 academic year. A portion of the Program Services Fee is allocated to the Parking and Transportation Services department; upon payment of all registration fees, students are eligible to receive a student parking permit.

## Materials Fees

Agribusiness and Agriscience
Applies to ABAS 2400, 3400, 4400, $4460 \quad \$ 150$ per course

## Biology

BIOL 1030/1031, 1110/1111, 1120/1121, 2010/2011, 2020/2021, 3000, 3010/3011, 3020/3021, 3030, 3040, 3210/3211, 3250/3251, 4080/4081, 4110/4111, 4130/4131, 4140/4141, 4180/4181,
4210/4211, 4220/4221, 4270, 4280, 4290, 4300/4301, 4360, 4430, 4440, 4450, 4460/4461, 4510, 4550, 4560/4561, 4570/4571, 4580/4581, 4590, 4720/4721, 4750, 5010/5011, 5020/5021, 5030, 5040, 5130/5131, 5140/5141, 5180/5181, 5220/5221, 5460/5461, 5510, 5560/5561, 5570/5571, 5580/5581, 6080/6081, 6290, 6330/6331, 6360, 6380/6381, 6390/6391, 6410, 6430, 6440, 6450, 6590, 6620, 6720/6721, 6750
$\$ 5$ per credit hour

## Chemistry

Applies to PSCI 1030/1031; CHEM 1010/1011, 1020/1021,
1110/1111, 1120/1121, 2030/2031, 2230/2231,
2880, 3010/3011, 3020/3021, 3530/3531, 3880, 4230/4231,
4330/4331, 4340/4341, 4350/4351, 4360/4361, 4430/4431,
4530, 4630/4631, 4780, 4880 \$5 per credit hour

## Art

Applies to ART 1610, 1620, 1630, 1640, 2130, 2200, 2230,
2310, 2325, 2510, 2620, 2710, 2810, 3140, 3200, 3210, 3220,
3240, 3325, 3330, 3520, 3530, 3550, 3560, 3610, 3620, 3650,
3720, 3730, 3770, 3820, 3830, 3930, 4000, 4100, 4110, 4120,
4130, 4140, 4280, 4290, 4300, 4310, 4320, 4390, 4400, 4510,
4520, 4530, 4640, 4710, 4720, 4730, 4770, 4810,
4820, 4830
$\$ 20$ per credit hour

## Concrete Management

Applies to CIM 3060, 3070, 3080, 3100, 3200, 3600, 4010, 4050, 4060,
4100, 4150, 4200
\$15 per course

## Special Course Fees

Aerospace Flight Instruction Program Fees
Use of aircraft
\$115-235 per hour
For instruction \$12-35 per hour
For use of simulators \$20-70 per hour

Jennings A. Jones College of Business
Applies to ACTG, BUAD, BLAW, BCEN,
ECON, FIN, INFS, MGMT, MKT, QM
(excludes ECON 2410 and 2420 and QM 2610)
$\$ 20$ per credit hour
Private Instruction Music Fees
Charged to all music private instruction courses
$\$ 175$ for 1 credit hour \$325 for 2-3 credit hours

## Distance Education Fee

(MTSU online and correspondence courses)
\$10 undergraduate credit hour $\$ 15$ graduate credit hour

Concrete Management Certification Fees
Applies to CIM 3000, 3050
\$125 per course
Nursing Testing Fees
Applies to NURS 3000, 3030, 3170, 3350, 3530, 3550,
3570, 4210, 4330, 4350, 4530, 4550, 4570 \$34 per course

## Fall 2008-Summer 2009 Regents Online Degree Program Fees

Regents Online Degree Program (RODP) courses are charged per hour and viewed separately from MTSU courses so as not to mix with the full-time cap applicable to MTSU courses. RODP fees are computed in addition to any MTSU course fees and do not apply to the full-time maximum for MTSU registration fees.

| In-State Resident - Maintenance Fees |  |
| :--- | ---: |
| $\quad$ Undergraduate | $\$ 189.00$ per hour |
| $\quad$ Graduate | 305.00 per hour |
| Out-of-State Resident |  |
| $\quad$Undergraduate  <br> $\quad$ Graduate  | 778.00 per hour |
| Online Course Fee <br> $\quad$ Undergraduate/Graduate | 76.00 per hour |

## Summer 2009 Registration Fees

NOTE: Fees are charged per hour for all classes. NO maximum applies for summer. In-State Students

Undergraduate
Graduate
Out-of-State Residents
Undergraduate
Graduate
Program Services Fee (required of all students)
\$ 189.00 per hour 305.00 per hour
662.00 per hour 778.00 per hour 59.00 per hour

Late Registration (nonrefundable) 100.00


## Campus Housing Expenses Fall 2008-Summer 2009

## Reservations

Fall and Spring Semesters, required prepayment $\$ 300.00$
Spring Semester only, required prepayment \$150.00
Summer Session, required prepayment \$175.00

Fall 2008-Spring 2009

| Building | Type of Accommodation | $\begin{gathered} \text { Fall } \\ 2008 \end{gathered}$ | Spring <br> 2009 |
| :---: | :---: | :---: | :---: |
| Beasley, Gracy, Judd, Sims | Single | N/A | N/A |
|  | Private | \$3,392.00 | \$3,392.00 |
|  | Shared | \$1,938.00 | \$1,938.00 |
| Clement, Corlew, Deere, Felder, Gore, Nicks, Wood (Cummings closed) | Single | N/A | N/A |
|  | Private | \$2,676.00 | \$2,676.00 |
|  | Shared | \$1,529.00 | \$1,529.00 |
| Monohan Complex (Reynolds and Schardt Halls) Lyon Complex (Mary and McHenry Halls), Smith | Single | \$2,143.00 | \$2,143.00 |
|  | Private | \$3,392.00 | \$3,392.00 |
|  | Shared | \$1,938.00 | \$1,938.00 |
| Rutledge | Single | \$2,143.00 | \$2,143.00 |
|  | Private | \$2,676.00 | \$2,676.00 |
|  | Shared | \$1,529.00 | \$1,529.00 |
| Scarlett <br> Commons Apts. | Private bedroom, four-person apt. | \$2,661.00 | \$2,661.00 |
| Womack | Single Students |  |  |
|  | One bedroom, shared | \$1,936.00 | \$1,936.00 |
|  | Two bedroom, shared | \$2,100.00 | \$2,100.00 |
|  | Family Students |  |  |
|  | One bedroom, unfurnished | \$3,322.00 | \$3,322.00 |
|  | One bedroom, semifurnished | \$3,872.00 | \$3,872.00 |
|  | Two bedroom, unfurnished | \$3,786.00 | \$3,786.00 |
|  | Two bedroom semifurnished | \$4,200.00 | \$4,200.00 |

NOTE: Room rents are subject to change by action of the Tennessee Board of Regents. Each student will pay the amount in effect at the time of registration. Apartment summer sessions noted with an asterisk are available only to those residents who have signed a license agreement and made prepayments for the subsequent academic year beginning in August.
*Residence hall summer sessions are restricted to specific locations.

## Summer 2009 Term Building Rates

Deere, Nicks

| Type of <br> Accom. | All <br> Summer | S1 | S2 | S2/S3 | S3 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Private | $\$ 1,987.75$ | $\$ 458.75$ | $\$ 764.50$ | $\$ 1,529.00$ | $\$ 764.50$ |
| Shared | $\$ 1,165.00$ | $\$ 268.90$ | $\$ 448.05$ | $\$ 896.10$ | $\$ 448.05$ |


| Building | Type of <br> Accommodation <br> (Restrictions Apply) | All <br> Summer |
| :--- | :--- | :---: |
| Scarlett | Private bedroom, <br> four-person apartment | $\$ 504.40$ |
|  | (Restrictions Apply) <br> Single Students | $\$ 1,486.26$ |
|  | One bedroom, shared | $\$ 1,661.20$ |
|  | Two bedroom, shared | Family Students |
|  | One bedroom, unfurnished | $\$ 2,568.90$ |
|  | One bedroom, semifurnished | $\$ 2,972.52$ |
|  | Two bedroom, unfurnished | $\$ 2,928.00$ |
|  | Two bedroom, furnished | $\$ 3,322.40$ |

## Other Applicable Charges

| Admission application fee |  |
| :---: | :---: |
| Undergraduate | \$ 25.00 |
| Graduate | 25.00 |
| International | 30.00 |
| Automobile registration-academic year: |  |
| Faculty/administration/staff | 125.00 |
| Executive Parking Permits | 180.00 |
| Student permits** | n/c |
| Automobile registration-summer only: |  |
| Faculty/administration/staff | 33.00 |
| Student permits | n/c |
| Diploma insert (after the first) | 10.00 |
| Dissertation binding ( 1 original and 4 copies) <br> and microfilming (doctor's degree) |  |
| Thesis binding (master's degree) ( 1 original and 3 copies) | copies) 37.00 |
| Extra copy thesis (or dissertation binding) | 9.20 |
| Graduate entrance tests: |  |
| Miller Analogies | 70.00 |
| Graduate Record Exam-subject | 130.00 |
| ID card replacement | 10.00 |
| Aerospace Flight Instruction Program Fees |  |
| Use of aircraft \$115 | \$115-235 per hour |
| For instruction \$12 | \$12-35 per hour |
| For use of simulators \$20 | \$20-70 per hour |
| Nursery school, semester |  |
| Infants and toddlers, 2 days/week | 200.00 |
| Preschool (4 days per week ) | 360.00 |

Day Care Fees (per week)
Full-time (M-F) 102.00
Part-time (MWF) 61.00

Part-time (TTH)
41.00
${ }^{* *}$ A portion of the general access fee is allocated to the Parking and Transportation and Services Department; upon payment of all registration fees, students are eligible to receive a student parking permit.

No student will be allowed to preregister, register, or receive a grade report or transcript of credits until all accounts are settled. A student will not be officially enrolled until all fees are cleared through the Business Office.

## Late Registration

Students who complete registration (including the payment of fees) during the late registration period will be charged a $\$ 100$ late fee.

## Matriculation Fee for Incompletes

If a student receives a grade of Incomplete (I), he or she need not reregister or pay fees for the course every semester until the course is completed. Such students should work only with the course instructor to complete grade requirements.

## Returned Checks

Acknowledged bank errors excepted, a $\$ 30$ service charge will be assessed for each returned check, whether given in payment of fees, for purchase of books, cashed by the University for the personal convenience of the student, or for any other reason. The University will decline to accept checks from any student who has checks returned by the bank more than once or if any check returned is not paid within ten (10) working days. A $\$ 100$ late registration fee may be assessed for any returned check given in payment of registration fees.

## Automobiles

All privately owned or operated vehicles for use on the campus must be registered annually with Parking and Transportation Services and must display an official registration permit. (See above for charges.) For more information or clarification, please refer to Traffic and Parking Regulations, available in the Parking and Transportation Services Office.

## Auditing Charges

An auditor is one who enrolls and participates in a course without expectation of receiving academic credit. The same registration procedure is followed and the same fees charged as for courses taken for credit. An audited course is not applicable to any degree or certification program.
Regular class attendance is expected. Other course requirements, which may be obtained in writing from the instructor, will vary depending upon the nature of the course. Students interested in auditing a course should discuss course require-
ments prior to enrolling. Failure to meet course requirements may result in removal from the course at the request of the instructor. A successful audit will be recorded on the transcript with the designation NC .

A change from audit to credit or credit to audit must be processed by the last day to add a class.

Persons 60 years of age or older or disabled persons suffering from a permanent total disability which totally incapacitates such persons from working at an occupation which results in an income (T.C.A., Section 49-7-113) who are domiciled in Tennessee may audit courses at any state-supported college or university without paying tuition charges. Registration under this program is on a space-available basis; therefore, students cannot priority register. Class selection should be processed on the first day of classes for the term or session. Proof of age or disability must be provided.

## 65-Year-Old/Disabled Credit Student

Persons 65 years of age or older or disabled persons suffering from a permanent total disability which totally incapacitates such persons from working at an occupation which results in an income (T.C.A., Section 49-7-113) who are domiciled in Tennessee may register for classes for credit by paying a service fee not to exceed $\$ 70$ per semester. Registration under this program is on a space-available basis; therefore, priority registration is not allowed. Class selection should be processed on the first day of classes for the term or session. No late fee is charged. An application fee is required. In addition, the applicant must be eligible for admission and submit proof of age or disability.

## Additional Charges

The University reserves the right to increase the charges listed herein or to add new ones whenever such increases or additions are found to be necessary.

## Board

All freshman men and women living in the residence halls during Fall and Spring semesters will be required to participate in a freshman meal plan. All other students may secure meals in the University cafeterias or grill either through optional meal plans available from the food service or a meal-to-meal cash basis.

## Debts

An important part of every student's educational experience is learning to manage money and to responsibly discharge financial obligations incurred. With this in mind, MTSU expects you to promptly pay all University bills and accounts when due.
Failure to meet financial obligations will result in your not being allowed to preregister, register, or receive transcripts, grade reports, or diplomas.

## Deferred Payment Plan

Students who want to use the Deferred Payment Plan must sign up for the payment plan and pay the down payment online via RaiderNet. If a student is eligible, there will be an option in the bill payment system to request a Deferred Payment Plan. Students who wish to pay by mail must view the down payment amount online by selecting the option to view the payment plan installments. Students may also sign up for the plan and pay the down payment at the Business Office cashier windows.

Although all charges are due and payable in full at the beginning of each term, students in good financial standing at MTSU may defer payment of up to 50 percent of their registration, housing, and freshman meal plan fees for the Fall and Spring semesters. The deferment of fees is not available for Summer terms.

To be eligible for the Deferred Payment Plan, each participant must make a minimum down payment of 50 percent of the registration fees, residence hall rent, and freshman meal plan costs. The balance due must be $\$ 400$ or more after all discounts, waivers, financial aid, and other credits are applied. A student who fails to make timely payments in a previous term will be denied the right to participate in the Deferred Payment Plan in future enrollment periods. Any student who makes payment with a check which is subsequently returned will be denied participation in the Deferred Payment Plan in all future terms.

The amount deferred will be payable in two monthly installments. For the Fall term, installment payments are due on or before September 30 and October 31. For the Spring term, installment payments are due on or before February 28 and March 31. The University is not obligated to send reminder notices before the payment is due. Participants in this plan must apply all discounts, waivers, credits, and financial aid (including student loans) toward payment of registration fees before a deferment will be considered. Financial aid and other credits received after the initial payment will be applied to the remaining balance, and future amounts due will be recomputed. No refunds can be made until all fees are paid in full. Students will not be withdrawn for failure to pay the second or third payments. However, the balance must be paid in full before the student can preregister for future terms, even if preregistration is prior to the due date.
Each participant will be charged a $\$ 50$ nonrefundable service fee each term to defray administrative costs. This fee is payable along with the 50 percent down payment on or before the registration fee payment deadline. An additional late payment charge of $\$ 25$ will be assessed for each installment not paid on or before the due date and each 30-day period past the second installment up to a maximum of $\$ 100$. Withdrawals from classes will not alter the remaining balance due except to the extent that any refund may be applied. Students who make payments with checks that are returned will be charged a $\$ 30$ return check service fee as well as any applicable late fees.

If a payment is not received in the Business Office by the scheduled payment due date, the University will withhold all
services from the student-including grades, transcripts, and future registration-until the fees have been paid in full including any assessed late fees.
All existing rules and policies pertaining to returned checks, refunds, withdrawals, dropped classes, and collection costs are applicable to the Deferred Payment Plan.
Payment of the minimum amount due on the Deferred Payment Plan finalizes registration. The class schedule will not be dropped. It is not necessary to also confirm on RaiderNet. The Deferred Payment Plan service fee, late fee, and minimum amount are effective for 2008-09 and are subject to change in future terms.

Additional fees for classes, dorms, or meal plans added after initial registration payment or confirmation must be paid by the late registration fee payment deadline. If students are eligible for the Deferred Payment Plan, any unpaid fees after this date will be processed as a deferred payment. The \$50 Deferred Payment Plan service charge and any applicable \$25 late payment fees will be charged.
Students who are not eligible for deferred payment will be subject to withdrawal from all classes or from the dorm for nonpayment or subject to service charges and late payment fees.
For more information and detailed instructions on how to sign up for deferred payment, check online at www.mtsu.edu/~ bursarmt. Questions regarding the Deferred Payment Plan should be directed to the Bursar's Office at (615) 898-2761.

## Deferred Payment for Recipients of Veterans Affairs or Other Governmentally Funded Educational Assistance Benefits

Service members, veterans, and dependents of veterans who are eligible beneficiaries of U.S. Department of Veterans Affairs educational benefits or other governmentally funded educational assistance, subject to the conditions and guidelines set forth in Tennessee Code Annotated 49-7-104 as amended, may elect, upon formal application, to defer payment of required tuition and fees until the final day of the term for which the deferment has been requested. Application for the deferment must be made no later than 14 days after the beginning of the term, and the amount of the deferment shall not exceed the total monetary benefits to be received for the term. Students who have been granted deferments are expected to make timely payments on their outstanding tuition and fees balance once educational benefits are being delivered, and eligibility for such deferment shall terminate if the student fails to abide by any applicable rule or regulation or to act in good faith in making timely payments. This notice is published pursuant to Public Chapter 279, Acts of 2003, effective July 1, 2003.

## Registration Confirmation

If fees are paid in full by financial aid, Federal Stafford or PLUS loans, TELS (Lottery) scholarship, pre-paid tuition programs, Vocational or Veteran's rehabilitation or other credits, students must complete the registration process by confirming that they will attend MTSU for the term. If balance is a credit or zero, they must Confirm Registration on RaiderNet by the fee payment deadline.
To confirm registration, students should

- log in to PipelineMT at www.mtsu.edu;
- click on RaiderNet then on the Student tab;
- select Student Account;
- select Confirm Enrollment/Registration Payment/Account Detail for Term;
- select the term. The account balance summary and account detail for the term will be displayed.
- click "Yes, I will attend during ..." and wait for a confirmation number.

Students will be given a confirmation number and should write down the confirmation number and date as proof of confirmation. If in doubt, students should try the process again and the system will tell them if registration has been confirmed. The confirmation number will not be repeated. If the student does not receive a confirmation number and is instead taken to the bill payment system, aid is either not on the account or a balance is still due.

Please note: Reviewing the class schedule does not confirm registration; students MUST select the Confirm Registration option, then select the option "Yes, I attend during . . ." When this option is selected, the student will be given a confirmation number if the registration is confirmed. When a confirmation number is assigned, the system will hold classes. If registration is not confirmed before the fee payment deadline, the class schedule will be deleted from the computer. Financial aid refunds cannot be processed until confirmation is completed.

Check the online registration guide and www.mtsu.edu/ ~bursarmt for detailed instructions, dates, and deadlines for each term.

All students who preregister and decide not to attend MTSU should access RaiderNet prior to the final fee payment date for the term to drop all classes from their records. If they decide not to attend MTSU after confirming, they must withdraw from the University.

## Fee Adjustments

NOTE: No refund of housing, registration, or other fees will be made to students who are dismissed or suspended.

Tuition, program services fees, and out-of-state tuition will be adjusted as follows:

1. A full $(100 \%)$ refund or reduction of fees will be provided for courses cancelled by the University.
2. A full $(100 \%)$ refund or reduction of these fees will be provided to students who preregister and withdraw from all classes prior to the first day of class. Students who preregister and drop classes prior to the first day of class will be credited at $100 \%$. See the current
online registration guide for fee adjustments and schedule adjustment dates.
3. A full $(100 \%)$ refund of these fees will be provided in case of a student's death.
4. Tuition, registration fees, materials and course fees, and residence hall rent will be adjusted at the rates of 75 percent or 25 percent to students who officially withdraw from the University prior to the dates specified in the registration guide published each semester. The same fee adjustment schedule applies to students who drop below full-time to an hourly load. The calculation of tuition and fee adjustments for a complete withdrawal from the University is based on the percentage charge of all courses dropped for the term. There will only be an adjustment in fees if the new calculated charge is less than the original charge. Not all withdrawals will result in a refund or reduction in fees. The calculation of tuition and fee adjustments for dropped courses is based on the charge for currently enrolled hours plus a percentage charge of all courses dropped. There will only be a reduction in fees if the new calculated charge is less than the original charge. Not all dropped courses will result in a refund or reduction in fees.

The University fee adjustment policy is based entirely upon the official date of the withdrawal or drop. Fee adjustment exceptions will not be made for reasons such as employment conflicts, health or medical problems, moving out of town, or other reasons beyond the University's control or responsibility.
Refunds due to fee adjustments will be processed beginning approximately two weeks after the end of each fee adjustment period. It takes several weeks to process all the refunds. The University will offset against proposed refunds any amount owed by the student to the University.
Drop/Withdrawal from class. Students who drop or withdraw from classes will have a balance due under the Deferred Payment Plan. Fees are adjusted based on the drop or withdrawal date. The fee adjustment percentage is NOT applied to the amount of payment, but rather as a percentage adjustment of total fees. A refund would be issued to the student only if the newly adjusted amount of fees is less than the amount that has been paid by the student. Withdrawal from classes does not negate the student's responsibility to pay the balance of fees after the semester has begun.

## Refunds of Housing Expenses

## Residence Halls

Applications for residence halls and on-campus apartments must be accompanied by the required prepayment as outlined in the license agreement. Prepayment is a security of good faith that denotes the applicant's serious intent to reside in on-campus housing. Prepayment fees for 2008-2009 are $\$ 300, \$ 150$ of which is applied toward Fall semester charges, and $\$ 150$ of which is applied toward Spring semester charges. This prepayment is refundable prior to check-in according to the following schedule. All cancellations must be submitted in writing to the Housing and Residential Life Office. Prepayment amounts represent approximately 25 percent of the total semester fee and may vary from year to year. Students should contact Housing and Residential Life to verify specific changes.

## Academic Year (Fall and Spring) Applications

| Date of Cancellation | Refund Amount |
| :--- | :---: |
| By May 1 1 | $\$ 150.00$ |
| By June 1 | $\$ 100.00$ |
| By July 1 | $\$ 50.00$ |
| After July 1, but prior to the first check-in day <br> in August | $\$ 00.00$ |

## Spring Semester Only Applications

| Date of Cancellation | Refund Amount |
| :--- | :---: |
| By October 15 <br> After October 15, but prior to the first check-in <br> day in January | $\$ 50.00$ |

## Summer Housing

Details regarding application, fees, and refunds for summer assignment to residence halls and on-campus apartments may be obtained by contacting the Housing and Residential Life Office at (615) 898-2971.

## Housing Fees

The refunds of residence hall fees after registration will be prorated on a weekly calendar basis when the student is forced to withdraw from the residence hall because of approved medical reasons confirmed in writing by a licensed physician.
Full refund will be made in the case of death. No refund will be made other than under the above conditions, except as specified in the Student Housing Agreement.

## Direct Deposit of Financial Aid Credit Balance Refunds

Students receiving financial aid who expect to receive a refund must first be sure they have met all financial aid eligibility requirements, confirmed registration, have no holds, and completed all necessary paperwork. Students may choose to receive their refunds via direct deposit to personal bank accounts or use MTSU eCash PayCards.
All students must sign up for direct deposit online through RaiderNet. Online sign-up via e-Refund must be completed at least five (5) days prior to the first day of classes to have the refunds available in accounts on the first day of classes.
Detailed instructions are available online at www.mtsu .edu/~bursarmt. It is critical that all information be entered correctly to avoid delay of refunds.
Those who choose to receive MTSU eCash PayCards must come by the Business Office, Cope 103, to pick up cards and activate PINs (personal identification numbers). Instructions will be provided on how to enter eCash PayCards online through RaiderNet so that refunds will be ready to access on the first day of classes. The eCash PayCard can be used at designated ATMs, at merchants participating in point-of-sale debit networks, or by issuance of a Comdata check. These cards will remain active indefinitely and will be reloaded each time there is a financial aid credit balance refund. Students should not lose or destroy their cards.

## Financial Aid

## Office of Financial Aid Cope Administration Building 218

The Office of Student Financial Aid is a department within the Division of Student Affairs, Enrollment, and Academic Services. The Financial Aid Office provides financial assistance to qualified students attending Middle Tennessee State University. For current information, visit www.mtsu.edu/financialaid.

Students and their families have the primary responsibility for financing a college education. However, through federally funded programs, students may receive assistance when need is determined. Need is defined as the difference between the cost of attending MTSU and the calculated expected family contribution toward this cost. The Free Application for Federal Student Aid (FAFSA) is the document from which the expected family contribution is calculated.
In addition to programs based on need, MTSU has a limited number of scholarships that are based on academic performance and/or ability in a particular area.

## Deadlines for Applications

## Federal/State Deadlines

To apply for federal and state aid, the Free Application for Federal Student Aid (FAFSA) must be completed. The priority date to apply for federal financial aid is May 1. The priority date does not apply to the Federal Pell Grant or Federal Direct Student Loan programs. The priority deadline for the state grant (Tennessee Student Assistance Award) is March 1. Completing the FAFSA early is strongly encouraged. Due to limited funding for campus-based programs (e.g., Federal Supplemental Education Opportunity Grant, Perkins Loan, and Federal Work Study), all eligible students may not receive these funds.

## Scholarship Deadlines

To apply for scholarships for the upcoming academic year, the following deadlines must be observed. For current information, visit www.mtsu.edu/scholarships.
Currently enrolled students: Complete online scholarship application by December 1
Entering freshmen: Apply for admission, submit official ACT or SAT test scores, and submit an official sixth-semester high school transcript (through the end of the junior year) by December 1
Transfer students: Apply for admission by February 1
Foundation scholarships: For application and deadline information visit www.mtsu.edu/scholarships. Deadlines range from December to April.
Tennessee Education Lottery Scholarship Program (TELS): The priority deadline requires the FAFSA results to be on file in the Financial Aid Office by September 1 ; submit the completed FAFSA by April 1, if possible.

## How to Apply

Prospective students and their parents should complete the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.ed.gov. To obtain a paper form, contact the Federal Student Aid Information Center at 1-800-433-3243.
Parents and students should register for a personal identification number (PIN) before completing the application. The PIN can be used as an electronic signature. The Federal Processing Center will send the results to MTSU if the student enters the MTSU School Code of 003510 in the school section of the FAFSA. The results will also be sent to the student.

Fall/Spring Award Notices will be sent to students' MTSU e-mail addresses stating the tentative financial aid they may be awarded. The Award Notice will direct students to RaiderNet, where they may review their estimated financial aid award offers. The award offers are based on full-time attendance and will indicate both grants and loans for which students are eligible. After the e-mail Award Notice is sent, the estimated aid amounts may change due to changes in enrollment, EFC amounts, scholarships, and other aid. The Award Notice will provide instructions for how to accept/decline award offers via RaiderNet. Currently enrolled students will receive Award Notices after their grades have been processed for the Spring semester.

Students' MTSU e-mail accounts will be the primary method used by the MTSU Financial Aid Office to communicate if additional information and/or documents are required to complete the financial aid process. It is important for students to check their e-mail accounts frequently.

## Return of Financial Aid

For the Fall and Spring semesters, a federal financial aid return will be calculated for all students who withdraw after the fourth day of class but prior to completing 60 percent of the term. For the Summer term, a federal financial aid return will be calculated for all students who withdraw after the last day to drop without receiving a grade but prior to completing 60 percent of the session. The amount of the return will be prorated based on federal guidelines. Students who withdraw before the last day to drop without a grade may have all of their aid canceled. Students may owe a refund to the U.S. Department of Education and/or MTSU. For important dates and information about withdrawing, go to www.mtsu. edu/~records. Students may contact the Financial Aid Office with questions regarding this policy.

## Satisfactory Academic Progress Policy

Federal regulations require that all federal financial aid recipients are enrolled in a degree-seeking program or an approved certification program or are seeking initial teacher licensure.

To maintain eligibility, these recipients must maintain satisfactory academic progress. MTSU complies with this requirement by monitoring each aid recipient's cumulative grade point average (GPA), completion rate, and maximum time frame for completion of a degree. The following describes MTSU's method for monitoring each of these measures.

## Cumulative Grade Point Average

1. Undergraduate students. To be eligible for financial aid, a student's GPA must meet at least the minimum requirements listed in this catalog. The cumulative GPA includes all transfer credits and hours earned at MTSU.
2. Graduate students. To be eligible for financial aid, a student's GPA must meet at least the minimum requirements listed in the graduate catalog or be approved by the College of Graduate Studies for enrollment.

## Completion Rate

Students must pass 66 percent of their cumulative credits attempted to remain eligible for financial aid. Grades of $A$, B, C, D, P, or S, including any " + " or " - " options, count as credits earned. All courses for credit will be counted as hours attempted including withdrawals, incompletes, courses repeated, and courses resulting in grades of $\mathrm{N}, \mathrm{U}$, and F .

1. Probation. Students whose completion rate is greater than 50 percent but less than the required 66 percent will be placed on probation. Students on probation must pass 75 percent of their attempted hours for the next semester enrolled.
2. Suspension. Students whose completion rate is less than 50 percent of the credit hours attempted or those previously placed on probation who did not meet the requirements of their probation will be suspended from eligibility for federal grants, loans, and federal work-study employment. Students may still be eligible for emergency short-term loans and other University funds.

## Time Limits

1. Undergraduates. The maximum time limit for completion of a first degree is 150 percent of the program's published length. Most undergraduate programs require 120 hours; therefore, the maximum attempted hours allowed is 180 . This time limit does not include remedial/developmental courses for which the maximum federal limit is 30 hours. The maximum hours include all transfer hours and all attempted hours. Students who change majors during the junior or senior year may be allowed 24 additional attempted hours to obtain a degree. The Records Office must have the change of major recorded prior to the student's achieving the maximum hours.
2. Graduates. The maximum time limit for graduate students may be limited to 125 percent of the standards established by the College of Graduate Studies and published in the graduate catalog.

## Review of Progress Standards

1. GPA. The Records Office reviews the GPA at the end of each semester. Students may appeal academic suspension to the undergraduate or graduate academic appeals committee. The decision of the committee is final.
2. Completion rate. The completion rate is reviewed at the end of each semester by the Financial Aid Office.
3. Time limits. The maximum time limit is reviewed at the end of each semester by the Financial Aid Office.

## Notification/Appeals

1. Time Limits. Students who have attempted over 132 credit hours will be notified regarding the maximum hours they can attempt and continue to receive federal financial aid.
2. Probation. The Financial Aid Office will send e-mails to students' MTSU e-mail addresses notifying them of their financial aid proba-
tion and the expected requirements. Each student may be allowed at least one probationary period during the course of enrollment.
3. Suspension. The Financial Aid Office will notify students through their MTSU e-mail accounts of their financial aid suspension and the expected requirements. Students are allowed to appeal their suspensions if they can document extenuating circumstances beyond their control which have since been resolved. Examples include death of an immediate family member and extended medical illness and/or disability. Provisions may also be made for students who have military credits that cannot be counted toward a degree. Any other circumstances not listed above must be well documented and have the approval of a financial aid administrator and/or the director of Financial Aid.
a. Financial Aid Suspension Appeals. Student appeals are reviewed by an internal committee composed of financial aid staff. Each student will be notified of the appeal decision and-if denied-what action must be taken to regain financial aid eligibility.
b. Loan and Scholarship Committee. Students who are suspended a second time or who have been denied by the internal financial aid committee may appeal to the Loan and Scholarship Committee or its designee. The Loan and Scholarship Committee comprises faculty members, students, and administrators. Because faculty and students do not report until the start of school, students appealing to this committee may be personally responsible for paying registration expenses. The decision of the committee is final.

## Reinstatement of Financial Aid if Appeal Denied

Students may be able to attend MTSU at their personal expense even though they are on financial aid suspension. Students who do this will be placed in "good standing" after they pass 66 percent of their cumulative credit hours. Students may view their financial aid satisfactory academic progress status on RaiderNet.
EXCEPTION: Students who have reached the maximum credit hours allowed will not have their financial aid reinstated for the current degree.

## No Credit Hours Earned

A student who earns no credit hours for one semester will be automatically placed on financial aid probation. A student who earns no credit hours for two consecutive semesters enrolled will be automatically suspended from federal financial aid. However, the student may appeal the suspension. Please see the suspension guidelines above.

## Exceptions

The University may suspend a student's financial assistance in the event of extraordinary circumstances that are not accounted for in this policy. In all instances, the student will be notified of the appeal process.

## Teacher Licensure

Students who have completed an undergraduate degree and are enrolled for the sole purpose of attaining teacher licensure may be eligible for loans at the undergraduate level. To receive aid, students must be accepted into the teacher education program. Students may be eligible for aid one year prior to being accepted provided they have taken or will be taking FOED 1110 and FOED 2110, have a minimum GPA of 2.5, and provide the Financial Aid Office with a copy of their
program of study. Exceptions may be made by the Financial Aid director or his/her designee.

## Tennessee Education Lottery Scholarship Program (TELS)

The Tennessee Student Assistance Corporation (TSAC) awards the Tennessee Education Lottery Scholarships (TELS). For information, visit TSAC at www.state.tn.us/tsac or MTSU at www.mtsu.edu/scholarships/telsprogram_scholarships.shtml. TSAC reserves the right to modify rules/regulations without prior notification. Typically, rules are adjusted in July of each year.

## TELS Eligibility Requirements:

## For all students

- Tennessee residency for at least one year


## For entering freshmen

- Graduates from an eligible high school must have at least a weighted 3.00 GPA or 21 ACT (980 SAT).
- GED recipients must have at least 21 ACT (980 SAT) and 525 GED.
- Graduates of Tennessee Home School or an ineligible high school must have at least 21 ACT (980 SAT).
- Students must enroll within 16 months of home school completion, high school graduation, or receiving GED.

Each April, TSAC will determine the availability of funds for Summer Lottery Scholarships. If funds are available, students who have remaining TELS eligibility for the award year may receive Lottery Scholarship funds for at least half-time enrollment.

For additional information about General Assembly Merit Scholarships, Aspire Supplements, Hope Access Grants, and Foster Care Grants, visit the TSAC Web site listed above.

## Application Procedures:

Complete the Free Application for Federal Student Aid (FAFSA) for each academic year. The FAFSA is available online at www.fafsa.ed.gov beginning January 1. Submit the completed FAFSA by April 1, if possible. The FAFSA must be processed by September 1 for students enrolling in the Fall semester or by February 1 for students enrolling in the Spring or Summer terms.

## Renewal Criteria:

- Must earn a 2.75 cumulative TELS GPA after 24 and 48 attempted credit hours.
- Must earn a 3.00 cumulative TELS GPA after attempting 72 credit hours and subsequent 24 -hour benchmarks OR must have between 2.75 and 2.99 cumulative GPA with at least a 3.00 semester GPA.
- CANNOT change enrollment status after census date (14 days after classes begin).
- Must enroll for each Fall and each Spring term.


## Tennessee Education Lottery Scholarship Program (TELS) Policy

Refer to http://scholarships.web.mtsu.edu/TELSprogram.htm for the most recent policy. Rules and regulations are accurate as of January 2009; however, TSAC reserves the right to modify rules and regulations without prior notification. Before dropping or withdrawing from classes, contact the Financial Aid Office.

According to Title 49, Chapter 1640-1-19 of the Tennessee Code Annotated, the Financial Aid Office must implement policies and procedures for the monitoring of TELS. In addition, the statute requires students to maintain federal Satisfactory Academic Progress as established by MTSU as noted below. Following are the policies and procedures for the monitoring of TELS.

## Cumulative TELS Grade Point Average (GPA)

Eligibility will be reviewed at the end of the term in which the student has attempted a total of 24 credit hours and at subsequent 24 -hour benchmarks. At the end of the term in which the student has attempted a total of 24 and 48 credit hours, the student's cumulative TELS GPA must be at least 2.75. At the end of the term in which the student has attempted a total of 72 credit hours and at subsequent 24 -hour benchmarks, the student's cumulative TELS GPA must be at least 3.00 or must be between 2.75 and 2.99 with at least a 3.00 semester GPA. The cumulative TELS GPA includes all transfer credits and hours earned at MTSU, including grades from repeated classes. Dual enrollment, credit-by-examination, and/or AP credits are not included in the cumulative TELS GPA. Students may view their TELS GPA in the Tennessee Lottery Scholarship eligibility section on RaiderNet.

## Completion Rate

Each semester, students must maintain their enrollment status as of the census date. Students who receive a full-time award cannot drop below 12 credit hours during the term. Students who receive a part-time award cannot drop below 6 credit hours during the term. All attempted hours, including "I," "W," and "F," will be included in monitoring attempted hours brackets and maximum attempted hours.

## Time Limits

Students may receive a TELS award until the first of the following events occur:

1. The student has earned a baccalaureate degree.
2. Five years from the date of the student's initial enrollment have passed, unless a leave of absence has been approved.

## Procedures for Monitoring Tennessee Education Lottery Scholarship Program

A. Grade Point Average (GPA). The Financial Aid Office reviews the TELS GPA at the end of 24 attempted credit hours and at subsequent 24-hour benchmarks.
B. Completion Rate. The Financial Aid Office reviews the completion rate at the end of each term. Students who change their enrollment status after the census date (14 days) are no longer eligible for the TELS award.
C. Time Limits. The Financial Aid Office reviews the maximum time limits at the end of each term.

## Notification of Ineligibility

Periodic e-mails are sent to lottery recipients encouraging them to check their lottery status via RaiderNet. RaiderNet may be used to view ineligibility for

- students who fail to maintain the minimum TELS GPA requirements,
- students who change enrollment status after the census date, or
- students who exceed the maximum years allowed.


## Appeal Process

Students who have lost their eligibility for the TELS award can appeal if they had extenuating circumstances or if they lost eligibility due to enrollment issues. A Tennessee Lottery Appeal form is available in the Financial Aid Office or online at www.mtsu.edu/financialaid/forms.htm. Students will be allowed to appeal their ineligibility if they can provide documentation verifying extenuating medical or personal circumstances. Such circumstances may include, but are not limited to, illness of the student, illness or death of an immediate family member, extreme financial hardship of the student or student's immediate family, or other extenuating circumstances beyond the student's control. MTSU is not authorized to make exceptions concerning GPA requirements, regardless of extenuating circumstances.

Students should submit their appeals to the Financial Aid Office to be reviewed by the Institutional Review Panel (IRP). The IRP Appeal Committee is composed of MTSU administrators and meets approximately six times per academic year. Appeals will be accepted for two weeks prior to each IRP meeting. Please contact the Financial Aid Office for dates of upcoming IRP meetings.
If the IRP denies the appeal, students may appeal to the TELS Award Appeals Panel at TSAC. The decision from the TELS Award Appeals Panel at TSAC is final.
A student may regain eligibility for a TELS award after becoming ineligible due to enrollment at an out-of-state institution or failure to meet GPA requirements. For more information, please visit the Financial Aid Office Web site.

## Grade Changes

Students should submit written notification to the Financial Aid Office within fourteen (14) days of any grade change. The Financial Aid Office will verify the change and make an award adjustment, if applicable.

## Incompletes

Incompletes are included in attempted hours but are not calculated in the GPA. If a student's GPA including a grade of "I" meets the GPA requirement based on attempted hours, the student may be eligible for a TELS award for the current semester. However, if the grade of " I " is changed and the student's TELS GPA falls below the minimum requirement, the student may be required to repay all TELS awards within the current academic year. Conversely, if a student is not eligible based on a GPA that includes a grade of " $I$," the student will not be eligible for a TELS award for the current semester. If the
grade of " 1 " is later changed and the student becomes eligible based on the recalculated TELS GPA, MTSU will resume the TELS award.

## Leave of Absence

A student may request a leave of absence by completing the Tennessee Lottery Request for Leave of Absence form. In most cases, a student may be granted a leave of absence for up to one year and be eligible to receive the TELS award upon return. A leave of absence may be approved for medical or personal reasons. Allowable medical or personal reasons may include, but are not limited to, illness of the student, illness or death of an immediate family member, extreme financial hardship of the student or student's immediate family, to fulfill a religious commitment expected of all students of that faith, or other extenuating circumstances beyond the student's control where continued attendance by the student creates a substantial hardship. Acceptable reasons shall also include a student's participation in an internship or co-op program that is required or encouraged as part of the academic program in which he/she is enrolled. The student will be notified of the decision of the IRP. If a student's request is denied, he/she may appeal the decision to the TELS Award Appeals Panel at TSAC.

## Military Mobilization

A student may request a leave of absence due to military mobilization by submitting the Tennessee Lottery Military Appeal form. A member of the United States Armed Services, National Guard, or Armed Forces Reserves who is mobilized for active duty during a semester that is already in progress may be granted a personal leave of absence and his/her TELS award eligibility will not be negatively affected. If, as a result of being mobilized, a student completely withdraws, the hours that were attempted during the semester will not be counted for purposes of determining future TELS award eligibility. If a student receives a grade of " $I$ " due to mobilization, refer to the "Incompletes" section above. Requests for leaves of absence from students whose spouses, children, fathers, or mothers have been mobilized for active duty also will be considered. Students must reenroll no later than one year following the mobilization to be eligible. They must provide the Financial Aid Office with copies of orders for active duty for themselves or the applicable family member.

## General Financial Aid Information

1. During the Fall and Spring semesters, students who officially withdraw during the first four days of classes will have all of their financial aid cancelled. Students who withdraw after the first four days but prior to completing $60 \%$ of the term will have their financial aid prorated. Students who drop course(s) before the census date may have their aid adjusted according to the number of hours enrolled as of that date. For dates, refer to www. mtsu.edu/~records. Students may owe a refund to the U.S. Department of Education and/or MTSU. Students are advised to contact the Financial Aid Office before withdrawing.
2. For each session of the Summer term, students who withdraw after the last day to add a class but prior to completing $60 \%$ of the session currently attending will have their financial aid prorated. Students who drop course(s) and receive a grade of "W" may have their financial aid adjusted. For dates, refer to www.mtsu.edu/~records. Students may owe a refund to the U.S. Department of Education and/or MTSU. Students are advised to contact the Financial Aid Office before withdrawing.
3. Students who withdraw from the University before 60 percent of the term has been completed will have their aid adjusted according to the Financial Aid Return Policy. For information about the Return Policy, refer to the Return of Financial Aid section.
4. Class attendance will be verified for financial aid disbursements that occur during the Fall and Spring semesters and each session of the Summer term. For Federal Direct Student Loans and Perkins Loans, if a student is reported as not attending classes on at least a half-time basis (6 credit hours), funds may not be disbursed. For Pell Grants, if a student is reported as not attending classes for which Pell has been awarded, aid may be cancelled or adjusted. If the University cancels a course, a student may be required to register for additional hours to remain eligible for federal financial aid. Students are advised to contact the Financial Aid Office if they have questions regarding their eligibility.
5. The official last date of attendance (for students who have not officially withdrawn) will be determined by the instructor. If a student is reported as not attending classes, Pell, Lottery, and other aid may be adjusted or canceled.
6. Class participation must be verified for students who are enrolled in correspondence courses, online courses, videoconferencing courses, the Regents Online Degree Program, or courses via the Internet. Because attendance is not required for these courses, instructors document class participation according to completed homework assignments. Students should complete their homework assignments in a timely manner so their participation can be documented. If students wish to withdraw or drop from these courses, they are encouraged to contact their instructor(s). Students' financial aid may be adjusted or cancelled if instructors are unable to verify participation.
7. The federal government randomly chooses students for verification, which is the process of verifying the accuracy of the data submitted on the FAFSA. If a student is selected, the Financial Aid Office will request signed copies of applicable Federal Income Tax Returns, W-2 forms, and other documents. Failure to submit completed documents to the Financial Aid Office in a timely manner may delay a student's financial aid and may result in the loss of certain funds.
8. Financial aid can pay for up to 30 attempted credit hours of remedial and developmental classes.
9. Any scholarships and grants received in excess of tuition, fees, and books are considered taxable income. Consult your tax preparer for tax filing information.
10. Students enrolled in only Regents Online Degree courses may have their budgets adjusted.
11. Students enrolled for an additional bachelor's degree may qualify for a Federal Direct Student Loan provided they have not reached their aggregate limit. Before a loan can be processed, a student must provide the Financial Aid Office with a signed copy of the upper-division form detailing the courses required for the additional degree.
12. Graduate students who are required to enroll in undergraduate courses to be accepted into a graduate program may qualify for Federal Direct Student Loans at the undergraduate level, provided they have not reached their aggregate undergraduate loan limits. If eligible, students may receive undergraduate Federal Direct Student Loans for their prerequisites for up to a maximum of 12 consecutive months. A letter from the academic department or graduate analyst indicating which courses are required as prerequisites must be submitted to the Financial Aid Office before a loan can be processed.
13. All financial aid is subject to the Financial Aid Satisfactory Academic Progress Policy.

## Aid Available

Below is a summary of financial aid administered through MTSU. Unless otherwise indicated, application is made to the Office of Student Financial Aid by completing the Free Application for Federal Student Aid (FAFSA). For federal programs, students must be in a degree-seeking program or an approved certification program or must be seeking teacher certification. For current information, refer to www.mtsu.edu/financialaid.

## Sources of Aid and Eligibility

## Federal Programs

Federal Academic Competitiveness Grant (ACG)

- Freshmen and sophomores who have completed a rigorous high school program of study
- Must be enrolled at least half-time; award adjusted based on number of hours enrolled
- Must be Pell-eligible
- Sophomores must have at least a 3.00 GPA


## National Science and Mathematics Access to Retain Talent

(SMART) Grant

- Juniors and seniors who are majoring in physical, life, or computer sciences; mathematics, technology, or engineering; or a critical foreign language
- Must be enrolled at least half-time; award adjusted based on number of hours enrolled
- Must be Pell-eligible
- Must have at least a 3.00 GPA


## Federal Teacher Education Assistance for College and Higher

 Education (TEACH) Grant- Undergraduate and graduate students
- Seeking a degree in teacher education with intent to teach in a high-need field in a public or private elementary or secondary Title I school
- Based on number of hours enrolled


## Federal Pell Grant

- Undergraduate students working on first bachelor's degree
- Based on financial need as determined by FAFSA
- Based on number of hours enrolled


## Federal Supplemental Educational Opportunity Grant (SEOG)

- Undergraduate students
- Must be Pell-eligible
- Must be enrolled at least half-time
- Based on financial need as determined by FAFSA
- Limited funds available


## Federal Work-Study Program

- Undergraduate and graduate students
- Provides part-time employment
- Must be enrolled at least half-time
- Based on financial need as determined by FAFSA
- Limited funds available


## Federal Perkins Loan

- Undergraduate and graduate students
- Must be enrolled at least half-time
- Limited funds available


## Federal Direct Parent Loan for Undergraduate Students (PLUS)

- Parent is borrower
- Credit approval (of parent) required
- Student must be enrolled at least half-time
- Based on Cost of Attendance Budget minus other financial aid


## Federal Direct Student Loan Program

Federal Direct Student Loan limits are based on dependency status (as defined by the FAFSA) and grade level. Please refer to www.mtsu.edu/ financialaid/staffordloans_finaid.shtml for annual loan amounts and aggregate loan limits. First-time borrowers at MTSU must complete an Entrance Interview and a Direct Loan Master Promissory Note (MPN) before receiving loan funds.

## Federal Direct Student Loan Program-Subsidized

- Undergragduate and graduate students
- Must be enrolled at least half-time
- Based on financial need as determined by FAFSA
- Federal government pays interest on loan while student is enrolled in school


## Federal Direct Student Loan Program-Unsubsidized

- Undergraduate and graduate students
- Must be enrolled at least half-time
- Based on Cost of Attendance Budget minus other financial aid
- Students responsible for paying interest on loan while enrolled in school; may allow interest to accrue while enrolled in school OR may pay interest as it accumulates


## State Programs

Review the Tennessee Student Assistance Corporation (TSAC) Web site at www.state.tn.us/tsac for information on application procedures, deadline dates, and eligibility criteria for the following programs:

- Tennessee Student Assistance Award Program
- Dependent Children Scholarship Program
- Ned McWherter Scholars Program
- Minority Teaching Fellows Program
- Robert C. Byrd Honors Scholarship Program
- Tennessee Teaching Scholars Program
- Christa McAuliffe Scholarship Program
- Tennessee Education Lottery Scholarship Program


## Institutional Programs

The programs listed below are currently available; however, they are subject to change without prior notification. Review the MTSU Web site at www.mtsu.edu/scholarships for the most recent programs and eligibility criteria.

Incoming Freshman Academic Scholarships

- The National Merit/Achievement Finalist Scholarship
- The Chancellor Scholarship
- The Presidential Scholarship
- The James M. Buchanan Fellowship
- The Academic Service Scholarship
- The Scholarship for Valedictorians and Salutatorians
- The Provost Scholarship
- The DREAM Scholarship
- The Raider Scholarship

Currently Enrolled Students

- MTSU Enrichment Scholarship
- MTSU Vision Scholarship

Transfer Academic Scholarships

- Phi Theta Kappa Scholarships
- TBR Community College Academic Service Scholarship
- Non-TBR Academic Service Scholarship


## Other Scholarships

Many MTSU departments offer Foundation and/or departmental scholarships. For information about Foundation Scholarships, please visit www.mtsu.edu/scholarships/foundation_scholarships.shtml. For information about departmental scholarships, such as those offered for ROTC, music, and athletic participation, please contact the appropriate department.

## Other Institutional Aid

- Clifford N. and Pauline W. Stark Educational Loan

Based on need and GPA; amount of assistance varies; cosigner required; contact Financial Aid Office.

- SGA Emergency Loan Program

Based on emergency need; \$100, must be repaid in 30-60 days; contact Financial Aid Office.

- Foundation Short-Term Loan Program

Based on emergency need; must be repaid in 30-60 days; amounts vary; contact Financial Aid Office.

## Other Sources of Aid

- Vocational Rehabilitation

Based on physical or emotional disabilities; amount of assistance varies; contact State Vocational Rehabilitation Office in your area.

- Veterans Benefits

Veterans, widows of veterans, and children of disabled or deceased veterans; amount of assistance varies; contact Veterans Administration Office in your area.

- Private Scholarships

Based on an organization's or individual's requirements; amount of assistance varies; contact parents' employers, local civic organizations, community groups, churches, businesses, etc.

## Housing and Residential Life

## Housing and Residential Life <br> Keathley University Center 300

Research conducted nationally indicates that living on campus is one of the strongest influences on successful completion of an undergraduate degree. Living on campus places students in the center of the University community so they can take advantage of opportunities for involvement in both academic and cocurricular activities. Most students find that MTSU residence halls or apartments are the right choice for making the most of their college careers. By living on campus, they become part of a vital living-learning community and make friendships that will last a lifetime.
More than 3,200 students in 22 residence halls and apartments make their homes on the MTSU campus. While every living area is unique, each offers a community that supports academic excellence at the University. Professional staff and student leaders live and work in the halls, coordinating services and programs that help students achieve success both in and out of the classroom. Referrals to academic support services on the campus, access to computing facilities, opportunities for student leadership training, participation in recreational activities, and availability of a listening ear are just a few of the services available to students living in the residence halls and apartments.
Living options include traditional halls with shared baths, exterior-entry buildings with suite-style baths, and twoand four-person and family apartments. Communities range in size from fewer than 100 residents in Rutledge Hall to up to 400 residents in Corlew and Cummings. Six computer labs in on-campus halls and apartments provide residents with convenient access to personal computing. Personnel at 24 -hour desks in several areas of campus assist students and guests by providing reception services, information, and assistance with security procedures. Lounges and lobbies within the halls are designed for conversation, studying, and recreation. All rooms and apartments are air-conditioned and include basic cable and all utilities. Laundry facilities are available within each complex or hall.

## General Information

When a student is accepted for admission to the University, he/she does not receive a room or apartment automatically. Rooms and apartments may be reserved only by filing an application and appropriate prepayment with the Housing and Residential Life Office.

Freshman men and women who live in residence halls are required to participate in a freshman meal plan for two full semesters, not including summer. The charge, which is payable during registration, can be found under Expenses. Additional meal plans are available to other students from the University food service (MT Dining) and may be purchased during registration or at their office.

Telephone jacks are provided in each room or apartment. Residents should arrange to provide the telephone instrument of their choice or residents may request to have a phone provided by Telecommunications at the time of check-in. To place long-distance calls, a calling card must be obtained from a long-distance carrier who provides a local number to dial to access long distance. Individual bills are rendered by the carrier for all calls made against the account number during the billing period. Residents also have the option to set up an account with MTSU's STAR-1 long-distance service. Individual bills are rendered approximately once per month. One additional jack is provided in each room. One telephone device may be attached to this jack.

Each residence hall complex and each apartment complex is staffed by an area coordinator who has overall responsibility for the operation of the area. The area coordinator is assisted by a staff of resident directors and resident assistants, undergraduate and graduate students who share responsibility for managing and enhancing the daily group living experience.
Custodial and facilities staff are also assigned to each residence hall and are responsible for routine repair and cleaning in common areas of the hall, including bathrooms, corridors, and walkways. In the apartment complexes, a custodian cleans the corridors, walkways, and public areas.
On-campus students may receive mail at their assigned MTSU Post Office boxes. Post Office boxes are available to on-campus residents at no additional cost.
All residence halls and apartments are smoke-free environments. Smoking is prohibited in all residence hall rooms and public areas.

All residence hall rooms and apartments are hard wired for direct access to the University computing system.

## Housing and Residential Life Policies

Students who reside in University residence facilities are expected, as a condition of residence, to cooperate in the observance of the laws of Tennessee, University policies, and regulations set forth in the current MTSU Rights and Responsibilities booklet and the MTSU Housing License Agreement.

Students who occupy residence hall rooms or apartments may be held responsible for any breakage or damage done to the apartment or room or to the equipment in the apartment or room and for damages or losses to the public areas of the hall
or apartment building which cannot be attributed to specific individuals. No pets (other than fish in an aquarium), firearms, fireworks, extension cords (except multi-outlet with circuit breaker), halogen lamps, drugs, or alcoholic beverages are allowed in the apartments or residence halls.
The University is not responsible for loss or damage to personal property. Large sums of money or articles of value should not be left unsecured. Individuals are responsible for the physical condition of their apartments or rooms, as well as for their conduct and the conduct of others who visit them. Students are encouraged to carry appropriate insurance for their personal property. For more information, refer to the FAQs section on the Housing Web site (www.mtsu.edu/~housing).
The administration reserves the right to grant or refuse admission to the apartments or the residence halls or to reassign or to terminate the residence of any student in any apartment or residence hall or other University-owned building at any time.

## 24-Hour Desk Services

Selected buildings offer round-the-clock desk services in the lobby, in addition to usual staff services. Desk attendants can handle requests for maintenance, assist with building security, provide campus and building information, and make loans of cleaning equipment and games.

## Residence Halls

## West Side Halls

Residence halls located on the historic west side of campus stand along pathways lined with trees that were planted when the campus was new.
The small learning communities of Rutledge, Miss Mary, Lyon, McHenry, Monohan, Reynolds, and Schardt halls range in size from 40 to 141 students and are located adjacent to the James Union Building. The JUB houses an all-you-care-to-eat dining facility, providing residents with a convenient location to meet friends for meals or studying. Computer labs in Monohan Hall and Lyon Hall provide west side residents with 24 -hour computing facilities. Reception desks are located in Lyon and Monohan halls. Centrally located bathrooms in each hallway of each floor are shared by residents.
The recently renovated Monohan Complex (Monohan, Schardt, and Reynolds Halls) houses the Women in Math and Science Learning Community (WISE), which includes learning clusters for nursing students; the Diverse World Diverse Arts Learning Community (art, dance, music, speech, and theatre); and the Aerospace Learning Community (for upperclassmen only). These halls enjoy a mixture of first-year and upper-class students.
The recently renovated Lyon Complex (Lyon, Mary, and McHenry Halls) houses the Honors Living and Learning Community for students who meet Honors College eligibility requirements. These halls enjoy a mixture of first-year and upper-class students.

## Mid-Campus Halls

The centrally located residence halls of mid-campus provide easy access to the Woodmore Cyber Cafe and the campus Grill located in Keathley University Center. Renovated Judd, Sims, and Beasley halls house small communities of 100 to 155 men while Smith and Gracy halls, also both renovated, house small communities of 100 to 155 women. All buildings share the services of the Smith Hall reception desk, lobby, and computer lab. Smith, Sims, and Beasley halls feature centrally located bathrooms on each floor which are shared by residents. Judd and Gracy are exterior entrance buildings which offer quadstyle bathrooms shared by groups of four rooms. These halls enjoy a mixture of both first-year and upper-class students.

## East Campus

Residence halls on the east side of campus are close to the Student Recreation Center and the Walker Library. Wood Hall, for women, and Felder Hall, for men, share a connecting lobby which provides reception services, a computer lab, and meeting/television space for residents for all of the east campus.
Nicks and Clement halls are small communities of 100 to 150 for men and Deere and Gore halls are small communities of 100 to 150 for women. All four buildings are exterior entrance facilities which feature quad-style bathrooms shared by groups of four rooms.
Nicks, Clement, Deere, and Gore halls house the Graduate Community in dedicated quads dispersed within each building. These halls enjoy a mixture of first-year, upper-class, and graduate students.

## North Campus

At seven stories high, Corlew and Cummings halls (on the north side of campus) are the tallest buildings at MTSU. Corlew and Cummings are located between the McFarland Building and the Ned McWherter Learning Resources Center and adjacent to the Business and Aerospace Building. McCallie Dining Hall, located in Corlew, is one of the main cafeterias on campus. Corlew and Cummings halls house the First-Year Experience program, which provides special academic and personal support to 800 freshman men and women. Reception desks and computer labs are located in each hall. Centrally located bathrooms on each floor are shared by residents.

## Apartments

## Womack Lane Apartments

Womack Lane Apartments consist of 192 one- and twobedroom apartments, with areas designated for both single students and families. Single students share a furnished oneor two-bedroom apartment with one other student; graduate students and upper-class students are given preference in assignment. Families may occupy either one- or two-bedroom apartments and may select an unfurnished or semi-furnished apartment. All apartments include air conditioning units. The community building for Womack Lane includes a 24 -hour information and service desk, laundry facilities, a recreation/
meeting room, and computer lab. Womack residents enjoy reserved parking.

## Scarlett Commons

Scarlett Commons, located immediately north of the Student Recreation Center, features four-bedroom, two-bathroom apartments with full kitchens and living rooms. Residents occupy a private bedroom and share their bath with one other student. Each bedroom is wired for direct access to the University computing system. The Scarlett Commons clubhouse includes a 24 -hour reception and service desk, recreation/meeting room with fireplace, and laundry room. The University shuttle bus, the Raider Xpress, provides campus transportation from a bus stop at the front of the clubhouse. Scarlett residents enjoy reserved parking.

## Special Interest Housing

## Honors Living and Learning Center

Lyon Complex (Lyon, Mary, and McHenry Halls) on the west side of campus are the home of MTSU's Honors Living and Learning Center. Application to this residence facility is limited to students who meet Honors College eligibility requirements. Students who live in the Honors Living and Learning Center must also enroll in at least one Honors class (3 credit hours) each semester. Students who live in these halls have the opportunity to interact with their professors outside of class, participate in Honors College seminars, and gain valuable leadership skills. For more information about eligibility requirements for the Honors Living and Learning Center, please contact the Housing and Residential Life Office at 898-2971 or the Honors College at 898-2152.

## First-Year Experience Residence Halls

Corlew and Cummings halls, seven-story high-rises located on the north side of campus, and Smith, Beasley, and Sims Halls, located mid-campus, are the home of MTSU's FirstYear Experience program. Services and programs offered in these residence halls are geared toward first-year students (29 college credit hours or less) and are designed to enhance students' academic success at MTSU. The First-Year Experience residence halls offer a number of unique services for first-year students at MTSU: lower-division classes taught in the Cummings Hall classroom, an academic advisor who visits to hold office hours in each building, tutors who live on each floor and provide tutoring services in the Hall Tutoring Centers, and special workshops and programs designed to assist students with their transition to MTSU. If you are interested in the FirstYear Experience, please indicate First-Year Experience as the selected option on the application for housing.

## Give Me a Beat (Recording Industry)

This program is designed to build camaraderie and provide a support network for freshman Recording Industry majors. The home for the Give Me a Beat Learning Community is in Smith, Sims, and Beasley halls. Students in this community enjoy the added academic support of being enrolled together in the same section of RIM 1020, a required course for Recording Industry majors that analyzes the content and context of American mass media to understand how they af-
fect individuals and society. Community members also have the opportunity to take MATH 1710 together and will have access to a tutor. Math 1710 grades factor heavily into the candidacy formula for the Recording Industry Department.

## Aerospace Learning Communities

## First-Year

Freshman Aerospace majors are invited to join the Aerospace Learning Community. This program is designed to build camaraderie and provide a support network for new Aerospace majors. The home for the Aerospace Learning Community is on two floors of Cummings Hall, the First-Year Experience building. Academic support is enhanced for students because they all enroll in the same section of AERO 1010, required of all Aerospace majors. Topics covered in this course include history of aerospace, opportunities in the field, fundamentals of flight, navigation, meteorology, and Federal Aviation Regulations.


## Upper-Class Students

Sophomore, junior, and senior Aerospace majors are invited to continue the living-learning experience in the Aviation Learning Community in the Monohan Complex. This community allows upper-class Aerospace majors to continue the experience they began in the freshman community or to join the community as newcomers.

## Women in Science and Engineering (WISE)

The residential home for this learning community is the Monohan Complex, on the west side of campus, close to the science and mathematics buildings. The complex provides access to a 24-hour computer lab, and each room has high-speed Internet access. A study lounge on each floor is equipped with tables for individual and group study. Students in the WISE learning community interact with faculty and professional women in their fields of study and have the opportunity to mentor junior high and high school girls interested in the sciences. WISE community members engage in a variety of science-related educational, service, and social activities.

## Diverse World, Diverse Arts

The Diverse World, Diverse Arts Learning Community in the Monohan Complex affords residents the opportunity to live among a distinctive community of students interested in the arts and in integrating the arts into all aspects of the academic experience. Community members will have the opportunity to redefine their living and learning environments through participation in a variety of mixed-media artistic expressions, by helping to design and participate in programming featuring the arts at MTSU and in the Murfreesboro and middle Tennessee communities, and by participating in community service outreach activities. Students will have unique access to faculty mentors and will have an opportunity to interact with visiting artists from a variety of disciplines. All students are invited to participate, but students in art, dance, music, and theatre form the core of the community.

## Family Student Housing

A portion of the Womack Lane Apartment area is assigned as Family Student Housing. Apartments include both semi furnished and unfurnished one- and two-bedroom apartments with exterior entry, social areas, and kitchen and bathroom facilities.

Family student apartments are reserved for full-time students with spouses, and/or a dependent child or children living with the full-time student. Family Student Housing rates cover utilities, including electric heat with an individual control per unit and a window air conditioner. Semi furnished apartments include a twin bed set, dresser, sofa, chair, end table, and dinette set.

The Womack Lane Community Center building includes a 24-hour desk, meeting area, and computer lab as well as a coin-operated laundromat with commercial washers keyed to enhance security and restricted to Womack Lane residents.

## Housing Reservations

## How to Apply

To apply for residence halls, on-campus apartments, and family student apartments, complete an MTSU Application for Housing and Residential Life and return it with the required fees to MTSU Housing and Residential Life, Middle Tennessee State University, P.O. Box 6, Murfreesboro, TN 37132. Applications may be completed online by accessing the Housing Web site at www.mtsu.edu/~housing and clicking on the "How to Apply" section. Housing assignment priorities are based on the date of application; due to the demand for on-campus housing and limited amount of space available, the University is unable to guarantee housing for all students. Completed applications, signed by the student, indicate acceptance of the terms and conditions outlined in the Housing License Agreement. Please be aware that the agreement is for a full academic year, including both Fall and Spring semesters. Student agrees to accept accommodations assigned or to cancel and accept prepayment forfeitures as outlined in the license agreement.

## MTSU Housing License Agreement

Please review the MTSU Housing License Agreement carefully. Submitting an MTSU Application for Housing and Residential Life commits you to the terms and conditions outlined in the agreement. Please be aware that the agreement is for a full academic year, including both Fall and Spring semesters. Early termination of the agreement will result in substantial financial penalty.

## Fees and Refunds

Applications for residence halls, on-campus apartments, and family student living must be accompanied by a prepayment. Prepayment is a security of good faith that denotes the applicant's serious intent to reside in on-campus housing. Prepayment fees are applied toward semester housing fees, with one-half toward Fall semester charges and one-half toward Spring semester charges. This prepayment is refundable prior to check-in according to the refund schedule located in the license agreement. All cancellations must be submitted in writing to the Housing and Residential Life Office by mail (P.O. Box 6, MTSU, Murfreesboro, TN 37132), or by fax: (615) 898-5459.

## For More Information

Prospective students and their families are invited to MTSU to tour the campus and become acquainted with the residence halls and on-campus apartments. For additional information, contact Housing and Residential Life at (615) 898-2971 (fax: 615-898-5459) or come to the office in Keathley University Center 300. Information is also available at www.mtsu. edu/~housing.

# Registration Procedures 

## Scheduling Center <br> James Union Building 123

Detailed procedures for registration may be accessed online at www.mtsu.edu/~records/sbooks.htm. Classes are selected on the RaiderNet system via PipelineMT at www.mtsu.edu.

To avoid delay, the following must be observed prior to registration:

1. To be accepted to the University, all students, including reenrollees and part-time students, must complete an admission application by the deadline and submit proper credentials. The University reserves the right to stop accepting applications and to terminate registration at any point to ensure enrollment limitations according to guidelines set forth by the institution and/or Tennessee Board of Regents.
2. MTSU conducts Priority Registration (preselection of classes) for current, reenrolling, new graduate students, or new undergraduates with a previous degree. Assigned registration times are accessible on RaiderNet via PipelineMT at www.mtsu.edu.

A student is not officially enrolled until completion of all of the requirements of registration including the payment of fees or confirmation of attendance. The registration guide for each semester has information on fee payment, late registration, and dropping and adding classes, as does the Web site www.mtsu.edu/~records.
3. It is strongly recommended that each student confer with an academic advisor to obtain an approved list of classes to be used when classes are selected via RaiderNet. All new undergraduates (freshmen) are required to attend CUSTOMS (the new student orientation program) or to complete the advising process before a registration time is assigned. All new transfer students must attend Transfer Advising Day or meet with an advisor prior to being cleared to register.
4. Former students must settle all prior accounts in the Business Office and Walker Library before readmission. All students must resolve any registration holds before being eligible for registration. RaiderNet may be accessed for a list of holds, if any, by each student.
The following must be observed during the registration period:

1. All students who were placed based on ACT or SAT subscores or who took an assessment test and were placed into prescribed courses by the Academic Enrichment Center must enroll in and complete the designated courses in sequence. Failure to enroll in the designated courses will result in the student's immediate withdrawal from the University. All full-time, degree-seeking students should be enrolled in the appropriate General Education Eng-
lish course and either six hours in General Education or three hours in General Education and three hours in their majors until they have satisfied the University's General Education requirements. Upper-division students should have on file and follow a plan for major and minors.
2. The bursar's Web site should be consulted for fee payment procedures and payment deadlines at www.mtsu .edu/~bursarmt.
3. Everyone who does not have an ID card will be required to have an identification (ID) picture made. All students must have an ID card which is automatically validated each semester upon payment of fees, and ID cards are to be used for the complete period of time a student attends MTSU. All students must register their automobiles for the current academic year.
4. All male U.S. citizens and male noncitizens who take up residency in the United States of America before their 26th birthdays must register with Selective Service prior to registering for classes at MTSU. This requirement does not apply to veterans and others exempt by federal law.
5. Effective July 1, 1998, the State of Tennessee requires students to provide proof of two (2) doses of measles, mumps, and rubella (MMR) vaccine on or after the first birthday, or proof of immunity to measles if date of birth is 1957 or after. DD 214 for veterans or full-time attendance at another TBR school after August 1, 2007, can also serve as proof. Registration for classes will be limited to part-time status until an acceptable form is on file in the Student Health Services Office.
6. The State of Tennessee mandates that each public or private postsecondary institution in the state provide information concerning hepatitis B and meningococcal meningitis to all students entering the institution for the first time. New students must acknowledge that they have read this information before they can register for classes. This information and acknowledgment statement are automatically displayed when new students register for classes on RaiderNet via PipelineMT. If the student is under age 18, a parent or legal guardian is required to sign the form that is linked to the page and return it to Health Services before registration will be allowed.

## Determination of Residence for Fee-paying Purposes

The Admissions Office makes decisions concerning residence classifications for undergraduate students. Regulations concerning residency are printed on the back of the Application for Tennessee Residency Form that may be obtained from the Admissions Office, Cope Administration Building 210. Students who disagree with a residency decision may appeal to the Student Appeals Committee. Additional information is on page 29 .

## Academic Regulations

## Academic Advising

Each student is assigned to the academic department or school which corresponds to his or her major area of study. A student with an undeclared major must seek advising in the Academic Support Center. The head of the department or school will in turn assign a faculty advisor to the student. The faculty advisor will assist the student in determining and carrying out an academic program which will meet the student's educational aims and goals. Professional academic advisors are available in each college to assist students. Students required to enroll in a course or courses in Academic Enrichment will also be assigned an advisor in the Academic Support Center.

Faculty advisors post a schedule of office hours, and each student should feel free to call on his or her advisor or any faculty member or professional advisor at any time assistance or discussion is appropriate.

Some programs require an academic advisor's permission for selection of classes. Any student with an undeclared major is required to obtain advising from the Academic Support Center before course selection is permitted. Each student is strongly encouraged to meet with his/her advisor prior to course selection to review progress toward graduation. All new freshmen and new transfer students are required to complete advising before initial registration will be permitted.

## Academic Disciplinary Procedures

The administration of academic discipline is a function of the head of the department concerned and the assistant dean for Judicial Affairs and Mediation Services and is conducted by means of a due process procedure. Cases of alleged cheating and unethical conduct should be reported to the department head and the assistant dean for Judicial Affairs and Mediation Services. Each case of alleged misconduct will be investigated by means of due process. If further action is desired, those concerned will be given an opportunity to refute the charges. After giving the student notice of the allegations and an opportunity to explain his or her actions, the instructor may assign an " $F$ " for the exercise, examination, or course.

## Academic Fresh Start

Any person who has not been enrolled in a college or university for a period of four years and who, upon reenrolling, satisfactorily completes 40 hours of classwork, may petition to have grades on all prior coursework disregarded in calculating his/her cumulative grade point average. A written request and transcript should be sent to the dean of the college in which the student is pursuing a major. If the request is granted, the earlier courses will not count toward requirements for graduation or professional licensure but will appear on the student's transcript with appropriate notation.

## Academic Year

The regular academic year is divided into two terms, Fall and Spring. There is also the Summer term which is divided into parts of term: 1-Full Term, beginning in May, is approximately 13 weeks; S1-May, beginning in May, is approximately three weeks; S2-June and S3-July, beginning in June and July respectively, are approximately five weeks in length; S4-June/July, beginning in June, is approximately ten weeks; R-RODP for the Regents Online Degree Program, beginning in June, is approximately ten weeks. Additional parts of term may be scheduled to accommodate the special needs of certain courses. An applicant may be admitted to any of these divisions.

## Accounts

No student will be issued a diploma, certificate of credit, or transcript of his/her record until all debts or obligations owed to the University have been satisfied.

## Cancellation of Scheduled Classes

No scheduled class may be discontinued without the approval of the dean of the college concerned. The right is reserved to cancel any class when the number of students enrolled is deemed insufficient. A minimum of 15 for lower-division and of 10 for upper-division and 5000-level graduate classes is required. The minimums for 6000- and 7000-level classes are eight and four, respectively. Regents Online Degree Program (RODP) classes are cancelled at the discretion of the Tennessee Board of Regents (TBR).

## Change of Major

A student who desires to change his or her major should access the Change of Major/Program form online at www.mtsu .edu/records. The new major code will be entered into the student's computer record for the current term of any enrolled student. It is recommended that students discuss any changes with an academic advisor first to ensure the change meets their needs and career goals. Any student receiving veterans benefits who changes his or her major must notify the Veterans Affairs coordinator located in the Records Office.

## Class Attendance

Students are expected to attend each class for which they are registered except in cases of unavoidable circumstances and should not attend classes for which they are not officially registered.
Class attendance will be monitored during the term even though some faculty may not check attendance in a conventional manner. Attendance in classroom courses or participation in distance learning courses is expected, and absence or
nonparticipation is recorded and will have an effect on receipt or repayment of financial aid and/or scholarships. Students who are reported for nonattendance will be assigned a grade of $F$ to appear on their transcripts, and nonattendance will be reported to appropriate agencies.

Exceptions are made for University-sanctioned activities. Students shall not be penalized for such absences. Students anticipating participation in University functions which will take them out of classes should discuss these absences with their instructors at the earliest convenient time.
The fact that a student may be absent from a class does not in any way relieve that student of the responsibility for the work covered or assigned during the absence. It is the responsibility of faculty members to excuse or refuse to excuse absences of students who miss their classes. It is the responsibility of the student to obtain excuses for absences and to arrange with the faculty member in question to make up the work missed. Absences begin with the first date the student is enrolled in class.
If emergency circumstances prevent contacting the professor or department, the student may contact the coordinator of University Withdrawals in the Withdrawal Office, CAB 205, who will notify the instructor(s). The phone number for that office is (615) 898-2080. Only the instructor of the class concerned can excuse an absence.
MTSU does not usually close because of inclement weather, but students will be allowed to use their own discretion when snow and icy conditions exist; they will be given the opportunity to make up the missed classes should they decide not to attend. To determine if classes are cancelled, students should listen to area radio and television stations, access the News and Public Affairs home page at www.mtsu.edu/~proffice, or call the news line at (615) 904-8215.
Any student who is absent from a state college or university during any school term or portion thereof in excess of thirty (30) days due to active military service shall be entitled to withdraw and receive a tuition credit in the form of credit hours for each credit hour paid by, or on behalf of, such student, or a refund for any payments made. Credit shall be given only if the reserve or National Guard student did not receive a final grade in the course for which tuition credit is sought.

## Classification of Students

No student may be classified as a sophomore until after earning at least 30 semester hours.
No student may be classified as a junior until after earning at least 60 hours.
No student may be classified as a senior until after earning at least 90 hours.

## Correspondence Credit

Correspondence courses taken at MTSU carry regular degree credit. Students can obtain a current listing of MTSU corre-
spondence courses by accessing the Look Up Courses link via PipelineMT or by calling the Correspondence Office at MTSU at (615) 898-5332.
Correspondence courses taken at other schools are accepted under the regulations governing acceptance of transfer credit (see page 27) and are subject to the following regulation: ENGL 1010 and 1020 and courses with a laboratory component must not be taken by correspondence except by the permission of the chair of the department and the dean of the college in which the course is offered.

## Course Numbers

Courses numbered 0700-0799 are basic; 0800-0999 are developmental; 1000-1999 are on the first year or freshman level; 2000-2999 on the second year or sophomore level; 3000-3999 on the third year or junior level; 4000-4999 on the fourth year or senior level; 5000 and above on the graduate level. Course numbers defined as basic or developmental are not acceptable as degree credit work.

## Course Substitution

Course substitutions are needed when a course does not fulfill a degree requirement; however, it is determined in consultation with an advisor that the course would be an appropriate replacement. The course substitution form requires approval by the advisor, chair, and dean of the student's major or minor program depending on what requirement is being substituted. Corrections for transfer courses that are not appropriately equated may also be marked on the course substitution form.

## Dean's List

Dean's List designations are made each semester and are based on full-time undergraduate degree credit enrollment. Developmental courses do not count in determining GPA or full-time status for Dean's List purposes. Students whose GPAs for the current semester are 3.50 or greater are placed on the Dean's List. Courses graded on a pass/fail basis will count as GPA hours in calculating full-time status for determination of Dean's List designation. The grade of P will not count as GPA hours for determination of grade point average.

## Double (or Second) Major

A student may elect to obtain a double or second major for graduation by meeting the following requirements:

1. Satisfy general requirements as prescribed by the University and the specific requirements set forth by each major and for the degree sought.
2. Two properly approved upper-division forms must be filed, one for each major.
NOTE: One upper-division form is acceptable provided both majors are clearly identified on the form.
3. In the case of a major requiring two minors, the second major may count toward fulfillment of one minor provided
it meets the requirements of the particular degree. In the case of a B.A. degree which requires only one minor, the second major may count as the required minor.
4. The degree sought must be compatible with both majors; that is, a student with a major appropriate for the B.S. degree may not choose a second major that is not offered under the B.S. degree. As an example, a student pursuing a B.S. degree with a major in Mathematics may not opt for a second major in History which is not offered under the B.S. degree.

## Dropping or Adding Courses

Tennessee Board of Regents policy prohibits students from dropping courses in the Academic Enrichment Program. Under extenuating circumstances a course may be dropped with the approval of the director of Academic Enrichment. NOTE: Student-athletes must obtain permission from the Student-Athlete Enhancement Center and international students must obtain permission from the International Admissions Office before processing drop/add forms in the Scheduling Center.

The procedures and deadlines to drop and add a class are listed online. A student who stops attending a class but does not officially drop the class will be assigned a grade of F which will be recorded on the student's permanent record.
Students wishing to drop all courses, i.e., withdraw from the University, should consult the coordinator of University Withdrawals and see the section "Withdrawals from the University" on page 58.

## Dual Degree

A student may elect to obtain a dual degree for graduation by meeting the following requirements:

1. Satisfy general requirements as prescribed by the University and the specific requirements set forth by each major and for the degree sought.
2. Two (2) properly approved upper-division forms must be filed, one for each major.
3. In the case of a major requiring two minors, the second major may count toward fulfillment of one minor provided it meets the requirements of the particular degree. In the case of a B.A. degree which requires only one minor, the second major may count as the required minor.
4. The degrees sought must be different degree types (for example, B.A. and B.S.).

## Enrollment Verification

The following schedule of hours attempted will be used to determine the enrollment status requested by undergraduate students: Fall, Spring, and Summer semesters: full-time - 12 semester hours and one-half time - 6 hours. In Fall and Spring terms, enrollment certifications are official beginning the fifth day of the term. MTSU has authorized the National Student Clearinghouse (NSC) to provide enrollment and degree verifications. NSC may be contacted at

National Student Clearinghouse
13454 Sunrise Valley Drive, Suite 300
Herndon, VA 20171-3280
Web: www.studentclearinghouse.org or degreeverify.com
E-mail: service@studentclearinghouse.org
Phone: (703) 742-4200
Fax: (703) 742-4239
Students may print their own enrollment verification by accessing RaiderNet via PipelineMT. Preliminary verification can also be accessed prior to the fifth day of class.

## Evening Classes

Many classes are scheduled on the campus in the evenings and on Saturdays. The Evening School Office functions as a part of the College of Continuing Education and Distance Learning to assist students who wish to take classes at such times.

## Grade Point Average

The following quality point system is used in determining the grade point average (GPA):

$$
\begin{array}{ll}
\text { For each credit hour of } \mathrm{A}: & 4 \text { quality points } \\
\text { For each credit hour of } \mathrm{B}+: & 3.33 \text { quality points } \\
\text { For each credit hour of } \mathrm{B}: & 3 \text { quality points } \\
\text { For each credit hour of } \mathrm{B}-: & 2.67 \text { quality points } \\
\text { For each credit hour of } \mathrm{C}+: & 2.33 \text { quality points } \\
\text { For each credit hour of } \mathrm{C}: & 2 \text { quality points } \\
\text { For each credit hour of C-: } & 1.67 \text { quality points } \\
\text { For each credit hour of } \mathrm{D+:} & 1.33 \text { quality points } \\
\text { For each credit hour of } \mathrm{D}: & 1 \text { quality point } \\
\text { For each credit hour of D-: } & 0.67 \text { quality points } \\
\text { For each credit hour of } \mathrm{F}: & 0 \text { quality points }
\end{array}
$$

The scholastic standing of a student is expressed in terms of quality point ratio which is calculated by dividing the total number of quality points by the total number of GPA hours. Following is an example:

| Course | Hours | Grade | Points |
| :--- | ---: | :--- | ---: |
| ENGL 1010 | 3 | $\mathrm{C}(2.0)$ | 6 |
| BIOL 1030/1031 | 4 | $\mathrm{~B}(3.0)$ | 12 |
| ART 1030 | 3 | $\mathrm{~B}(3.0)$ | 9 |
| SOC 1010 | 3 | $\mathrm{~B}(3.0)$ | 9 |
| MUS 1030 | 3 | $\mathrm{~F}(0.0)$ | 0 |
|  | $\mathbf{1 6}$ |  | $\mathbf{3 6}$ |

To get the quality points listed in the last column, the credit hours (column 2) are multiplied by the point value of the grade earned (column 3); then the 36 is divided by 16 for a GPA of 2.25 .
The GPA is rounded and truncated after the thousands position, and no further rounding up or down of the GPA is done in determining eligibility for retention, graduation, honors, dean's list designation, or taking an overload.

The section on Repeated Courses explains the computation of the GPA for students who repeat courses. The grade of F counts as GPA hours with zero quality points earned; $P$ grades carry hours earned but no quality points or GPA hours.

## Grades-Appeal of Course Grades

Appeals should be considered only in cases in which unethical or unprofessional actions and/or inequities are alleged.

## Level One

1. Student appeals concerning a course grade should be resolved by conference between the student and the faculty member who assigned the grade. The appeal must occur within forty (40) days of the graduation date for each term.
2. In the event of an impasse between the student and the faculty member, a student with an appeal of a grade shall discuss it with the department chair within ten (10) days of the conference with the involved faculty member. The department chair shall investigate the circumstances, record his/her findings, and send a copy to the student and the faculty member within ten (10) days of the notification of impasse. Although the department chair does not have the power to change the grade, he/she will make a recommendation concerning the appeal. These findings will become a part of the appeals record.

## Level Two

1. If the student is not satisfied, he/she may, within fifteen (15) days following receipt of the department chair's recommendation, refer the appeal plus all relevant data including stated reasons why he/she believes the appeal has thus far not been satisfied. The vice provost for Academic Affairs shall select a college committee to hear the appeal and transmit the appeal documents to the committee chair or to the office of the dean of the college which houses the selected appeals committee.
2. The committee hearing the appeal will receive documents and testimony regarding the circumstances, will record its findings, and shall render a decision. Notification of the committee's decision will be made to the student, faculty member, department chair, college dean, vice provost for Academic Affairs, and the director of Records.
3. The decision of the committee hearing the appeal will be final concerning the grade in question.
NOTE: In cases where the department chair is the person against whom the complaint is lodged, then the dean in whose college the department is located shall assume the duties of the chair in the investigation and decision making.

## Miscellaneous

1. The number of days indicated at each level above shall be considered the maximum, but every effort should be made to expedite the process.
2. The failure of the student to proceed from one level of the appeal procedure to the next level within the prescribed time limits shall be deemed to be an acceptance of the recommendations and/or decision previously rendered. All further considerations and proceedings regarding that particular appeal shall cease at that point.
3. A grade appeal may be withdrawn at any level without prejudice.
4. All appeal proceedings shall be kept as confidential as may be appropriate at each level.
5. A grade appeals committee shall have reasonable access to all official records for information necessary to the determination of a recommendation.

## Graduate Courses, Permission to Enroll in

Seniors at MTSU with 98 semester hours of credit may be allowed to take up to 12 semester hours of graduate coursework. Approval is required by the undergraduate advisor and by the dean of the College of Graduate Studies. Graduate coursework may not be used to meet the requirements for an undergraduate degree. Applicants for this status must complete the Application for MTSU Undergraduate Students to Take Graduate Work which is available at the College of Graduate Studies.
NOTE: The Jennings A. Jones College of Business does not have a Half-and-Half program.

## Graduation

Graduation is conducted at the close of the Fall, Spring, and Summer terms. Murphy Center is the site of this important occasion. Students who plan to graduate should complete an Intent to Graduate form during priority registration when two semesters are remaining for graduation. This form is available in the Records Office, Cope Administration Building 102, and online at www.mtsu.edu/~records/intent form.pdf.
All students must complete the general requirements as prescribed by the University and the specific requirements set forth for the degree sought. A minimum of 120 hours is required for most programs, with at least two semesters in which a minimum of 30 semester hours is earned in residence during the junior and senior year. The final semester must be in residence unless permission is granted by the dean of the college in which the student is pursuing a major.
A student must have a 2.00 GPA overall and a 2.00 average in the major and in 42 hours of upper-division credit to graduate. Some departments require a 2.00 GPA in the minor. No more than 25 percent of the credits for nonbusiness degrees may be in courses commonly found in a school or college of business nor can more than one business minor be completed. No student will be issued a diploma, certificate of credit, or transcript of his/her record until all debts or obligations owed to the University have been satisfied. All requirements for a degree must be met by the time of graduation. This includes incomplete grades and transfer credit from other colleges.

Applicable Catalog-Students may elect to meet the requirements of any one catalog published while they are in attendance at any Tennessee Board of Regents (TBR) school provided graduation is within seven years of the first academic term covered by the catalog elected.

## Graduation with Honors-Undergraduates

Recognition of honors at the graduation ceremony will be made for those students obtaining the required grade point average by the beginning of their final semester.

[^2]Notation of graduation with honors is entered on the diploma and the transcript and is based on the cumulative grade point average on all degree credit courses. Grade point average is rounded and then truncated after the thousandth position.

## Identification Card

Students are required to carry a permanent ID card with a magnetic strip on the back. A student ID card will be made for each new freshman and transfer student during his/her first registration process. The card is required to receive a variety of services on campus including cashing checks, admission to athletic and special events, entrance to computer labs and the Recreation Center, entrance to residence halls, services from Health Services, checking out library materials, obtaining meals, and using RAIDER FUND\$. If any student loses his/her ID card, a replacement fee of $\$ 10$ is charged for each card. The $\$ 10$ fee must be paid at the campus ID station.

## Lottery (Tennessee Education Lottery Scholarship) GPA

Calculation of the GPA for receipt of the scholarship does not include credits earned prior to high school graduation and is subject to the Tennessee Education Lottery Scholarship course repeat policy.

## Lower and Upper Division

Courses numbered 1000 and 2000 are on the lower-division level. Courses numbered 3000 and 4000 are on the upperdivision level.

## Marking System—Grades

Following is a description of the criteria used in assigning letter grades:
A—work of distinctly superior quality and quantity accompanied by unusual evidence of achievement
B-work of good quality and quantity accompanied by evidence of achievement beyond the essentials of a course C-work demonstrating fulfillment of the essentials of a course
D-passing work, but below the standards of graduation quality
F-failure, necessitating repetition of the course to obtain credit
N -no credit, nonpunitive (assigned only in certain courses)
P —_passing (assigned only in certain courses)
I-incomplete (not used in calculating grade point average)
W-assigned in courses which are dropped during a specified period of time within a term. Students should consult online for specific dates each term.
NC—no credit (audit)

Plus/minus grading for undergraduate courses became effective Fall 2000. Grades which may be assigned are

```
A
B+,B,B-
C+, C,C-
D+,D,D-
F
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Plus/minus grades will be posted for students who transfer to MTSU Fall 2000 or after. Plus/minus grading for students enrolled at MTSU prior to Fall 2000 will not be retroactive to any term prior to Fall 2000. Reenrollment students will not be eligible to have courses reevaluated if courses taken at a previous transfer institution prior to Fall 2000 were graded on a plus/minus system.
The N grade is given only in those courses with prior approval to use $N$ grading. The grade of $N$ will be awarded only once per unique course to students who complete the first attempt of the course but fail to meet minimum (C level) standards. In subsequent attempts the student will be assigned a grade of F if minimum standards for the course are not met. Examples of courses which use the N grade are ENGL 1009, 1010, 1020; READ 1000; and DSPR/DSPW 0700.

The $P$ grade is given only in those courses with prior approval to use pass/fail grading. Courses may be taught on a pass/fail basis only after the approval of the Undergraduate Curriculum Committee. Catalog course descriptions include information indicating which courses are approved for pass/fail grading.
No more than fifteen semester hours in pass/fail coursework may be attempted by any student during any one semester. No more than one-half of the degree requirements may be obtained through credit-by-examination, credit for military service-related experience, flight training, and courses in which nontraditional grading such as pass/fail is used. More information can be found under the general requirements for the baccalaureate degrees elsewhere in this catalog.
The grade I indicates that the student has not completed all course requirements because of illness or other uncontrollable circumstances, especially those which may occur toward the close of the term. Mere failure to make up work or turn in required work on time does not provide a basis for the grade of I unless the extenuating circumstances noted above are present for reasons acceptable to the instructor. When a student fails to appear for the final examination without known cause, the grade to be reported should be determined as follows: If the student has done satisfactory work to that point, the grade I may be reported on the assumption that the student is ill or will otherwise present sufficient reason for official excuse; if the student has attended irregularly and has not done satisfactory work to that point, the grade F should be reported.
The incomplete must be removed during the succeeding semester, excluding summer. Otherwise, the grade of $F$ is entered. A student should not make up the incomplete by registering and paying again for the same course. The I grade carries no value until converted to a final grade.

## Misrepresentation of Academic Credentials

It is a Class A misdemeanor to misrepresent academic credentials. A person commits the offense of misrepresentation of academic credentials who, knowing that the statement is false and with the intent to secure employment at or admission to an institution of higher education in Tennessee, represents, orally or in writing that such person

1. has successfully completed the required course work for and has been awarded one (1) or more degrees or diplomas from an accredited institution of higher education;
2. has successfully completed the required course work for and has been awarded one (1) or more degrees for diplomas from a particular institution of higher education; or
3. has successfully completed the required course work for and has been awarded one (1) or more degrees or diplomas in a particular field or specialty from an accredited institution of higher education.

## Repeated Courses

Students may repeat courses for the purpose of raising their grade point averages subject to the following:

1. No course should be attempted more than twice (i.e., repeated more than once) except upon the advice of the faculty advisor. The first time a course is taken is the first attempt; it is not a repeat until taken again. If a student repeats a course more than once, the hours will be added to the total GPA hours and therefore will be included in figuring the cumulative grade point average. For example first attempt of ENGL 1010:
$\mathrm{F}=0$ GPA hours, 0 hours earned; first repeat of ENGL 1010:

F = 3 GPA hours, 0 hours earned; second repeat of ENGL 1010:
$\mathrm{C}=6 \mathrm{GPA}$ hours, 3 hours earned.
An example of a successful repeat:
first attempt of ENGL 1010:
$F=0$ GPA hours, 0 hours earned;
first repeat of ENGL 1010:
C = 3 GPA hours, 3 hours earned.
In other words, if a student repeats a course once and improves the grade, the effect on the cumulative hours taken is the same as if the course were successfully completed on the first attempt. However, if a student takes a course multiple times, each repeat increases the cumulative GPA hours; taking the same three-semester-hour course five times, for example, is one attempt and four repeats and therefore is 12 GPA hours;
2. The last grade earned will stand even if the last grade received is an $F$ and the student has previously received a grade higher than an F . The previous passing grade will not calculate in hours earned. All repeated courses remain on the student's transcript with repeat notation.
3. Veterans receiving educational assistance benefits may not repeat courses previously passed and receive veterans financial assistance for such unless a minimum grade is required in the program.
4. Students may not repeat a course in which they have previously earned the grade of $A$ or $B$ or $P$ without approval from the department which houses the course.
5. Students may not repeat a course in which they have previously received the grade of I (incomplete). Students must make arrangements with the instructor who assigned the incomplete to finish the course during the succeeding semester, excluding summer.
6. Students may use either ENGL 2020 or ENGL 2030 or HUM 2610 interchangeably for purposes of repeating a course.
7. This repeat policy took effect in Fall 1981. All courses attempted since then are subject to this policy. Courses attempted prior to Fall 1981 are subject to the previous repeat policy.
8. Students who receive the Lottery Scholarship are subject to course repeat policies of the Tennessee Education Lottery Scholarship regulation rules. Contact the Financial Aid Office for specific rules.

## Retention Standards-Suspension of Students

The minimum cumulative quality point average required to achieve the baccalaureate degree is 2.00 on all degree credit courses.
A student not meeting one of the following standards during any term will be placed on academic probation for the subsequent term and will be sent an e-mail notification at his/her MTSU e-mail address:

1. attain a 2.00 GPA for current term, OR
2. meet one of the following retention standards:
$\begin{array}{ll}00-29.99 \text { GPA hours } & 1.50 \\ 30-49.99 \text { GPA hours } & 1.80\end{array}$
50 or more GPA hours
2.00

A student on academic probation who does not meet either the current term GPA or cumulative GPA in the above standards during the next term in which enrolled will be suspended. This includes reenrollment and transfer students admitted on probation or who have been previously suspended from another school. (See reenrollment policy on page 28.) Students previously suspended are not eligible for probationary status.
Any student who lacks prescribed courses and attends another Tennessee Board of Regents school while on suspension from MTSU must enroll for those prescribed/developmental courses while attending the other school, if available.
International students attending MTSU on student or exchange visas may not be readmitted after their second suspension even though the normal suspension period is over. According to the terms of their eligibility forms (I-20 or DS-2019), international students are expected to do satisfactory academic work and maintain a full course of study at MTSU. Failure to do this invalidates their student status, and Immigration Service will be notified. International students who are suspended may appeal to the Academic Appeals Committee for reinstatement if they feel that their poor academic performance was due to circumstances beyond their control.

Appeal of Academic Suspension-Academic appeals for undergraduate students will be reviewed by an academic appeals committee and consideration will be given for readmission if the student presents adequate evidence of ability, maturity, and motivation. Conditions for readmission that this committee might impose could be limiting the student's hours to 8 or 14 for the semester and/or requiring that the student meet with the college advisor. This committee's decision is final and only applies to the semester for which the student appealed. Readmission by the academic appeals committee does not imply reinstatement of financial aid, if applicable, and should not be confused with the financial aid appeal as there are two different procedures.

Academic appeal forms for undergraduates are available in the Records Office, Cope Administration Building or via the Web at www.mtsu.edu/~records. There is a filing deadline for appeals prior to the beginning of classes each semester. Students should contact personnel in the Records Office for the deadline date applicable to each semester or access the Records Office home page.
It is the student's responsibility to be aware of grades and academic standing. An e-mail is sent to the student's MTSU e-mail address if placed on suspension; however, sometimes there is insufficient time between grading and the academic appeals deadline. Students should always check their academic standing on RaiderNet after all grades are posted and the GPA is calculated each semester.

## Semester Hour Load of Student

Students should determine their semester course loads after careful consideration of time commitment outside the classroom. Students who work a significant number of hours per week should consider attempting fewer hours each semester. One's own time commitments, work and study habits, and other considerations should be reviewed with the academic advisor prior to the selection of courses.
Fifteen or sixteen semester hours of credit is the "normal" Fall or Spring load for students who wish to graduate in four years. Eighteen semester hours (excluding courses for audit) is the maximum load for a student during any semester while enrolled only at MTSU or concurrently at another institution.

1. Students with a 3.50 average on all college work attempted may be permitted to take up to 21 semester hours in a semester.
2. Students with a 3.00 average may be permitted to take a maximum of 19 hours in a semester provided one hour is Military Science, Physical Education activity, or CSCI 1000.
3. Graduating seniors may be permitted to take an overload with the limits above during the last semester in residence to graduate.
Following are the maximum number of semester hours in which an undergraduate student may enroll during parts of term within a Summer term:
1-Full Term-18 hours
S3-July-8 hours
S1-May-4 hours
S4-June/July-8 hours
S2-June-8 hours
R-RODP-18 hours
All Parts of Term-combined total of 18 hours

Students who wish to enroll for credit hours in excess of these limitations must obtain permission at least two weeks
prior to registering for classes from the academic advisor and the dean of the college in which that student is pursuing a major. Students who have not declared a major must obtain permission of the advisor in the Academic Support Center and approval of the director of the Academic Support Center. Student athletes must obtain permission of the advisor in the Athletic Enhancement Center prior to obtaining approval of the academic advisor and dean of the college in which student is pursuing a major.

## Schedule

The schedule of courses provided online each semester is for the convenience and guidance of students and faculty. The University reserves the right to change courses and schedules when the interest of all concerned may best be served.

## Transcript of Credits

Official copies of a student's record are furnished free of charge upon written request by the student. No student will be issued a diploma, certificate of credit, or transcript of record until all debts or obligations owed to MTSU have been satisfied. Unofficial copies may be viewed on RaiderNet provided all debts or obligations are satisfied. Students with holds may come to the Records Office in CAB 106 and present a photo ID to be informed of their grades.

## Unit of Credit

The semester hour is the unit of credit in courses and represents satisfactory completion of the assigned class period. Laboratory and studio classes usually earn one credit for each two hours of attendance or equivalent for a semester unless otherwise indicated.

## Withdrawals from the University

Students finding it necessary to withdraw (completely separate) from the University after having selected classes for a future term should access RaiderNet, www.mtsu.edu, to drop all classes. A student who has extenuating circumstances may also initiate the official withdrawal process at the University Withdrawal Office, Cope Administration Building 205D. Consult the Registration Guide for withdrawal/fee adjustment deadlines each term.
Students should follow this procedure to withdraw from the University beginning the first day of class in each term:

1. During the first two weeks ( 14 calendar days) of a term, courses may be dropped via PipelineMT without assignment of a grade on the official transcript.
2. During the third week ( 15 th calendar day) through the seventh week (49th calendar day) of a term, a grade of " W " will be assigned via PipelineMT.
3. After the seventh week (49th calendar day) of a term, individual courses cannot be dropped via PipelineMT. A complete withdrawal from all classes via PipelineMT may be accomplished by the student through the last day to withdraw in each term and the instructor assigns the appropriate grade of " W " if the student is passing or " F "* if the student is failing.
4. The deadline to withdraw from the University, i.e., from all classes, and receive a grade of " W " or " " ," as determined by the instructor, will be noted in the Registration Guide for each term. For assistance, contact the Office of University Withdrawals, (615) 898-2808, CAB 205D.

NOTE: Summer differs; please check Registration Guide for specific dates. *If extreme extenuating circumstances necessitate a student's withdrawal from the University after the seventh week of the term, exceptions may be made. A grade of " $W$ " may be recorded with written concurrence of the faculty member, but only if the extenuating circumstances are verified by the Office of University Withdrawals.

A student may not officially withdraw from the University after a date in the semester or term which is one week or less prior to the beginning of final examinations, except for documented extenuating circumstances as shall be determined by the University Withdrawal Office.

Any student who leaves the University without officially withdrawing will receive a grade of F for all work attempted.
Requests to withdraw from a term within one year of the end of that term will be considered only if the student presents acceptable documentation of extenuating circumstances to the withdrawal coordinator. In such cases, faculty members will receive a written request for approval to assign a W grade. No requests will be considered beyond one year of the end of the term.

A student under certain conditions may receive an administrative withdrawal from a single course or courses. Similar procedures are provided for a total severance from the University if conditions warrant. The following policy will determine the eligibility for an administrative withdrawal: The entry of W indicates that the student has been withdrawn from a course without reflection of grades. The entry of W results from a situation involving extreme extenuating circumstances as identified and originated with the University physician or counselors at Counseling Services and/or the associate dean of students. The entry of W will be accomplished only with the full knowledge and written concurrence of the faculty member concerned.

In cases of military deployment, any student who is absent from a state college or university during a school term or portion thereof in excess of thirty (30) days due to active military service should contact the University Withdrawal Office. The University will assist the student in either completion of the term dependent upon the point in the semester when the student must report for active duty, or in cases where deployment occurs early in the term and course requirements cannot reasonably be completed, the student will be withdrawn without reflection of grades, and fees will be refunded to the student or the financial account as appropriate. In such instances, faculty members will receive notification of the withdrawal due to military deployment.


## Undergraduate Degree Requirements

Throughout the undergraduate catalog, the phrase "hours earned at MTSU" refers to courses taken at the Murfreesboro campus as well as all forms of distance learning courses including Regents Online Degree course credit earned through offerings by MTSU.

## Baccalaureate Degrees, General Requirements for

To graduate from MTSU with a bachelor's degree, a student must meet the following requirements.

1. Students must complete a minimum of 120 semester hours with a 2.00 grade point average. (Some programs may require more than 120 hours.)
2. A minimum of 25 percent of credit for each degree awarded by MTSU must be earned through offerings by the University. Typically, a minimum of 30 hours earned through MTSU is required; however, in degree programs of more than 120 semester hours a greater number of hours would be required.
3. At least 42 semester hours of junior and senior (30004000 level) courses must be completed with an average grade of C (2.00 GPA) or better. Courses numbered 1000 and 2000 which are substituted for 3000 - or 4000 -level courses may not be used in the calculation of the 42 upper-division hours. A minimum of 30 semester hours of junior and senior (3000-4000 level) courses must be completed through MTSU.
4. With approval of the dean of the college in which the student is pursuing the major, a candidate may complete six of the last 18 hours at another college or university or by CLEP.
5. No more than 60 semester hours completed by credit-byexamination, credit for service-related experience, and flight training may be counted for credit in a degree.
6. Students must complete at least nine semester hours at the upper-division level through MTSU in each major and at least three semester hours at the upper-division level through MTSU in each minor. Additionally, no course used to satisfy a requirement in a major or minor may be used in another major or minor.
7. The student who seeks a second concentration in a major must complete a minimum of nine (9) hours that do not duplicate hours in the first major/concentration.
8. A minimum of 60 semester hours of senior college credit will be required of all students who transfer from colleges of less than four-year designation.
9. A minimum 2.00 GPA will be required in a major pursued as a graduation requirement and a minimum 2.00 is required in some minors.
10. All candidates must meet the General Education requirements as outlined on pages 64-67 and satisfy a
technology requirement as outlined below.
NOTE: Information applicable to transfer students may be found on page 62.
11. No more than 25 percent of the credits for nonbusiness degrees may be in courses commonly found in a school of business. Additionally, a student can have only one business minor.
12. During priority registration when two semesters are remaining for graduation, students must complete upper-division and Intent to Graduate forms and file them with their graduation coordinators. Both forms may be obtained from the office of the head of the department/school in which the student expects to major. A minimum 2.00 GPA in the major field and on all work attempted is required for unconditional admittance to the upper division and to candidacy, unless otherwise stated by a program, for the bachelor's degree. Some programs require formal approval with additional requirements for admission to candidacy.
13. Any or all students may be required to take one or more tests designed to measure general education achievement and/or achievement in selected major areas as a prerequisite to graduation for the purpose of evaluation of academic programs. Unless otherwise provided by an individual program, no minimum score or level of achievement is required for graduation. Participation in testing may be required for all students, for students in selected programs, and for students selected on a sample basis.
14. In compliance with SACS accreditation standards, all students will have training in and use of technology.

NOTE: In all instances, meeting the requirements for graduation is the responsibility of the student. In addition to the general requirements above, candidates for the various degrees must meet certain specific requirements.

## Bachelor of Arts Degree

Candidates for the Bachelor of Arts (B.A.) degree must meet the following requirements:

1. The major must be completed in one of the approved disciplines or concentrations. It must be identified as an approved degree in the Academic Inventory on pages 18-24 and described in this catalog by the department concerned.
2. One minor is required, and it must be chosen from the list of disciplines and concentrations in (4) below or from interdisciplinary minors listed beginning on page 80. Students wishing to be licensed to teach at the secondary level must meet the requirements for a minor in Secondary Education in addition to the basic requirements of one major and one minor.
3. To meet TBR policy requirements, students who receive the B.A. degree must demonstrate proficiency in a foreign language equivalent to two years of college-level coursework. To meet the requirement, students must successfully complete 2010 and 2020 or any
courses numbered above the 2000 level in a single foreign language. Students are eligible to register for these courses after successfully completing four high school units of the same language, a score on a language placement test equivalent to proficiency of a year of college-level study of the same foreign language, or the successful completion of 1010 and 1020.
4. At least 90 of the minimum 120 hours required for graduation must be in courses with the following rubrics, but no more than 36 hours will be accepted from any one rubric:
AAS (African American Studies) HIST (History)
ACSI (Actuarial Science)
ANTH (Anthropology)
ART (Art)
ASTR (Astronomy)
BIOL (Biology)
CDIS (Communication Disorders)
CHEM (Chemistry)
COMM (Communication)
DANC (Dance)
ECON (Economics)
ENGL (English)
Any Foreign Language (including
ARAB, CHIN, FL, FREN, GERM,
HEBR, ITAL, JAPN, LATN,
PORT, RUSS, SPAN)
GEOG (Geography)
GEOL (Geology)
GERO (Gerontology)
GS (Global Studies)

HUM (Humanities)
LEST (Leadership Studies)
MATH (Mathematical Sciences)
MES (Middle East Studies)
Any Music (including MUAP, MUED, MUEN, MUHL,
MUPD, MUS, MUTH)
ORCO (Organizational Comm.)
PHIL (Philosophy)
PHYS (Physics)
PLEG (Paralegal Studies)
PS (Political Science)
PSCI (Physical Science)
PSY (Psychology)
RS (Religious Studies)
SOC (Sociology)
STAT (Statistics)
THEA (Theatre)
WMST (Women's Studies

## Bachelor of Business Administration

Requirements for the Bachelor of Business Administration (B.B.A.) degree may be found on page 143.

## Bachelor of Fine Arts

Requirements for the Bachelor of Fine Arts (B.F.A.) degree may be found on page 186.

## Bachelor of Music

Requirements for the Bachelor of Music (B.M.) degree may be found on page 199

## Bachelor of Science

Candidates for the Bachelor of Science (B.S.) degree must meet the following requirements:

1. Complete a major with a minimum of 24 semester hours.
2. Many degree programs require a minor or minors of 15 credit hours or more. Specific requirements in the various departments must be met as listed in the colleges section in this catalog.
3. The B.S. degree may be granted to a student who takes six semesters of college work before entering an advanced health-related or engineering professional school upon evidence of satisfactory completion of the first year's work and the unconditional admittance to the second year, if applicable, provided that
a. the minimum requirement for entrance to the professional school is 60 semester hours of college work;
b. the professional school is an integral part of a university accredited by the appropriate regional association or the professional school is accredited by the recognized national association in its field;
c. the last two semesters of pre-professional work are done at Middle Tennessee State University;
d the candidate completes a minimum of 90 semester hours in required pre-professional courses;
e. the candidate completes, in the pre-professional work, at least 24 semester hours in upper-division courses, including at least 6 semester hours in his/her major field;
f. the candidate meets all general requirements of the degree curriculum.

## Bachelor of Science in Nursing

Requirements for the Bachelor of Science in Nursing (B.S.N.) may be found on page 136 .

## Bachelor of Social Work

Requirements for the Bachelor of Social Work (B.S.W.) degree may be found on page 208.


## Bachelor of University Studies Degree

The Bachelor of University Studies (B.Unv.S.) degree program is for the person who wishes to pursue a broad-based educational experience rather than a program designed to meet specific vocational or professional job opportunities. The degree is offered by the College of Continuing Education and Distance Learning. Students may select from two specializations: basic and applied sciences and liberal arts.

Specific requirements are

1. 41 semester hours fulfilling the General Education requirements;
2. completion of at least nine semester hours at the upper-division level through MTSU in the college of specialization;
a 2.00 GPA in the courses taken in the college of specialization;
3. 54 semester hours selected from at least three of the six undergraduate colleges (excluding Honors) subject to the following guidelines:
a. A minimum of 27 semester hours of the 54 semester hours must be taken at the upper-division (3000-4000) level.
b. A minimum cumulative grade point average of 2.00 GPA must be attained on all degree credit courses.
c. A minimum of 21 semester hours must be completed in either Basic and Applied Sciences or in Liberal Arts. The maximum hours allowed in a specialization is 30 .
d. Upper-division courses with the prefixes ELED, READ, SPED, FOED, YOED, or SPSE may not be used.
e. No fewer than 6 nor more than 12 semester hours may be taken in any one department. No more than 21 semester hours taken in departments within the Jennings A. Jones College of Business may be counted toward the B.Unv.S. degree.
f. Courses taken to satisfy the General Education requirements may not be counted to fulfill the 54 semester hours requirement in the University Studies program. Other courses from the General Education curriculum may be taken subject to limitations imposed by (a), (c), (d), and (e) above.

Additional information about the Bachelor of University Studies can be obtained from the dean of Continuing Education and Distance Learning.

## Second Bachelor's Degree

Candidates for a second bachelor's degree must meet the following requirements:

1. A bachelor's degree previously earned must have been awarded by an institution of higher learning. Considerations for institutions of higher learning may be found on page 27 under the heading of Acceptance of Transfer Credit.
2. Complete a minimum of 30 semester hours at MTSU with a minimum of 15 hours at MTSU since the first bachelor's degree.
3. All requirements for the major program in the new degree must be met, including a minimum of 9 upper-division hours taken through MTSU, and the entire major for the second bachelor's degree must be approved by the major department chair and by the dean whose college houses the program. Minor(s) required by the Undergraduate Degree Requirements by the major must include 3 hours of upperdivision work taken through MTSU in each minor.
4. The General Education requirements for a first degree from a U.S. institution will satisfy MTSU's General Education requirements for the second degree. However, all students must have completed 6 semester hours in American history as a requirement for the first degree or complete 6 semester hours from HIST 2010, 2020, 2030
or the equivalent (TCA-49-7-110). For students whose first degree is from a non-U.S. institution, the General Education requirements will apply and course equivalencies with MTSU's General Education program will be determined by the dean of the college of the student's major of the second degree.
5. A minimum 2.00 GPA on all work attempted must be attained.
6. A minimum 2.00 GPA is required in the major pursued as a graduation requirement.
7. Students seeking a second bachelor's degree must complete an application for admission to upper division.
8. Pursuing a concentration under a major in which a student has already completed degree requirements will be considered as the pursuit of an add-on concentration, not a second bachelor's degree. NOTE: The Admissions Office does not evaluate transcripts of students who have already received a bachelor's degree.

## Regents Online Degree Program (RODP)

Middle Tennessee State University is a participating institution in the Regents Online Degree Program. This program brings college courses to students at home, in the library, in the office, or on the road. Courses completed in the program are entirely online. These courses comprise the same content and rigor as courses on campus. Student assistance such as advising, library services, student support, bookstore, and other student services are also offered online. Technical support for accessing course materials is available 24 hours, 7 days per week.
If a student is admitted to MTSU and enrolls in an RODP course, the course is counted as offered through MTSU regardless of the delivery institution and will appear on the student's transcript as MTSU credit.

Note: Authorization to take RODP courses is required for all non-RODP majors. Acceptance of RODP courses as fulfilling requirements of standard degree programs is at the discretion of the individual department.
Degrees offered by MTSU through RODP include

- Bachelor of Science with a major in Professional Studies (concentrations in Information Technology or Organizational Leadership)
- Bachelor of Science degree with a major in Liberal Studies

Students must earn a minimum of 120 hours; meet MTSU upper-division, residency, senior hour, General Education, and GPA requirements; and complete the courses outlined in the specific degree program. Course requirements for these degrees can be found at www.tn.regentsdegrees.org/campus/mtsu/.
Advisement is available through the College of Continuing Education and Distance Learning at (615) 898-5611.

## Graduate Degrees

Information on graduate degrees available through MTSU may be found in the section on the College of Graduate Studies in this catalog and in the Graduate Catalog.

## Transfer Students

Regardless of the receipt of an associate's degree, transfer students will be required to meet the MTSU General Education requirements as stated in the MTSU catalog under which the student chooses to graduate.

## Tennessee Board of Regents (TBR) Common Catalog Statement Regarding General Education

Effective Fall Semester 2004, all institutions in the State University and Community College System of Tennessee (the Tennessee Board of Regents System) will share a common lower-division (freshman and sophomore) general education core curriculum of forty-one (41) semester hours for baccalaureate degrees and the Associate of Arts and the Associate of Science degrees. The courses composing the general education curriculum are contained within the following subject categories:

## Baccalaureate Degrees*

## Subject Area

Communication
Humanities and/or Fine Arts
(including at least 3 hours in literature) 9 hours
Social/Behavioral Sciences
History
Natural Sciences
Mathematics

## Total

Credit Hours
9 hours**

6 hours
6 hours***
8 hours
3 hours
*Foreign language courses are an additional requirement for the Bachelor of Arts (B.A.) degree. The B.A. degree requires proficiency in a foreign language equivalent to completion of two years of college-level work.
**Six hours of English composition and three hours in English oral presentational communication are required.
***Students who plan to transfer to Tennessee Board of Regents (TBR) universities should take six hours of American History (a maximum of three hours of Tennessee History may substitute). Students who plan to transfer to non-TBR institutions should check requirements and take the appropriate courses.

Although the courses designated by TBR institutions to fulfill the requirements of the general education subject categories vary, transfer of the courses is assured through the following means:

- If a student has earned an A.A. or A.S. degree using a 2004 Undergraduate Catalog (or later) from a TBR institution, the requirements of the lower-division general education core will be complete and accepted by a TBR university in the transfer process; however, institutional/departmental requirements of the grade of $\mathrm{C}(2.00)$ will be honored and enforced.
- If an A.A. or A.S. is not obtained, transfer of general education courses will be based upon fulfillment of complete subject categories. (Example: if all eight hours in the category of Natural Sciences are complete, then this block of the general education core is complete.) When a subject
category is incomplete, course-by-course evaluation will be conducted. The provision of block fulfillment pertains also to students who transfer among TBR universities.
- Certain majors require specific courses to be taken in general education. Check the departmental catalog section(s) for major requirements that must be fulfilled under lowerdivision general education.
Courses designated to fulfill general education requirements by Middle Tennessee State University are published on pages 64-67 of this catalog. A complete listing of the courses fulfilling general education requirements for all TBR institutions is available on the Web site (www.tbr.state.tn.us) under Transfer and Articulation Information.


## Computation of Grade Point Average for Checking Degree Requirements

Major Average-If a student has more courses in a major area than are actually required, only those courses specifically required for the major will be used to determine the required 2.00.

Minor Average-For those minors which require a 2.00 grade point average (GPA), only those courses specifically required for the minor will be used to determine the required 2.00 .
Upper-Division-The 2.00 GPA is calculated for the "best" 42 upper-division hours.
Teacher Education-Guidelines for computation of grade point averages for admission to the teacher education program, for eligibility to student teaching, and for subject area endorsement may be obtained in the administrative offices of the College of Education and Behavioral Science, McWherter Learning Resources Center. Additional information can be found under Licensure of Teachers in the College of Education and Behavioral Science section.

Excessive Repeats-Attempts in excess of one are figured in the cumulative GPA.

Developmental Courses-These courses are calculated into the cumulative GPA to determine retention; however, the developmental courses do not count toward degree requirements and the grades are not used to determine the 2.00 GPA required for a degree.

Cumulative Average-The cumulative average includes all GPA hours from all institutions excluding developmental credits. The first attempt of a repeated course is excluded. Even if a course does not count toward graduation requirements, it will be counted in the cumulative average.
High School Deficiency Courses-Courses used to complete specific high school deficiencies are used to determine the 2.00 GPA required for a degree.

# General Education 

## Tennessee Board of Regents (TBR) Philosophy

The purpose of the Tennessee Board of Regents' general education core is to ensure that college students have the broad knowledge and skills to become lifelong learners in a global community that will continue to change. Because courses in general education should emphasize breadth, they should not be reduced in design to the skills, techniques, or procedures associated with a specific occupation or profession. As a fundamental element of the baccalaureate degree, essential for full completion of all majors and minors, the general education core is included in lower-division courses, but universities may add general education courses at the upper-division level as well.
General education provides critical thinking skills for analysis to continue to seek truths, to discover answers to questions, and to solve problems. Specifically, educated people practice and are literate in the various methods of communication. They recognize their place in the history, culture, and diverse heritages of Tennessee, the United States, and the world. They appreciate the web of commonality of all humans in a multicultural world and are prepared for the responsibilities of an engaged citizenship. They recognize the ethical demands of our common lives. They demonstrate the skills and knowledge of the social and behavioral sciences to analyze their contemporary world. They are familiar with the history and aesthetics of the fine arts. They understand and practice the scientific and mathematical view of the world.

Finally, Tennessee's general education core provides for its citizens the means to make a better living. It also, perhaps above all, enables its citizens to make a better life.

## Mission Statement

The General Education Program is at the core of Middle Tennessee State University's educational mission. It provides students with a broad knowledge and appreciation of the arts and sciences as well as the intellectual skills that provide a basis for effective communication, problem solving, and evaluation. The General Education experience gives students the opportunity to use various technologies to access and analyze information and to debate competing claims of evidence and systems of thought.
The program assists students in developing an objective view and understanding of the world, its institutions, and themselves by linking the cultural legacy of the past with the technological demands and global concerns of the contemporary world. Finally, it creates in students an awareness of the diverse nature of the world while encouraging them to become active lifelong learners and participants in society.

## Program Goals and Accountability

To increase accountability and maintain integrity of the General Education Program, each component course will undergo periodic evaluation to determine the degree to which the course contributes to the mission of the program. Continuous monitoring of the program will allow systematic change based upon student achievement that is relevant to the program mission. The program will foster in students the ability to think independently and critically; analyze and evaluate beliefs and attitudes, data and ideas, issues and values; gather information through various methods of inquiry; integrate and synthesize new ideas and information; communicate verbally, quantitatively, and artistically in a variety of contexts and media; weigh options and make decisions based on rational, ethical, moral, and aesthetic considerations; integrate acquired knowledge and personal experience with historical, cultural, and contemporary perspectives in a changing and diverse society; and recognize the significance of personal well-being and understand the roles, problems, and concerns of an engaged citizen.


## General Education Requirements

MTSU administers the California Critical Thinking Skills Test (CCTST) to graduating seniors each semester to measure performance in relation to General Education objectives. The test results are utilized by academic departments, the Committee on Admissions and Standards, the Committee on General Education, and academic administrators in an ongoing evaluation of the General Education Program.Listed below are the requirements in General Education which all candidates for baccalaureate degrees must meet regardless of the department or college in which they are pursuing a major. If mitigating circumstances require a substitution for any specific course listed, such a substitution must have the approval of the academic dean of the college in which the student is pursuing a major.
All full-time, degree-seeking students should be enrolled in the appropriate General Education English course and either 6 hours in General Education or 3 hours in General Education and 3 hours in their major until they have satisfied the University General Education requirements.

For additional information, go to www.mtsu.edu/~gened.
Academic Enrichment students may not be eligible to take certain courses; please refer to pages 98-99. Individual majors do recommend or require certain courses in some categories; please check appropriate catalog pages for more information. Please consult your college or faculty advisor for specific General Education planning.

## Communication (9 semester hours)

The goal of the Communication requirement is to enhance the effective use of the English language essential to students' success in school and in the world by way of learning to read and listen critically and to write and speak thoughtfully, clearly, coherently, and persuasively.
Learning Outcomes: Students will demonstrate the ability to analyze and evaluate oral and/or written expression by listening and reading critically for elements that reflect an awareness of situation, audience, purpose, and diverse points of view; distill a primary purpose into a single, compelling statement and order and develop major points in a reasonable and convincing manner based on that purpose; develop appropriate rhetorical patterns (i.e., narration, example, process, comparison/contrast, classification, cause/effect, definition, argumentation) and other special functions (i.e., analysis or research), while demonstrating writing and/or speaking skills from process to product; understand that the writing and/or speaking processes include procedures such as planning, organizing, composing, revising, and editing; make written and/or oral presentations employing correct diction, syntax, usage, grammar, and mechanics; manage and coordinate basic information gathered from multiple sources for the purposes of problem solving and decision making; recognize the use of evidence, analysis, and persuasive strategies, including basic distinctions among opinions, facts, and inferences.

Required: English composition and 3 hours in English oral presentational communication

| ENGL 1010 | Expository Writing | 3 hours |
| :--- | :--- | :--- |
| ENGL 1020 | Research and Argumentative Writing | 3 hours |
| COMM 2200 | Fundamentals of Communication | 3 hours |

## NOTE: A minimum grade of C- is required in ENGL 1010 and 1020 to apply toward degree requirements.

A. A six-semester hour requirement in freshmen composition is to be met as follows:
a. Students with satisfactory scores on CEEB will be given 3 hours of advanced standing credit for ENGL 1010. Minimum placement scores are given in the section on Advanced Standing, pages 32-34.
b. Students with an Enhanced ACT composite score of 19 or greater and a score of 32 or higher on the English section of the Enhanced ACT will be given 6 hours of advanced standing credit for ENGL 1010 and 1020.
c. Students with an Enhanced ACT Composite Score of 19 or greater and English score of 19-31 will take ENGL 1010 and 1020, 6 hours.
d. Students whose Enhanced ACT English score is 18 or below or whose Enhanced ACT composite score is 18 or below must undergo further testing. See Academic Enrichment, page 98.
e. If SAT scores are used:

1. Students whose SAT verbal scores are 390 through 450 are required to take ENGL 1009 or undergo further testing.
2. Students whose SAT verbal scores are 460 through 710 are placed in ENGL 1010 and 1020 in sequence.
3. Students whose SAT verbal scores are 720 or greater will be given credit for ENGL 1010 and 1020.
4. Students whose SAT verbal scores are below 390 are required to undergo further testing.
NOTE: In the event that a student takes an examination for advanced placement credit for composition more than once, the most recent test score will determine the student's status in the freshman English program.
B. Students should choose COMM 2200 to meet the remaining three-hour requirement in this area.

## Humanities and/or Fine Arts (9 semester hours)

The goal of the Humanities and/or Fine Arts requirement is to enhance the understanding of students who, as citizens and educated members of their communities, need to know and appreciate their own human cultural heritage and its development in a historical and global context. Also, through study of Humanities and/or Fine Arts, students will develop an understanding, which they otherwise would not have, of the present as informed by the past.
Learning Outcomes: Students will demonstrate the ability to analyze significant primary texts and works of art, ancient, pre-modern, and modern, as forms of cultural and creative expression; explain the ways in which humanistic and/or artistic expression throughout the ages expresses the culture and values of its time and place; explore global/cultural diversity; frame a comparative context through which they can critically assess the ideas, forces, and values that have created the modern world; recognize the ways in which both change and continuity have affected human history; and practice the critical and analytical methodologies of the Humanities and/or Fine Arts.

Note: One course must be in literature; in order to ensure breadth of knowledge, the two other courses selected must have different rubric (course) prefixes. All three courses must have different rubric (course) prefixes.
A. The 3-hour literature requirement is to be met with one of the following:

| ENGL | 2020 | Themes in Literature and Culture | 3 hours |
| :--- | :--- | :--- | :--- |
| ENGL | 2030 | The Experience of Literature | 3 hours |
| HUM | 2610 | Foreign Literature in Translation | 3 hours |

Note: The 2000-level English courses may not be taken simultaneously with the 1000-level composition courses.
B. Excluding the literature choice in part A above, students should choose two of the following courses with different rubric (course) prefixes to meet the remaining 6-hour requirement in this area:

| ANTH | 2210 | Introduction to World Prehistory |
| :--- | :--- | :--- |
| ART | 1030 | Orientation to Art |
| ART | 1910 | Art History Survey I |
| ART | 1920 | Art History Survey II |
| DANC | 1000 | Dance Appreciation |
| ENGL | 2020 | Themes in Literature and Culture |
| ENGL | 2030 | The Experience of Literature |
| HIST | 1010 | Survey of Western Civilization I |
| HIST | 1020 | Survey of Western Civilization II |
| HIST | 1110 | Survey of World Civilization I |
| HIST | 120 | Survey of World Civilization II |
| HUM | 2610 | Foreign Literature in Translation |
| MUS | 1030 | Introduction to Music |
| PHIL | 1030 | Introduction to Philosophy |
| THEA | 1030 | Theatre Appreciation |

3 hours
3 hours
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3 hours

## Social/Behavioral Sciences (6 semester hours)

The goal of the Social/Behavioral Sciences requirement is (a) to develop in the student an understanding of self and the world by examining the content and processes used by social and behavioral sciences to discover, describe, explain, and predict human behavior and social systems; (b) to enhance knowledge of social and cultural institutions and the values of this society and other societies and cultures in the world; and (c) to understand the interdependent nature of the individual, family, and society in shaping human behavior and determining quality of life.
Learning Outcomes: Students will demonstrate the ability to recognize, describe, and explain social institutions, structures, and processes and the complexities of a global culture and diverse society; think critically about how individuals are influenced by political, geographic, economic, cultural, and family institutions in their own and other diverse cultures and explain how one's own belief system may differ from others; explore the relationship between the individual and society as it affects the personal behavior, social development, and quality of life of the individual, the family, and the community; examine the impact of behavioral and social scientific research on major contemporary issues and their disciplines' effects on individuals and society; using the most appropriate principles, methods, and technologies, perceptively and objectively gather, analyze, and present social and behavioral science research data, draw logical conclusions, and apply those conclusions to one's life and society; take ethical stands based on appropriate research in the social and behavioral sciences; and analyze and communicate the values and processes that are used to formulate theories regarding the social context of individual human behavior in the social and behavioral sciences.
Note: The two courses selected must have different rubric (course) prefixes.

| AAS | 2100 | Introduction to African American Studies | 3 hours |
| :--- | :--- | :--- | :--- |
| ANTH | 2010 | Cultural Anthropology | 3 hours |
| ECON | 2410 | Principles of Economics, Macroeconomics | 3 hours |
| GEOG | 2000 | Introduction to Regional Geography | 3 hours |
| GS | 2010 | Introduction to Cross-Cultural Studies | 3 hours |
| HLTH | $1530 / 1531$ Health and Wellness | 3 hours |  |
| EMC/JOUR/ |  |  |  |
| RIM | 1020 | American Media and Social Institutions | 3 hours |
| PS | 1010 | Foundations of Government | 3 hours |
| PS | 2010 | American Government and Politics | 3 hours |
| PSY | 1410 | General Psychology | 3 hours |
| SOC | 1010 | Introductory Sociology | 3 hours |
| SOC | 2010 | Social Problems | 3 hours |
| WMST | 2100 | Introduction to Women's Studies | 3 hours |

## Natural Sciences (8 semester hours)

Issues in today's world require scientific information and a scientific approach to informed decision making. Therefore, the goal of the Natural Sciences requirement is to guide students toward becoming scientifically literate. This scientific understanding gained in these courses enhances students' ability to define and solve problems, reason with an open mind, think critically and creatively, suspend judgment, and make decisions that may have local or global significance.

Learning Outcomes: Students will demonstrate the ability to conduct an experiment, collect and analyze data, and interpret results in a laboratory setting; analyze, evaluate, and test a scientific hypothesis; use basic scientific language and processes and be able to distinguish between scientific and non-scientific explanations; identify unifying principles and repeatable patterns in nature and the values of natural diversity and apply them to problems or issues of a scientific nature; and analyze and discuss the impact of scientific discovery on human thought and behavior.

NOTE: Two different nonsequential courses must be selected for natural science credit having different rubric (course) prefixes; at most only the first semester of any two-semester, discipline-specific sequence may count for General Education natural science credit.

## Lecture and Lab $=4$ hours

| ASTR | $1030 / 1031$ | Exploring the Universe/Observing |  |
| :--- | :--- | :--- | :--- |
|  |  | the Universe | 4 hours |
| BIOL | $1030 / 1031$ | Exploring Life | 4 hours |
| BIOL | $1110 / 1111$ | General Biology | 4 hours |
| BIOL | $2010 / 2011$ | Human Anatomy and Physiology I | 4 hours |
| BIOL | $2020 / 2021$ | Human Anatomy and Physiology II | 4 hours |
| CHEM | $1010 / 1011$ | Introductory General Chemistry I | 4 hours |
| CHEM | $1030 / 1031$ | Chemistry for Consumers | 4 hours |
| CHEM | $1110 / 1111$ | General Chemistry I | 4 hours |
| CHEM | $1130 / 1131$ | Contemporary Issues in Science/Activities for |  |
|  |  | Contemporary Issues in Science | 4 hours |
|  |  | (Same as PHYS 1130/1131) |  |
| GEOL | $1030 / 1031$ | Introduction to Earth Science | 4 hours |
| GEOL | $1040 / 1041$ | Physical Geology | 4 hours |
| PHYS | 1110 | Discovering Physics | 4 hours |
| PHYS | $1130 / 1131$ | Contemporary Issues in Science/Activities for |  |
|  |  | Contemporary Issues in Science | 4 hours |
|  |  | (Same as CHEM 1130/1131) |  |
| PHYS | $2010 / 2011$ | Non-Calculus-Based Physics I | 4 hours |
| PHYS | $2110 / 2111$ | Calculus-Based Physics I | 4 hours |
| PSCI | $1030 / 1031$ | Topics in Physical Science | 4 hours |

## Mathematics (3 semester hours)

The goal of mathematics is to expand students' understanding of mathematics beyond the entry-level requirements for college and to extend their knowledge of mathematics through relevant mathematical modeling with applications, problem solving, critical thinking skills, and the use of appropriate technologies.

Learning Outcomes: Students will demonstrate the ability to build on (not replicate) the competencies gained through the study of two years of high school algebra and one year of high school geometry; use mathematics to solve problems and determine if the solutions are reasonable; use mathematics to model real-world behaviors and apply mathematical concepts to the solution of real-life problems; make meaningful connections between mathematics and other disciplines; use technology for mathematical reasoning and problem solving; and apply mathematical and/or basic statistical reasoning to analyze data and graphs.

| MATH | 1010 | Mathematics for General Studies | 3 hours |
| :--- | :--- | :--- | :--- |
| MATH | 1530 | Applied Statistics |  |
| MATH | 1630 | College Mathematics for Managerial, <br> Social, and Life Sciences | 3 hours |
| MATH | 1710 | College Algebra | 3 hours |
| MATH | 1720 | Plane Trigonometry | 3 hours |
| MATH | 1730 | Pre-Calculus | 3 hours |
| MATH | 1810 | Applied Calculus I | 4 hours |
| MATH | 1910 | Calculus I | 3 hours |

NOTE: 4-semester-hour courses are calculated as 3 hours for General Education and 1 hour in the major area.

## History (6 semester hours)

The goal of the History requirement is to develop in students an understanding of the present that is informed by an awareness of past heritages, including the complex and interdependent relationships between cultures and societies.
Learning Outcomes: Students will demonstrate the ability to analyze historical facts and interpretations; analyze and compare political, geographic, economic, social, cultural, religious, and intellectual institutions, structures, and processes across a range of historical periods and cultures; recognize and articulate the diversity of human experience across a range of historical periods and the complexities of a global culture and society; draw on historical perspective to evaluate contemporary problems/issues; and analyze the contributions of past cultures/societies to the contemporary world.

| HIST | 2010 | Survey of United States History I | 3 hours |
| :--- | :--- | :--- | :--- |
| HIST | 2020 | Survey of United States History II | 3 hours |
| HIST | 2030 | Tennessee History | 3 hours |



## How to Correct High School Deficiencies

Students admitted to MTSU with high school unit requirement deficiencies will be required to remove these deficiencies by earning credit for the courses listed below. New freshman students must remove deficiencies within the first 64 hours of enrollment and transfer students within the first 30 hours of enrollment.

| TBR Requirements | MTSU Courses Available | Exemption Examinations Available | Departments Offering Course/Exams | Procedures/ Special Conditions |
| :---: | :---: | :---: | :---: | :---: |
| English <br> (4 units) | DSPW 0700 Basic Writing ENGL 1009K Introduction to University Writing | No | Academic Enrichment | Placement in writing and algebra courses will be determined by using ACT/SAT scores. |
| Algebra <br> (2 units) | DSPM 0700 Basic Mathematics <br> MATH 1000K Essentials of Mathematics <br> MATH 1010K Mathematics for General Studies or <br> MATH 1710K College Algebra | No | Academic Enrichment | See above. |
| Geometry | MATH 0990 Basic Geometry | No | Academic Enrichment |  |
| Natural/ <br> Physical Science (2 units) | Section A <br> GEOL 1030/1031 Introduction to Earth Science <br> PSCI 1030/1031 Topics in Physical Science <br> Section B <br> BIOL 1110/1111 General Biology <br> CHEM 1010/1011 Introductory General Chemistry I PHYS 1110 Discovering Physics | No No (Local Test) No No No | Geosciences <br> Chemistry; Physics and <br> Astronomy <br> Biology <br> Chemistry <br> Physics and Astronomy | Students having no high school science must complete requirements for one course in Section A and one in Section B. A student lacking one unit of high school science will complete one course in Section A. |
| Social Studies | GEOG 2000 Introduction to Regional Geography HIST 1010 or 1020 Survey Western Civilization I, II HIST 1110 or 1120 Survey World Civilization I, II | $\begin{gathered} \text { No } \\ \text { Yes (CLEP) } \\ \text { No } \end{gathered}$ | Geosciences <br> History <br> History | Students must complete one of the listed courses. |
| History | HIST 2010 or 2020 Survey of United States History I, II | Yes (CLEP) | History | Students deficient in American history will take one of these courses. |
| Foreign <br> Language (2 units) in same language | Courses 1010 and 1020 in French, German, Spanish, Latin, Japanese, Italian, Russian, Chinese, and Portuguese | Yes <br> (Dept. placement tests in French, German, and Spanish) | Foreign Languages and Literatures | Freshmen having one year of high school work will take an appropriate 1020 course. Those with no language will take 1010 and 1020. |
| Visual/ Performing Arts | ART 1030 Orientation to Art MUS 1030 Introduction to Music THEA 1030 Theatre Appreciation | No <br> No <br> No | Art <br> Music <br> Speech and Theatre | Those lacking secondary level credit must take one of these established courses. |

## UNDERGRADUATE CAMPUS LIFE

Classes and academic studies are the primary reasons the University exists; however, the hours spent outside the classroom allow students to put their emerging academic and leadership skills into practice.

The life of an MTSU student can be as varied and busy or as routine and calm as an individual chooses. Examples appear in this next section. Involvement takes many forms, from performing with a musical ensemble to serving on a Student Programming committee. In addition to promoting personal development and the pursuit of new interest areas, these involvement opportunities engage all students in contributing to the quality of the campus community at MTSU.

# Division of Student Affairs and Enrollment and Academic Services 

The Division of Student Affairs and Enrollment and Academic Services provides hands-on learning opportunities that help students integrate academic and personal growth. Effective enrollment services and other educational partnerships and programs encourage the development of student leadership, campus involvement, and personal responsibility and accountability and promote the creation of meaningful campus rituals and traditions and an inclusive and supportive learning community.
Recognizing that an integral part of the university experience and the individual student's personal development take place through activities outside the formal classroom setting, the Division of Student Affairs and Enrollment and Academic Services implements programs and services designed to complement the classroom experience and prepare students to be educated and productive members of society. The University also recognizes that whatever affects a student outside the classroom affects the student inside the classroom. Therefore the Division of Student Affairs and Enrollment and Academic Services seeks to accomplish two general goals. The first is to take care of students' needs by providing the services necessary to support students' learning environment. The second is to enhance the academic community by providing opportunities to facilitate social, intellectual, physical, and emotional growth; to assist students in becoming actively involved in campus life; to serve as an advocate for student concerns about the University community; and to encourage an environment responsive to individual differences and representative of the diversity of MTSU's population.

## The Office of the Vice President for Student Affairs and Vice Provost for Enrollment and Academic Services

The role of the vice president for Student Affairs and vice provost for Enrollment and Academic Services is to manage the division so that the best interests of students, individually and collectively, are always given the priority they merit. Although the average student has little actual contact with the vice president and vice provost, it is vital for every student to recognize that the vice president and vice provost is his/ her advocate and that every student has a right to meet and seek assistance. Services and activities of the division may be
considered in three major categories-student life programs, academic support services, and enrollment management services. The Office of the Vice President for Student Affairs and Vice Provost for Enrollment and Academic Services is located in KUC 212, (615) 898-2440.

## Student Life

## Campus Recreation

A variety of recreational activities that encourage healthy lifestyles is the focus of the Department of Campus Recreation. From intramural sports, swimming, and outdoor activities to fitness classes, Campus Recreation offers programming for everyone. The Department of Campus Recreation is located in the Health, Wellness, and Recreation Center, which has been expanded to 170,000 sq. ft. to better serve the MTSU community. The facility houses six basketball/volleyball courts, six racquetball courts, and a three-lane indoor track. There are two group exercise rooms, more than $17,000 \mathrm{sq}$. ft. of free weights, and a cardiovascular room with selectorized machines. An indoor swimming pool with water slide and diving board is available year-round, and there is a 4 -ft. deep outdoor swimming pool and sun deck adjacent to four sand volleyball courts. A rock climbing wall, an outdoor equipment rental facility, and a challenge course that also includes an Alpine tower is available for those who want to tackle outdoor challenges. Other amenities include an equipment checkout center, an indoor soccer/hockey arena, and two sets of locker rooms. A sports club complex on East Main Street houses a sports club facility, a running/walking track, and three sports fields. The Recreation Center is open seven days a week during fall and spring semesters and the summer term. The center closes during fall breaks, Thanksgiving and Christmas holidays, and spring breaks. The schedule may be adjusted during the other University holidays and for certain special University events. More information on programs or the center may be obtained by contacting the Campus Recreation Office at (615) 898-2104 or by viewing the Web site at www.mtsu.edu/~camprec.

## Community Service Opportunities

MTSU offers a variety of ways for students to volunteer on campus and in the Rutherford County community. Students may choose to join a community service-based student organization and participate in group or individual volunteer work as their schedules permit. Campus-wide volunteer opportunities include, but are not limited to, Up 'Til Dawn, Alternative Break programs, Habitat for Humanity, and Make a Difference Day. For more information, contact the director, Leadership and Service, KUC 326S, (615) 898-5812.

## Greek Affairs

Greek organizations at MTSU are self-governed by three separate bodies. The Interfraternity Council is composed of eleven member fraternities of the National Interfraternity Conference; the Panhellenic Council consists of six member chapters of the National Panhellenic Conference; the National Pan-Hellenic Council governs the affairs of eight historically African American fraternities and sororities and Lambda Theta Alpha, the first Latino sorority.

The director of Greek Affairs counsels all three governing bodies and also coordinates programs that facilitate the development of leadership skills, social acumen, and superior scholarship within the Greek community. More information is available by contacting the Office of Greek Affairs, Keathley University Center 326S or (615) 898-5812 or by visiting the Web site at www.mtsu.edu/~greeks.

## Intercultural and Diversity Affairs

The Office of Intercultural and Diversity Affairs provides a welcoming and supportive environment for minority students. The office also serves as a link between ethnic minority students and the University community. The mission of the Office of Intercultural and Diversity Affairs is to provide support services for students; to assist in achievement of life goals; and to increase academic, social, cultural, moral, and physical development. In addition, the director of Intercultural and Diversity Affairs is an advocate for the needs of the ethnic minority student population. Services offered include registration assistance, financial aid, counseling, academic referral, tutoring, mentoring, and programming in multicultural awareness. More information may be obtained by calling (615) 898-5812 or writing to MTSU P.O. Box 88, Murfreesboro, TN 37132 or by visiting the Web site at www.mtsu.edu/ida.

## International Student Programs

The International Student Programs office provides assistance to international students studying at MTSU as well as programming which exposes the broader campus to a wide range of intercultural issues. More information may be obtained by visiting the office in KUC 124 or calling 898-2238.

## Judicial Affairs and Mediation Services

MTSU students are citizens of the state, local, and University communities and are expected to observe acceptable standards of conduct for each community. Conduct that adversely affects MTSU's pursuit of its educational objectives, that violates or shows a disregard for the rights of others in the community, or that endangers citizens of the community or their property is subject to disciplinary sanction. MTSU has developed a student judicial system that emphasizes personal accountability for misconduct but is also fair and consistent with students' rights to due process. In addition, MTSU offers mediation as an alternative form of conflict resolution to assist individuals in developing their own solutions to conflict situations. More detailed information with regard to student conduct may be found in the Rights and Responsibilities of Students at MTSU publication or by contacting the assistant dean for Judicial Affairs and Mediation Services, Keathley University Center, Room 128, (615) 898-2750.

## Leadership and Service

Leadership Development at MTSU promotes a comprehensive array of both classroom and cocurricular opportunities designed to enhance personal growth, leadership skills, and community involvement. Guided by the philosophy that leadership is best developed in a relational and reflective environment, Leadership Development works to fully develop the leadership potential present in every student. Programs and services include leadership conferences, scholarship and awards opportunities, and the Lightning Leadership Camp. Information about MTSU courses related to leadership issues and about the interdisciplinary minor in Leadership Studies is also available. To learn more about Leadership and Service at MTSU, visit the office located in Keathley University Center or visit the Web site at www.mtsu.edu/leadandserve.

MTSU students with common interests are encouraged to join together and realize the social and professional benefits to be gained by the exchange of ideas and development of interpersonal relations through participation in student organizations. Registered student organizations have access to University facilities and may apply for funding from the Student Activity Fee Committee. The director of Leadership and Service, Keathley University Center, Room 326S, is available to answer questions and facilitate formation and registration of new organizations. The Office of Leadership and Service can provide a complete listing of registered student organizations. For more information about these services, please contact (615) 898-5812.

## Lost and Found

Items found on the MTSU campus should be delivered immediately to Keathley University Center Information Desk on the second floor. Efforts will be made to return these items to their owners. Contact the Lost and Found office at (615) 898-2782.

## Off-Campus Student Services

The Off-Campus Student Services office (OCSS) provides information to all students who live off campus, both commuting students of traditional age and adult students entering or returning to college after a period of time away from the academic environment. OCSS provides information and referrals about all aspects of academic and social life at MTSU. It provides an online off-campus housing information service that includes roommate matching and a car pool message board. It also sponsors seminars, support groups, and workshops to help students manage stress, balance school with their families and careers, brush up on their study techniques, experience greater satisfaction with the educational experience on campus, and facilitate the completion of their college degrees. Located in Keathley University Center, Room 320, OCSS helps make available the services of various other University offices to students on campus at hours other than regular business hours. It provides parking permits and a variety of forms that students might need. OCSS sponsors a student organization for adult students called OWLs (Older Wiser Learners) and another for commuting students called Ridin' Raiders. Membership forms for both of these organizations are available at www.mtsu.edu/~ocss. Additional information is available by calling (615) 898-5989.

## Spirit Programs

Coed Squad and Dance Team tryouts are held each Spring semester. Candidates should be full-time students and in good standing with the University. For specific academic requirements and required skills, visit Keathley University Center 306, call (615) 494-8907, or visit the Web site at www.mtsu.edu/mtcheer.

## Student Government Association

The Student Government Association (SGA) at Middle Tennessee State University represents the mechanism through which students are afforded the opportunity to participate in University governance by ensuring an exchange of ideas and opinions between the student body and the administration. The purposes of the SGA are to promote student welfare, provide training in the general principles of the democratic process, and prepare students to become responsible citizens. The SGA actively seeks to protect the rights of students and to improve the quality of student life. Students are encouraged to become involved in SGA activities and to contact the SGA Office in Keathley University Center, Room 208, or call (615) 898-2464 with any concerns arising from their enrollment at MTSU.

## Student Health Services

Student Health Services, located in the Health, Wellness, and Recreation Center, accommodates students on an outpatient basis only. Students must be enrolled at the time they seek service to be eligible for care according to the following provisions:

1. Services include consultation for individual problems and treatment of minor illnesses and injuries, lab tests, x-rays, FAA physicals, women's health clinic, employment physicals, after-hours nurse advice line, and a travel medicine clinic. Health Services personnel include board certified physicians, certified midlevel practitioners, and registered nurses. Hours of operation during the Fall and Spring semesters are Monday through Thursday 8:00 a.m.-4:30 p.m. and Friday 8:00 a.m.-4:00 p.m. During summer and semester breaks, hours are Monday through Friday 8:00 a.m.-4:00 p.m. Appointments are available by calling 898-2988 or online at www.mtsu.edu/healthservices.
2. All information resulting from care, treatment, and diagnosis involving Health Services personnel and students is confidential unless the best interests of the individual and/or the campus community are jeopardized.
3. At no time will medical treatment be given at University expense in private homes or to anyone while off the campus. Professional charges for these services must be borne by the student.
4. Local resources available nearby include the Rutherford County Health Department, Middle Tennessee Medical Center (including emergency room services), and walk-in medical clinics.

## Pharmacy

The MTSU Pharmacy is a retail pharmacy serving MTSU students, faculty, and staff. The pharmacy is located next to Health Services in the Health, Wellness, and Recreation Center. The pharmacy can fill prescriptions from Health Services
providers or outside physicians. The pharmacy is open Mon-day-Thursday, 8:00 a.m. to 4:30 p.m., with the drive-through open until 5:00 p.m. On Fridays the pharmacy is open from 8:00 a.m. to 4:00 p.m., with the drive-through open until 4:30 p.m. Most major insurance plans are accepted.

## Student Information

The Keathley University Center Information Desk maintains a working knowledge of general information about the University for students, faculty, staff, and guests. Persons seeking general information about the University should call the Information Desk at (615) 898-2782.

## Student Insurance

Students are urged to carry health insurance to cover illnesses and accidents that may occur while they are enrolled because coverage is not provided by the University. Information about the Student Accident and Sickness Insurance Plan, available at low cost, can be obtained at registration or at Health Services. International students should contact the International Programs and Services Office for information about health insurance.

## Student Newspaper

The student newspaper, Sidelines, is distributed free on campus two times weekly during the Fall and Spring semesters and once each week during the Summer term. Sidelines is completely produced by students and enjoys comprehensive editorial freedom for its contents. All students are encouraged to become involved in the production of Sidelines. For more information, contact the Sidelines office in Mass Communication 269 or call (615) 898-2337.

## Student Unions and Programming <br> Student Unions

Keathley University Center (KUC) is located in the center of the MTSU campus and houses a wide variety of offices, facilities, and meeting rooms. Offices on the first floor of the building include Disabled Students Services, International Student Programs, Judicial Affairs, and the Associate Vice President for Student Affairs and Dean of Student Life. Second-floor offices include Student Unions, ARAMARK Food Services, Student Affairs and Enrollment and Academic Services, and the Student Government Association. On the third floor are the Career Development Center, Center for Student Involvement and Leadership, Counseling Services, Greek Affairs, Housing and Residential Life, Intercultural and Diversity Affairs, Leadership and Service, New Student and Family Programs, Off-Campus Student Services, Production Services, Spirit Programs, Student Life, Student Organizations, Student Programming, and Testing Services.
Other facilities in the KUC include the KUC Theater, Phillips Bookstore, MTSU Post Office, the Grill, the KUC Coffee Shop, and Dwight's Mini Mart. Lounges are located on the second and third floors. Several ATMs are available on the first and second floors. The information desk is located in the lobby on the second floor. For more information, call (615) 898-2590.

James Union Building (JUB) is home to the Scheduling Center, James Union Dining Hall, the Faculty Senate Office, the

June Anderson Women's Center, the Philosophy Department, Women's Studies, classrooms, and academic offices.

## KUC Facilities Available for Scheduling

The KUC third-floor meeting rooms are of varying capacities. These facilities are often used for meetings and conferences. The theater and the second-floor lobby may also be used for conferences or special events. For information, please call (615) 898-2590.

## Student Programming

The students involved with MTSU Student Programming choose what programs and major events are brought to campus. There are no dues or fees required to be involved with MTSU Student Programming. The only requirements are being a student in good standing with the University and having a simple interest in bringing entertainment to MTSU.
While the committees include a wide variety of interested students, they are led by an elected group of student chairpersons known as the Program Council. Each semester elections give seven individuals a chance to govern their respective committees and work closely with acts or events to provide MTSU with the best possible programming available. MTSU students can hold one of the seven committee chair positions or become elected as chair of the Program Council. The chair has the privilege to work with each group as a supervisor.
Student Programming understands that education outside the classroom is essential. Providing students with individual opportunities to learn and grow experientially complements the education that students at MTSU receive, resulting in well-rounded and successful graduates. All Student Programming events and experiences are structured to help students make the most of their education at Middle Tennessee State University.

Concerts Committee. Through the Concerts Committee, MTSU Student Programming presents music from a world of styles. Hundreds of professional entertainers and internationally famous concert acts have performed at MTSU. Up-andcoming national, regional, and local artists and award-winning college circuit acts are featured regularly.
Ideas and Issues Committee. Through the Ideas and Issues Committee, MTSU Student Programming offers thoughtprovoking lectures, well-known speakers, and contemporary debates throughout the school year.
Films Committee. The Films Committee presents full-length feature films each week in Keathley University Center Theater. Selections may include adventure, drama, comedy, horror, musicals, animation, science fiction, classics, and current major studio releases. In addition, the Films Committee sponsors an annual Spring Student Film Festival.
Variety Committee. This committee is responsible for planning, producing, and conducting a yearly program of novelty acts, comedians, hypnotists, and other performers in the field of variety entertainment.

Fine Arts Committee. The Fine Arts Committee presents artists in the fields of fine art, drama, classical music, mime, and
dance and sponsors art films, exhibitions, and multimedia presentations throughout the school year.
Game Day Committee. This group programs, plans, and coordinates all activities that take place in Walnut Grove before each home football game.
Promotion Committee. This committee promotes all events presented by the Office of Student Programming. Promotion is done through many different media outlets and gives students a great opportunity to get involved in event promotion in the Murfreesboro and greater Nashville areas.
MTSU Student Programming welcomes new members and questions, comments, and suggestions. Visit www.mtsu.edu/ events, or call (615) 898-2551, KUC 308.


## MT Production Services

Begun in 1993 to involve students and support the Student Programming Friday Concerts on the Knoll weekend programming initiative, MT Production Services has become the MTSU community's one-stop shop for turnkey production packages. From a multimedia technician supporting a lecture in a multipurpose room to full-flown production for a concert to a multiple-room conference in a convention center, MT Production Services brings the visions of presenters to audiences while representing MTSU in the best possible light. Custom sound, light, and video and labor, staging, and roof structures for all types of events in all types of venues are available. MT Production Services offers creative solutions with competitive rates and options.
MT Production Services also offers unparalleled experiential educational opportunities for MTSU students. Common industry practices as well as industry standard (rider-friendly) equipment is used for all productions. Competitive industry rates are paid and DRI Practicum 358 opportunities are available to qualified students. Initial experience is not as important as a desire and initiative to learn and stay focused.
This is real work, and many students have continued on this career path to work for major companies in their respective fields and/or build independent contractor businesses (freelance) for up-and-coming and prominent artists.

To contact MT Production Services call (615) 898-2872 or stop by the office in Keathley University Center, Room 308, or visit www.mtsu.edu/mtproduction.

## Women's Center

The June Anderson Women's Center (JAWC) has been serving individuals at MTSU since 1977. The office is located on the main floor of the James Union Building, Room 206, and provides a safe space for students to meet together, discuss issues, and organize projects. The JAWC offers information and referral services that connect individuals with needed campus and community resources including a free legal clinic available to all MTSU members each month during the academic year and a yearly Fellowships, Grants, and Scholarships for Women booklet. Staff members and volunteers organize a number of campus programs on gender, diversity, and empowerment issues, such as a monthly career/professional development brown bag series and annual events that raise awareness of sexual assault, domestic violence, body image, and women's contributions to society. Students are invited to attend JAWC activities, and the office has a student volunteer program available to those interested in getting more involved. Additional information about the Women's Center's activities or services is available by calling (615) 898-2193 or by visiting www.mtsu.edu/jawc.

## Academic Support Services

## Academic Support Center (Academic Advising)

Students with declared majors are assigned a faculty advisor by their academic department and may also seek academic advising from each of the professional advisors within the five academic colleges. Undeclared majors and students required to take prescribed K-course sections receive academic advising services through the Academic Support Center (ASC). Each student working with the ASC has a personal advisor assigned based on last name. Career exploration and advising services are available in the ASC for students still trying to select a major as well as those considering changing their majors. The ASC coordinates learning communities, the community reading program, and other academic initiatives. The ASC is located in McFarland Building. To contact your ASC advisor or for more information, call (615) 898-2339 or visit the ASC Web site at www.mtsu.edu/advising.

## Career Development Center

The Career Development Center (CDC), located in Keathley University Center, Room 328, is a comprehensive center serving all departments, schools, and colleges at MTSU. The center's services include five programs: Career Exploration, Student Employment, University Internship, Cooperative Education, and Campus Recruiting. Students seeking to participate in these and other career services (such as special events, seminars, and career fairs) should register with Lightning JobSource, the CDC's online job database and recruiting software. There is also a career coordinator dedicated to each of the academic colleges as well as an extensive collection of online resources, from personal career assessment to resume writing. For additional information on all services and directions about how to register for a free Lightning JobSource account, visit the CDC online at www.mtsu.edu/~career.

## Child Care Lab

The MTSU Child Care Lab, located in the Womack Lane Building on Alumni Drive, provides quality care for children ages 3-5 whose parents are MTSU students. In the Fall and Spring semesters, first priority is given to families who need Monday/Wednesday/Friday care OR Tuesday/Thursday care; second priority is given to families who need full-time care (Monday-Friday). In the Summer term only, first priority is given to students who need full-time child care. In addition to educational programming, a hot lunch and two snacks are provided daily. The MTSU Child Care Lab serves as a lab/observation experience for students enrolled in various MTSU courses. Hours of operation are Monday-Friday, 7:00 a.m.-5:00 p.m., whenever classes are in session (including finals). For more information, call (615) 898-2970 or visit the Web site at www.mtsu.edu/childcare.

## Counseling Services

Counseling Services invites students to make appointments and talk about virtually any personal concern or question they might have. Serving as the student counseling center for MTSU, Counseling Services offers personal counseling and crisis intervention and referral services, assisting students in
their emotional, intellectual, and social growth. Counseling Services also coordinates the University's testing program, offering such standardized tests as the CLEP, ACT residual, the PRAXIS series, and others. The Counseling Services office is located in Keathley University Center, Room 329. To learn more, visit them at www.mtsu.edu/~countest.

## Disabled Student Services

Disabled Student Services offers a wide variety of services to students with disabilities, including managing necessary classroom accommodations. The office acts as an advocate for disabled students at the University, surveying the needs of these students and developing programs to meet those needs. Information and assistance can be obtained by calling (615) 898-2783, visiting the office located in Keathley University Center, Room 120, or by visiting the Disabled Student Services Web site at www.mtsu.edu/~dssemail. MTSU also provides an ADA/504 coordinator, Watson Harris, Peck Hall 203, (615) 898-5366.

## Housing and Residential Life

MTSU has living spaces for more than 3,200 students. Students living on campus are part of a vital living/learning community which emphasizes academic excellence; interaction with students, faculty, and staff; and active involvement in the campus community. Each residence hall and apartment complex is staffed with trained student staff members who are supervised by professional area coordinators. Many amenities are made available to residents including cable television, computer labs (in selected buildings), Internet connections in each room, and 24-hour desk services (also in selected buildings). Apartments that can accommodate students with families are also located on campus. Students are encouraged to make application for housing as early as possible. More detailed information with regard to fees, regulations, and types of housing can be found on pages 48-51. The main office for Housing and Residential Life is located in Keathley University Center, Room 300. Students wishing to report maintenance or custodial concerns should contact (615) 898-4116 or fill out a request for service online at the Housing and Residential Life Web site at www.mtsu.edu/~housing.
Special Interest Housing. Housing and Residential Life offers several communities designed to help students make the most of their on-campus experiences. More detailed information about the Honors Living and Learning Center, First-Year Experience Residence Hall, Give Me a Beat (Recording Industry), Aerospace Learning Communities, Women in Science and Engineering (WISE), and Diverse World, Diverse Arts can be found under the Housing and Residential Life section.

## New Student and Family Programs

The Office of New Student and Family Programs provides MTSU students and their families with a variety of services relating to their transition to MTSU. CUSTOMS, the new student orientation program, helps prepare freshmen and transfer students and their family members for a successful transition to the MTSU campus. Welcome Week activities are planned through this office to provide an entertaining
and exciting way to welcome all students and start the school year in August. The MTSU Parents Association is a volunteer organization that provides opportunities for parents to become involved in their students' education. The Parents Association is also a vehicle for parents to ask questions and make suggestions, and it is a support system that eases the transition that accompanies sending students off to college. MTSU Family Weekend is also coordinated through this office. New Student and Family Programs also coordinates the Distinguished Lecture Fund, which promotes appearances by nationally and internationally known speakers who focus on the timely discussion of regional, national, and global issues in a variety of fields. Contact the Office of New Student and Family Programs by visiting the staff in Keathley University Center, Room 326, by calling (615) 898-2454, or by visiting the Web site at www.mtsu.edu/nsfp.

## Orientation (MTSU CUSTOMS)

CUSTOMS is the MTSU orientation program that helps new undergraduate students make the transition into the University; prepares new students for MTSU's educational opportunities; and initiates the integration of new students into the intellectual, cultural, and social climate of the institution. During CUSTOMS, new students will meet faculty, staff, and other new students; register for courses; and learn about important programs, services, and requirements of the University. CUSTOMS orientations are offered on several different dates during the summer for those students attending the Fall term and in December for those students who will begin their MTSU careers in the Spring term. Registration is required and fees apply. All students who are tentatively accepted to MTSU receive CUSTOMS registration materials and informational brochures. Advisement is required of all new students prior to registration for classes and is one of the main focuses during CUSTOMS. Questions concerning CUSTOMS orientation should be directed to the office of New Student and Family Programs, Keathley University Center, Room 326, (615) 898-2454. You may also visit the CUSTOMS Web site at www.mtsu.edu/customs/.

## Raider Learning Communities

The Raider Learning Community Program (RLC) helps to create a small-college atmosphere within the large university environment of MTSU. Emphasizing the close relationships between students and faculty that make small, private colleges special, Raider Learning Community students are able to take advantage of ongoing connections within a smaller learning community while also being able to access all the resources and programs of the large public university. RLC members belong to small groups of 25-40 students each who enroll as a group in at least two courses in the Fall semester. Course blocks include University 1010 and/or a General Education course. Many students find the RLCs give them a built-in group of friends and academic colleagues, enhancing the first-year experience. For more information about both oncampus and off-campus participation in the Raider Learning Communities, please contact the Academic Support Center at (615) 898-2339.

## Student-Athlete Enhancement Center

The Student-Athlete Enhancement Center provides academic advising, tutoring, computer labs, and study halls for MTSU athletes. The center is located near Gate One of the Floyd Football Stadium. Call (615) 898-5610 for more information.

## Student Support Services

A federally funded TRIO program, Student Support Services (SSS) provides academic counseling, tutoring, academic workshops, and cultural events to full-time undergraduate students who have a verified academic need and meet at least one of the following criteria: first-generation college student (neither parent has earned baccalaureate degree), income-eligible per federal guidelines, or have a documented disability. Grant scholarships may be available to full-time sophomore students who also receive the Pell grant. Student Support Services works with students to increase their academic success in persisting to graduation and helps participants to achieve their educational goals. For additional program information, contact Student Support Services in the Midgett Building, Room 101, by phone at (615) 898-5443, or on the Web at www.mtsu. edu/~ssupport.

## Enrollment Services

## Undergraduate Admissions

The Undergraduate Admissions office provides information to prospective freshmen and transfer students on admission to the University, required test scores, and other required credentials. Admissions counselors work extensively with high school guidance counselors as well as counselors from two-year institutions to provide a smooth transition to MTSU.

The office also serves reenrolling students (those who previously attended MTSU) and international students. International students receive immigration advisement and issuance of INS documents. Please refer to page 32 for information regarding admission requirements.

## Financial Aid

Financial Aid information is detailed earlier in this catalog. Please refer to pages 42-47.

## Records Office

The Records Office is responsible for maintenance of student records, provision of transcripts, certification of student enrollment, and certification of degrees for all undergraduate degree candidates. The Records Office also certifies for benefits and monitors enrollment of U.S. military veterans.

## Scheduling Center

The Scheduling Center builds and maintains the schedule of classes for each term and makes classroom assignments. The final exam schedule is developed in conjunction with the schedule of classes. Personnel are also available in the Scheduling Center to assist students with registration for classes.

## Withdrawal Office

The Withdrawal Office provides assistance to those withdrawing from the University for the term. Students finding it necessary to withdraw (completely separate) from their classes for a future term should contact the coordinator of withdrawals if unable to complete the withdrawal process via PipelineMT at www.mtsu.edu or if withdrawal becomes necessary after announced deadlines. Please refer to page 58 for additional information.


## Beyond the Classroom

A number of student activities grow out of academic departments and enhance classroom work by providing opportunities for practical experience and training. Interested students should contact the chair of the appropriate department for information on requirements for participation and on the availability of credit through such activities.


## School of Music

The Band of Blue, MTSU's marching band; Concert Band; Symphonic Band; Wind Ensemble; Chamber Winds; University Chorus; Chamber Choir; Meister Singers; Schola Cantorum; Women's Chorale; MTSU Singers; Opera Workshop; Symphony Orchestra; Chamber Orchestra; Jazz Ensembles; Jazz Combos; Salsa Bands; Steel Drum Ensembles; World Percussion Ensemble; Percussion Ensembles; Commercial Music Ensembles; Mixed Chamber Ensembles; Chamber Brass Ensembles; Guitar Chamber Ensembles; Piano Chamber Ensembles; String Chamber Ensembles; and Woodwind Chamber Ensembles are all organizations of student performers. Each welcomes qualified non-Music majors and performs frequently throughout the year. Many travel to perform regionally, nationally, and internationally.

## Department of Speech and Theatre

University Theatre-Four theatrical productions provide an opportunity to experience all aspects of theatre-performance, design, technology, children's theatre, and theatre in education.
University Dance-The MTSU Dance minor is housed in the Department of Speech and Theatre. This program is the home of the MTSU Dance Theatre, a company of students and faculty members that performs throughout the year at MTSU and tours regionally. All students may audition for MTSU Dance Theatre and need not be a minor to do so.
Debate-Numerous competitive tournaments are scheduled with universities throughout the nation from September through March. Annual on-campus public debates are also
sponsored by MTSU Debate. The MTSU Debate program is open to all students. No previous debate experience is required.

## College of Mass Communication

Two radio stations and a community cable television channel provide opportunities for students to gain experience and knowledge about the mass media and communications:
WMOT, the University's National Public Radio affiliate, is a professionally managed public service radio station featuring jazz, news, and information programming. Located at 89.5 on the FM dial, WMOT-FM also provides enrichment opportunities for selected students majoring in Mass Communication.
WMTS is a student-operated alternative radio station, located at 88.3 on the FM dial, which carries an eclectic mix of music, news, and student information.
Channel 10, the University student-operated cable channel, carries sports, news, instructional, and entertainment programming.

## Alumni Association

The mission of the Middle Tennessee State University Alumni Association is to foster sound relationships between the University and its alumni and to provide a strong force for the advancement and support of the University by its alumni. A board of directors governs the association, and the Alumni Relations Office facilitates the programs and services of the association. Establishing and promoting scholarships is an ongoing endeavor of the Alumni Association. The Alumni Relations Office is located at 2259 and 2263 Middle Tennessee Blvd. Visit www.mtalumni.com or call 1-800-533-MTSU.


## Athletics

The MTSU Athletics program strives for excellence in the development of its student-athletes and the quality of its 17 sports teams. The program supports the academic, athletic, and social education of its student-athletes by encouraging them to develop the values of respect for themselves and others and to take pride in achievement and making positive contributions to the communities in which they live.

MTSU is committed to quality athletic programs that bring the campus community together and promote a sense of pride and tradition in academic and athletic excellence. Athletics also brings the University regional and national recognition and provides a link between the University and its alumni and the community at large. It helps generate alumni and public support for all aspects of the University. The athletics program provides quality faculty and leadership to campus programs. It gives students, faculty, and alumni opportunities for innovative public service activities such as the "Reading Raider" program, which has partnered with area elementary schools to promote student reading skills. It uses athletic, financial, and
physical resources to maintain and develop athletic programs to accomplish the mission of the University.
The University is a member of the Sun Belt Conference and National Collegiate Athletic Association, competing in NCAA Division I in all sports. MTSU is represented annually in baseball, basketball, cross-country, football, golf, tennis, indoor track, and outdoor track for men and by basketball, crosscountry, golf, soccer, softball, tennis, indoor track, outdoor track, and volleyball for women.
Both full-time and part-time students are admitted to all home football, basketball, and baseball games by presenting their valid ID cards at the gate. Athletic events in other sports require no admission and are open to the public and campus community. The ticket office is located at Floyd Stadium Gate 1A. Ticket information can be obtained by phoning (615) 898-2103 or 1-888-YES-MTSU or visiting GoBlueRaiders.com!
MTSU's Title IX coordinator is Forrestine Williams, 220 Cope Administration Building, (615) 898-2185.


## UNDERGRADUATE ACADEMIC LIFE

A ranged alphabetically under the six colleges are details of each academic department including, for most of them, the requirements for majors, degrees available, recommended programs, and course descriptions.

Also included in the following section are
Interdisciplinary Majors and Minors
African American Studies
Gerontology
Global Studies
Middle East Studies
Women's Studies
The University Honors College
McNair Program
Academic Enrichment Support Unit
Experiential Learning
University Courses
International Education
Army ROTC
Air Force ROTC


# Interdisciplinary Majors and Minors 

Interdisciplinary majors and minors provide programs of study that focus on a specific theme by combining courses from different disciplines and several academic departments.

## Interdisciplinary Majors

The specific requirements and the coordinating department for each of the University's interdisciplinary majors are described below. Also listed is the faculty advisor for each major, his or her campus location, and the coordinating department.

## Environmental Science and Technology <br> Director: John DiVincenzo

Location: Wiser-Patton Science Hall 0100A
Environmental Science and Technology is an interdisciplinary major offered in the College of Basic and Applied Sciences. The broad-based curriculum offers coursework in the natural sciences, life sciences, mathematics, agriculture, technology, and the arts. Four concentrations in environmental areas-Energy Technology, Environmental Health and Safety, Planning and Site Analysis, and Water and Waste Management-are available to allow the student to pursue an area of interest.
No minor is required but is encouraged for EST students. Courses that are part of a student's major cannot be used in a minor. The requirements for a major in Environmental Science and Technology can be obtained from the director of the program and include an EST core, 30 hours in General Education outside of the math and science areas, and several hours in an identified specialty or concentration. Each of the concentrations has its own advisor.
NOTE: The specific requirements and characteristics of the concentrations are under review.
Typical employment opportunities exist in the various levels of governmental agencies and as environmental consultants in manufacturing, construction, and agricultural industries in such areas as air and water quality control, environmental analysis, recycling, hazardous and solid waste management, and noise.
Courses are offered by Agribusiness and Agriscience, Biology, Chemistry, Engineering Technology, and Geosciences.
Students are encouraged to pursue opportunities offered through the Center for Energy Efficiency and the CLEAR Water Initiative. The center promotes energy economics and environmental awareness and stewardship for students, faculty, administrators, and others in the community. Through interaction with local, state, and federal associations, the center offers certification seminars, educational and training
opportunities, and leadership in achieving energy management and efficiency goals. The institute is an interdisciplinary group of scientists that address environmental issues related to water quality. Undergraduate research opportunities exist.
Students should consult their advisors each semester to plan their schedules.

## Selection of courses available to EST students

| ABAS | 3340 | Soil |
| :--- | :--- | :--- |
| ABAS | 3370 | Soil Analysis |
| ABAS | 4370 | Soil and Water Conservation |
| BIOL | $2230 / 2231$ | Microbiology |
| BIOL | $3050 / 3051$ | Parasitology |
| BIOL | 3220 | Environmental Regulations and Compliance |
| BIOL | $3400 / 3401$ General Ecology |  |
| BIOL | $4080 / 4081$ Mycology |  |
| BIOL | $4250 / 4251$ | Limnology |
| BIOL | $4570 / 4571$ | Principles of Toxicology |
| BIOL | 4590 | Principles of Environmental Toxicology |
| CHEM | $2030 / 2031$ | Elements of Organic Chemistry |
| CHEM | $2230 / 2231$ Quantitative Analysis |  |
| CHEM | $4230 / 4231$ | Instrumental Analysis |
| CHEM | 4600 | Introduction to Environmental Chemistry |
| CHEM | 4610 | Environmental Chemistry |
| CHEM | $4630 / 4631$ | Detection of Chemical Pollutants |
| EST | 2810 | Introduction to Environmental Science |
| EST | 4770 | Pollution Control Technology |
| EST | 4810 | Energy and the Environment |
| EST | 4820 | Solar Building Design |
| EST | 4840 | Energy Auditing |
| ET | 4420 | Industrial Safety |
| ET | 4440 | Fire Safety |
| ET | 4450 | Industrial Hygiene |
| GEOG | 4530 | Geographic Information Systems |
| GEOL | 4130 | Hydrogeology |
|  |  |  |

## Concentration: Energy Technology

The Energy Technology concentration under the Environmental Science and Technology major includes course work in conservation and the environmental issues in the use of nonrenewable energy sources. This program offers preparation for students seeking employment in the energy management, air pollution control, and resource management fields.

## Concentration: Environmental Health and Safety

The Environmental Health and Safety concentration of the Environmental Science and Technology major includes course work in calculus-based courses in physics and engineering mechanics, engineering design, and safety. This course of study offers preparation for a variety of careers in environmental engineering technology, safety, design, and environmental consulting, as well as graduate degree programs in environmental engineering.

## Concentration: Planning and Site Analysis

The Planning and Site Analysis concentration under the Environmental Science and Technology major offers training in environmental planning, the collection and analysis of information on the natural environment to be completed before design and construction of a project. The goal of planning is to avoid natural hazards, conserve natural resources, and protect the environment through sound ecological principles. Effective environmental planning results in the efficient management of natural resources, insuring sound economic development while minimizing environmental degradation.

## Concentration: Water and Waste Management

The Water and Waste Management concentration under the Environmental Science and Technology major looks at solid waste which is deposited on land and in water, sometimes causing serious environmental problems. However, wastes may be handled as a resource. Major issues of waste management include problems and benefits associated with landfilling garbage and with the need to reduce the waste stream. Major concerns to be considered in assessing waste management problems and solutions are (1) environmental quality: wastes must be managed so they do not pollute air or soil water resources; nor should they be used in a way that might introduce a toxic or pathogen into the food chain; (2) organic waste as energy resources: incineration can be studied as an alternative to landfilling or application; organic wastes may also be a source of fertilizers.

## Organizational Communication

See page 212 for more information.

## Interdisciplinary Minors

These minors require the student to complete a minimum of 15 to 21 hours from a list of specific courses. Unless otherwise noted, a student may take no more than 6 hours of courses from a single department until he or she surpasses the required minimum number of hours necessary for completing the minor. Exceptions to this rule may be found within the discussions of several of the minors below. In most cases, a student is also limited to just 3 hours of credit toward the minor in the same department or discipline in which he or she is taking a major. Except for the Paralegal Studies minor, no course may be counted both for major and minor credit. Students must fulfill all departmental prerequisites for any course within an interdisciplinary minor. In some cases, advisors may approve course substitutions within these program requirements.

The specific requirements and the coordinating department for each of the University's interdisciplinary minors are described below. Also listed is the faculty advisor for each minor and his or her campus location.

African Studies<br>Director: Moses K. Tesi, Department of Political Science, PH 209

The 18 -hour interdisciplinary minor in African Studies offers students the opportunity for systematic and comprehensive study of African arts, cultures, economies, geography, history, literature, politics, and religions. It seeks to provide or enhance skills valuable in areas such as business, government, world affairs, media, education, and ecology. It will also offer students who are interested in pursuing further studies with the foundational tools necessary for graduate work in preparation for careers in university teaching, research, and international public policy. In this age of globalization, the minor in African Studies offers students the knowledge needed to better understand and relate to a part of the world that has contributed and continues to contribute much to world culture and civilization.

## Required Course (3 hours) <br> PS 4180 African Politics

Any two (6 hours) of the following:

| ANTH | 3514 | Peoples and Cultures of Africa |
| :--- | :--- | :--- |
| GEOG | 3470 | Geography of Africa |

HIST 4430 Sub-Saharan Africa

## Electives (9 hours)

Students must distribute coursework across three or more disciplines. A student may take no more than six (6) hours toward the minor in a single department. (Study Abroad programs or Special Topics courses dealing with Africa will not count toward this limit but will not exceed three (3) additional hours in a single discipline.) Students will take their remaining classes from among the following:

| ART | 4870 | African Art |
| :--- | :--- | :--- |
| ECON | 4470 | Economic Development of the Third World |
| FREN | 1010 | Elementary French I |
| FREN | 1020 | Elementary French II |
| FREN | 2010 | Intermediate French I |
| FREN | 2020 | Intermediate French II |
| PORT | 1010 | Elementary Portuguese I |
| PORT | 1020 | Elementary Portuguese II |
| GEOG | 3470 | Geography of Africa |
| GS | 2010 | Introduction to Cross-Cultural Experiences |
| GS | 3010 | Field Experience and Study Abroad <br> (Approval of program director required) |
| HIST | 3160 | Study Abroad in Africa <br> (Approval of program director required) |
| HIST | 4430 | Sub-Saharan Africa <br> HIST |
| PS | 4210 | History of Women in the Third World <br> Phe Political Status of Women in the World |
| PS | 3210 | International Relations |
| PS | 3780 | Study Abroad <br> (Approval by program director regarding the country <br> of study required) |
| PS | 4390 | Special Topics in Political Science <br> (Approval by program director regarding the topic <br> of study required) |
| ANTH | 3514 | Peoples and Cultures of Africa |

## African American Studies

Director: Adonijah Bakari, PH 280
See page 92 for additional information.

## Aging Studies (See Gerontology)

Director: J. Brandon Wallace, TODD 330
See page 93 for additional information.

## American Culture

Advisor: Susan E. Myers-Shirk, Department of History, PH 281

The interdisciplinary minor in American Culture is intended for students who want to explore a variety of disciplines as a way of thinking about U.S. culture. This minor is ideal for students who have wide-ranging interests. It is also an excellent choice for students who are politically engaged and want to understand contemporary U.S. culture and its problems. It is especially suited for students who wish to highlight the liberal arts element of their education.

## Required Courses (6 hours):

HIST 3040 Topics in American Cultural History OR
HIST 4740 American Cultural and Intellectual History
ENGL 3310 Nineteenth-Century American Literature OR
ENGL 3320 Twentieth-Century American Literature OR
ENGL 3360 Multicultural Literature of the United States

## Additional Required Courses:

In addition to the core courses in history and English, students are required to take 12 semester hours of upper-division courses chosen in consultation with the minor advisor. Please see the advisor for a list of approved courses for the minor.

## Archaeology

Advisor: Kevin E. Smith, Department of Sociology and Anthropology, TODD 313
The minor in Archaeology draws upon the resources of anthropology, geography and geology, and history to provide a comprehensive view of modern archaeological techniques, particularly in those disciplines involved with diachronic

studies of human cultures. In consultation with the advisor and appropriate departmental advisors, students may pursue flexible elective tracks focusing on the application of archaeological methods and techniques in anthropology, geography, or history. The minor in Archaeology requires 18 credit hours, including 9 hours of required courses and 9 hours of general electives from the list below. Each student is required to take electives from at least two departments, and a selection from all three departments is encouraged.

## Required Courses (9 hours):

ANTH 2210 Introduction to World Prehistory
ANTH 3610 Archaeological Methods OR
ANTH 4950 Archaeological Field School OR
HIST 4870 Field Course in Historical Archaeology
GEOG 4380 Cartography OR
GEOG4490 Remote Sensing OR
GEOG 4530 Geographic Information Systems
Electives (choose 9 hours):
ANTH 2230 Tennessee Archaeology
ANTH 2240 Sunken Continents, Lost Tribes, and Ancient Astronauts
ANTH 3210 Archaeology
ANTH 3520 North American Prehistoric Archaeology
ANTH 3521 Mesoamerican Archaeology
ANTH 3610 Archaeological Methods
ANTH 3720 Environmental Anthropology
ANTH 4620 Environmental Archaeology
ANTH 4950 Archaeological Field School
GEOG 3720 Cultural Ecology
GEOG 4380 Cartography
GEOG 4490 Remote Sensing
GEOG 4530 Geographic Information Systems
GEOG 4540 Geography of Native Americans
GEOL 1040/1041 Physical Geology
GEOL 4020 Geomorphic Regions of the United States
HIST 3110 Explorations in Public History
ANTH/
HIST 4860 Historical Archaeology

## Asian Studies

Advisor: Ida Leggett, Department of Sociology and Anthropology, TODD 317

The minor in Asian Studies is designed to provide students an opportunity to examine the cultures, economies, geography, histories, governments, philosophies, politics, and religions of Asia. The minor requires 18 semester hours within an interdisciplinary structure. All students pursuing the minor are required to take 6 hours from the core and 12 hours from the general electives. Directed readings, special topics, internships, or language instruction in any pertinent department may be pursued with prior approval of the minor advisor. No more than 6 hours of these courses may be counted towards the minor.

## Core ( 6 hours):

ANTH 3510 Peoples and Cultures of Southeast Asia
GEOG 3440 Geography of Asia
PS 3310 Comparative Asian Governments
PHIL 3200 Asian Thought

## Electives (12 hours):

ANTH 3510 Peoples and Cultures of Southeast Asia
ECON 3540 Japanese Economy and Business
GEOG 3440 Geography of Asia

GEOG
HIST
HIST
HIST
HIST
PHIL
PS
PS
RS

4500 Geography of the Middle East
3080 Topics in Modern Middle East History
4440 The Middle East
4450 Japan
4460 China
3200 Asian Thought
4190 Middle East Politics
4310 Comparative Asian Governments
4050 Judaism, Christianity, and Islam

## Behavioral Research

See page 183 for additional information.

## Business Administration

Advisor: Jill Austin, Department of Management and Marketing, BAS N121
The minor in Business Administration provides students with an overview of business. Business disciplines represented by the required courses in the minor include accounting, business law, computer information systems, finance, management, and marketing. The minor is designed for students who need a general knowledge of business as a foundation for work in their disciplines of study. A 2.00 GPA is required.
Required Courses (18 hours):
INFS 2200 Introduction to Microcomputing OR
INFS
3100
Principles of Management Information Systems
ACTG
AOOC Survey of Accounting for General Business OR

## Classical Studies

Advisor: Louis Haas, Department of History, PH 263
The minor in Classical Studies is designed to increase students' knowledge of ancient Greece and Rome and of their continuing influence through the ages. Students are required to complete two courses of Intermediate Latin (2010 and 2020), for which the prerequisites are LATN 1010 and 1020 or equivalent. A placement test is available in the Department of Foreign Languages and Literatures.
Required courses ( 6 hours):
$\begin{array}{ll}\text { LATN } & 2010 \text { Intermediate Latin I } \\ \text { LATN } & 2020 \text { Intermediate Latin II }\end{array}$
Electives (12 hours):
ENGL 3400 European Literature to 1400
ENGL 3410 Classical Mythology
PHIL 1030 Introduction to Philosophy
PHIL 4010 History of Ancient and Medieval Philosophy
PHIL 4020 History of Modern Philosophy
HIST 4410 Classical History
PS 4230 Classical Political Theory
UH 3500 Junior Interdisciplinary Seminar (Mythology and Film)*
UH 3500 Junior Interdisciplinary Seminar (Greek Culture)*
UH 4600 Senior Interdisciplinary Seminar (Approaches to Mythology)*

## Early Modern European Studies

Advisor: Pat Conley, Department of Foreign Languages

and Literatures, BDA 301

The minor in Early Modern European Studies requires 18 hours and is designed to increase students' knowledge of European cultures during the period from the end of the Middle Ages through the nineteenth century.

| Select $\mathbf{1 8}$ hours from the following: |  |
| :--- | :--- |
| ART | 3910 |
| Italian Renaissance Art History |  |
| GEOG | 3430 |
| Geography of Europe |  |
| GEOG | 3460 |
| Geography of the Former Soviet Union |  |
| HIST | 1010 |
| Hurvey Western Civilization I |  |
| HIST | 4240 |
| HIST | 4250 |
| Europe: Absolutism and Enlightenment The French Revolution and Napoleon |  |
| HIST | 4270 |
| HIST | 4310 |
| Gerope: $1815-1900$ |  |
| HIST | 4330 |

## Languages:

FREN 1010, 1020, 2010, 2020, Elementary I, II and Intermediate I, II
GERM 1010, 1020, 2010, 2020, Elementary I, II and Intermediate I, II
SPAN 1010, 1020, 2010, 2020, Elementary I, II and Intermediate I, II
RUSS 1010, 1020, 2010, 2020, Elementary I, II and Intermediate I, II
LATN 1010, 1020, Elementary I, II

## Literature:

ENGL 3120 English Literature: The Sixteenth Century
ENGL 3210 English Literature: Restoration and Eighteenth Century
ENGL 3220 English Literature: 1790-1850
ENGL 3230 English Literature: The Victorian Period
ENGL 3420 European Literature: 1400-1800
FREN 3050 Survey of French Literature and Culture (Middle Ages-1800)
FREN 4030 Topics in Nineteenth-Century French Literature
FREN 4060 Topics in Neoclassical French Literature
GERM 3050 Survey of German Culture
GERM 4010 Topics in German Literature and Culture
GERM 4020 German Literature: 1725-1880
SPAN 3060 Introduction to Hispanic Culture
SPAN 4020 Spanish Literature I
MUHL 4630 Seventeenth- and Eighteenth-Century Music*
MUHL 4640 Nineteenth-Century Music*
PHIL 4020 History of Modern Philosophy
PS 4230 Classical Political Theory
THEA 4800 Theatre History I: Greek Period to Restoration
THEA 4810 Theatre History II: Restoration to Present
*By permission of instructor only

## Entertainment Technology

Advisor: Joseph Akins, Department of Recording Industry, COMM 260
The Entertainment Technology minor is designed for students who want either to broaden or to focus their knowledge of various technologies that support the entertainment industry. Students should consult with the minor advisor before enrolling in minor classes. Courses may not be used to complete major or other minor requirements as well. Courses taken to complete General Education requirements may be used to complete minor requirements. This minor requires a 2.00 GPA in all coursework. Students must complete 18 hours from the courses listed below. Some courses may have prerequisites.

Selection below is for non-Recording Industry majors. For Entertainment Technology minor requirements for Recording Industry majors, see Recording Industry on page 229.

```
Select }18\mathrm{ hours from the following:
Select }18\mathrm{ hours from the list below:
ET 3610 Introduction to Electricity and Electronics, 4 hrs.
ET 4640 Industrial Electricity, 3 hrs.
THEA 2110 Stagecraft, 3 hrs.
THEA 3000 Sound Design for Arts and Entertainment, 3 hrs.
THEA 3100 Make-Up Techniques for Performers, 3 hrs.
THEA 3200 Introduction to Costume for Arts and Entertainment,
                3 hrs.
THEA 3300 Scene Design, 3 hrs.
THEA 3400 Introduction to Lighting for Arts and Entertainment,
                3 hrs.
THEA 4000 Advanced Sound Design for Arts and Entertainment,
                3 hrs.
THEA 4100 Special Effects Make-Up, 3 hrs.
THEA 4110 Make-Up Design and Creation, 3 hrs.
THEA 4200 Costume Technology and Production, 3 hrs.
THEA 4210 Advanced Costume Technology and Production, 3 hrs.
THEA 4220 Costume Design for Arts and Entertainment, 3 hrs.
THEA 4230 Advanced Costume Design for Arts and
                Entertainment, 3 hrs.
THEA 4290 Problems in Theatre, 1-3 hrs.
THEA 4300 Advanced Scenic Design, 3 hrs.
THEA 4390 Topics in Scenography, 1-3 hrs.
THEA 4400 Intermediate Lighting for Arts and Entertainment, 3 hrs.
EMC 3040 Electronic Graphics for Television, 3 hrs.
EMC 3120 Sight, Sound, and Motion, 3 hrs.
EMC 3130 Television Production, 3 hrs.
EMC 3140 Multi-Camera Directing and Producing, 3 hrs.
EMC 3150 Single-Camera Directing and Producing, 3 hrs.
EMC 3200 Still Digital Imaging, 3 hrs.
EMC 3300 Introduction to Digital Animation, 3 hrs.
EMC 3310 Intermediate Digital Animation, 3 hrs.
EMC 3420 Corporate Video, 3 hrs.
EMC 4940 Advanced Seminar-Electronic Media Production,
                3 hrs.
PHOT 2050 Basic Black and White Photography, 3 hrs.
PHYS 1600 Physics of Music, 3 hrs.
RIM 3450 Advanced Musicianship for Engineers, 3 hrs.
RIM 3580 RIM Practicum, 1 to 3 hrs.
RIM 4290 MIDI Sequencing and Virtual Instruments, 3 hrs.
RIM 4300 Advanced Pro Tools Techniques, 3 hrs.
RIM 4320 Concert Promotion and Touring, 3 hrs.
RIM 4330 Sound Reinforcement, 3 hrs.
RIM 4570 The Art of Soundtrack Design, 3 hrs.
RIM 4590 Computer-based Scoring for Visual Media, 3 hrs.
RIM 4650 Multitrack Music Recording: Studio B, 3 hrs.
RIM 4651 Multitrack Music Recording: Studio A, 3 hrs.
RIM 4660 Advanced Music Engineering, 3 hrs.
RIM 4670 Studio Production, 3 hrs.
RIM 4740 Studio Business Operations, 3 hrs.
RIM 4910 Advanced Production Seminar, 3 hrs.
RIM/EMC 4580 Sound for Picture, 3 hrs.
```

These courses cannot be used by RI Audio Production majors since they are already required in the major, but can be used by non-RI majors.
RIM 1230 Musicianship for Engineers, 3 hrs.
RIM 3010 Audio Fundamentals, 3 hrs.
RIM 4190 Introduction to MIDI and Sound Synthesis, 3 hrs.
RIM 4200 Digital Audio Technology, 3 hrs.
RIM 4400 Recording Studio Techniques, 3 hrs.
RIM 4440 Critical Listening, 3 hrs.
Total hours in Entertainment Technology minor: 18

NOTES: Please check the most current catalog for course descriptions and prerequisite requirements.

## Entrepreneurship

Advisor: Stephen Lewis, Department of Business Communication and Entrepreneurship, BAS N429

The Entrepreneurship minor requires 18 hours and focuses on special competencies needed for planning, organizing, and operating a new venture or small business. A 2.00 GPA is required.

## Required Courses (18 hours):

BCEN 1400 Introduction to Business
BCEN 2900 Entrepreneurship
ACTG 3000 Survey of Accounting for General Business OR
FIN 3000 Principles of Financial Management
MGMT 3610 Principles of Management
MKT 3820 Principles of Marketing
MGMT 4920 Small Business Management
Note: Upper-division courses in Entrepreneurship may not be taken until the student is a junior.

## Environment and Human Society

Advisor: Lynn Nelson, Department of History, PH 285
The interdisciplinary minor in Environment and Human Society helps students who want to explore their relationship with the natural world in ways other than advanced scientific research. Students taking this minor will have the opportunity to look at many different aspects of our attempts to understand and solve environmental problems. Classes are offered in anthropology, biology, English, environmental science and technology, geography, history, journalism, philosophy, and recreation and leisure services. Students considering pursuing a career focusing on environmental matters, those in the sciences hoping to broaden their understanding of environmental issues, or anyone interested in learning more about humanity's relationship with the environment should consider this minor.

The Environment and Human Society minor requires 18 semester hours from the following courses. Students may not count more than 6 hours in any one department, or more than 6 hours of classes offered through the College of Basic and Applied Sciences. Other specific requirements are explained below.

## Select 18 hours from the following:

BIOL 3070 Biology Seminar on Environmental Problems*
BIOL 3220 Environmental Regulations and Compliance
BIOL 3240 Introduction to Evolution*
BIOL 4331-4333 Biome Analysis*
BIOL 4540 Topics in Environmental Education
EST 2810 Introduction to Environmental Science*
ENGL 3300 Native American Literature
ENGL 4900 Selected Topics in Literature and Language***
GEOG 1030 Physical Geography
GEOG 3120 Geography of Tennessee**
GEOG 3410-3470 Geography of the United States and Canada, Latin America, Europe, Asia, the Former Soviet Union, Africa**
GEOG 4280 Special Problems and Topics in Geography***
GEOG 4310 Resource Management and Conservation

GEOG 4340 Historical Geography
GEOG 4480 Recreational Geography
GEOG 4500 Geography of the Middle East**
GEOG 4540 Geography of Native Americans**
HIST 3020 Topics in American History ${ }^{* * *}$
HIST 3030 Topics in African American History***
HIST 3040 Topics in American Cultural History***
HIST 3070 Topics in World History***
HIST 4640 Environmental History
REC 4580 Seminar: Outdoor Recreation and Environmental Issues
JOUR 3520 Specialized Journalism***
JOUR 3530 Feature Writing***
PHIL 4800 Readings in Philosophy***
ANTH 3310 Human Origins
ANTH 3720 Environmental Anthropology
ANTH 4620 Environmental Archaeology
*Environmental science class; students must complete 3 hours from one of these courses.
**Regional geography class. Students can only count 3 hours toward a minor.
***Special topics class. Content and projects must meet the mission of the Environment and Human Society minor. Check with the minor advisor for the applicability of each class.

## Environmental Science and Technology <br> Director: John DiVincenzo <br> Location: WPS 0100A

The minor in Environmental Science and Technology consists of 18 semester hours of courses chosen from the various concentrations including EST 2810 and at least 6 hours at the upper-division level.

## Film Studies

Advisor: Robert Holtzclaw, Department of English, PH 332
An interdisciplinary minor in Film Studies is designed to enhance the educational opportunities available to students interested in learning about and through film. Courses in the minor focus on various issues connected to narrative, theory, style, and assorted social/cultural concerns.
To fulfill requirements for the minor, a student will complete 18 hours (six courses) from those listed below. No more than 9 hours (three courses) should be taken in any single department, and courses from at least three of the participating departments should be included in the 18-hour total.
Select 18 hours from the following:
ANTH 3640 Visual Anthropology
COMM 3300 Communication Theory, Culture, and Films
COMM 3570 Communication in the Middle East
ENGL 3850 Literature and Film
ENGL 3860 Film Genre
ENGL 3870 Film History
ENGL 3880 Women and Film
ENGL 4855 Film Theory and Criticism
ENGL 4860 Special Topics in Film Studies (topic varies; may be repeated)
HIST 3170 History of the American South in Film
HIST 3180 History of Modern War in Film
HUM 3500 Latino Images in U.S. Film
HUM 4550 The Grail Legend in Film and Literature
JOUR/
EMC 3000 Introduction to Motion Pictures

| PHIL | 3600 | Philosophy and Film |
| :--- | :--- | :--- |
| PS | 3100 | Politics and Film |
| PS | 3200 | British Government and Films |
| RIM | 4570 | The Art of Soundtrack Design |

Note: Other film-related courses are sometimes offered which can be counted as part of the Film Studies minor with prior approval. Consult the Film Studies advisor to determine if such courses are available for a particular semester.

## Gerontology

Director: J. Brandon Wallace, TODD 330
See page 93 for additional information.

## Global Studies

Director: Douglas Heffington, PH 252
See page 93 for additional information.

## Great Books

Advisor: Michael J. Neth, Department of English, PH 347
The Great Books interdisciplinary minor is designed to offer students the opportunity to broaden their undergraduate education and supplement their own major field by studying the most important and influential texts in a number of different disciplines. Students will be presented with the ways in which some of the most significant books ever written shaped, altered, and influenced the formation of human civilization.

The Great Books minor requires a minimum of 18 hours of courses, with the provision that no more than 6 hours may be taken in a single department. The program advisor may approve the substitution of courses under some circumstances.

Required course (3 hours):
PHIL 4600 Philosophy of History

## Electives (15 hours):

ANTH 3710 Topics in Anthropology
ENGL 3010 British Literature I
ENGL 3020 British Literature II
ENGL 3110 English Literature: The Medieval Period
ENGL 3120 English Literature: The Sixteenth Century
ENGL 3130 English Literature: The Seventeenth Century
ENGL 3160 English Drama: 1475-1642 (excluding Shakespeare)
ENGL 3210 English Literature: Restoration and Eighteenth Century
ENGL 3220 English Literature: 1790-1850
ENGL 3230 English Literature: The Victorian Period
ENGL 3310 Nineteenth-Century American Literature
ENGL 3320 Twentieth-Century American Literature
ENGL 3330 Southern Literature
ENGL 3340 African American Literature
ENGL 3400 European Literature to 1400
ENGL 3420 European Literature: 1400-1800
ENGL 3430 Modern European Literature
ENGL 3440 The Bible as Literature
ENGL 3725 Nineteenth-Century Women Writers
ENGL 3730 Twentieth-Century Women Writers
ENGL 4230 Selected British Writers After the Restoration
ENGL 4110 Chaucer: The Canterbury Tales
ENGL 4130 Shakespeare: The Sixteenth Century
ENGL 4140 Shakespeare: The Seventeenth Century
ENGL 4180 Milton
ENGL 4240 Modern British Literature

ENGL
ENGL
ENGL
ENGL
ENGL
HUM 2610 Foreign Literature in Translation
HIST 3020 Topics in American History
HIST 3090 Topics in European History
HIST 4410 Classical History
PHIL 3200 Asian Thought
PHIL 4010 History of Ancient and Medieval Philosophy
PHIL 4020 History of Modern Philosophy
PHIL 4050 Nineteenth-Century Philosophy
PHIL 4200 Existentialiasm
PHIL 4300 American Philosophy
PHIL 4400 Analytic Philosophy
PHIL 4450 Marx and Marxism
PHIL 4500 Philosophy of Science
PHIL 4600 Philosophy of History (required for all students in the minor)
PS 4230 Classical Political Theory
PS 4700 American Political Thought
PS 4920 Modern Political Theory
PSY 4490 Operant Conditioning (philosophy of B.F. Skinner's behaviorism)
SOC 4150 Topics in Sociology
THEA 4800 Theatre History I: Greek Period to Restoration
THEA 4810 Theatre History II: Restoration to Present
UH Depending on whether the subject calls for close examination of important texts, some upper-division Honors courses may be designated as Great Books courses. Examples of Honors courses participating in the minor include "Legends of King Arthur" and
"Great Books of the Middle Ages."
UH 4600 Senior Interdisciplinary Seminar
(Approved Great Books topics only)
Non-College of Liberal Arts courses:
JOUR/RIM/EMC
3650 Free Expression, Mass Media, and the American Public
JOUR 4800 Seminar in Media Issues

## Health Care Services

Advisor: Margaret Fontanesi-Seime, Department of Social Work, PH 120
The minor in Health Care Services is interdisciplinary in nature with aging studies, human sciences, physical education, nursing, social work, and sociology courses. Consisting of both traditional and pre-health science coursework, the program is designed to meet the needs of students wishing to work in a variety of health care settings.

Eighteen semester hours are required to complete the minor in Health Care Services.

[^3]
## Latin American Studies

Advisor: Oscar Diaz, Department of Foreign Languages and Literatures, BDA 326

The minor in Latin American Studies introduces the student to the cultural diversity and richness of Latin America and its people and can enhance career opportunities and effectiveness in business, government, health care, journalism, law, and social work. The minor requires 18 semester hours. Courses selected must come from at least three different academic departments. Note: All students minoring in Latin American Studies are required to complete SPAN/GEOG/ART/ANTH/ SOC/PS 2105 Introduction to Latin American Studies. In addition, all students are required to complete Intermediate Portuguese or Spanish II (SPAN 2020) or the equivalent. SPAN 2010, 2020 cannot count for both a Spanish major and a Latin American Studies minor. SPAN 2010 and SPAN 2020 may count for the B.A. degree language requirement. Students are encouraged to take more Spanish courses to develop basic conversational fluency or participate in study abroad programs to Latin America.
Language credits may be earned at MTSU or through an approved overseas program or transferred from another accredited college or university. Students may satisfy the language requirement by examination (a placement test), demonstrating a level of competence equivalent to two years of college Spanish or Portuguese. Students whose native language is either Spanish or Portuguese may substitute equivalent competence in English in lieu of this requirement.

## Required courses ( 6 hours):

## SPAN/GEOG/ART/ANTH/SOC/PS

2105 Introduction to Latin American Studies
SPAN 2020 Intermediate Spanish II OR
PORT 2020 Intermediate Portuguese II (or equivalent)

## Electives (12 hours):

| ANTH | 3517 | Peoples and Cultures of Brazil |
| :--- | :--- | :--- |
| ANTH | 3518 | Peoples and Cultures of Latin America |
| ANTH | 3521 | Mesoamerican Archaeology |
| ART | 3871 | Mesoamerican Art |
| ART | 3872 | Andean Art |
| ART | 3880 | Latin American Art |
| ECON | 4470 | Economic Development of the Third World |
| GEOG | 3402 | Field Course |
| GEOG | 3420 | Geography of Latin America |
| HIST | 3140 | Latin American History |
| HIST | 4490 | Mexico and the Caribbean |
| HIST | 4510 | Colonial Latin America |
| HIST | 4520 | Modern Latin America |
| HIST | 4530 | Latin American-United States Relations |
| HUM | 3500 | Latino Images in U.S. Film |
| PS | 3210 | International Relations |
| PS | 4900 | Latin American Politics |
| PORT | 2010 | Intermediate Portuguese I |
| PORT | 2020 | Intermediate Portuguese II |
| PORT | 3070 | Brazilian Culture |
| SPAN | 2010 | Intermediate Spanish I |
| SPAN | 2020 | Intermediate Spanish II |
| SPAN | 3060 | Introduction to Hispanic Culture |
| SPAN | 3070 | Introduction to Latin American Civilizations |
| SPAN | 4040 | Latin American Literature I |

SPAN 4045 Topics in Hispanic Cinema
SPAN 4050 Latin American Literature II
SPAN 4090 Special Topics in Latin American Literature or Culture
SPAN 4910 Directed Readings in Latin American Literature and Culture
COMM 3560 Intercultural Communication
Directed readings or special topics in any pertinent department may be pursued with prior approval of the instructor involved and the Latin American Studies advisor.

## Leadership Studies

Advisor: Janet McCormick, Department of Speech and Theatre, BDA 205

The minor in Leadership Studies requires 17 hours and is designed to foster leadership development through a curriculum that includes the study of leadership theories, organizational communication, group dynamics, personal development, and community-based learning.

## Required courses (5 hours):

LEST 3010 Leadership Theories and Practices
LEST 4001 Integrative Seminar in Leadership Studies
EXL 3020 Leadership Studies Practicum

## Electives (12 hours):

At least course must be chosen from each of the three competency areas:

## Leadership and Communication

COMM 2300 Interpersonal Communication
COMM 3220 Small Group Communication
COMM 4900 Internship in Communication
ORCO 3240 Introduction to Organizational Communication
ORCO 3500 Strategic Communication in Organizations
ORCO 3650 Conflict and Organizations

| Leadership and Organizations/Groups |  |  |
| :--- | :--- | :--- |
| MGMT | 3610 | Principles of Management |
| MGMT | 4200 | Leadership in Organizations |
| ORCO | 4220 | Internship in Organizational Communication |
| PS | 3100 | Politics and Film |
| PS | 3250 | Public Administration |
| PSY | 2210 | Psychology of Social Behavior |
| PSY | 4360 | Organizational Psychology |
| PSY | 4380 | Group Dynamics |
| REC | 3520 | Leadership and Group Processes in Recreation and |
|  | Leisure Services |  |
| SOC | 3950 | Social Organizations and Institutions |
| SOC | 4500 | Social Psychology |


| Leadership and Personal Development |  |  |
| :--- | :--- | :--- |
| ABAS | 4250 | Leadership in Agricultural Industries |
| COMM | 4320 | Theories of Persuasive Communication |
| MGMT | 3890 | Managerial Decision Making |
| MGMT | 3940 | Business Ethics |
| MGMT | 4680 | Organization Behavior |
| ORCO/ |  |  |
| LEST | 3245 | Women, Leadership, and Communication |
| PHIL | 3150 | Ethics |
| PSY | 4390 | Persuasion |
| PSY | 4460 | Psychology of Happiness and Well-Being |
| UH/ |  |  |
| UNIV | 4010 | MTSU Institute of Leadership Excellence |
| WMST | 2500 | Women and Leadership |

## Linguistic Studies

Advisor: Richard E. Morris, Department of Foreign Languages and Literatures, BDA 310

The minor in Linguistic Studies exposes students to the many ways that humans use and interact with language. Students are presented with a comprehensive view of how linguistics is examined in the disciplines of anthropology, English, psychology, communication disorders, classical and modern languages, and philosophy. Courses are grouped into four categories: foundation, formation, language, and electives. Upon completing the minor, the student should have broad knowledge of linguistics and linguistic principles, as well as specific knowledge relating to a chosen language of focus. The minor requires 18 credit hours. NOTE: Relevant directed readings, independent study, special topics, or internships in any pertinent department may be pursued towards the minor with prior approval of the minor advisor. Students with transfer credit in a modern or classical language not offered at Middle Tennessee State University may request a substitution from the advisor.

## Foundation (3 hours): <br> Descriptive Linguistics ( 3 hours from the following): <br> ENGL 3570 Introduction to Linguistics <br> (Should be taken during the first two semesters in the program.)

Formation (9 hours from the following):

| ANTH | 3410 | Linguistic Anthropology |
| :--- | :--- | :--- |
| CDIS | 3260 | Language Acquisition and Analysis |
| ENGL | 4520 | The Structure of English |
| ENGL | 4570 | Special Topics in Linguistics |
| HUM | 3000 | Special Topics in Foreign Language Linguistics |
| PHIL | 4350 | Philosophy of Language |
| PSY | 4820 | Psychology of Language |
| (Three different prefixes required.) |  |  |

Language (3 hours from the following):
ARAB $1020 \quad$ Elementary Arabic

| ARAB | 1020 | Elementary Arabic II |
| :--- | :--- | :--- |
| CHIN | 1020 | Elementary Chinese II |
| FREN | 1020 | Elementary French II |
| GERM | 1020 | Elementary German II |
| HEBR | 1020 | Elementary Hebrew II |
| ITAL | 1020 | Elementary Italian II |
| JAPN | 1020 | Elementary Japanese II |
| LATN | 1020 | Elementary Latin II |
| PORT | 1020 | Elementary Portuguese II |
| RUSS | 1020 | Elementary Russian II |
| SPAN | 1020 | Elementary Spanish II |

Electives (3 hours):

| CDIS | 3050 | Introduction to Communication Disorders |
| :--- | :--- | :--- |
| CDIS | 3150 | Phonetics |
| CDIS | 3400 | Anatomy and Function of the Speech <br> Mechanism |
| ENGL | 4510 | Modern Engish Grammar and Usage <br> ENGL <br> 4530 |
| History of the English Language |  |  |
| ENGL | 4570 | Special Topics in Linguistics <br> SPAN |
| 120 | Spanish Phonetics and Pronunciation |  |

NOTE: Alternately the student may choose any Formation course as an elective.

## Media, History, and Culture

Advisor: Kristine McCusker, Department of History, PH 285
The minor in Media, History, and Culture consists of 18 hours. Two core history courses selected from HIST 4070, 4130, 4740,3050 , or 4760 are required. Students who have not had JOUR/EMC 1020 must take it also; history majors must substitute JOUR/EMC 1020 for one of the core history courses. Journalism and Electronic Media Communication majors must select their four electives from College of Liberal Arts courses. No more than two courses may be taken for minor credit from any one department.
Required courses ( $\mathbf{6}$ hours)*:
HIST
H050
HIST
Topics in Southern Studies
HIST
HIT
HIST
Modern America, Post-1945
HIST
H740 Sunbelt
American Cultural and Intellectual History
*History majors must substitute JOUR/EMC 1020 for one of the history core.

## Electives ( $\mathbf{1 2}$ hours):

ENGL 3815 Survey of Popular Culture
ENGL 3850 Literature and Film
ENGL 3860 Film Genre
ENGL 3870 Film History
ENGL 3880 Women and Film
ENGL 4855 Film Theory and Criticism
ENGL 4860 Special Topics in Film Studies
HIST 3050 Topics in Southern Studies
HIST 4070 Modern America, Post-1945
HIST 4130 The Sunbelt
HIST 4740 American Cultural and Intellectual History
HIST 4760 America Divided: Race, Class, and Gender
MUHL 3670 History of Popular Music in America
PHIL 3600 Philosophy and Film
PS $\quad 3100$ Politics and Film
PS $\quad 3320$ Public Opinion
SOC 3320 Public Opinion and Propaganda
SOC 4170 The Social Context of Southern Music
SOC 4200 African American Film, Theater, and Television Images
THEA 4810 Theatre History II: Restoration to Present

## Non-College of Liberal Arts courses:

JOUR/EMC/
RIM 1020 American Media and Social Institutions
JOUR/EMC 3000 Introduction to Motion Pictures
JOUR/RIM 3100 Music as Popular Culture
JOUR/EMC 3510 Media History and American Culture
JOUR/RIM/
EMC 3650 Free Expression, Mass Media, and the American Public
RIM $\quad 3000$ History of the Recording Industry
UH 4600 Senior Interdisciplinary Seminar:
WMST 4204 Symposium in Women's Studes: Women and Television

NOTE: Mass Communication courses cannot be taken for minor credit by Journalism and Electronic Media Communication majors.

## Medieval Studies

Advisor: Louis Haas, Department of History, PH 223
The minor in Medieval Studies allows students to pursue their interest in the Middle Ages by taking courses in a combination of academic disciplines, including history, English, foreign languages, and philosophy. A student may earn no more than 3 hours credit toward the minor in the same department or discipline in which he/she is taking a major. No course may be taken for both major and minor credit.

## Select 18 hours from the following:

| ENGL | 3110 | English Literature: The Medieval Period |
| :--- | :--- | :--- |
| ENGL | 3400 | European Literature to 1400 |
| ENGL | 4110 | Chaucer: The Canterbury Tales |
| FREN | 4050 | Topics in Medieval and Renaissance French |
|  |  | Literature |
| HIST | 4210 | Middle Ages |
| HIST | 4220 | Renaissance Europe |
| HIST | 4420 | The Medieval Mediterranean World |
| HUM | 3950 | Women in the Middle Ages |
| LATN | 1010 | Elementary Latin I |
| LATN | 1020 | Elementary Latin II |
| PHIL | 4010 | History of Ancient and Medieval Philosophy |
| SPAN | 4070 | Special Topics in Spanish Literature or Culture |
| UH | 4600 | Senior Interdisciplinary Seminar: |
|  |  | The Medieval Experience |

## Middle East Studies

Director: Allen Hibbard, MGB 107
See page 95 for additional information.

## Native American Studies

Advisor: Kevin E. Smith, Department of Sociology and Anthropology, TODD 313
The minor in Native American Studies draws upon the resources of art, English, geography and geology, history, and sociology and anthropology to provide a comprehensive examination of the prehistory, history, culture, literature, art, and contemporary issues of Native Americans. The minor in Native American Studies requires 18 credit hours, including 3 hours of required courses, and 15 hours of general electives from the list below. Note: ANTH 4910, ART 3870, ART 4960, GEOG 4280, and UH 3500 (directed, independent study, or variable topics courses) cannot be applied towards this minor without prior approval of the minor advisor. No more than 3 hours of these courses may be applied towards the minor.

## Required Course (3 hours):

SOC 4240 Race and Ethnic Relations

## Electives ( $\mathbf{1 5}$ hours):

ANTH 3515 Peoples and Cultures of Native North America
ANTH 3520 North American Prehistoric Archaeology
ANTH 4910 Anthropology Undergraduate Research
ART 3870 Native American Art
ART 4960 Independent Studies in Art History
ENGL 3300 Native American Literature
ENGL 4900 Selected Topics in Literature/Language: Native American Literature
GEOG 4280 Special Problems and Topics in Geography
GEOG 4540 Geography of Native Americans
HIST 4690 Native American History
UH 3500 Junior Interdisciplinary Seminar

## Paralegal Studies

Advisors: Clyde Willis, Department of Political Science, PH 255

The Paralegal Studies minor is designed for those who do not plan to attend law school but who would like to work as legal assistants in law offices, governmental agencies, or other law-related organizations. Such assistants typically do legal research and handle routine legal matters under the supervision of attorneys. The minor requires a total of 30 hours, but where appropriate, students are permitted to double count classes in their major and minor. There is no limit on the number of hours a student may take in a single discipline. Students interested in this minor should contact an advisor in the Political Science Department as early in their careers at MTSU as possible.

## Required courses ( $\mathbf{1 5}$ hours):

PS 2440 Law and the Legal System
PLEG 3010 Litigation
PLEG 3410 Family Law
PLEG 3420 Torts
PS 3530 Legal Writing and Research
Electives (6 hours):
PLEG 4010 Internship
PS 4590 Administrative Law
BLAW 3400 Legal Environment of Business
BLAW 3430 Commercial Law
BLAW 3460 Insurance Law
BLAW 4420 Estate Administration
BLAW 4470 Real Estate Law
BLAW 4490 Industrial Relations Legislation
BLAW 4500 Employment Discrimination Law
RIM 3700 Copyright Law
CJA 2400 The Judicial Process
CJA 3250 Criminal Law
Students must also meet the following collateral requirements ( 9 hours):
PS 2010 American Government and Politics
BCEN 2330 Word Processing Concepts
INFS 2200 Introduction to Microcomputing

## Portuguese Studies

Advisor: Soraya Nogueira, Department of Foreign Languages and Literatures, BDA 322
The Portuguese Studies minor is designed to develop basic reading, writing, and conversatoin skills in Portuguese, as well as obtain greater cultural knowledge of the Portuguesespeaking world.
The minor consists of 18 hours. All students will be required to take ANTH 2517, 3 hours in a course other than Portuguese, and 12 hours in Portuguese grammar, conversation, and literature. The integration of language and culture classes will provide students with a well-rounded view of the Portuguesespeaking world.

## Required courses (18 hours):

ANTH 2517 Introduction to the Portuguese World
3 hours in a course other than Portuguese
Portuguese Language and Literature ( 12 hours):
PORT 1020 Elementary Portuguese II
PORT 2010 Intermediate Portuguese I

PORT 2020 Intermediate Portuguese II
PORT 3010 Advanced Portuguese I
PORT 3020 Advanced Portuguese II
PORT 3070 Brazilian Popular Culture
PORT 3990 Study Abroad
ANTH 2517 Introduction to the Portuguese World
ANTH 3516 Peoples and Cultures of Europe
ANTH 3517 Peoples and Cultures of Brazil
ANTH 3990* Study Abroad
ANTH 4940 Ethnographic Field School (in Brazil)
*NOTE: Credit for this course can be used for the language requirement only if course instruction and testing is in Portuguese.

## Russian Studies

Advisor: Andrei Korobkov, Department of Political Science, PH 251

The Russian Studies minor is designed to increase students' knowledge and understanding of the politics, history, geography, culture, and language of Russia and Eastern Europe.
The minor consists of 18 semester hours. No course may be counted for both major and minor credit. Students must abide by policies (including prerequisites) and prohibitions established by their departments in their major fields. A student may take no more than 6 hours in a single department ( 9 in Political Science) unless he/she surpasses the required 18 hours (Study Abroad programs in Russia, the post-Soviet state, or Eastern Europe or the Special Topics courses dealing with that region will not count toward this limit).

## Required courses (9 hours):

PS 4770 Russian Politics
Plus two of the following:
HIST 4330 Russia to the Twentieth Century
HIST 4340 Russia in the Twentieth Century
GEOG 3460 Geography of the Former Soviet Union
PS 3790 Eastern European Politics
RUSS 1010 Elementary Russian I
RUSS 1020 Elementary Russian II
ENGL 4900 Selected Topics in Literature and Language

## Electives (9 hours):

English
ENGL 4900 Selected Topics in Literature and Language

## Foreign Languages and Literatures

RUSS 1010 Elementary Russian I
RUSS 1020 Elementary Russian II
RUSS 2010 Intermediate Russian I
RUSS 2020 Intermediate Russian II

## Geosciences

GEOG 3460 Geography of the Former Soviet Union

## History

HIST 4330 Russia to the Twentieth Century
HIST 4340 Russia in the Twentieth Century
Both of the above or one of the above and one of the following:
HIST 3150 Twentieth Century Global History
HIST 4240 Europe: Absolutism and Enlightenment
HIST 4270 Europe 1815-1900
HIST 4280 Europe 1900-1939
HIST 4290 Europe Since 1945
HIST 4840 World War II
Philosophy

| PHIL | 4450 | Marx and Marxism |
| :--- | :--- | :--- |
| PHIL | 4800 | Readings in Philosophy (approval of the minor |
|  |  | advisor is required regarding the topic of study) |

## Political Science

PS 3780 Study Abroad (approval of the minor advisor is required regarding the country of study)
PS 3790 Eastern European Politics
PS 4390 Special Topics in Political Science (approval of the minor advisor is required regarding the topic of study)
PS 4920 Modern Political Theory
Or one of the above plus one of the following:
PS 4220 World Politics
PS 4240 American Foreign Policy
PS 4250 U.S. National Security Policy

## Southern Studies

Advisor: Robert Hunt, Department of History, PH 276
The Southern Studies minor provides a multidimensioned examination of a diverse geographical, historical, and cultural region called the South. The minor consists of 18 semester hours taught in five different departments. There are no required core courses. Students may take no more than three courses from any one of the participating departments and must take at least one course from three of the five participating departments. No course taken in the Southern Studies minor can count for credit in a student's major.
Select 18 hours from the following:
ENGL 3330 Southern Literature
ENGL 3340 African American Literature
ENGL 3760 Introduction to Folklore
EST 4760 Seminar in Environmental Science and Technology
EST 4810 Energy and the Environment
GEOG 4340 Historical Geography
GEOG 4470 Rural Settlement
HIST 3050 Topics in Southern Studies (various courses are offered under this label-consult with minor advisor)
HIST 3170 History of the American South in Film
HIST 4150 The American South
HIST 4640 Environmental History
HIST 4750 African American Social and Intellectual History
SOC 4170 The Social Context of Southern Music

## Twentieth-Century European Studies

Advisor: Fred Colvin, Department of History, PH 268
The minor allows students to pursue a broad coverage of many aspects of twentieth-century Europe or a particular country or theme. The minor attracts students who are interested in a multidisciplined understanding of contemporary European politics, culture, economics, and social and intellectual developments. Courses are selected from nine different departments in consultation with the minor's advisor.

| Select $\mathbf{1 8}$ hours from the following: |  |  |
| :--- | :--- | :--- |
| ART | 4900 | Nineteenth Century Art |
| ECON | 4440 | International Economics |
| ECON | 4660 | History of Economic Thought |
| GEOG | 3430 | Geography of Europe |
| GEOG | 3460 | Geography of the Former Soviet Union |
| HIST | 4370 | Britain in the Twentieth Century |
| HIST | 4790 | Women in Europe Since 1700 |
| HIST | 4260 | France Since 1870 |
| HIST | 4280 | Europe 1900-1939 |
| HIST | 4290 | Europe Since 1945 |
| HIST | 4320 | Germany Since 1870 |
| HIST | 4340 | Russia in the Twentieth Century |
| MGMT | 47100 |  |
| MKT | 4710 | International Business |
| PHIL | 4200 | Existentialism |
| PHIL | 4240 | Recent Continental Philosophy |
| PS | 4300 | Comparative European Governments |
| PS | 4770 | Russian Politics |
| PS | 4920 | Modern Political Theory |

## Languages

FREN 1010, 1020, 2010, 2020, 3010, 3020 Elementary I, II;
Intermediate I,II; and Advanced
GERM 1010, 1020, 2010, 2020, 3010, 3020 Elementary I, II;
Intermediate I,II; and Advanced
RUSS 1010, 1020, 2010, 2020 Elementary I,II and Intermediate I, II SPAN 1010, 1020, 2010, 2020, 3010, 3020 Elementary I, II; Intermediate I,II; and Advanced

## Literature and Film

ENGL 3430 Modern European Literature
ENGL 3810 British Popular Culture
ENGL 4425 Backgrounds of Modern Literature
ENGL 4240 Modern British Literature
ENGL 4450 Modern Poetry
ENGL 4460 Modern Novel
ENGL 4470 Modern Drama
FREN 3060 Survey of French Literature (1800-present)
FREN 4010 Topics in Twentieth-Century French Literature
FREN 4020 Topics in French Film
GERM 4010 Topics in German Literature and Culture
GERM 4030 German Literature: 1880 to Present
SPAN 4030 Spanish Literature II
HUM 2610 Foreign Literature in Translation

## Urban Studies

Advisor: Sekou Franklin, Department of Political Science, PH 246

Students must take 18 hours from the following courses, no more than 6 hours of which may be in a single department.

Select 18 hours from the following:

| ABAS | 4350 | Soil Survey and Land Use |
| :--- | :--- | :--- |
| ABAS | 4640 | Landscaping |
| FIN/ECON |  |  |
| 4310 |  | Problems in Government Finance |
| ECON | 4500 | Urban and Regional Economics |
| EST | 4810 | Energy and the Environment |
| GEOG | 4370 | Urban Geography |
| GEOG | 4490 | Remote Sensing |
| HIST | 4660 | American Architectural History |
| HIST | 4670 | American Urban History |
| PS | 3400 | Municipal Government |
| PS | 4050 | Introduction to City and Regional Planning |
| PSY | 4120 | Psychology of Criminal Behavior |
| PSY | 4380 | Group Dynamics |
| SOC | 4510 | Social Movements and Social Change |
| SOC | 4660 | Urban and Community Studies |

## Women's and Gender Studies

Director: Elyce R. Helford, JUB 308
See page 95 for additional information.

## Writing

Advisor: Ron Kates, Department of English, PH 342
An interdisciplinary minor in Writing, offering writing-intensive selections across the curriculum, requires a minimum of 18 hours of courses chosen from the list below, with the provision that no more than 12 hours may be taken in any one department.

## Select 18 hours from the following:

BCEN 3510 Business Communication
BCEN 4510 Business Report Writing
EMC 3020 Writing for the Electronic Media
EMC 3060 Writing for Digital Media
EMC 4020 Advanced Scriptwriting
ENGL 3570 Introduction to Linguistics
ENGL 3620 Professional Writing
ENGL 3645 Fiction Writing
ENGL 3655 Poetry Writing
ENGL 3665 Playwriting
ENGL 4510 Modern English Grammar and Usage
ENGL 4600 Writing Internship
ENGL 4605 Advanced Composition
ENGL 4670 Special Topics in Writing
JOUR 3450 Editing
JOUR 3520 Specialized Journalism
JOUR 3530 Feature Writing
JOUR 3590 Magazine Writing and Editing
JOUR 4300 Reviewing and Criticism
PS 3530 Legal Writing and Research
THEA 4600 Storytelling
THEA 4820 Playwriting


# African American Studies Program 

Adonijah L. Bakari, Director<br>Peck Hall 280

The African American Studies Program offers an undergraduate interdisciplinary minor. The primary objective is to provide students an opportunity to examine the multidimensional, multicultural experiences of African Americans and their responses to the blending of an African heritage and American culture.

The person who completes the African American Studies minor will have enlarged perspectives and increased skills and marketability for jobs in the fields of education, criminal justice, social work, governmental departments and agencies, and in the private sector.
Interdisciplinary minors are open to all students in the University. A student may take no more than 6 hours in a single department toward an interdisciplinary minor unless he or she surpasses the required 18-21 hours necessary for that minor. A student may take no more than 3 hours credit toward a minor in the same department or discipline in which he/she is taking a major, and no course may be counted for both major and minor credit. Students must fulfill all departmental prerequisites for any course within an interdisciplinary minor. The minor in African American Studies requires 21 semester credit hours including 12 hours of foundation courses.

## Required courses (12 hours):

| AAS | 2100 | Introduction to African American Studies |
| :---: | :---: | :--- |
| AAS/ENGL | 2020 | Themes in Literature and Culture: <br> Survey of Afro-American Literature |
|  |  | AAS/PSY |
| 3250 | Perspectives on Black Psychology |  |
| AAS/HIST | 2040 | Survey African American History I OR |
| AAS/HIST | 2050 | Survey African American History II |

## Electives (9 hours):

| AAS | 3180 | African Politics |
| :--- | :--- | :--- |
| AAS | 4600 | Interdisciplinary Seminar in African American <br> Studies |
| AAS | 4990 | Independent Study in African American Studies <br> AAS/ANTH <br> AAS/ENGL |
| 3514 | People and Cultures of Africa |  |
| AAS/GEOG | 3470 | African American Literature |
| AAS/HIST | 2040 Survey African American History I |  |
| AAS/HIST | 2050 Survey African American History II |  |
| AAS/HIST | 4430 | Sub-Saharan Africa |
| AAS/HIST | 4490 | Mexico and the Caribbean |
| AAS/HIST | 4750 African American Social and Intellectual History |  |
| AAS/MUHL | 4530 History of Jazz |  |
| AAS/SOC | 4200 | African American Film, Theater, and Television |
|  | Images |  |

AAS/SW
PS
SOC

## Courses of Related Interest

Courses considered consistent with the goals and objectives of the African American Studies program are designated as "of related interest." However, African American Studies minors MAY NOT use these courses towards the minor without prior approval from the program's director.
ECON 4470 Economic Development of the Third World
HIST 3030 Topics in African American History
HIST 4760 America Divided: Race, Class, and Gender
PSY 4720 Multicultural Perspectives in Psychology and Education
Courses in African American Studies [AAS]
See course descriptions in back of catalog.


# Aging Studies Program 

J. Brandon Wallace, Director<br>Andrew L. Todd Hall 330

The Aging Studies Program offers an interdisciplinary minor in Gerontology designed to meet the needs of students interested in pursuing a career working with or for the older adult population. The minor provides students the opportunity to examine the biological, psychological, sociological, and cultural perspectives which influence the status of the aging individual in society. Students who complete the Gerontology minor will be exposed to the basic social policies and personal skills required for working effectively with older persons.

## Program Requirements

The minor requires the successful completion of 15 semester hours. All students are required to take GERO 2600. The remaining 12 hours may be selected from other Gerontology courses or approved departmental courses. The general requirement for an interdisciplinary minor is that students may not take more than six hours from a single department. To strengthen research or applied skills, students are encouraged to complete either GERO 4800 or GERO 4900.

## Interdisciplinary

GERO 2600 Introduction to Gerontology
GERO 4030 Topics in Gerontology
GERO 4800 Special Projects
GERO 4900 Practicum

## Departmental

CDFS 3300 Caring Across Generations
CDFS 4390 Families in Later Life
CDFS 4391 Aging Health and Development
NFS 4210 Nutrition in Aging
NURS 3370 Health and Gerontology
PSY 4610 Adult Psychology and Aging
PSY 4630 Death and Dying
REC 3380 Introduction to Recreation for Persons with a Disability
REC 4470 Leisure and Aging
SOC 4020 Sociology of Aging
SW 3170 Family Caregiving Across the Life Span
SW 4430 Social Work with the Terminally III
SOC 4040 Health Care Delivery Issues
CDIS 4800 Speech and Language Disorders in the Adult Population

## Courses in Gerontology [GERO]

See back of catalog for course descriptions.

# Global Studies Program 

Douglas Heffington, Director<br>Peck Hall 217

The objectives of this interdisciplinary major and minor are to prepare students to make effective decisions as global citizens; induce and nurture global and international perspectives in students as they pursue various academic majors and career goals; and increase academic opportunities for undergraduate students to study, learn, and explore cultural and physical environments other than their own.

## Program Requirements

Global Studies courses are selected from over 100 courses in five colleges at MTSU. There are three concentrations within the Global Studies major-Globalization and Culture, Globalization and Commerce, and Globalization and Science-and a minor with different emphases. The student selecting Globalization and Culture will take courses largely from the liberal and fine arts and the humanities; those selecting Globalization and Commerce can choose courses from disciplines such as business, finance, and economics; those who choose Globalization and Science will typically take courses in basic and applied sciences or human/behavioral science. In all concentrations, the primary goal of the Global Studies major is to broaden the world perspective of students and prepare them for the global marketplace.

## Required General Education Courses ( 41 hours)

Students select courses in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences as outlined on pages 64-67.

## Required Courses ( 9 hours)

GS 2010 Introduction to Cross-Cultural Experiences (3 hours)
GS 3010 Field Experience and Study Abroad (1-12 hours, 3 hours required)
GS 4990 Senior Seminar (3 hours)

## Concentration ( $\mathbf{2 4}$ hours)

With the advisement of the Global Studies advisor/director, students select concentrations that best reflect their academic, professional, and personal interests (Globalization and Culture, Globalization and Commerce, or Globalization and Science). Students select courses to total at least 24 hours of credit. No more than four (4) courses may be selected from a single discipline.

## Electives (16-19 hours)

Electives will reflect the student's academic and career interests and will be chosen with the advisement of the Global Studies advisor/director

## Foreign Language ( $\mathbf{1 2}$ hours)

Global Studies majors will successfully complete 12 hours of a foreign language that best suits their academic and career needs.

# Global Studies Program 

## Douglas Heffington, Director Peck Hall 217

The objectives of this interdisciplinary major and minor are to prepare students to make effective decisions as global citizens; induce and nurture global and international perspectives in students as they pursue various academic majors and career goals; and increase academic opportunities for undergraduate students to study, learn, and explore cultural and physical environments other than their own.

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Global Studies courses are selected from over 100 courses in five colleges at MTSU. There are three concentrations within the Global Studies major-Globalization and Culture, Globalization and Commerce, and Globalization and Science-and a minor with different emphases. The student selecting Globalization and Culture will take courses largely from the liberal and fine arts and the humanities; those selecting Clobalization and Commerce can choose courses from disciplines such as business, finance, and economics; those who choose Globalization and Science will typically take courses in basic and applied sciences or human/behavioral science. In all concentrations, the primary goal of the Global Studies major is to broaden the world perspective of students and prepare them for the global marketplace.

## Required General Education Courses ( 41 hours)

Students select courses in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences as outlined on pages 64-67.

## Required Courses (9 hours)

GS 2010 Introduction to Cross-Cultural Experiences (3 hours)
GS 3010 Field Experience and Study Abroad (1-12 hours, 3 hours required)
GS 4990 Senior Seminar (3 hours)

## Concentration (24 hours)

With the advisement of the Global Studies advisor/director, students select concentrations that best reflect their academic, professional, and personal interests (Globalization and Culture, Globalization and Commerce, or Globalization and Science). Students select courses to total at least 24 hours of credit. No more than four (4) courses may be selected from a single discipline.

Electives (16-19 hours)
Electives will reflect the student's academic and career interests and will be chosen with the advisement of the Global Studies advisor/director
Foreign Language ( $\mathbf{1 2}$ hours)
Global Studies majors will successfully complete 12 hours of a foreign language that best suits their academic and career needs.

## Minor (15-18 hours)

Global Studies majors will select minors that reflect their academic or professional goals and interests with the advisement of the Global Studies advisor/director

## Minor in Global Studies

A minor in Global Studies requires a minimum of eighteen credit hours depending on the academic emphasis chosen. Nine required hours include the three-hour introductory course GS 2010 (Introduction to Cross-Cultural Experiences) and the capstone course GS 4990 (Senior Seminar). Students will also be required to take a minimum of three hours of GS 3010 (Field Experience and Study Abroad), however up to 12 hours can be obtained. To complete the minor, a minimum of three courses will be selected from approved courses in the departments/programs listed with the advisement and approval of the program director. (See departments/programs below with courses meeting global, international, and cross-cultural focus of the minor). Students may select courses within the minor's areas of emphasis: globalization and culture, globalization and commerce, or globalization and science.

## Courses in Global Studies [GS]

See back of catalog for course descriptions.
Courses containing a global, international, and/or crosscultural focus can be found within the departments/programs listed below. The student will select eight courses for the major or three courses for the minor from these with the approval of the Global Studies director.

## College of Basic and Applied Sciences Aerospace

Agribusiness and Agriscience
Biology
Chemistry
Computer Science
Mathematical Sciences
Physics and Astronomy

## Jennings A. Jones College of Business

Accounting
Business Communication and Entrepreneurship
Economics and Finance
Management and Marketing

## College of Education and Behavioral Science

Criminal Justice Administration
Health and Human Performance
Human Sciences
Psychology

## Liberal Arts

Art
English
Foreign Languages and Literatures
Geosciences
History
Music
Philosophy
Political Science
Social Work
Sociology and Anthropology
Speech and Theatre
College of Mass Communication
Electronic Media Communication
Journalism
Recording Industry


# Middle East Studies <br> Program 

## Allen Hibbard, Director Midgett Building 107

The interdisciplinary minor in Middle East Studies (one dimension of the MTSU Middle East Center mission) will provide students with opportunities to become better acquainted with the Middle East, a region of the world that increasingly has become a major force in international affairs. Students will have opportunities to learn about the history of the Middle East from the distant past to the present in addition to the people, culture, geography, language, art, music, and economics of the region. This coherent set of courses will provide a foundation for students wishing to do graduate work in Middle East Studies or pursue careers with businesses, NGOs (nongovernmental organizations), and other organizations with operations in the Middle East.

## Program Requirements

The minor requires 18 semester hours within an interdisciplinary structure. All students pursuing the minor are required to take 9 hours from the core and 9 hours from the general electives.
Required course (3 hours):
MES 2100 Introduction to Middle East Studies
Also Required ( 6 hours):
Two courses ( 6 hours) in Middle East languages. Currently ARAB 1010, 1020, 2010, and 2020 and HEBR 1010, 1020, 2010, and 2020 are offered at MTSU. Languages such as Farsi, Kurdish, Turkish, and Pashto may also be considered for transfer credit with approval from minor advisor.

Guided Electives (9 hours):
COMM 3570 Communication in the Middle East
GEOG 4500 Geography of the Midde East
HIST 3070 Topics in World History: France and the Middle East
HIST 3080 Topics in Modern Middle East History
HIST 4420 The Medieval Mediterranean World
HIST 4440 The Middle East
HUM 3600 Israeli Film
HUM 4000 Women of the Middle East: Representations and Perceptions
MES 2030 Literatures of the Middle East
MES 3100 Special Topics in Middle East Studies
MUHL 4140 Music of the Middle East
PS 4190 Middle East Politics
PS 4690 Comparative Foreign Policies and International Relations of the Middle East
RS 4050 Judiasm, Christianity, and Islam
UH 4600 Senior Interdisciplinary Seminar (Contemporary Middle East Culture)
NOTE: No more than two courses (6 hours) of electives may be taken in any ONE discipline.

Courses in Middle East Studies [MES]
See back of catalog for course descriptions.

# Women's Studies Program 

Newtona (Tina) Johnson, Director James Union Building 308

The Women's Studies Program offers the Women's and Gender Studies minor to enhance students' knowledge and understanding of gender issues and the position of women in society. The program encourages a historically grounded comparative, global feminist perspective. All courses are informed by theories of the social construction of gender and address issues of diversity including race, ethnicity, class, sexual orientation, nationality, age, and/or ability. The program emphasizes an interactive learning process and promotes scholarly research. Students may minor in one of two tracks: Women's Studies or Gender Studies.
Upon selecting the Women's and Gender Studies minor, students should complete a Minor Information Form and obtain advising through the program director.

## General Requirements

All students considering a minor in Women's and Gender Studies should take WMST 2100 as part of General Education requirements. All minors (both tracks) must also take WMST 4500 (completion of WMST 2100 and junior/senior standing required) plus 12 additional hours within an interdisciplinary structure as described below.

## Women's Studies Track

The Women's Studies track focuses on women's lives, thoughts, and social positions. The track consists of courses taught from a feminist perspective, within historical and contemporary contexts, incorporating multinational, multicultural, and multiracial points of view.
In addition to WMST 2100 and 4500, minors taking the Women's Studies track must complete one additional program (WMST) course plus 9 hours of electives from the full list below. Students may take no more than 3 hours per major field/department.

## Gender Studies Track

The Gender Studies track consists of courses that take a feminist approach to offer students knowledge and experience that facilitate intelligent and informed choice and communication regarding the socially constructed meaning of gender and gender issues within our multicultural, globalized society.
In addition to WMST 2100 and 4500, minors taking the Gender Studies track must complete either SOC 3400 or ANTH

3750 and 6 hours of electives from the following courses: ANTH 3710 ("Language and Gender" only); ANTH 3750 (if not taken for above requirement); CDFS/SOC 4140; CDFS 4340; COMM 3225; COMM 4800 ("Gayspeak, Communication, and Film" only); EMC/JOUR 4800 ("Race and Gender in the Mass Media" only); ENGL 3885; SOC 3400 (if not taken for above requirement); WMST 4213 ("Gender and Horror"); plus 3 hours from the full list of courses below.

## Program

WMST 2100 Introduction to Women's Studies (required for all minors)
Students should choose WMST 2100 as part of the General Education requirement under Social/Behavioral Sciences.
WMST 2500 Women and Leadership
WMST 3000 Women's Leadership Conference Practicum A
WMST 3001 Women's Leadership Conference Practicum B
WMST 3500 Women in the Media
WMST 3900 Women and Globalism
WMST 4201-4213 Symposium in Women's Studies (series)
WMST 4500 Feminist Theory (required for all minors)
WMST 4900 Independent Study (May be taken for credit no more than twice.)

## Departmental

Not all sections of a given course will earn Women's and Gender Studies credit; see online schedule for each term's approved offerings.
ANTH 3710 Topics in Anthropology (approved topics only)
ANTH 3750 Race, Class, and Gender
ART 4000 (approved topics only)
ART 4910 Women in Art
CDFS 4140 Violence in the Family
CDFS 4340 The Contemporary Family
CJA 3700 Women, Crime, and Justice Administration
COMM 3225 Gender Communication
COMM 4800 Special Topics in Communication (approved topics only)

DANC 4200 Women in Twentieth and Twenty-first Century Dance
ENGL 2020 Themes in Literature and Culture (approved topics only)
ENGL 3720 Early Women Writers
ENGL 3725 Nineteenth-Century Women Writers
ENGL 3730 Women Writers of the Twentieth Century
ENGL 3735 Black Women as Writers
ENGL 3880 Women and Film
ENGL 3885 Gender in Film
ENGL 4900 Selected Topics in Literature and Language (approved topics only)
ENGL 4950 Special Topics in Contemporary Literature (approved topics only)
FREN 3130 Twentieth-Century Women Writers in French
HIST 1020 Survey Western Civilization II (approved topics only)
HIST 3030 Topics in African American History (approved topics only)
HIST 4770 Women in America to 1890
HIST 4780 Women in America Since 1890
HIST 4790 Women in Europe Since 1700
HIST 4810 History of Women in the Third World
HLTH 4390 Women's Health
HUM 2610 Foreign Literature in Translation (approved topics only)
HUM 3950 Women in the Middle Ages
JOUR/EMC 4800 Seminar in Media Issues (approved topics only)
PHIL 4800 Readings in Philosophy: Feminist Epistemology
PS 3000 The Political Status of Women in the World
PS 3010 Women and the Law
PSY 4620 Psychology of Women
SOC 3400 Gender and Society
SOC 4030 Topics in Gerontology (approved topics only)
SOC 4150 Topics in Sociology (approved topics only)
SW 3050 Women and Poverty
THEA 3870 Women in Theatre


# University Honors College 

John R. Vile, Dean<br>Paul W. Martin Sr. Honors Building 205

The Honors College curriculum is designed with the needs of the superior student in mind. It is a Univer-sity-wide program, leading to a degree with University Honors in a major of the student's choice. Emphasis is on small classes, excellence of instruction, and interaction between students and professors.
The University Honors College is housed in the Paul W. Martin Sr. Honors Building, a facility designed to provide a sense of community among high-achieving students.
Entering freshmen are eligible to participate in the Honors College if they have a minimum high school GPA of 3.50 and a 25 composite score on the ACT. Returning MTSU and transfer students must have a cumulative GPA of 3.25 or greater to enroll in Honors classes.
Participation in the MTSU Honors College does not afford students an automatic waiver of out-of-state tuition.

## Graduation Requirements

To graduate from the College of University Honors, a student must

1. complete a minimum of 20 hours of lower-division Honors coursework;
2. complete a minimum of 4 hours of upper-division coursework (one hour of which must be a UH 3000 Honors Lecture Series);
3. complete a minimum of 3 hours interdisciplinary coursework (additional hours of interdisciplinary course hours may substitute for upper-division hours);
4. complete the Honors Thesis Tutorial, UH 4900, for 1 hour credit;
5. complete the Honors Thesis, UH 4950, an independent research or creative project, for at least 3 hours credit (an engraved University Honors College medallion is awarded);
6. have a minimum 3.25 GPA ;
7. file an Intent to Graduate with University Honors form no later than the beginning of the semester of graduation.

## Recognition

Students who graduate with University Honors

1. receive a certificate upon completion of 20 hours lower-division Honors coursework;
2. have all Honors coursework designated on their transcripts;
3. have University Honors College graduate designated on the official transcript;
4. wear special academic regalia at graduation.

## Departmental or School Honors Offerings

Honors sections are offered in the following schools or departments:

| Accounting | History |
| :--- | :--- |
| Aerospace | Health and Human |
| Art | Performance |
| Biology | Journalism |
| Business Communication and | Management and Marketing |
| Entrepreneurship | Mathematical Sciences |
| Chemistry | Music |
| Economics and Finance | Philosophy |
| Educational Leadership | Physics and Astronomy |
| Electronic Media Communication | Political Science |
| Elementary and Special Education | Psychology |
| English | Recording Industry |
| Foreign Languages | Social Work |
| and Literatures | Sociology and Anthropology |
|  | Speech and Theatre |

Honors students may receive Honors credit in non-Honors upper-division courses under special circumstances (see Honors Contract guidelines).

## The Honors Living and Learning Center

Students who enroll in at least one 3-hour Honors class per semester qualify for residence in the Honors College Living and Learning Community in Lyon Complex. MTSU Housing and Residential Life has worked with the Honors College to create a total learning environment that unites the educational and the residential experiences. The Lyon Complex, located in the historic section of campus, is home to a diverse group of students from all academic disciplines and includes both Honors and non-Honors students. Recently renovated, Lyon Complex includes Miss Mary and McHenry Halls and can house 236 students. Qualifying students may request residency on a first-come, first-served basis and may request a specific roommate. Amenities include

- computer lab
- resident assistant on each floor
- meeting rooms and study rooms with carrels
- service-learning classroom
- floor lounges
- community kitchens and laundry facilities on every floor
- activities and programs to encourage community and academic growth
- blue bus route transports students to the Paul W. Martin Sr. Honors Building with pickup every 5 to 10 minutes
- Honors Advisor available during peak times


## Courses in University Honors [UH]

See back of catalog for course descriptions.

## McNair Program

## L. Diane Miller, Director

McNair Office
Midgett Building 103

The MTSU McNair Program is a postbaccalaureate achievement program. The program is designed to increase the number of financially disadvantaged, firstgeneration, or underrepresented college students who pursue and complete the doctoral degree; to prepare promising students for graduate studies leading to the obtainment of a doctoral degree; and to help increase the diversity of college and university facilities. The program is named in honor of Ronald E. McNair, Challenger astronaut, 1978-1986.
The McNair Program is a Federal TRIO program that is funded by the U.S. Department of Education.
More information can be obtained from the
McNair Program
P.O. Box 301

Middle Tennessee State University
Murfreesboro, TN 37132
www.mtsu.edu/~mcnair
Course in Professional Seminar [PRSE]
See back of catalog for course descriptions.


# Academic Enrichment Support Unit 

Marva Lucas, Interim Director Peck Hall 202

Alley, Belton, Clark, Conway, Dawson, Duncan, Fisher, Harrison, Higgs, Hopper, McDaniel, Michels-Clark, Otts, Raines, Ring, Rouse, Sundeen, Williams

The Academic Enrichment Support Unit is responsible for testing and placement of students admitted to the University. Based on test results, students may be required to enroll in ACT/COMPASS prescribed courses.
ACT/COMPASS prescribed courses are designed to serve students whose test subscores indicate they need additional preparation before enrolling in higher-level courses that require specific prerequisites. Prescribed courses focus on four skill areas: writing, reading, mathematics, and learning strategies. Their purpose is to help students achieve a level of academic competence that will enable them to work successfully in subsequent courses. Students in these courses enjoy the advantages of smaller classes. Limited class sizes ensure personal attention and frequent interaction between instructors and students. Students in these courses also receive regular progress reports.

## Academic Assessment Placement Testing

All entering degree-seeking students less than 21 years of age will be assessed for prescribed course placement initially according to valid ACT/SAT scores. Permissible scores are less than three years old. Students with ACT subscores that are 18 or lower in the areas of reading, English, or math are automatically placed in the courses in the appropriate area. Students with mathematics or verbal SAT scores of 450 or less are placed in the appropriate areas, and students with SAT composite scores of 890 or below are placed into the reading area. In an effort to minimize the number of courses that must be taken, students with prescribed course requirements in reading or English are required to verify this placement by taking the COMPASS test prior to registration. Students with only a math prescribed course requirement have the option of challenging this placement with COMPASS testing. Many students taking the COMPASS tests reduce or eliminate the number of prescribed courses they are required to take. The results of the COMPASS tests will never place students lower than their original ACT/SAT placement.

Nontraditional students without ACT/SAT scores are required to undergo assessment to determine appropriate placement in the prescribed courses. Applicants who will be 21 or older at the time of admission are required to undergo University
assessment for each area or may elect to provide ACT/SAT scores earned within three years before the first day of the first term of enrollment. For these purposes, University assessment includes (1) a test in writing; (2) a test in reading comprehension; and (3) a test in mathematics covering pre-algebra, elementary algebra, and intermediate algebra. The assessment exam is administered at MTSU through the Academic Assessment Center. Please call (615) 898-2568 for an appointment. Transfer students who have not earned col-lege-level algebra-based math or English credits must undergo University assessment in appropriate areas.
Students admitted in the Adult Special category who have not completed the first college-level course in English or algebrabased mathematics must undergo assessment in the appropriate subject area and must complete courses indicated by test placement before enrolling in the respective college-level English or mathematics course. Adult Special students must also enroll in the prescribed courses before enrolling in any college-level course that has the needed prescribed course as a prerequisite.
Students admitted with high school English or algebra deficiencies must undergo assessment based on valid ACT/SAT scores or University testing for the purpose of meeting high school unit admission criteria. GED students are included in this category. This assessment is used to determine if prescribed course placement is necessary.

## Academic Support

A number of support services provide tutoring to help students achieve the objectives in their courses. These are (1) the University Writing Center, (2) the Prescribed Course Reading Lab, and (3) the Prescribed Course Mathematics Lab. Free tutoring provided in the labs reinforces the curricula and objectives of the courses.
In addition, Academic Support Center advisors are available to assist students in all matters related to their academic lives. Each student who has a prescribed course requirement is assigned an advisor who assists with scheduling and other concerns affecting academic success. Students should check with the Academic Support Center in the McFarland building, (615) 898-2339, immediately upon arrival on campus to determine the name and office number of their assigned advisors. Students should make appointments with their advisors before registration and should see their advisors at least twice during the semester.

## Mandatory Enrollment

Students with prescribed course requirements must be continuously enrolled in the courses(s) until all have been successfully completed. Those failing a prescribed course must retake the course the next semester they enroll. They may not drop a prescribed course without the approval of the director of Academic Enrichment. Students are expected to attend all class sessions. Strict attendance policies are in place.

Students who are placed in four prescribed classes per semester may take only one other course-either ROTC or a PHED activity course. A student may not take any course that requires skill in any area in which deficiency has been determined by the assessment tool. Students are urged to consult with one of the Academic Support Center advisors for details.

## Grades

To successfully complete some prescribed courses, students must earn a grade of $C$ - or better. The grade of $D$ is not assigned for those courses. DSP 0700 courses that are taught by Motlow faculty on the MTSU campus carry institutional credit only and do not count toward the hours required for an undergraduate degree. DSP 0700 course grades are not used in the computation of the 2.00 GPA required for a bachelor's degree nor the required GPA for admission to teacher education. The grades are used to compute a student's overall grade point average. Other prescribed courses carry elective credit or satisfy General Education requirements and are also used to compute the overall GPA.

## Prescribed Courses Offered

When students receive the results of their University assessment tests, they are also given a list of the prescribed courses, if any, in which they must enroll. The K sections of University Seminar (UNIV 1010) have a special focus on academic skills and are required of any student who initially places into two subject areas. Students are encouraged to discuss their test scores and prescribed course placement with Academic Support Center advisors.

| ENGL 1009K | Introduction to University Writing |
| :--- | :--- |
| MATH 1000K | Essentials of Mathematics |
| MATH 1010K | Mathematics for General Studies |
| MATH 1710K | College Algebra |
| READ 1000 K | Reading Skill Enrichment |
| UNIV 1010K | University Seminar |

## Courses in Developmental Studies

See back of catalog for course descriptions.
Courses in Academic Success Program [ACA]
See back of catalog for course descriptions.

# Experiential Learning Scholars Program 

Jill Austin, Director of EXL Scholars Program<br>Ron Kates, Coordinator of Service Learning<br>Business and Aerospace Building N134

The Experiential Learning Scholars Program provides students with opportunities for hands-on experience in their fields of study, valuable networking with professionals, and an opportunity to explore career paths through real-world activities. For more information about the program, view the Web site at www.mtsu. edu/~exl, phone (615) 898-5542, or send an e-mail to exl@mtsu.edu.

## Student Learning Outcomes

Six student learning outcomes for the program have been identified. Students are expected to

1. develop an experience-based knowledge in their disciplines and demonstrate the ability to apply theories and concepts to practical problems;
2. engage in systematic reflection and demonstrate the ability to critically examine their experiences and to create connections between those experiences and disciplinary knowledge;
3. make contributions to their communities and learn the value of making those contributions (good citizenship); develop as individuals who understand the needs of others, learn cultural awareness, and appreciate the differences in others;
4. develop and demonstrate managerial skills including planning, organizing, problem solving, and communicating;
5. develop and demonstrate leadership skills including interpersonal skills, the ability to direct others, and teamwork; and
6. develop and demonstrate research skills that will help them be successful in graduate programs.

## Types of Experiential Learning Courses

Experiential learning courses are designated with the EXL course prefix or are listed as approved for EXL credit on RaiderNet. Experiential Learning includes the following types of courses:

1. Cooperative Education/Internship. Work experiences with businesses or nonprofit organizations that require discipline-based knowledge. Coop courses are approved through the MTSU Career Development Center, and
internships are approved through academic departments.
2. Study Abroad. Kentucky Institute for International Studies (KIIS) courses, Cooperative Center for Study Abroad (CCSA) courses, and formal study abroad courses developed and led by MTSU faculty. Other types of study abroad courses approved by the MTSU International Education and Exchange Office and the academic department are also acceptable.
3. Applied Learning. Application of discipline-related knowledge through projects with businesses and nonprofit organizations.
4. Service-Learning. Opportunities to participate in projectbased, interactive partnerships with community entities to gain valuable experience as mentors and leaders while meeting a community need. Courses are designed to promote community service and self-discovery and should enable students to integrate civic awareness and engagement into their academic and professional pursuits.
5. Creative Activity. Activity driven by the student's imagination, talents, and/or skills that results in a tangible outcome such as works rendered in aural, visual, physical, written, electronic, and/or other forms. Performance and exhibition of creative works may also be included.
6. Teacher Education. Applied learning courses designed specifically for teacher education programs
7. Laboratory Experiences. Traditional science lab course activities such as biology and physical science.

## Requirements for EXL Scholars Program

Students may participate in the EXL Scholars Program by taking EXL-designated courses in their majors or general education. Students who want the EXL Scholars designation on their transcripts should complete the following:

- 16 to 18 hours of EXL-designated classes. EXL classes include cooperative education/internships, study abroad, applied learning, service-learning, creative activities, teacher education, and laboratory experiences. These courses may be part of required general education, major, and/or minor requirements. Experiential Learning courses are designated with the EXL course prefix or are listed as approved for EXL credit on RaiderNet.
- At least one external activity (volunteer project with community organization/business or scholarly research project). An external activity is defined as a project that requires the student to interact with people outside the University or a research project in which students must interact with people outside their departments or outside the campus community. (These experiences require prior approval to count for credit toward the EXL designation.)
- MTSU internal service component. Students may complete this requirement in one of three ways: participate in a leadership role in a campus-sponsored charitable activity, volunteer with a campus office to assist other students, or be a campus leader. (These experiences
require prior approval to count for credit toward the EXL designation.)
- Documentation of completion of EXL activities through an e-portfolio (EXL 4000).
- Participation in EXL program assessment activities such as completion of surveys.


## Campus Partnerships with EXL

For additional information about activities related to experiential learning, review activities offered through the following programs.

American Democracy Project - www.mtsu.edu/~amerdem
Cooperative Education - www.mtsu.edu/~cooped
Undergraduate Research - www.mtsu.edu/~ research/urc.html
Study Abroad - www.mtsu.edu/~mtabroad/
McNair Scholars - www.mtsu.edu/~mcnair
Academic Departments and Colleges
Courses in Experiential and Service Learning [EXL]
See back of catalog for course descriptions.

## University Courses

University courses are offered to address specific learning goals and are taught by faculty throughout the various colleges of the University.

## University Seminar

MTSU offers a special course to help freshman students develop tools needed for success. This seminar course helps new students appreciate the value of a higher education, learn about the numerous campus resources available to them, clarify their career goals, and refine the academic skills required of the successful college student. A course to facilitate a successful transition for transfer students is also offered.

University Seminar can be taken as an elective and counted toward the 120 -semester-hour minimum graduation requirement. Undeclared freshmen with 0-24 credit hours will be required to enroll in University Seminar 1010.

More information can be obtained from
Dr. Marva Lucas
Peck Hall 202
Middle Tennessee State University
Murfreesboro, TN 37132
Courses in University Seminar [UNIV]
See back of catalog for course descriptions.


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See back of catalog for course descriptions.


# International Education at MTSU 

MTSU students have the opportunity to broaden their personal and professional horizons through a variety of programs offered by the University. Since the 1960s, MTSU has had an internationalized academic curriculum and has created opportunities for students to gain international experience. These opportunities include major and minor academic programs, direct exchange programs, study abroad, and experiential and service learning projects.

## B.S. in International Relations

Established in 1967, this program is housed in the Department of Political Science and provides preparation for future careers in government and the private sector. Graduates of this program include university professors, career diplomats, government agency analysts, and analysts in the private sector. The program is described in detail on page 207. For further information, contact the Department of Political Science at (615) 898-2708.

## B.A. in Global Studies

Originally established as an interdisciplinary minor under a 1994 DOE grant, Global Studies is an interdisciplinary major that allows students to create their own major, consisting of a Global Studies core, existing internationalized course offerings, and experiential learning. Working with the Global Studies advisor, students may choose from three concentrations: Globalization and Culture, Globalization and Science, and Globalization and Commerce. The program is described on page 93. For more information, contact Douglas Heffington, PH 217, (615) 898-5978.

## International Education and Exchange (Study Abroad)

The MT Abroad Office supports students and faculty participating in study abroad, exchange programs, and other international education opportunities. MT Abroad provides information about opportunities originating from MTSU as well as those coordinated through various study abroad consortia. The MT Abroad staff assists students in completing required applications, meeting insurance requirements and investigating financial aid. The office also provides pre-departure orientations and reentry debriefings. MT Abroad also assists faculty
interested in teaching in an MTSU or other study abroad program. For information regarding International Education and Exchange programs, call (615) 898-5179.
Among the programs available are

- Foreign language study abroad through the Department of Foreign Languages and Literatures.
- Cooperative education programs in French, German, and Spanish. Contact the Department of Foreign Languages and Literatures.
- Direct exchange programs with universities in France, Germany, Spain, Brazil, Japan, China, Scotland, the Philippines, Thailand, and the Republic of Korea. (Contact MT Abroad for further information.)
- The Kentucky Institute of International Studies, a consortium that offers programs around the globe. (Contact MT Abroad.)
- Cooperative Center for Study Abroad (CCSA), a consortium offering courses in English-speaking countries. (Contact MT Abroad.)
- Universal Mobility in Asia and the Pacific (UMAP), a consortium offering programs in Asia, Southeast Asia, and the Pacific. (Contact MT Abroad.)
- International Student Exchange Program (ISEP), independent exchange programs (contact MT Abroad.)


## General Education Study Abroad Program

MTSU and Motlow State have a joint-venture summer study abroad program in Cherbourg, France. Students may take up to two General Education courses in this program. Course offerings change annually. Contact the MT Abroad Office at (615) 898-5179 for more information.

## Experiential and Service Learning Projects

Several departments at MTSU offer unique opportunities for students to engage in international experiential or servicelearning activities.

## Regionally Specific Interdisciplinary Minors

MTSU offers a variety of interdisciplinary minors designed to increase understanding and knowledge of a specific global region. These minors can be found in the Interdisciplinary Minors section. They include

- African Studies
- Asian Studies
- Early Modern European Studies
- Latin American Studies
- Middle East Studies
- Portuguese Studies
- Russian Studies
- Twentieth-Century European Studies


# Army Reserve Officers' Training Corps (AROTC) 

MTSU students can earn commissions as second lieutenants in the United States Army, Army Reserve (USAR), or Army National Guard (ARNG) while pursuing either undergraduate or graduate studies.
Army ROTC provides multiple paths for students to obtain their commissions. Entry-level military science training during the freshman and sophomore years consist of leadership development training. There is no military service obligation during this phase. Students with prior military service may receive academic credit for the first two years. Students who have not taken any military science classes by the end of their sophomore year may receive placement credit by attending the Leader Training Course, conducted each summer at Fort Knox, Kentucky. Cadets receive pay for the training.
At the beginning of the junior year, students begin Advanced ROTC training built around leadership assessment and practical application of their management and leadership schools. Airborne, Air Assault, and other military schools are available to students. Cadets attend a leader training course during the summer between their junior and senior years. All advanced training students receive a monthly subsistence allowance. Full-time employment upon graduation is available for those students who are selected for an initial three- or four-year active duty assignment.
Scholarships: Army ROTC offers three- and two-year on-campus scholarships each year to qualified enrolled and non-enrolled military science students. These scholarships pay for registration, books, and lab fees, in addition to the monthly subsistence allowance. Scholarship recipients may be selected for initial active duty assignments or reserve assignments.

Further information concerning AROTC may be obtained by consulting the Military Science Department course offerings in this catalog, listed under the College of Basic and Applied Sciences, or by writing

Army ROTC
Military Science Department
Middle Tennessee State University, P.O. Box 52
Murfreesboro, TN 37132
or by calling (615) 898-2470 or toll-free 1-888-MT-AROTC
or by e-mailing arotc1@mtsu.edu.

# Air Force Reserve Officers' Training Corps (AFROTC) 

MTSU students may participate in the Air Force Reserve Officer Training Corps (AFROTC) at Detachment 790 on the campus of Tennessee State University. Air Force students at MTSU can earn a minor in Military Science through a cooperative program between TSU and MTSU. Air Force ROTC provides pre-commissioning training to college students (male and female) who desire to serve as officers in the U.S. Air Force (USAF).

High school students may also apply for the Air Force High School Scholarship Program (HSSP) online at www .AFROTC.com. The application deadline is typically December 1 of the student's senior year. Detailed eligibility requirements are available on the Air Force Web site.

As Air Force ROTC cadets, students can compete for scholarships that may cover all or a significant portion of tuition costs. In addition, cadets earn a monthly stipend of up to $\$ 500$ tax-free and up to $\$ 900$ per academic year to pay for textbooks.
Cadets are required to attend Air Force classes and lab in uniform one day per week. One summer, typically between the sophomore and junior year, cadets must attend a four-week military training session. The combination of USAF military education, training, and collegelevel curriculum offers cadets a broad-based knowledge of management, leadership, and technical skills.
The minimum eligibility requirements are as follows: U.S. citizen, thirty years old or younger on December 31 of the year of graduation (exception-prior enlisted), meet USAF height and weight standards, pass a physical fitness test, have a $2.0+$ cumulative college GPA, and pass the Air Force Officer Qualifying Test (a USAF-unique academic aptitude test similar to the ACT/SAT).

Although the USAF will accept students from any accredited academic major, there is a critical need for technical majors such as engineers (all disciplines) and those with foreign language proficiency. Upon graduation, cadets will earn commissions as second lieutenants in the United States Air Force and will have the opportunity to serve a minimum of four years on active duty.
For more information, visit www.AFROTC.com or telephone Detachment 790's Unit Admissions Officer at (615) 963-5931. You may also visit Detachment 790's Web site at www.tnstate.edu/rotc.

# COLLEGE OF BASIC AND APPLIED SCIENCES 

Thomas Cheatham, Dean<br>Jones Hall 159<br>Saeed Foroudastan, Associate Dean<br>Jones Hall 159<br>Marlene Lawson, Assistant to the Dean<br>Jones Hall 161

Karen Case, Program Coordinator and Academic Advisor
Jones Hall 119
Jennifer Danylo, College Advisor
Jones Hall 256
Andrew Symonds, College Advisor
Business and Aerospace Building S230
Deborah Phillips, Graduation Coordinator
Jones Hall 115
Aerospace • Agribusiness and Agriscience • Biology • Chemistry • Computer Science • Engineering Technology • Mathematical Sciences • Military Science • Nursing • Physics and Astronomy

Within an environment that values excellent teaching and fosters initiatives in research and public service, the mission of the College of Basic and Applied Sciences at Middle Tennessee State University is to

1. prepare individuals for successful careers in scientific and technical fields in industry, teaching, government, and health services;
2. provide general education through exposure and exploration of natural sciences, applied sciences, and mathematics;
3. provide hands-on experience with state-of-the-art materials and equipment;
4. promote the development and practice of critical thought and expression;
5. develop basic knowledge and promote attitudinal skills and other abilities needed for further graduate or professional study.

Environmental Science and Technology is an interdisciplinary major and minor offered by several departments within the college. A complete description of the program is given under the Interdisciplinary Majors and Minors section.

Following are the curricula, courses, and specific requirements for majors and minors in each department or school.

# Microanalysis and Imaging Center (MIMIC) 

Tom Cheatham, Dean
Jones Hall 159
The MTSU Microanalysis and Imaging Center (MIMIC) is a core microscopy center jointly operated by the College of Basic and Applied Sciences and the College of Graduate Studies.

## Course in Interdisciplinary Microanalysis and Imaging Center [IMIC]

See back of catalog for course descriptions.


# Department of Aerospace 

Wayne Dornan, Chair<br>Business and Aerospace Building 211C

Allen, Beckman, Callender, Craig, Crowder, Dornan, Dorris, Ferrara, Georgiou, Gossett, Hawkins, Hill, Prather, Zlotky

Programs in the Department of Aerospace lead to the Bachelor of Science degree with a major in Aerospace and concentrations in Administration, Maintenance Management, Professional Pilot, Technology, and Flight Dispatch and Scheduling. A minor in Aerospace is also available. All of these programs are designed to prepare students for professional positions in the air transportation or aerospace manufacturing industry or in operations supporting allied areas.

## Aerospace Core Requirement

All Aerospace majors will take AERO 1010, 1020, 3020, 3030, and 4040.

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Aerospace

## Concentration: Administration

The Administration concentration offers instruction designed for students who are interested in careers in the various aspects of aerospace administration and management. Selected General Education and minor courses are interwoven with aerospace courses to provide students with a foundation for such careers. This concentration requires the completion of

1. 40 semester hours in aerospace courses as listed below;
2. a minor as recommended by the faculty advisor and approved by the department chair and dean;
3. a focus area as detailed below;
4. other specific required courses as listed below.

All students choosing a concentration in Aerospace Administration must select a specific segment of the industry in which to focus. Students have the option of choosing from air traffic management (CTI), airport management, airline management, and transportation management. A significant culminating experience (in the form of a capstone course or internship/co-op) is required appropriate to that specific area of focus. Students must choose a capstone course elective from the following: AERO 4560, 4170, 4140, 4050, or TRNS 4640.


## JUNIOR

AERO 3020, 3030
ACTG 3000

## SENIOR

AERO 4040, 4100, 41507
AERO 4110 or 41703
TRNS 36303
Elective
Capstone elective
Minor
BCEN 3510 or ENGL 3620
AERO or TRNS elective

30

## JUNIOR

AERO 3020, 3030, 35109 AERO 4530, 4040, 4580,
AERO 3080, 3170, 3230
GEOG 3410 or GEOL 4050
MGMT 3610
Minor
SENIOR 4590

10
MGMT 3810 or 3890 or 4490 or 4510
Minor 9
Elective

## Concentration: Maintenance Management

The Maintenance Management concentration offers instruction designed for students who are interested in careers as skilled technicians or managers in aircraft manufacturing, aircraft repair, engine overhaul, or space vehicle maintenance. The fundamental skills needed in aerospace vehicle repair and maintenance are stressed together with management skills for such careers. MTSU is an approved Federal Aviation Administration (FAA) FAR Part 147 maintenance technician school for airframe and powerplant mechanics. This concentration requires the completion of

1. 75 hours of aerospace courses as listed below;
2. other specific required courses as listed below; and
3. FAA Airframe and Powerplant Certification prior to graduation.
A minor is not required.

| Recommended Sequence and Curriculum Requirements |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN | SOPHOMORE |  |  |
| AERO 1010, 1020 | 6 | AERO 2342, 2371, 2381 | 9 |
| AERO 1340, 1380, 2331 | 9 | ENGL 2020 or 2030 or |  |
| ENGL 1010, 1020 (Comm) | 6 | HUM 2610 (Hum/FA) | 3 |
| MATH 1710 (Math) | 3 | Humanities and/or Fine Arts | 3 |
| MATH 1810 | 3 | HIST 2010, 2020, or 2030 | 6 |
| COMM 2200 (Comm) | 3 | CHEM 1010/1011 (Nat Sci) | 4 |
| Humanities and/or Fine Arts | 3 | PHYS 2010/2011 (Nat Sci) | 4 |
| Social/Behavioral Sciences | 3 | ET 1310 | 2 |
|  | $\mathbf{3 6}$ |  | $\mathbf{3 1}$ |
|  |  |  |  |
| JUNIOR |  | SENIOR |  |
| AERO 3020, 3030 | 6 | AERO 3362, 3371, 4040 | 7 |
| AERO 3301, 3322, 3392 | 9 | AERO 4310, 4332, 4342 | 9 |
| AERO 4301, 4311, 4312 | 9 | AERO 4371, 4381, 4392 | 9 |
| ET 3610 | 4 | MGMT 3810, 4490, 4510, |  |
| MGMT 3610 or ET 3910 | 3 | or 4920 | 3 |
| Social/Behavioral Sciences | 3 | AERO 4340 | 3 |
|  | $\mathbf{3 4}$ |  | $\mathbf{3 1}$ |

NOTE: Additional aerospace maintenance courses are required if FAA certification is sought. Students enrolled in the Airframe and Powerplant Technician's Program are required to pass a comprehensive qualification examination prior to receiving authorization to take the FAA examination or prior to receiving a Certificate of Completion from MTSU.

## Concentration: Professional Pilot

The Professional Pilot concentration offers instruction for students who are interested in careers as commercial pilots. The Professional Pilot concentration requires the completion of

1. 52 semester hours in aerospace courses as listed below;
2. a minor from a department other than Aerospace that complements the Professional Pilot concentration, recommended by the faculty advisor and approved by the department chair and dean;
3. other specific required courses as listed below;
4. the Instrument Rating-Airplane, the Commercial SingleEngine Pilot Certificate, and the Commercial Multi-Engine Pilot Certificate with Instrument Rating, all at the MTSU Flight School and while enrolled in flight labs.

| Recommended Sequence and Curriculum Requirements |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN |  | SOPHOMORE |  |
| AERO 1010, 1020, 2010, |  | AERO 3170, 3210, 3215 | 9 |
| 2230,2201 | 13 | AERO 3203, 3204 | 2 |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| COMM 2200 (Comm) | 3 | HUM 2610 (Hum/FA) | 3 |
| MATH 1710 (Math) | 3 | Social/Behavioral Sciences | 3 |
| CHEM 1010/1011 (Nat Sci) | 4 | HIST 2010, 2020, or 2030 | 6 |
| Humanities and/or Fine Arts | 3 | MATH 1810 | 3 |
|  | $\mathbf{3 2}$ | PHYS 2010/2011 (Nat Sci) | 4 |
|  |  |  | $\mathbf{3 0}$ |

## JUNIOR

AERO 3020, 3030, 3261,
SENIOR
AERO 3240
3440
AERO 4040, 4130, 4310, 4440
AERO 4100 or 4110
MGMT 3610
BCEN 3510 or ENGL 3620
Minor
Social/Behavioral Sciences 3

Humanities and/or Fine Arts

Aerospace electives

In addition to all academic requirements, this concentration requires students to obtain pilot certificates through flight training conducted at the MTSU Flight School. All required flight training will be conducted in a flight lab, in Universityowned and maintained aircraft, and by a select group of flight instructors screened and trained for their positions by MTSU. All flight labs will be conducted from the Murfreesboro Municipal Airport. Admission to the University does not guarantee enrollment in a flight lab. To enroll in a flight lab, students must submit a Flight Lab Request Form for each and every semester they wish to fly. The deadlines to submit Flight Lab Request Forms are as follows:

Fall semester-July 15
Spring semester-November 15
Summer session-April 15
Flight Lab Request Forms submitted after the deadline will not be considered. Enrollment in flight labs is limited and selection is made from eligible candidates who are best qualified. Incoming freshmen typically do not receive a flight lab for their first semester. To become eligible for a flight lab, candidates must meet the following minimum standards:

1. have a college cumulative grade point average of 2.5;
2. have a current Second Class FAA medical certificate;
3. must be in good standing within the department and University (if a transfer student, candidate cannot be on probation in any form);
4. have no physical disability that would prohibit completion of the course requirements;
5. have the full required amount of flight lab money deposited in their flight account by the last day of the first week of classes;
6. show proof of American citizenship by presenting a valid current passport or original birth certificate AND a current valid driver's license;
7. have completed all required prerequisite classes for the desired lab.

Retention in the Professional Pilot concentration is based on maintaining a cumulative GPA of 2.50 or better and making consistent and satisfactory progress in flight training. Violation of any MTSU safety practice or procedure or any FAA regulations will result in immediate termination from the flight program. Lab students are required to complete three syllabus events per seven-day week and will be held to a strict attendance policy. There are substantial lab fees for each flight lab. Flight fees will be paid directly to MTSU, and students must maintain a positive balance in their training account at all times. Lab fee information and a complete explanation of all requirements for flight labs can be found in the Additional Lab Information packet that can be obtained through the MTSU Aerospace Web site or at the MTSU Flight School or Aerospace Department main office.
Students admitted to the Professional Pilot program must receive all required flight training beyond the Private Pilot Certificate at the MTSU Flight School. Credit for flight time, including cross-country flight time obtained by the student after becoming a Private Pilot, is very limited and is determined by FAA and MTSU regulations. Transfer students who come to MTSU already holding the Instrument Rating may be admitted; however, they must complete the Commercial Single-Engine Certificate, the Commercial Multi-Engine Certificate, and the Flight Instructor Certificate at the MTSU Flight School. Students entering MTSU who already hold a Commercial Pilot Certificate are not eligible for the Professional Pilot concentration.

NOTE: Students interested in military flying careers should contact their local Armed Forces recruiting officer or MTSU's Reserve Officer Training Corps (ROTC) program representatives. Air Force ROTC program information can be obtained by calling (615) 963-5931. For information regarding the Army ROTC program, call (615) 898-2470. Please see page 103 for additional information.

## Concentration: Technology

The Technology concentration is designed for students interested in technical careers in aerospace and as preparation for those who seek more advanced study at the graduate level. Students will receive a strong background in mathematics, the sciences, engineering technology, and the more technical courses in aerospace. This concentration requires the completion of

1. 31 semester hours of aerospace courses as listed below;
2. minors in Mathematics and Engineering Technology;
3. two semesters of computer programming and two semestrs of calculus-based physics;
4. other specific required courses as listed below.

Recommended Sequence and Curriculum Requirements

## FRESHMAN

AERO 1010, 1020
ENGL 1010, 1020 (Comm)
COMM 2200 (Comm)
HIST 2010, 2020, or 2030
MATH 1910 (Math)
CHEM 1010/1011 (Nat Sci) Social/Behavioral Sciences

## SOPHOMORE

## ENGL 2020 or 2030 or

 HUM 2610 (Hum/FA) Humanities and/or Fine Arts (2 prefixes) Social/Behavioral Sciences PHYS 2110/2111 (Nat Sci) PHYS 2120/2121 MATH 1920, 2010 CSCI 1170
## JUNIOR

AERO 3020, 3030
AERO 3170, 3440
MATH 3110, 3120
ET 1840, 3810, 3830

## SENIOR

AERO 4071 -
AERO 4170, 43106
AERO 4040, $4440 \quad 4$
ET 3840, 3860
ET 4830, 4850

## Minor in Aerospace

A minimum of 18 semester hours is required for the minor. The minor may emphasize administrative or technical subject matter. Courses are chosen with the approval of the student's minor advisor.

## Accreditation

In addition to regional accreditation, the following programs are formally approved by the Aviation Accreditation Board International: Aerospace Administration, Aerospace Maintenance Management, Aerospace Technology, Flight Dispatch and Scheduling, and Professional Pilot.

## Academic Common Market

Since the Aerospace Department is a participant in the Academic Common Market, students from selected southern states may enroll at MTSU on an in-state fee basis. Further information is available from the department or Admissions Office.

## Professional Relationships

MTSU holds membership in the Aviation Technical Education Council, Aviation Accreditation Board International, the National Business Aircraft Association, the National Intercollegiate Flying Association, and the University Aviation Association.

## Advanced Standing

Specific aerospace course credit may be granted to holders of FAA Airframe/Powerplant Certificates. Such aeronautical credential-based credit awards are applicable to MTSU enrollments only and will not transfer to other institutions.

## Maintenance Management Advanced Standing

Only students pursuing the Maintenance Management concentration may receive advanced standing for certificates held.

Students seeking advanced standing on the basis of possession of the Airframe or Powerplant (or both) Technician Certificates must produce documentation to substantiate prior training to the dean of the College of Basic and Applied Sciences through the chair of the Aerospace Department. In addition, each applicant will be required to pass an oral or written examination covering the course content of each course for which advanced standing is requested. Twenty-four semester hours will be the maximum credit allowed for both certificates.

Holders of an FAA Airframe Technician Certificate may be granted credit for the following courses:
AERO 1020 Theory of Flight
AERO 1380 Aerospace Maintenance Shop Practices
AERO 3301 Sheet Metal Structures
AERO 4310 Aerospace Vehicle Systems
Holders of an FAA Powerplant Technician Certificate may be granted credit for the following courses:
AERO 3030 Propulsion Fundamentals
AERO 3392 Reciprocating Engine Maintenance Repair
AERO 3322 Aerospace Reciprocating Engine Overhaul
AERO 3362 Advanced Aerospace Engine Systems Maintenance and Repair


Holders of FAA Repairmen Certificates and former military mechanics who are not holders of an FAA Maintenance Technician Certificate may not be granted specific course credit for their experiences.

## Air Traffic Control Training

MTSU is a participant in the FAA Collegiate Training Initiative (CTI) for Air Traffic Controllers. CTI students must complete one of the degrees offered from the Aerospace Department. One of the degrees could be a master's degree for those applicants who have already earned a bachelor's degree. Upon successful completion of the degree and the CTI program, students may be recommended to the FAA for further consideration within the Air Traffic Control program. The CTI program has additional application forms, and enrollment may be limited. All students must pass a CTI entrance exam and complete a pre-interview with the AT-CTI coordinator to be accepted into the CTI program. Also, all students must pass a CTI exit exam and complete a post interview to be recommended for hire to the FAA by the AT-CTI coordinator.
Students wishing to enroll in the CTI program must

1. be at least 16 years of age and possess a high school diploma;
2. hold United States citizenship;
3. obtain employment as an FAA Air Traffic Controller by age 31;
4. pass an FAA physical examination (to include hearing and vision tests and drug screening);
5. pass a background security suitability examination; and
6. complete the following aerospace courses:

AERO 1010 Introduction to Aerospace
AERO 1020 Theory of Flight
AERO 1230 Aviation Laws and Regulations
AERO 2010 Aviation Weather
AERO 2220 Navigation
AERO 3210 Professional Pilot II OR
AERO 3510 Instrument Flight Fundamentals for Non-Pilots
AERO 3230 Crew Resource Management
AERO 4530 Air Traffic Control
AERO 4560 Advanced Air Traffic Control
Students applying for candidacy in the AT-CTI program must

1. be in good standing with the University;
2. have the following items on file in the AT-CTI office: CTI application, citizenship form, candidacy form, information release form, recent photo, and transcripts from any colleges or universities attended. The packet must be submitted to the Aerospace CTI office by the dates below:
Summer and Fall applicant files must be complete by April 1 Spring applicant files must be complete by November 1;
3. have completed AERO 1010, 1020, 1230, and 2010 by the end of the semester during which the application is made. Please contact the AT-CTI office if you wish to transfer credit for these courses.

## Aircraft Maintenance Training

The Aerospace Department offers maintenance training which will qualify students for the FAA's Airframe and Powerplant Mechanics Certificate. The following courses are required for this qualification.
AERO 1020 Theory of Flight
AERO 1340 Introduction to Aerospace Maintenance
AERO 1380 Aerospace Maintenance Shop Practices
AERO 2331 Airframe Inspection
AERO 2342 Powerplant Inspection
AERO 2371 Aircraft Welding
AERO 2381 Non-Metallic Structures: Dope, Fabric, and Finishing
AERO 3030 Propulsion Fundamentals
AERO 3392 Reciprocating Engine Maintenance Repair
AERO 3301 Sheet Metal Structures
AERO 4311 Aerospace Accessory Systems Maintenance and Repair
AERO 3322 Aerospace Reciprocating Engine Overhaul
AERO 4332 Reciprocating Engine Troubleshooting
AERO 3371 Aircraft Finishing and Non-Destructive Inspection
AERO 3020 Aerospace Materials
AERO 4310 Aerospace Vehicle Systems
AERO 3362 Advanced Aerospace Engine Systems Maintenance and Repair
AERO 4371 Advanced Aerospace Vehicle Systems Overhaul
AERO 4381 Advanced Aerospace Accessory Systems Maintenance and Repair
AERO 4392 Aerospace Turbine Engine Maintenance and Overhaul
AERO 4301 Advanced Aerospace Vehicle Structural Repair
AERO 4312 Turbine Engine System
AERO 4342 Turbine Engine Inspection and Troubleshooting
ET 3610 Introduction to Electricity and Electronics
ET 1310 Basic Technical Drawing and Sketching
MATH 1710 College Algebra
OR
MATH 1730 Pre-Calculus
PHYS 2010 Non-Calculus-Based Physics I
PHYS 2011 Physics Problems Laboratory I

## Student Organizations

Recognized student organizations in aerospace are Alpha Eta Rho, international aviation fraternity (co-ed); Flying Raiders, intercollegiate competitive flight team; AERO Maintenance Club of MTSU, aircraft maintenance organization; Future Airport Executives (FAE), student chapter of the American Association of Airport Executives; and Women in Aviation, student chapter of Women in Aviation International.

## Courses in Aerospace [AERO]

See course descriptions located in back of catalog.

## Courses in Transportation [TRNS]

See course descriptions located in back of catalog.

## Honors College

The Department of Aerospace periodically offers Honors sections of AERO 1010, 1020, 4071, and 4730.

## Graduate Study

The Aerospace Department offers a Master of Science degree program. Requirements and a list of the courses offered for graduate credit are published in the Graduate Catalog.

## School of Agribusiness and Agriscience

Warren Gill, Director<br>Stark Agribusiness and Agriscience Center 100

Anderson, Brzezicki, Carter, Downs, Gardner, Haffner, Hoffman, Johnston, Kayser, Neely, Phillips, Redd, Ricketts, Whitaker

Programs in the School of Agribusiness and Agriscience lead to the Bachelor of Science degree with majors in Agribusiness, Animal Science, and Plant and Soil Science. A concentration in Horse Science is available in the Animal Science major. Certification in Agricultural Education is available in each of the three majors. Preparatory programs are also offered for additional study in agricultural engineering, forestry, and veterinary medicine. A minor in Agriculture is available.

A major in the School of Agribusiness and Agriscience requires a minimum of 43 semester hours of courses to include
a. 21 hours in the major area;
b. an additional six (6) hours from ABAS as indicated under each major's requirements; and
c. a general core of ABAS 1000, 1410, 1610, 2210, 3010, and 4100. (ABAS 3010 not required for majors taking YOED 4110 or participating in judging teams.)
A minor from another department is required.
Specific course requirements for each major are listed below in the curriculum of that major.
The School of Agribusiness and Agriscience participates in an interdisciplinary major in Environmental Science and Technology in conjunction with Biology, Chemistry, Engineering Technology, and Geosciences. A complete description of this program is found on page 80.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Agribusiness

The program leading to a major in Agribusiness is designed for students who are interested primarily in the non-farm phases of agriculture. Specific course requirements are

## FRESHMAN

ABAS 1000, 1410, 1610
ENGL 1010, 1020 (Comm)
BIOL 1030/1031 (Nat Sci) Mathematics
Humanities and/or Fine Arts
Social/Behavioral Sciences Elective

SOPHOMORE

| ABAS 2130, 2210 | 6 |
| :--- | ---: |
| ENGL 2020 or 2030 or |  |
| HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 |
| Humanities and/or Fine Arts | 3 |
| PSCI 1030/1031 (Nat Sci) | 4 |
| ECON 2410 (Soc/Beh Sci) | 3 |
| HIST 2010, 2020, or 2030 | 6 |
| Elective | $2-3$ |
|  | $\mathbf{3 0 - 3 1}$ |

## SENIOR

ABAS 41003
ABAS 4150 or 41903
Agribusiness electives** 6
Minor requirements 12 Upper-division electives 6

$$
30
$$

## JUNIOR

ABAS 3130, 3010*
Animal Science elective
Agribusiness electives
Upper-division electives Plant and Soil Science
elective
3
Minor requirements
*Students taking YOED 4110 or participating in judging teams may substitute ABAS 4480 or 4590.
**Internship courses may not be used to fulfill this requirement.

## Certification in Agricultural Education

Agribusiness majors seeking certification to teach agricultural education in secondary schools (grades 7-12) must complete (1) the Agribusiness major, (2) a minor in Secondary Education, and (3) professional agricultural education courses. Specific course requirements are

| FRESHMAN |  |
| :--- | ---: |
| ABAS 1000, 1410, 1610, |  |
| 2230 | 10 |
| ENGL 1010, 1020 (Comm) | 6 |
| BIOL 1030/1031 (Nat Sci) | 4 |
| Mathematics | $3-4$ |
| Humanities and/or Fine Arts | 3 |
| FOED 1110§ | 3 |
|  | $\mathbf{2 9 - 3 0}$ |
|  |  |
|  |  |
|  |  |
| JUNIOR | 9 |
| ABAS 2210, 3130, 3340 |  |
| COMM 2200 (Comm) | 3 |
| ABAS 4210, 4220, 4230 | 9 |
| ABAS 4150 or 4190 | 3 |
| Secondary Education minor§ | 6 |
| Elective | $0-1$ |
|  | $\mathbf{3 0 - 3 1}$ |

## SOPHOMORE

ABAS 3440, 3600
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)
Social/Behavioral Sciences
PSCI 1030/1031 (Nat Sci)
Humanities and/or Fine Arts
ECON 2410 (Soc/Beh Sci)
HIST 2010, 2020, or 2030
FOED 2110§
31

## SENIOR

Agribusiness electives* 12
Secondary Education minor§ 15
ABAS 42503
*Internship courses may not be used to fulfill this requirement. §Please see Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Major in Animal Science

The program leading to a major in Animal Science is designed to offer preparation for leadership careers in livestock and related industries. Specific course requirements are

| FRESHMAN |  | SOPHOMORE |  |
| :--- | ---: | :--- | ---: |
| ABAS 1000, 1410, 1610 | 7 | ABAS 2210 | 3 |
| ENGL 1010, 1020 (Comm) | 6 | COMM 2200 (Comm) | 3 |
| BIOL 1110/1111 (Nat Sci) | 4 | ENGL 2020 or 2030 or |  |
| BIOL 1120/1121 | 4 | HUM 2610 (Hum/FA) | 3 |
| Mathematics | $3-4$ | CHEM 1010/1011 (Nat Sci) | 4 |
| Humanities and/or Fine Arts | 3 | CHEM 1020/1021 | 4 |
| Social/Behavioral Sciences | 3 | Social/Behavioral Sciences | 3 |
|  | $\mathbf{3 0 - 3 1}$ | Humanities and/or Fine Arts | 3 |
|  |  | HIST 2010, 2020, or 2030 | 6 |
|  |  |  | $\mathbf{2 9}$ |
| JUNIOR |  | SENIOR |  |
| ABAS 3130; 3340 or 4310 | 6 | ABAS 4410, 4510 | 6 |
| ABAS 3010* | 3 | Animal Science electives** | 6 |
| ABAS 4100, 3440, 3420 | 9 | Minor requirements | 6 |
| Minor requirements | 12 | Upper-division electives | $9-10$ |
|  | $\mathbf{3 0}$ | Animal Science/Agribusiness |  |
|  |  | elective | 3 |
|  |  |  | $\mathbf{3 0 - 3 1}$ |

*Students taking YOED 4110 or participating in judging teams may substitute ABAS 4480 or 4590.
**Electives must come from the following courses: ABAS 3430, 3470, 3480, 3490, 3500, 3540, 4090, 4470, 4520, 4860.

## Certification in Agricultural Education

Animal Science majors seeking certification to teach agricultural education in secondary schools (grades 7-12) must complete (1) the Animal Science major, (2) a minor in Secondary Education, and (3) professional agricultural education courses. Specific course requirements are

| FRESHMAN |  |
| :--- | ---: |
| ABAS 1000, 1410, 1610, |  |
| $\quad 2230$ | 10 |
| ENGL 1010, 1020 (Comm) | 6 |
| BIOL 1030/1031 (Nat Sci) | 4 |
| Mathematics | $3-4$ |
| Humanities and/or Fine Arts | 3 |
| Social/Behavioral Sciences | 3 |
| FOED 1110§ | 3 |
|  | $32-33$ |

## SOPHOMORE

ABAS 2210, 3130, 34409
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) 3
Social/Behavioral Sciences 3
PSCI 1030/1031 (Nat Sci) 4
Humanities and/or Fine Arts 3
HIST 2010, 2020, or 20306
FOED 2110§ 3

## JUNIOR

ABAS 3340, 3420, 4410, 4510
COMM 2200 (Comm)
SENIOR

| ABAS 4250, 3600 | 6 |
| :--- | ---: |
| Animal Science electives* | 6 |
| Secondary Education minor§ | 15 |
|  | $\mathbf{2 7}$ |

## Concentration: Horse Science

The Horse Science concentration is designed to meet the needs of persons majoring in Animal Science who wish to emphasize horse science and related courses. Specific requirements are
FRESHMAN
ABAS 1000, 1410, 1610
ENGL 1010, 1020 (Com
BIOL 1110/1111 (Nat Sci)
BIOL 1120/1121
Mathematics
Humanities and/or Fine
Social/Behavioral Scienc

JUNIOR
ABAS 3010 or $4100^{*}$
ABAS 3130,3300
ABAS 3340 or 4310
ABAS 2210,3440
Minor requirements

| SOPHOMORE |  |
| :--- | ---: |
| ABAS 2400 |  |
| COMM 2200 (Comm) | 3 |
| ENGL 2020 or 2030 or |  |
| HUM 2610 (Hum/FA) | 3 |
| CHEM 1010/1011 (Nat Sci) | 4 |
| CHEM 1020/1021 | 4 |
| Humanities and/or Fine Arts | 3 |
| Social/Behavioral Sciences | 3 |
| HIST 2010, 2020, or 2030 | 6 |
|  | $\mathbf{2 9}$ |
|  |  |
| SENIOR |  |
| ABAS 3040 or 3430 | 3 |
| ABAS 3410, 4480 | 6 |
| ABAS 4090 or 4440 | 3 |
| ABAS 4040, 4170, 4450, |  |
| 4460, or 4540 | $3-4$ |
| Minor requirements | 6 |
| Upper-division electives | $8-9$ |
|  | $\mathbf{3 0}$ |

*Students taking YOED 4110 or participating in judging teams may substitute ABAS 4480 or 4590.

## Major in Plant and Soil Science

The program leading to a major in Plant and Soil Science is designed for students interested in agronomy, horticulture, and/or soil sciences. Students may choose to concentrate on either one of these areas within this major. Specific course requirements are

## FRESHMAN

7 ABAS 2210
ENGL 1010, 1020 (Comm) 6 COMM 2200 (Comm) 3
BIOL 1110/1111 (Nat Sci) 4 ENGL 2020 or 2030 or
BIOL 1120/1121
Mathematics
Humanities and/or Fine Arts
Social/Behavioral Sciences $3 \begin{array}{llll} & 3 & \text { Social/Behavioral Sciences } & 3\end{array}$
30-31 Humanities and/or Fine Arts 3
HIST 2010, 2020, or 2030

## JUNIOR <br> ABAS 3010*, 3340 <br> Agribusiness elective <br> Plant and Soil Science electives <br> Minor requirements

SENIOR
*Students taking YOED 4110 or participating in judging teams may substitute ABAS 4480 or 4590.

## Certification in Agricultural Education

Plant and Soil Science majors seeking certification to teach agricultural education in secondary schools (grades 7-12) must complete (1) the Plant and Soil Science major, (2) a minor in Secondary Education, and (3) professional agricultural education courses. Specific course requirements are

## FRESHMAN

ABAS 1000, 1410, 1610, 2230

020 (Comm)
BIOL 1030/1031 (Nat Sci)
Mathematic
Humanities and/or Fine Arts 3-4
Social/Behavioral Sciences
FOED 1110§

JUNIOR
ABAS 3130, 3340, 4250
SOPHOMORE
ABAS 2210, 3440, 3600
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) Social/Behavioral Sciences
PSCI 1030/1031 (Nat Sci)
Humanities and/or Fine Arts
HIST 2010, 2020, or 2030
FOED 2110§
32-33

SENIOR
COMM 2200 (Comm)
ABAS 4210, 4220, 4230
lant and Soil Science electives
Secondary Education minor§ 15 27
Secondary Education minor§ 6

Elective 0-1
Plant and Soil Science elective

For certification to teach agriscience, students should see advisor.
§Please see Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Minor

A minor in Agriculture consists of 18 semester hours, with at least 3 hours at the upper-division level, selected with the approval of the school director.

## Pre-Agricultural Engineering

A two-year pre-agricultural engineering program is offered by cooperative agreement with the University of Tennessee and requires two years of study at that school to meet the requirements for a Bachelor of Science degree in agricultural engineering. These courses also may be transferred to programs at other universities.

| FRESHMAN |  | SOPHOMORE |  |
| :--- | ---: | :--- | ---: |
| English 1010, 1020 | 6 | MATH 3110, 3120 | 7 |
| CHEM 1110/1111, 1120/1121 | 8 | PHYS 2110/2111 | 4 |
| MATH 1910, 1920 | 8 | ET 3830, 3840 | 6 |
| ET 2310, 3360 | 6 | ET 3860, 4970 | 6 |
| ET 1840 | 3 | ABAS 1610, 3340 | 6 |
|  | $\mathbf{3 1}$ | COMM 2200 | 3 |
|  |  |  | $\mathbf{3 2}$ |
|  |  |  |  |
| JUNIOR |  | 3 |  |
| Other courses that could be taken | at MTSU and transferred include |  |  |
| HIST 2010, 2020 | 6 | MATH 2010 |  |
| Sociology or Psychology | 3 | ECON 2410 | 3 |
|  |  |  |  |

## Pre-Forestry

A two-year pre-forestry program is offered by cooperative agreement with the University of Tennessee which offers two curricula in forestry:

1. Forest Resource Management
2. Wildlife and Fisheries Science

Two years of additional study are necessary to meet the requirements for a Bachelor of Science degree in forestry. These courses also may be transferred to programs in other universities.

## FRESHMAN

BIOL 1110/1111, 1120/1121 8
ENGL 1010, 1020
ABAS 1610
ABAS 3630
MATH 1710, 1720
PHYS 1300
COMM 2200

## SOPHOMORE

CHEM 1010/1011, 1020/1021 8
GEOL 1040/1041 4
ECON 2410, 24206
Literature 3
MATH 15303
ABAS 33403
CSCI 1150
3
30

## Preparation for Studying Veterinary Medicine <br> Students who wish to pursue studies in veterinary medicine

 should follow the appropriate catalog requirements at institutions offering advanced degrees in the field. The following curriculum will enable a student to continue in a standard veterinary curriculum to complete work for a degree in veterinary medicine:| ENGL 1010, 1020 | 6 |
| :--- | ---: |
| CHEM 1110/1111, 1120/1121 | 8 |
| BIOL 1110/1111, 1120/1121 | 8 |
| Humanities and Social |  |
| $\quad$ Science* | 18 |
| PHYS 2010/2011, 2020/2021 | 8 |
| CHEM 3010/3011, 3020/3021 | 8 |
| BIOL 3250/3251, 4210/4211** 8 |  |
| CHEM 3530/3531 | 4 |
| Math*** | $0-6$ |
|  | $\mathbf{6 8 - 7 4}$ |

*May include English literature, speech, music, art, philosophy, religion, language, history, economics, anthropology, medical vocabulary, political science, psychology, sociology, and geography.
**Should have had organic chemistry plus BIOL 1110/1111, 1120/1121, and 3250/3251 prior.
***MATH 1710 and/or 1720 should be taken if student needs background for Physics.

The above requirements represent the very minimum, and those students without an adequate farm background could benefit by taking such agriculture courses as animal nutrition, elements of animal science, livestock management, livestock production courses, and animal nutrition. An introduction to physiology would also be helpful. Many students who are accepted to a professional veterinary program first complete the four-year Animal Science major at MTSU and earn the B.S. degree

## Courses in Agribusiness and Agriscience [ABAS] <br> See back of catalog for course descriptions.

## Graduate Study

A graduate minor is offered in Agriculture. Requirements and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Biology 

George Murphy, Chair<br>Davis Science Building 128

Bailey, Benz, Bergemann, Blum, Brower, Butler, Cahoon, Cobb, DuBois, Elrod-Erickson, Ervin, A. Farone, M. Farone, Hemmerly, Herlihy, Howard, Jetton, Johnson, Kelly, Klukowski, Leblond, McGhee, Miller, Mullen, Newsome, Otter, Reagan, Rosing, Rutledge, Sadler, Seipelt, Smith-Walters, Stewart, Walck, Wright, Zamora

The Department of Biology offers preparation for teachers of biology, for biologists in industrial and governmental employment, and for students planning for graduate study in biology or for advanced professional courses in health sciences. The program for the Biology major leads to the Bachelor of Science degree. Students choose from concentrations in Animal Biology, General Biology, Genetics and Biotechnology, Microbiology, Physiology, and Plant Biology. A minor in Secondary Education is suggested for those persons planning to teach. A minor in Biology is also available.


Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Biology

The major in Biology requires 42 semester hours including a biology core for all concentrations of 29 semester hours:

1. BIOL 1110/1111 and $1120 / 1121$ or, with approval of the department head, BIOL 1030/1031 with a grade of A or B plus 4 hours from upper-division courses;
2. BIOL 2230/2231, 3250/3251, 3400/3401, 3500, 4200;
3. BIOL 4110/4111 or $4210 / 4211$ or 4500 .

Other requirements include

1. MATH 1910 and one of the following: BIOL 4350/4351 or MATH 2050 or MATH 1920;
2. 12 hours of chemistry (1110/1111, 1120/1121, and 2030/2031 or 3010/3011).
All Biology majors are assigned a faculty advisor through the Biology Department Office (DSB 128). The student is responsible for seeking the assistance of the advisor. This catalog is not intended to provide the detail necessary for self-advising.
Every Biology major is required to declare a concentration area. Each area requires semester hours to be selected from a set of designated courses.

## Concentration: Animal Biology

Minimum of 10 hours selected from
BIOL 3010/3011, 3020/3021, 3040, 3050/3051, 4130/4131, 4140/4141, 4180/4181, 4220/4221, 4390/4391, 4580/4581, 4720/4721

## Concentration: General Biology

Select one course from each of the following three areas:

1. BIOL 3010/3011 or 3020/3021 or 4180/4181;
2. BIOL 3030 or $4080 / 4081$ or 4120 ;
3. BIOL 3040 or $3050 / 3051$ or $4130 / 4131$ or $4140 / 4141$.

## Concentration: Genetics and Biotechnology

BIOL 4550 and BIOL 4450 or 4460/4461 and one course selected from BIOL 4270, 4290, 4300/4301, 4450, 4460/4461, 4510, 4570/4571, 4720/4721

## Concentration: Microbiology

Minimum of 10 hours selected from
BIOL 3050/3051, 3210/3211, 4080/4081, 4300/4301, 4430, 4440, 4450, 4510, 4550, 4730

## Concentration: Physiology

Minimum of 10 hours selected from
BIOL 3010/3011, 3020/3021, 4110/4111*, 4130/4131, 4170, 4210/4211*, 4300/4301, 4440, 4500*, 4520, 4560/4561, 4570/4571
*only if not used for core requirement

## Concentration: Plant Biology

Minimum of 10 hours selected from
BIOL 3030, 4060, 4080/4081, 4120, 4520

Suggested freshman and sophomore program for majors not planning to teach

## FRESHMAN

BIOL 1110/1111 (Nat Sci)
BIOL 1120/1121
CHEM 1110/1111 (Nat Sci)
CHEM 1120/1121
ENGL 1010, 1020 (Comm)
MATH 1910 (Math)
COMM 2200 (Comm)

## JUNIOR

Social/Behavioral Science Humanities and/or Fine Arts
BIOL 3500
BIOL 3400/3401
BIOL 4110/4111, 4210/4211, or 4500
BIOL concentration
Minor**
Elective**

## SOPHOMORE

BIOL 2230/2231, 3250/3251 8
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) 3
HIST 2010, 2020, or 20306
CHEM 2030/2031 or 3010/3011 4
Social/Behavioral Sciences 3
BIOL 4350/4351 or
or MATH 2050 or 1920* 3-4
*Elective (if MATH 2050
taken)
Minor 3

## SENIOR

Humanities and/or Fine Arts 3 BIOL concentration 6
Minor** 6-9
Upper-division BIOL elective 4
Electives** 9
BIOL 42002
*See advisor for additional choices in this area.
**Must include 16 hours of upper-division classes.

## Teacher Licensure

Students seeking a license to teach in secondary schools (grades 7-12) must complete (1) a major in the subject they intend to teach, (2) a minor in Secondary Education, and (3) additional teacher licensure requirements.

## Secondary Education Minor Requirements

Students must contact their Secondary Education minor advisors for approval of appropriate courses.
NOTE: Please see Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Biology Major Requirements for Licensure

Complete the following General Biology concentration:
BIOL 1110/1111, 1120/1121, 8 hours
BIOL 2230/2231, 4 hours
BIOL 3250/3251, 4 hours
BIOL 3400/3401, 4 hours
BIOL 3500, 3 hours
BIOL 4200, 2 hours
Select one: BIOL 3010/3011, 4 hours; BIOL 3020/3021, 4 hours; BIOL 4180/4181, 4 hours
Select one: BIOL 3030, 4 hours; BIOL 4080/4081, 4 hours; BIOL 4120, 4 hours; BIOL 4520, 4 hours
Select one: BIOL 3040, 3 hours; BIOL 3050/3051, 3 hours; BIOL 4130/4131, 4 hours; BIOL 4140/4141, 4 hours
Select one: BIOL 4110/4111, 4 hours; BIOL 4210/4211, 4 hours; BIOL 4500, 4 hours
Biology electives to total 42 hours minimum.

## Minor in Biology

There are two options for the minor in Biology:

1. 19 semester hours in biology including one year of freshman biology or equivalent and BIOL 2230/2231 and 3250/3251.
2. 19 semester hours in biology including BIOL 1030/1031 with a grade of $A$ or $B$ and 4 hours chosen from upperdivision courses and approved by the department head and BIOL 2230/2231 and 3250/3251.

Each option requires at least one upper-division course to be taken at MTSU. A 2.00 GPA is required for courses satisfying the minor in Biology.
Four or more semester hours of freshman-level General Education equivalent biology in transfer credits may be substituted for BIOL 1030/1031.

The Department of Biology participates in an interdisciplinary major in Environmental Science and Technology in conjunction with Agribusiness and Agriscience, Chemistry, Engineering Technology, and Geosciences. A complete description of this program is found on page 80 .

## Course in General Education Biology [BIOL]

See back of catalog for course descriptions.

## Courses in Biology [BIOL]

See back of catalog for course descriptions.

## Gulf Coast Research Laboratory

MTSU is an affiliate of the Gulf Coast Research Laboratory (GCRL) in Ocean Springs, Mississippi. Adjacent to the Mississippi Sound, the GCRL promotes student education and research opportunities in marine biology. A number of courses are offered each summer and the credits transferred to MTSU. For information on attendance or current course offerings, consult the Biology Department chair or visit the GCRL Web site at www.usm.edu/gcrl/summer_field/index.php.

## Honors College

The Department of Biology offers the following courses in Honors:
BIOL 1030/1031 (Fall/Spring Semester)
BIOL 1110/1111 (Fall/Spring Semester)
BIOL 1120/1121 (Spring Semester)
BIOL 2230/2231 (Spring Semester)
BIOL 3160 (Spring Semester of even-numbered years)
BIOL 3250/3251 (Fall Semester)

## Graduate Study

The Master of Science is offered in Biology. Requirements for this degree and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Chemistry 

Earl F. Pearson, Chair<br>Davis Science Building 239<br>Bonicamp, Burden, Chong, DiVincenzo, Dunlap, Friedli, Handy, Howard, Ilsley, Iriarte-Gross, Kline, Koritsanszky, Lee, MacDougall, Melton, Ooi, D. Patterson, P. Patterson, Phelps, Sanger, Stewart, Volkov, White, Wilson, Wulfsberg

The Department of Chemistry has as its objectives preparation and training in both scientific principles and skills for chemists seeking industrial or governmental employment; students planning graduate study in the sciences or advanced professional courses of study in medicine or engineering; science teachers in public or private schools; and for students wishing to meet institutional requirements in chemistry.
Programs in the department lead to the Bachelor of Science degree with majors or concentrations in Professional Chemistry, Chemistry, Biochemistry, or Science. The Professional Chemistry and Biochemistry Programs do not require a minor, and the other programs require a minor of at least 18 semester hours. Minors are also offered in Chemistry and Science. In addition, pre-professional programs for cytotechnology, dentistry, dental hygiene, health information management, medicine, medical technology, nuclear medicine technology, occupational therapy, pharmacy, physical therapy, radiation therapy technology, chiropractic, and diagnostic medical sonography are offered under the Health Sciences concentration.
A grade of C or better is required on all transfer credits accepted as part of a major or minor in the Department of Chemistry. Students must have a grade point average of at least 2.00 on courses counting toward a major or minor in any of the department's programs. No more than 8 hours of 1000-level chemistry, 8 hours of 1000level biology, or 8 hours of 2000-level physics courses may count toward a Chemistry or Science major or minor. No 1000-level physics course may count toward a Science major or minor.
Laboratory safety is of primary importance in the Department of Chemistry. Students are required to follow all laboratory safety rules, a statement of which will be provided to all students at the first laboratory period. Approved safety goggles must be worn at all times while in the laboratory. Failure to comply with any of the laboratory rules may result in the student's removal
from the laboratory for that laboratory period. Continued violation of safety rules can result in the withdrawal of the student from the course.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Chemistry, Professional Concentration

The Professional Chemistry concentration in the Chemistry major, approved by the American Chemical Society, consists of 48 semester hours in chemistry including CHEM 1110/1111, 1120/1121, 2230/2231, 3010/3011, 3020/3021, 3530/3531 or 4500, 4230/4231, 4350/4351, 4360/4361, 4400, 4410, and 4430/4431, plus at least 4 hours (including one hour of laboratory) from CHEM 4100, 4700/4780, 4730/4731, 4000, 4510/4530, 4880, 4600, or 4610; mathematics through MATH 1920; MATH 3110 or PHYS 3150; PHYS 2010/2011, 2020/2021 (or 2110/2111, 2120/2121); BIOL 1110/1111, 1120/1121; at least 3 hours of computer science approved by advisor; and fulfillment of University General Education requirements. A minimum of 12 upper-division hours in the Chemistry major must be taken at MTSU. No minor is required for this major.

## Recommended Sequence

## FRESHMAN

CHEM 1110/1111 (Nat Sci)
CHEM 1120/1121
MATH 1730 (Math)
MATH 1910
BIOL 1110/1111 (Nat Sci)
BIOL 1120/1121
ENGL 1010, 1020 (Comm)

## SOPHOMORE

CHEM 2230/2231,
3010/3011, 3020/3021 13
PHYS 2010/2011, 2020/2021 8
MATH 19204
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) 3
CSCl (approved by advisor) $\quad 3$

|  | SENIOR |  |
| ---: | :--- | ---: |
|  | CHEM 4230/4231, 4410, | 9 |
|  | $4430 / 4431$ |  |
| 14 | CHEM concentration |  |
| 3 | upper-division electives |  |
| 6 | Humanities and/or Fine Arts | 4 |
| 4 | Social/Behavioral Sciences |  |
| 3 | (2 prefixes) |  |
| $\mathbf{3 0}$ | Electives | 6 |
|  | Upper-division elective | 4 |
|  |  | 3 |
|  |  | $\mathbf{2 9}$ |

SENIOR

JUNIOR
CHEM 4400, 4350/4351, 4360/4361 (3530/3531 or 4500)
COMM 2200 (Comm)
HIST 2010, 2020, or 2030
MATH 3110 or PHYS 3150
Humanities and/or Fine Arts

## Major in Chemistry

The Chemistry major consists of 36 semester hours in chemistry including CHEM 1110/1111, 1120/1121, 2230/2231, 3010/3011, 3020/3021, 4330/4331, 4340/4341 (or 4350/4351, 4360/4361), and at least 7 hours from among the upper-division electives: CHEM (3530/3531 or 4500), 3880, 4000, 4100, (4230/4231 or 4630/4631), 4400, 4510, 4530, 4600, 4610, 4700, 4780, 4880 and PSCI 4080. Also required are MATH 1910; PHYS 2010/2011, 2020/2021; BIOL 1110/1111, 1120/1121; and fulfillment of University General

Education requirements. A minimum of 12 upper-division hours in the Chemistry major must be taken at MTSU.

> NOTE: Students who wish to get jobs as chemists are strongly encouraged to take additional upper-division courses, especially CHEM 4630/4631, follow the plan for the professional major, or take more advanced chemistry courses upon graduation. The Chemistry major requires one minor of at least 18 hours. Students who plan to graduate with no more than 120 hours should consult their advisors to be sure 42 upper-division hours are included in their curriculum.

| Recommended Sequence |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN |  |  |  |
| SOPHOMORE |  |  |  |
| CHEM 1110/1111 (Nat Sci) | 4 | CHEM 2230/2231, 3010/3011, |  |
| CHEM 1120/1121 | 4 | $3020 / 3021$ | 13 |
| MATHH 1730 (Math) | 4 | PHYS 2010/2011, 2020/2021 | 8 |
| MATH 1910 | 4 | Minor | 3 |
| BIOL 1110/1111 (Nat Sci) | 4 | ENGL 2020 or 2030 or |  |
| BIOL 1120/1121 | 4 | HUM 2610 (Hum/FA) | 3 |
| ENGL 1010, 1020 (Comm) | 6 | Upper-Division Elective | 3 |
|  | $\mathbf{3 0}$ |  | $\mathbf{3 0}$ |
|  |  | SENIOR |  |
| JUNIOR |  |  |  |
| CHEM 4330/4331, 4340/4341 | 8 | CHEM concentration |  |
| COMM 2200 (Comm) | 3 | upper-division electives | 7 |
| HIST 2010, 2020, or 2030 | 6 | Humanities and/or Fine Arts | 3 |
| Minor | 10 | Social/Behavioral Sciences |  |
| Humanities and/or Fine Arts | 3 | (2 prefixes) | 6 |
|  | $\mathbf{3 0}$ | Minor | 5 |
|  |  | Upper-division electives | 9 |
|  |  |  | $\mathbf{3 0}$ |

## Minor in Chemistry

The minor in Chemistry consists of 19 semester hours of chemistry, including CHEM 1110/1111 and 1120/1121 with a maximum of 8 hours in freshman-level chemistry. At least four upper-division hours must be taken at MTSU.

## Major in Biochemistry

The major in Biochemistry consists of 55 semester hours of biology and chemistry coursework. Also required are MATH 1910; PHYS 2010/2011, 2020/2021, and fulfillment of University General Education requirements. A minimum of 12 upper-division semester hours in the biochemistry major must be taken at MTSU. No minor is required.

## Recommended Curriculum <br> FRESHMAN

CHEM 1110/1111 (Nat Sci) (See Note 1)
CHEM 1120/1121
(See Note 2)
MATH 1910 (Math)
ENGL 1010, 1020 (Comm)
BIOL 1110/1111 (Nat Sci)
BIOL 1120, 1121

## SOPHOMORE

BIOL 2230/2231, 3250/3251 8
4 CHEM 3010/3011, 3020/3021 8
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)
Humanities/Fine Arts 6
COMM 2200 (Comm) 3

## Electives

## JUNIOR

CHEM 4500, 45106
HIST 2010, 2020, or 20306
PHYS 2010/2011, 2020/2021 8
CHEM 4550/4551
Upper-division electives
BIOL upper-division

## SOPHOMORE

CHEM 2230/2231, 3010/3011, 3020/3021 13

Minor 3
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) 3

0

SENIOR
CHEM concentration upper-division electives
Humanities and/or Fine Arts 3
cial/Behavioral Sciences

Included in the electives will be the hours necessary for the completion of the required 42 upper-division hours for graduation requirements and the necessary hours to satisfy the 120-hour graduation requirement.
NOTE 1: A student who has had little or no high school chemistry or is not satisfied with his/her high school chemistry should first take CHEM 1010/1011 before taking CHEM 1110/1111.
NOTE 2: A student who has a sufficiently high score on the ACT Mathematics test may begin with MATH 1910. If the background in math is weak, MATH 1710 should be taken before MATH 1730.

## Interdisciplinary Major in Environmental Science and Technology

The Department of Chemistry participates in an interdisciplinary major in Environmental Science and Technology in conjunction with Agribusiness and Agriscience, Biology, Engineering Technology, and Geosciences. A complete description of this program is found on page 80 .

## Teacher Licensure in Chemistry (7-12)

Students seeking a license to teach chemistry in secondary schools (grades 7-12) must complete (1) a major in Chemistry, (2) a minor in Secondary Education, and (3) a course (PSCl 1030/1031) in addition to the General Education requirements.

## Secondary Education Minor Requirements

Students must contact their Secondary Education minor advisors for approval of appropriate courses.

NOTE: See Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Teacher Licensure in Interdisciplinary Studies (K-6)

Students may become licensed to teach in grades K-6 including science by following the Interdisciplinary Studies major. The science and math courses required are PSCI 1030/1031 and 4030; BIOL 1030/1031 and 3000; and MATH (1010 or 1710), 1410, 1420, and 4010. See other requirements for majors in the Elementary and Special Education Department section.

## Major in Science

The major in Science has two concentrations-General Science and Health Science. A minimum of 9 semester hours of upper-division courses in either concentration of the Science major must be taken at MTSU. The Science major requires only one minor which must include at least 3 semester hours at the upper-division level taken at MTSU.

## Concentration: General Science

The General Science concentration is a broad-based science degree requiring 19 semester hours acceptable for a minor in each of two fields selected from biology, chemistry, and physics plus 8 semester hours from the third field. Each student should
work closely with his/her advisor in completing the program for the General Science concentration.

| Recommended Sequence |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN | SOPHOMORE |  |  |
| CHEM 1110/1111 (Nat Sci) | 4 | Science major electives | 8 |
| CHEM 1120/1121 | 4 | PHYS 2010/2011, 2020/2021 | 8 |
| MATH 1730 (Math) | 4 | Electives/Minor | 11 |
| BIOL 1110/1111 (Nat Sci) | 4 | ENGL 2020 or 2030 or |  |
| BIOL 1120/1121 | 4 | HUM 2610 (Hum/FA) | 3 |
| ENGL 1010, 1020 (Comm) | 6 |  | $\mathbf{3 0}$ |
| Elective/Minor | 4 |  |  |
|  | $\mathbf{3 0}$ |  |  |
| JUNIOR |  | SENIOR | 6 |
| Science major electives | 8 | Science major electives | 3 |
| COMM 2200 (Comm) | 3 | Humanities and/or Fine Arts | 3 |
| HIST 2010, 2020, or 2030 | 6 | Electives/Minor | 15 |
| Electives/Minor | 10 | Social/Behavioral Sciences |  |
| Humanities and/or Fine Arts | 3 | (2 prefixes) | 6 |
|  | $\mathbf{3 0}$ |  | $\mathbf{3 0}$ |

## Teacher Licensure in Science (7-12)

Students may become licensed to teach biology, chemistry, or physics in secondary schools (grades 7-12) by completing (1) a major in science with a General Science concentration in which biology, chemistry, or physics is, respectively, one of the 19-hour disciplines chosen; (2) courses in addition to the General Education requirements (see advisor); and (3) a minor in Secondary Education.

Students may also become licensed to teach biology, chemistry, or physics by majoring in the subject they intend to teach (see requirements listed under the specific major).

| Recommended Sequence |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN | SOPHOMORE | 8 |  |
| CHEM 1110/1111 (Nat Sci) | 4 | Science major electives | 8 |
| CHEM 1120/1121 | 4 | PHYS 2010/2011, 2020/2021 | 8 |
| MATH 1730 (Math) | 4 | Electives/Sec. Ed. Minor | 11 |
| BIOL 1110/1111 (Nat Sci) | 4 | ENGL 2020 or 2030 or |  |
| BIOL 1120/1121 | 4 | HUM 2610 (Hum/FA) | 3 |
| ENGL 1010, 1020 (Comm) | 6 |  | $\mathbf{3 0}$ |
| Elective/Sec. Ed. Minor | 4 |  |  |
|  | $\mathbf{3 0}$ |  |  |
| JUNIOR |  | SENIOR | 6 |
| Science major electives | 8 | Science major electives | 3 |
| COMM 2200 (Comm) | 3 | Humanities and/or Fine Arts | 3 |
| HIST 2010, 2020, or 2030 | 6 | Electives/Sec. Ed. Minor | 15 |
| Electives/Sec. Ed. Minor | 10 | Social/Behavioral Sciences |  |
| Humanities and/or Fine Arts | 3 | (2 prefixes) | 6 |
|  | $\mathbf{3 0}$ |  | $\mathbf{3 0}$ |

## Concentration: Health Science

The Health Science concentration is for students who expect to enter a professional school after completing an appropriate pre-professional curriculum. There are three groups of programs. One group leads to an MTSU degree through completion of three years of the program at MTSU, acceptance into a professional school, and successful completion of one year. These programs are referred to as three-and-one programs and result in a bachelor's degree in science from MTSU with a health science concentration. Some programs listed under
health science are designed for transfer only and do not lead to a degree from MTSU while other programs require completion of a baccalaureate degree prior to entrance.
Admission to the MTSU pre-professional program does not assure admission to a professional program. In the beginning of the third year, the student should make application to the program of choice, following the procedures of the particular program. Selection for admission is competitive and is made by the admissions committee of the respective program according to its selection standards.
The limits on class size in most of the professional programs may prevent acceptance of some qualified applicants. In the event a first application is unsuccessful, the program may be easily changed to a Chemistry or Biology major leading to a B.S. degree, and then application may be made a second time.

Students should note the following:
Chemistry-Students with a weak background or no high school chemistry should enroll in CHEM 1010/1011 before taking CHEM 1110/1111.
Irregularities-Advanced placement, remedial courses, failure of required courses, or summer school may cause some students to deviate from the sequence in the recommended curriculum. Regular consultation with the advisor is most important.
Advisors-Advisors to these programs are assigned in the Clara W. Todd Pre-professional Health Science Advising Center located in the Chemistry Department. The advisor will provide a curriculum sheet as a guide for the program. Guidance is provided on the recommended courses and procedures to be followed in leading to applications to a professional program. A pre-professional evaluation committee aids the students in providing recommendations requested by the professional programs.
Degree from MTSU—Students who plan to obtain degrees from MTSU must file the Intent to Graduate Form.

## Minor in Science

The minor in Science consists of 24 semester hours acceptable for a minor: 16 hours in biology, chemistry, or physics, and 8 semester hours in one of the other two. At least 4 upperdivision hours in a science must be taken at MTSU. Consult your advisor to determine which courses will satisfy minor requirements.

## Pre-medical Curriculum <br> (Including optometry, osteopathy, physician assistant, or podiatry)

The pre-medical curriculum prepares students to make application to all of the medical schools in Tennessee and most of the medical schools in the United States. A student planning to enter a medical school in another state is expected to supply the advisor with a catalog from the school under consideration.
Students are encouraged to complete a baccalaureate degree prior to entering medical school. The pre-medical curriculum lists all general education requirements, pre-medical require-
ments for application to medical schools, and recommended coursework. Since students can obtain a degree of their choice, it is very important to work closely with advisors regarding recommended coursework and fulfillment of degree requirements. The following sequence of classes may not yield a degree (see advisor). Students who plan to apply for admission to a school of optometry, osteopathy, podiatry, or physician assistant should follow this general pre-medical curriculum.

| Recommended Curriculum |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| CHEM 1110/1111 (Nat Sci)* | 4 | CHEM 2230/2231 | 5 |
| CHEM 1120/1121* | 4 | CHEM 3010/3011* | 4 |
| BIOL 1110/1111 (Nat Sci)* | 4 | BIOL 2230/2231, 3250/3251 | 8 |
| BIOL 1120/1121* | 4 | PHYS 2010/2011, 2020/2021* | 8 |
| ENGL 1010, 1020 (Comm)* | 6 | ENGL 2020 or 2030 or |  |
| MATH 1910 (Math) | 4 | HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | Humanities and/or Fine Arts | 3 |
| Humanities and/or Fine Arts | 3 |  | 31 |
|  | 32 |  |  |
| JUNIOR |  | SENIOR |  |
| CHEM 3020/3021* | 4 | CHEM 4330/4331 | 4 |
| CHEM 3530/3531 or 4500 | 4 | CHEM 4340/4341 | 4 |
| BIOL 3020/3021, 4210/4211 | 8 | BIOL 4130/4131 | 4 |
| HIST 2010, 2020, or 2030 | 6 | Chemistry, biology, and |  |
| Social/Behavioral Sciences (2 prefixes) | 6 | general electives | 16 28 |
| Upper-division elective | , |  |  |
|  | 29 |  |  |

*Denotes courses required for medical school.
NOTE: Electives must be selected carefully in order to assure meeting institutional requirements for graduation: (1) completion of General Education requirements; (2) completion of a minor; (3) completion of a minimum 42 semester hours of upper-division work (courses numbered 3000 and above).

## Pre-physical Therapy Curriculum

The following curriculum is proposed for students planning to make application to a physical therapy program. Students are encouraged to complete a baccalaureate degree of choice prior to entering a physical therapy (PT) school. Consult your advisor. Since different schools have different prerequisites, curriculum guide sheets for this and other PT schools in Tennessee should be obtained from the coordinator of pre-professional advising. At that time, a pre-physical therapy advisor is assigned. Frequent contact with the advisor is essential to being properly prepared for application to the professional schools. Volunteer work in physical therapy is required.

```
Recommended Curriculum
FRESHMAN
BIOL 1110/1111, 1120/1121 8
ENGL 1010,1020 6
CHEM 1110/1111, 1120/1121 }
MATH 1730 4
Courses from major*
```


## SOPHOMORE

```
BIOL 2010/2011, 2020/2021 8
PHYS 2010/2011, 2020/2021 8
PSY 1410, 2300
Courses from major*
Courses from major*
```

NOTE: Other prerequisite courses: PSY 3020 (3 hrs.) or MATH 1530 (3 hrs), CSCI 1150 (3 hrs.) or INFS 2200 (3 hrs.), HIST 2010, 2020 (6 hrs.), and COMM 2200 (3 hrs.)
Student must obtain an advisor for the physical therapy program who helps select a major in addition to meeting prerequisites for physical therapy requirements. The advisor will assist in selecting elective courses.

## Three-and-One Programs

The following are programs that lead to an MTSU degree: pre-chiropractic, pre-cytotechnology, pre-dental, pre-medical technology, pre-pharmacy, pre-nuclear medicine technology, pre-radiation therapy technology, and diagnostic medical sonography.

Since acceptance into dental or pharmacy school after three years is highly competitive, most students complete the specified pre-dental or pre-pharmacy curriculum and then complete a fourth year at MTSU which will lead to a bachelor's degree in biology, chemistry, or science.
General requirements for a degree under this concentration:

1. Complete the specified three-year pre-professional curriculum consisting of at least 90 hours.
2. Apply to, be accepted in, and successfully complete either one year ( 30 hours) in the professional school or one year of an approved clinical or laboratory school (for which 30 hours will be granted).
3. Each program will require a minimum of 35 hours of science (biology, chemistry, physics).
4. Twenty-one (21) upper-division hours from MTSU of which 12 must be in science as approved by the advisor. NOTE: Any hours granted for laboratory experience do not apply to these 21 upper-division hours.
5. The last 30 semester hours of MTSU coursework must be in residence at MTSU.

## Pre-chiropractic Curriculum

The following curriculum is proposed for students planning to enter chiropractic school after three years of study at MTSU. The course schedule below meets prerequisites for admission into a Doctor of Chiropractic (DC) program. Upon acceptance and successful completion of the first year of chiropractic school, the student will have completed requirements for a Bachelors of Science degree at MTSU.

## Recommended Curriculum <br> FRESHMAN

CHEM 1110/1111 (Nat Sci)
CHEM 1120/1121
BIOL 1110 /1111 (Nat Sci)
BIOL 1120/1121
ENGL 1010, 1020 (Comm)
MATH 1730 (Math)
COMM 2200 (Comm)
Humanities and/or Fine Arts

## JUNIOR

CHEM 3530/3531
PHYS 2010/2011, 2020/2021 8
HIST 2010, 2020, or 20306
Social/Behavioral Sciences 3

## SOPHOMORE

CHEM 3010/3011, 3020/3021 8
BIOL 2230/2231, 3250/3251 8
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) 3
PSY 141 (Soc/Beh Sci) 3
Humanities and/or Fine Arts 3
$\begin{array}{lr}\text { General Elective } & 3 \\ & 28\end{array}$

## SENIOR

Professional program credits (granted upon completion of first year of approved program)

Upper-division electives

## Pre-cytotechnology Curriculum (CT)

The curriculum outlined for the Medical Technology program may be followed at MTSU; after successful completion of a program in a nationally accredited cytotechnology school, a B.S. degree from MTSU can be received.

## Recommended Curriculum

## FRESHMAN

CHEM 1110/1111 (Nat Sci) CHEM 1120/1121
BIOL $1110 / 1111$ (Nat Sci)
BIOL 1120/1121
ENGL 1010, 1020 (Comm) MATH 1710 (Math
PHYS 2010/2011 or 1300
COMM 2200 (Comm)

## JUNIOR

CHEM elective*
BIOL 4110/4111, 4300/4301
BIOL elective
Social/Behavioral Sciences (2 prefixes)
Electives*

## SOPHOMORE

CHEM 3010/3011, 3020/3021 or CHEM 2030/2031 3530/3531 8
BIOL 2230/2231, 3250/3251 8
HIST 2010, 2020, or 20306
ENGL 2020 or 2030 or HUM 2610 (Hum/FA) Humanities and/or Fine Arts (2 prefixes)

## SENIOR

Professional program credits (granted upon completion of first year of approved program)
*Total upper-division hours must equal at least 21; total of 90 hours prior to professional program.


## Pre-dental Curriculum

The following curriculum is proposed for students planning to enter the College of Dentistry at the University of TennesseeMemphis and will meet the requirements for a B.S. degree from MTSU upon successful completion of one year in dental school. See page 61 for specific requirements.

NOTE: Many applicants find that a B.S. degree is required to be competitive for acceptance; therefore, most pre-dental students usually pursue a Chemistry major and Biology minor or vice versa.

## Recommended Curriculum

## FRESHMAN

CHEM 1110/1111 (Nat Sci)
CHEM 1120/1121
BIOL 1110/1111 (Nat Sci)
BIOL 1120/1121
ENGL 1010, 1020 (Comm) MATH 1910 (Math)*
PHYS 2010/2011

JUNIOR
CHEM 3020/3021
CHEM 3530/3531
BIOL 3020/3021, 4130/4131
Humanities and/or Fine Arts (2 prefixes)
Social/Behavioral Sciences
(2 prefixes)
Upper-division elective 3

## SOPHOMORE

CHEM 2230/2231
CHEM 3010/3011
PHYS 2020/2021
BIOL 3250/3251
4
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) HIST 2010, 2020 or 2030 COMM 2200 (Comm)

## SENIOR

Professional program credits (granted upon successful completion of first year of approved program)
*Prerequisite to MATH 1910 is MATH 1730 or Math ACT greater than or equal to 26 .
NOTE: Total of 90 hours prior to professional program. Total upper-division hours must equal at least 21

## Pre-medical Technology Curriculum (MT)

The medical technology degree program requires the successful completion of three years (minimum of 90 semester hours) academic work followed by a minimum of 12 months (30 semester hours or equivalent) in a medical technology program approved by a national accrediting agency and by Middle Tennessee State University. The academic program must fulfill all General Education requirements for a B.S. degree, include at least 21 semester hours of courses numbered 3000 or above, and at least the last two semesters ( 30 semester hours) must be in residence at MTSU. All other requirements for graduation given elsewhere in this catalog must be met. Specific course requirements are shown below.

Upon approval, a student with the MLT certification from a nationally accredited program at a community college or from any other nationally accredited MLT program may enroll at MTSU, follow the academic part of the medical technology curriculum, fulfill MTSU requirements for graduation, and receive credit (30 semester hours for programs with credit hours not assigned) for the MLT clinical work to be applied toward the B.S. degree. In addition to appropriate MLT certification, three years of full-time clinical laboratory experience are required, in accordance with state and national regulations.

| Recommended Curriculum |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| CHEM 1110/1111 (Nat Sci) | 4 | CHEM 3010/3011, 3020/3021 | 8 |
| CHEM 1120/1121 | 4 | BIOL 2230/2231, 3250/3251 | 8 |
| BIOL 1110/1111 (Nat Sci) | 4 | HIST 2010, 2020, or 2030 | 6 |
| BIOL 1120/1121 | 4 | ENGL 2020 or 2030 or |  |
| ENGL 1010, 1020 (Comm) | 6 | HUM 2610 (Hum/FA) | 3 |
| MATH 1710 (Math) | 3 | COMM 2200 (Comm) | 3 |
| PHYS 2010/2011 or 1110/1111 | 4 | Humanities and/or Fine Arts | 3 |
|  | 29 |  | 31 |
| JUNIOR |  | SENIOR |  |
| CHEM 3530/3531 | 4 | Professional program |  |
| BIOL 4110/4111, 4300/4301 | 8 | credits (granted upon |  |
| BIOL upper-division elective* | 4 | successful completion |  |
| Humanities and/or Fine Arts | 3 | of first year of approved |  |
| Social/Behavioral Sciences (2 prefixes) | 6 | program) | 30 30 |
| Electives | 5 |  |  |
|  | 30 |  |  |

Total of 90 hours prior to professional program.
*At least 1 hour must be upper division; total upper-division hours must equal at least 21.

## AFFILIATED MEDICAL TECHNOLOGY PROGRAMS

1. Vanderbilt Medical Center, Program of Medical Technology, Nashville, Tennessee
2. TSU-Meharry, Program of Medical Technology, Nashville, Tennessee
3. Austin Peay State University, Program of Medical Technology, Clarksville, Tennessee
Acceptance of work from nonaffiliated schools may also be arranged on an individual student basis.

## Pre-pharmacy Curriculum

The following curriculum is proposed for students planning to enter pharmacy school after three years of study at MTSU. Well-prepared students with advanced placement credits may be able to complete pharmacy admission requirements in two years and should consult with their advisors regarding course selection. The course schedule below meets prerequisites for most pharmacy schools. Students should work closely with an advisor to ensure all course requirements are met for all pharmacy schools to which they plan to apply.

## Recommended Curriculum <br> FRESHMAN

CHEM 1110/1111 (Nat Sci)
CHEM 1120/1121
BIOL 1110/1111 (Nat Sci)
BIOL 1120/1121
MATH 1910 (Math)
PHYS 2010/2011
ENGL 1010, 1020 (Comm)

## SOPHOMORE

CHEM 3010/3011, 3020/3021 8
BIOL 2010/2011, 2020/2021 8
MATH 1530
3
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) 3
PSY 1410 (Soc/Beh Sci) 3
COMM 2200 (Comm) 3
HIST 1010, 1020, 1110, or 1120 (Hum/FA)

## SENIOR

Professional program credits (granted upon successful completion of first year of approved program)

Total of 90 hours prior to professional program. Total upper-division hours must equal at least 21.

## Pre-nuclear Medicine Technology Curriculum

The Nuclear Medicine Technology degree program requires a successful completion of three years (minimum of 90 semester hours) academic work at MTSU followed by a minimum of 12 months ( 30 semester hours or equivalent) in a nuclear medicine technology program approved by a national accrediting agency and by Middle Tennessee State University. The academic program must fulfill all General Education requirements for a B.S. degree, include at least 21 semester hours of courses numbered 3000 or above, and at least the last two semesters (junior year, 30 semester hours) must be in residence at MTSU. All other requirements for graduation given elsewhere must be met.

| Recommended Curriculum |  |
| :--- | ---: |
| FRESHMAN |  |
| CHEM 1110/1111 (Nat Sci) | 4 |
| CHEM 1120/1121 | 4 |
| BIOL 2010/2011 (Nat Sci) | 4 |
| BIOL 2020/2021 | 4 |
| MATH 1730 or 1910 (Math) | 4 |
| ENGL 1010, 1020 (Comm) | 6 |
| PSY 1410 (Soc/Beh Sci) | 3 |
| Elective | 1 |
|  | $\mathbf{3 0}$ |
| JUNIOR |  |
| BIOL 2230/2231, 3340, 4150 | 10 |
| CSCI 1000 | 1 |
| BIOL 3350 | 3 |
| Humanities and/or Fine Arts |  |
| (2 prefixes) | 6 |
| PSY 4650 | 3 |
| SOC 4040 | 3 |
| Social/Behavioral Sciences | 3 |
|  | $\mathbf{2 9}$ |

## SOPHOMORE

## CHEM 3010/3011, 3020/3021

or 2030/2031, 3530/3531 8
PHYS 2010/2011, 2020/2021 8
HLTH 3300
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)
HIST 2010, 2020, or $2030-3$
COMM 2200 (Comm) 3 31

## SENIOR

Professional program credits (granted upon successful completion of first year of approved program)

Total of 90 hours prior to professional program. Total upper-division hours must equal at least 21.

## Pre-radiation Therapy Technology Curriculum

The Radiation Therapy Technology degree program requires a successful completion of three years (minimum of 90 semester hours) academic work at MTSU followed by a minimum of 12 months ( 30 semester hours or equivalent) in a radiation therapy technology program approved by a national accrediting agency and by Middle Tennessee State University. The academic program must fulfill all General Education requirements for a B.S. degree, include at least 21 semester hours of courses numbered 3000 or above, and at least the last two semesters (junior year, 30 semester hours) must be in residence at MTSU. All other requirements for admission given elsewhere must be met.

## JUNIOR

CHEM 4500, 4510, 4530
BIOL 2230/2231
BIOL 4300/4301
HIST 2010, 2020, or 2030
ECON 2410 (Soc/Beh Sci)
Humanities and/or Fine Arts
Upper-division elective


Total of 90 hours prior to professional program. Total upper-division hours must equal at least 21.

## Diagnostic Medical Sonography Curriculum

The following curriculum is proposed for students planning to enter the Diagnostic Medical Sonography program approved by a national accrediting agency and by MTSU. Upon acceptance and successful completion of the Diagnostic Medical Sonography program, the student will have completed requirements for a B.S. degree at MTSU.

| Recommended Curriculum |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN |  |  |  |
| CHEM 1110/1111 | 4 | BIOL 2230/2231 | 4 |
| BIOL 2010/2011, 2020/2021 | 8 | PHYS 2010/2011, 2020/2021 | 8 |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 |  |
| MATH 1730 | 4 | or HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | PSY 1410 | 3 |
| Humanities/Fine Arts | 6 | Social/Behavioral Sciences | 3 |
|  | $\mathbf{3 1}$ | CSCI 1150 | 3 |
|  |  | MATH 1530 | 3 |
|  |  | HUM 2130 | 3 |
|  |  |  | $\mathbf{3 0}$ |
| JUNIOR |  | SENIOR |  |
| BIOL 3350, 4150 | 6 | Professional program |  |
| NURS 3010 | 3 | Credits (granted upon |  |
| PSCI 4080 | 4 | successful completion |  |
| HIST 2010, 2020, or 2030 | 6 | of first year of approved |  |
| HLTH 3300, 4280 | 5 | program) | 30 |
| HLTH 4270 | 3 |  | $\mathbf{3 0}$ |
| General elective | 2 |  |  |
|  | $\mathbf{2 9}$ |  |  |

## Other Transfer Programs

The following programs do not lead to an MTSU degree: pre-dental hygiene, pre-health information management, and pre-occupational therapy. Students apply to the professional school during the second or third year.

## Pre-dental Hygiene Curriculum

The following curriculum is proposed for students planning to make application to the dental hygiene program in the College of Allied Health Sciences at the University of TennesseeMemphis. Students who plan to apply for admission to other schools of dental hygiene should consult their advisors.

## Recommended Curriculum

FRESHMAN
BIOL 1110/1111
BIOL 1120/1121 (rec.)
ENGL 1010, 1020
CHEM 1010/1011, 1020/1021
SOC 1010, 2010
PSY 1410, 1420

| SOPHOMORE |  |
| :--- | ---: |
| BIOL 2010/2011, 2020/2021, |  |
| 2230/2231 |  |
| COMM 2200 | 3 |
| HIST 2010, 2020 | 6 |
| ENGL 2030 | 3 |
| Electives* | 6 |
|  | $\mathbf{3 0}$ |

*The advisor should be consulted for elective recommendations.

## Pre-health Information Management Curriculum

The pre-health information management curriculum below is recommended for students planning to enter a health information management program. Information pertaining to prehealth information management is available in DSB 241.

To gain the best first-hand knowledge about health information management, you should contact health information managers (medical record administrators), visit their facilities, and talk to them directly. Working in an office of health information management on a paid or volunteer basis is recommended.

| Recommended Curriculum |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| BIOL 1110/1111, 1120/1121 8 |  | BIOL 2010/2011, 2020/2021 | 8 |
| ENGL 1010, 1020 6 |  | ENGL 2030 | 3 |
| PSY 1410 |  | SOC or HIST or ECON | 6 |
| PSY elective* |  | COMM 2200 | 3 |
| MATH 1710 | 3 | PSY 3020 | 3 |
| Electives* | 6 | HUM 2130 | 3 |
|  | 29 | Electives* | 5 |
|  |  |  | 31 |
| JUNIOR |  |  |  |
| INFS 2200 or 3100 | 3 |  |  |
| BCEN 3010 | 3 |  |  |
| BLAW 3400 | 3 |  |  |
| BCEN 3510 | 3 |  |  |
| BCEN 4350 | 3 |  |  |
| MGMT 3610 | 3 |  |  |
| Electives* | 12 |  |  |
|  | 30 |  |  |
| *For admission to University of (15) upper-division hours is re courses listed above satisfy this |  | see-Memphis, a minimum of fift The business courses and statistics rement. |  |

## Pre-occupational Therapy Curriculum

The following curriculum is proposed for students planning to enter the occupational therapy program at the College of Allied Health Sciences, University of Tennessee-Memphis. The program requires three (3) years of study ( 90 semester hours) at MTSU followed by two calendar years at UT-Mem-
phis. While a bachelor's degree is not required, students are encouraged to obtain a bachelor's degree before attending the occupational therapy program at UT-Memphis. Successful completion of the program will entitle the student to receive a Master of Science degree in occupational therapy granted by UT-Memphis.
Students who plan to apply for admission to other schools of occupational therapy should consult with their advisors.

| Recommended Curriculum FRESHMAN |  |
| :---: | :---: |
| BIOL 1110/1111, 1120/1121 | 8 |
| ENGL 1010, 1020 | 6 |
| Social Sciences elective | 3 |
| CHEM 1110/1111* | 4 |
| PSY 1410 | 3 |
| COMM 2200 | 3 |
| Elective** | 3 |
|  | 30 |
| JUNIOR |  |
| HUM 2130 | 3 |
| PSY 3020 | 3 |
| Humanities elective (note) | 9 |
| Electives** | 15 |
|  | 30 |


| SOPHOMORE |  |
| :--- | ---: |
| BIOL 2010/2011, 2020/2021 | 8 |
| SOC 1010 | 3 |
| CSCI 1150 | 3 |
| PHYS 2010/2011 | 4 |
| PSY 2300, 3230 | 6 |
| HUM 2130 | 3 |
| ANTH 2010 | 3 |
|  | $\mathbf{3 0}$ |

## R

PSY 30203
Humanities elective (note) 9

NOTE: Ninety semester hours must be completed prior to matriculation to include additional hours from ANTH (3), Social Sciences (3), and 9 hours of humanities.
*Students with a weak background in chemistry should take CHEM 1010/1011 before taking CHEM 1110/1111.
**Recommended electives: computer/technology skills, kinesiology, education, technical or critical writing, fine and performing arts, language and communication systems, philosophy, and up to 4 hours in activity-based courses (e.g., photography).

## Courses in Chemistry [CHEM]

See back of catalog for course descriptions.

## Courses in Chemical Instrumentation <br> Techniques [CHEM]

See back of catalog for course descriptions.
Courses in General Physical Science [PSCI]
See back of catalog for course descriptions.

## Honors College

The Department of Chemistry offers the following courses in Honors: CHEM 1110/1111 and 1120/1121 and PSCI 1030/1031. See current online class schedule and Honors information in this catalog.

## Graduate Study

The Department of Chemistry offers the Master of Science degree. The Graduate Catalog has degree requirements and course listings.

# Department of Computer Science 

## Richard Detmer, Chair <br> Kirksey Old Main 306

Butler, Cheatham, Cripps, Dong, Hankins, Li, Parker, Pettey, Sarkar, Seo, Untch, J. Yoo, S. Yoo

The Department of Computer Science offers a full range of courses designed to prepare students who plan to enter computing careers in business, government, education, and industry as well as those who plan to enter graduate school. The department emphasizes a blend of theory, abstraction, and design needed to prepare students to meet their future goals.
Programs in the department lead to the Bachelor of Science degree with a major in Computer Science. Students may select a concentration in Professional Computer Science (ABET/CAC accredited) or a concentration in Business Applications. Only one minor is required for a Computer Science major. In addition, a minor in Computer Science is offered.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Computer Science

All Computer Science majors are assigned to a faculty advisor through the Computer Science Department office (KOM 306). The student is responsible for seeking the assistance of the advisor. This catalog is not intended to provide the detail necessary for self-advising.

## Core Requirements for all Computer Science Majors

A major in Computer Science consists of 44 semester hours of computer science courses, including

1. a 29-hour core of CSCI 1170, 2170, 3080, 3110, 3130, 3160, 3250, 3420, and 4700;
2. a mathematics core of MATH 1910, 1920, and 2050;
3. an additional math course ( 3 hours) that can be counted toward a math major;
4. COMM 2200;
5. additional courses as described below.

A maximum of 3 hours in the major may come from CSCI 3970, 4280, 4600, and 4910. Credit in secondary computer languages toward the major is limited to 3 hours. In order to take any computer science course having a prerequisite, the student must have earned a grade of $\mathrm{C}(2.00)$ or better in the
prerequisite. Each course counted for a major in Computer Science must be completed with a grade of $\mathrm{C}(2.00)$ or higher. CSCI 1000, 1150, and 3150 are considered service courses and do not count toward a major or minor.

| Recommended Lower-Division Curriculum |  |  |  |
| :--- | ---: | ---: | ---: |
| FRESHMAN |  | SOPHOMORE |  |
| CSCI 1170, 2170 | 8 | CSCI 3080, 3110, 3130, |  |
| MATH 1910 (Math) | 4 | 3160 | 13 |
| MATH 1920 | 4 | Natural Sciences (2 prefixes)* | 8 |
| ENGL 1010, 1020 (Comm) | 6 | MATH 2050 | 3 |
| COMM 2200 (Comm) | 3 | ENGL 2020 or 2030 or |  |
| HIST 2010, 2020, or 2030 | 6 | HUM 2610 (Hum/FA) | 3 |
|  | $\mathbf{3 1}$ | Social/Behavioral Sciences | 3 |
|  |  |  | $\mathbf{3 0}$ |

*Professional Computer Science concentration students choose two with different prefixes from BIOL 1110/1111, CHEM 1010/1011, CHEM 1110/1111, PHYS 2010/2011, PHYS 2110/2111
One course from Social/Behavioral Sciences and two courses from Humanities and/or Fine Arts must be taken during the junior and senior years to satisfy General Education requirements. Additional Computer Science and supporting courses are also required. Consult your advisor.

## Concentration: Professional Computer Science

In addition to the core requirements, students must complete the following for the ABET/CAC-Accredited Computer Science major:

1. CSCI 3210 and 4160;
2. 2-3 hours in an approved high-level language;
3. upper-division computer science electives ( $6-7$ hours);
4. minor to be selected with the approval of the computer science advisor;
5. a minimum of 15 hours of approved mathematics;
6. a two-semester sequence in a laboratory science for Science majors (8 hours);
7. additional hours in science for Science majors and/or courses with strong emphasis on quantitative methods to make a total of at least 12 hours including the 8 -hour science sequence required above;
8. a minimum total of 30 hours of approved mathematics and science;
9. 30 semester hours of humanities, social sciences, and other disciplines (excluding science, mathematics, computer science, and physical education).

## Concentration: Business Applications

In addition to the core requirements, students must complete the following for the Business Applications concentration under the Computer Science major:

1. CSCI 4410 and 4560 ;
2. 9 hours of computer science electives, at least 6 of which are upper division;
3. a minor in either Business Administration or Mathematics. If a minor in Mathematics is chosen, then the following additional business requirements must be taken: ACTG 2110, ECON 2420, FIN 3000, MGMT 3610, and one of ACTG 2120, BLAW 3400, MKT 3820, ACSI 4230, or MGMT 3620.

## Minor in Computer Science

A minor in Computer Science consists of 17 semester hours including CSCI 1170, 2170, and additional courses including 6 hours selected from upper-division computer science with approval of the minor advisor. CSCI 1000, 1150, and 3150 are considered service courses and do not count toward a major or minor. CSCI 3420 does not count toward a Computer Science minor. Credit in secondary computer languages toward a minor is limited to three hours. A GPA of 2.00 is required in the Computer Science minor.

## Class Attendance Policy

The instructor can at his/her own discretion drop a student after two class meetings if the student fails to attend the first two class meetings.

## Cooperative Education

CSCl 2930, 2940, 3970, 3980. Cooperative Education Experience I, II, III, IV. Three credits each. Experiences must be taken in sequence. CSCI 3970 may count toward the Computer Science major. It may not be used in conjunction with CSCI 4600.

## Courses in Computer Science [CSCI]

See back of catalog for course descriptions.

## Graduate Study

The Master of Science is offered in Computer Science as is a graduate minor on the master's and doctoral levels. Requirements and a list of courses offered for graduate credit may be found in the Graduate Catalog.


# Department of Engineering Technology 

Walter W. Boles, Chair<br>Voorhies Engineering Technology Complex 143

Boraiko, Brown, Carter, Chen, Foroudastan, Fulks, Gore, Hatfield, Knight, Litchy, Mathis, McBride, Morton, Nasab, Perry, Redditt, Salman, Sbenaty, Sridhara, Vanhook, Yang, Zwycewicz

The purpose of Engineering Technology is to prepare students for a broad range of technical and industrial management positions. This is accomplished through nationally accredited programs, a project-based learning environment, and extensive collaboration with industry. The department faculty members have appropriate academic credentials in addition to significant industrial experience. Numerous opportunities are available for students to participate in nationally competitive projects related to topics as diverse as space robotics, solar-powered vehicles, and concrete canoes. Several programs require heavy interaction with the industrial sector, which allows students to work on projects with potential employers. Experiential learning opportunities exist through cooperative and internship classes. Highly motivated students may wish to obtain important industry-recognized certifications that exceed accreditation requirements. Students may study an array of the latest breakthroughs in topic areas such as concrete, construction and engineering systems, rapid prototyping of electrical and mechanical systems, safety, and environmental science. The combination of these programs and activities offers preparation for graduates entering the fast-paced technology sector.
The Robert E. and Georgianna West Russell Chair of Manufacturing Excellence is designed to promote quality interaction with local industry. Students are encouraged to benefit from the scheduled activities, seminars, and short courses sponsored by the Chair of Manufacturing Excellence.

The department offers Bachelor of Science degrees in Concrete Industry Management, Engineering Technology, Environmental Science and Technology, and Construction Management.
The Concrete Industry Management major includes two concentrations: Production, Sales, and Service and Concrete Contracting.

The Engineering Technology major includes four concentrations: Computer Engineering Technology, Electro-Mechanical Engineering Technology, Mechanical Engineering Technology, and Engineering Systems Technology. (Credit for work experience can be obtained in the Engineering Systems Technology concentration.)
The Environmental Science and Technology major is an interdisciplinary program including strong science components and environmental applications under four concentrations: Energy Technology, Environmental Health and Safety, Planning and Site Analysis, and Water and Waste Management. Information about this program can be found on page 80.
The Construction Management major has three concentrations: Electrical Construction Management, Land Development/Residential Building Construction Management, and Commercial Construction Management.
Pre-professional programs are offered in Pre-architecture and Pre-engineering. In each case the student will complete his/her program after transferring to the appropriate school.
Minors are offered in Construction Management, Electronics, Environmental Science and Technology, and Engineering Technology.
Courses are offered which apply toward Six Sigma certification, Lean Manufacturing certification, and Project Management Professional certification.
Cooperative Education work experiences are possible for most programs. Interested students should check with their advisors.

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Concrete Industry Management

The major in Concrete Industry Management is designed to produce broadly educated, articulate graduates, grounded in basic science and mathematics, who are knowledgeable about concrete technology and techniques and are able to manage people and systems and to promote products or services related to the concrete industry. Examples of opportunities in the field include technical sales of products used to manufacture concrete; operations management of a concrete production facility; sales and marketing of production, construction, and finishing equipment; product distribution, supply chain management, and logistics; project management for a concrete or general contractor; work as a concrete specialist in an architectural/engineering firm or government entity; and support positions such as writer or editor for a technical magazine or professional/trade association management.

All students in the Production, Sales, and Service concentration complete a minor in Business Administration. Core classes in the major include CIM 1010, 1050, 3000, 3050, 3060, 3100, 3300, 4030, 4150, 4200, and 4910.

## Grading Policy

Students majoring in the Concrete Industry Management (CIM) program must receive grades of $\mathrm{C}(2.00)$ or better in all CIM courses in order for the courses to count toward graduation. A minimum grade of $C$ (2.00) is required in all CIM classes that are prerequisites to other CIM classes.

## Concentration: Concrete Contracting

The Concrete Contracting concentration offers preparation for entry-level positions with general and concrete contractors, project management firms, masonry contractors, precast erection firms, or government agencies responsible for construction projects. Position opportunities include project management, estimating, field supervision, planning and scheduling, and various other management positions.

| Curriculum Requirements and Recommended Sequence |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| COMM 2200 (Comm) | 3 | HUM 2610 (Hum/FA) | 3 |
| GEOL 1030/1031 |  | SPAN 1010 or ET 1840 | 3 |
| or 1040/1041 (Nat Sci) | 4 | HIST 2010, 2020, or 2030 | 6 |
| CHEM 1010/1011 |  | Humanities/Fine Arts | 3 |
| or 1110/1111 (Nat Sci) | 4 | PSY 1410 rec. (Soc/Beh Sci) | 3 |
| PSY 3020, QM 2610, or |  | ECON 2410 rec. (Soc/Beh Sci) | 3 |
| MATH 1530 | 3 | CIM 3000, 3050, 3070 | 10 |
| CIM 1010, 1050 | 2 |  | 31 |
| CSCI 1150 | 3 |  |  |
| MATH 1630 (Math) | 3 |  |  |
|  | 28 |  |  |
| JUNIOR |  | SENIOR |  |
| $\begin{aligned} & \text { CIM 3060, 3080, 3100, } \\ & 4030 \end{aligned}$ | 12 | CIM 3200, 4010, 4070, <br> 4100, 4150, 4200, 4910 | 20 |
| MGMT 3610 | 3 | ET 4420 | 3 |
| MKT 3820 | 3 | ENGL 3605 or 3620 | 3 |
| BLAW 3400 | 3 | Humanities/Fine Arts | 3 |
| FIN 3000 or 3010 | 3 |  | 29 |
| ACTG 3000 | 3 |  |  |
| ET 4915 | 3 |  |  |
|  | 30 |  |  |

NOTE: CIM 3300 will be taken sometime after the sophomore year for two credit hours.

## Concentration: Production, Sales, and Service

The Production, Sales, and Service concentration is geared toward developing technical managers for ready mix, block, and precast concrete production facilities as well as their suppliers, such as admixture, aggregate, cement, and equipment companies. Position opportunities include operations management, sales and sales management, marketing management, human resource management, technical service and quality control, or environmental and safety management.

All students in the Production, Sales, and Service concentration are required to choose a business-related cognate from the list below in addition to the CIM major requirement of completing a Business Administration minor. Twelve (12) hours
must be successfully completed in a single chosen cognate area prior to graduation.

| Curriculum Requirements and Recommended Sequence |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| MATH 1630 or 1730 (Math) | 3-4 | HUM 2610 (Hum/FA) | 3 |
| GEOL 1030/1031 or |  | ET 1840 | 3 |
| 1040/1041 (Nat Sci) | 4 | Humanities and/or Fine Arts | 3 |
| COMM 2200 (Comm) | 3 | CIM 3000, 3050 | 7 |
| CIM 1010, 1050 | 2 | HIST 2010, 2020, or 2030 | 6 |
| CHEM 1010/1011 or |  | ET 3910 | 3 |
| 1110/1111 (Nat Sci) | 4 | ECON 2410 rec. (Soc/Beh Sci) | 3 |
| PSY 3020, QM 2610, or |  | PSY 1410 rec. (Soc/Beh Sci) | 3 |
| MATH 1530 | 3 |  | 31 |
| CSCI 1150 | 3 |  |  |
|  | -29 |  |  |


| JUNIOR |  | SENIOR |  |
| :--- | ---: | :--- | ---: |
| ACTG 3000 | 3 | ET 4420 | 3 |
| MGMT 3610 | 3 | Cognate | 12 |
| MKT 3820 | 3 | Humanities and/or Fine Arts | 3 |
| CIM 3060, 3100, 4030, |  | CIM 4060, 4150, |  |
| 4050 | 12 | 4910,4200 | 11 |
| BLAW 3400 | 3 |  | $\mathbf{2 9}$ |
| FIN 3000 or 3010 | 3 |  |  |
| ENGL 3605 or 3620 | 3 |  |  |
|  | $\mathbf{3 0}$ |  |  |

NOTE: CIM 3300 will be taken sometime after the sophomore year for two credits.

Students should consult their advisors each semester to plan their schedules.

## CIM Cognate Areas

Choose one area in which to complete 12 credits.

## General Management

MGMT 3630, 3650, 3810, 3890, 4490, 4500, 4510, 4620, 4640, 4650,
4660, 4680, 4690, 4710, 4730, 4830, 4920; MKT 3855, 3870, 3880, 3950, 3960, 4810; BCEN 2900

## Sales and Marketing

MKT 3840, 3850, 3855, 3860, 3870, 3880, 3900, 3910, 3930, 3950, 3960, 4800, 4850, 4870, 4880
Operations, Environmental, and Safety Management
MGMT 3710, 3730, 3750, 3770, 4610, 4700; ET 4440, 4450; EST 2810, 4810, 4820, 4840, 4770, 4780; MKT 4810
Computer Networking and Controls
ET 3620, 3630, 3640, 3650, 4590, 4600, 4610, 4630, 4660; INFS 2720, 2730, 3100, 3200, 3700, 4200, 4500, 4740, 4760, 4790, 4830, 4900
Foreign Language (choose one language)
Elementary I and II or equivalent
Intermediate I and II or equivalent
M.B.A. Preparatory

INFS 3100; ECON 2420; QM 3620; ACTG 3020

## Major in Construction Management

Construction Management is a broad-based program designed to prepare students for positions in the expanding industrial technical fields of the construction industry. Corporate and private construction industries seek graduates to fill job positions in middle management. Included are concentrations in Land Development/Residential Building Construction Management, Electrical Construction Management, and Commercial Construction Management. The merging of a strong
technical background with the ability to lead personnel and manage systems produces a graduate who is invaluable to the construction industry.

## Concentration: Commercial Construction Management

The Commercial Construction Management concentration is designed to prepare students to assume positions of responsibility within the commercial construction industry worldwide. Students who graduate are able to secure positions as project estimators, drafters/designers, codes inspectors, assistant project engineers, assistant superintendents or superintendents, assistant or project managers, and/or ultimately owners of construction-related companies. Students will get many hands-on opportunities for learning within the project-based program and will also be able to obtain practical experience in the industry through the internship/cooperative education requirements with companies that construct a variety of commercial structures.

| Curriculum Requirements and Recommended Sequence |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN | SOPHOMORE |  |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020, 2030 or |  |
| Humanities/Fine Arts | 6 | HUM 2610 (Hum/FA) | 3 |
| HIST 2010, 2020, or 2030 | 6 | COMM 2200 | 3 |
| Social/Behavioral Sciences | 6 | PHYS 2010/2011 (Nat Sci) | 4 |
| ET 1840, 2310 | 6 | CHEM 1010/1011 or |  |
| CMT 1000 | 1 | $1110 / 1111$ (Nat Sci) | 4 |
|  | $\mathbf{3 1}$ | ET 3830 | 3 |
|  |  | CMT 3000 | 3 |
|  |  | MATH 1910 | 4 |
|  |  | ET 2920 | 1 |
|  |  | CIM 3000 | 4 |
|  |  | $\mathbf{2 9}$ |  |

## JUNIOR

CMT 3320, 3500, 4100

## SENIOR

CIM 3050
CMT 4000, 4010, 4140
9
ET 3615, 4970
ET 3860, 4420, 4915
ET 4710
MKT 3820
FIN 3000
MGMT 3610
BLAW 3400
FN 3000
ET 2920
3
32

## Concentration: Electrical Construction Management

The Electrical Construction Management concentration is a result of the collective efforts of the National Joint Apprenticeship Training Committee (NJATC), the National Electrical Contractors Association, the International Brotherhood of Electrical Workers, Pellissippi State Community College, and Middle Tennessee State University to establish this program nationwide. Typically, students transfer to MTSU to complete 30 hours of distance learning and receive advanced credit to finish their degrees. It is possible for a student who is a nonlicensed electrical worker to begin the program as a freshman in the sequence below. For the nonlicensed student, arrangements can be made to work through NJATC for an apprenticeship. An interview with an NJATC educational director and availability of space will be deciding factors as to when a student can start training. A four-year degree in this concentration will
provide a strong background in technical and management skills to help graduates obtain middle management positions in the electrical construction management field.

| Curriculum Requirements and Recommended Sequence |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020, 2030 or |  |
| MATH 1710 (Math), 1720 | 6 | HUM 2610 (Hum/FA) | 3 |
| INFS 2200 | 3 | PHYS 2010/2011 (Nat Sci) | 4 |
| HIST 2010, 2020, or 2030 | 6 | COMM 2200 (Comm) | 3 |
| ET 2310 | 3 | Humanities/Fine Arts | 6 |
| SPAN 1010 | 3 | Social/Behavioral Sciences | 6 |
| GEOL 1040/1041 (Nat Sci) | 4 | MATH 1530 | 3 |
|  | 31 | Electives | 6 |
|  |  |  | 31 |
| JUNIOR |  | SENIOR |  |
| ET 3920, 3930 | 6 | ET 3620 | 3 |
| CMT 3210 | 3 | ACTG 3000 | 3 |
| ET 3610, 3630 | 7 | ET 4420, 4610 | 6 |
| ET 4600, 4640, 4710 | 6 | ET 3910 | 3 |
| ET 4970 or 4915 | 3 | CMT 3155, 4010, 4120 | 9 |
| Elective | 3 | CMT 4130, 4172 | 6 |
|  | 28 |  | 30 |

## Concentration: Land Development/

## Residential Building Construction Management

The Land Development/Residential Building Construction Management concentration prepares students for a variety of construction-related positions. The concentration is accredited by the National Association of Industrial Technology. As students progress, they are expected to develop creativity and the communication skills necessary to meet the challenges of industry. Students engage in a variety of activities to build a strong background in the field, including lectures by industry members, field trips, and hands-on activities in the classroom and in the field. The program is designed to prepare graduates for supervisory or staff positions in a variety of constructionrelated businesses (land development, construction firms, wholesalers of construction materials, construction material manufacturing, lumberyards, etc.) Employment opportunities for graduates include general supervision, project management, human relations, sales and marketing, production and inventory control, quality control, estimating, scheduling, and land development.

## Curriculum Requirements and Recommended Sequence

## FRESHMAN

ENGL 1010, 1020 (Comm) 6 MATH 1710 (Math), 1720 INFS 2200
HIST 2010, 2020, or 2030 ET 2310
Social/Behavioral Sciences COMM 2200 (Comm)

## SOPHOMORE

ENGL 2020, 2030 or
HUM 2610 (Hum/FA)
PHYS 2010/2011 (Nat Sci)
CMT 3150, 3160, 3190
GEOL 1040/1041 (Nat Sci)
ET 3615
FIN 2450
Humanities and/or Fine Arts (two prefixes)

## JUNIOR

ACTG 3000
CMT 3180, 3210, 3320
MKT 3820
CMT 4010, 4100, 4120, 413012
ET 4420
3
30

## SENIOR

CMT 3500, 41106
CMT 4170
ET 3910, 4710
SPAN 1010
Social/Behavioral Sciences 3
ET 4915, 4970
Electives

## Pre-architecture Program

The following program is recommended as the first year of a five-year program leading to the Bachelor of Architecture degree. After successful completion of the courses listed, students are eligible to apply for admission to the school of architecture of their choice. It should be understood that students who complete this year of work will not automatically be assured of admission to the remaining four years of work in a school of architecture. Those who wish to apply to a school of architecture should see their advisors no later than February 1 in order to have time to follow the proper procedure to be considered for admission for the fall term of the following year. The recommended program for the first year follows.

## FRESHMAN

| ENGL 1010, 1020 | 6 |
| :--- | ---: |
| MATH 1910, 1920 | 8 |
| Science* | 8 |
| ET 1310 | 2 |
| ET 1840 | 3 |
| Social Science Electives | 6 |
|  | $\mathbf{3 3}$ |

*To be selected based on the transfer school requirements and the approval of the advisor. The student should have the catalog of the transfer school at the time of registration, if possible.

Students should consult their advisors each semester to plan their schedules.

## Major in Engineering Technology

Engineering Technology is a technologically advanced program at the Bachelor of Science level utilizing theoretical concepts and hands-on instruction. Program selection is from the following concentrations: Computer Engineering Technology, Elec-tro-Mechanical Engineering Technology, Engineering Systems Technology, and Mechanical Engineering Technology.
In addition to the General Education courses, the basic requirements for all Engineering Technology concentrations are

1. completion of a core of 19 hours of Engineering Technology courses
ET 1840 Engineering Fundamentals, 3 hours
ET 3601 Electrical Circuit Analysis I, 3 hours
ET 3602 Electrical Circuit Analysis II, 3 hours
ET 4420 Industrial Safety, 3 hours
ET 4710 Professional Development Seminar, 1 hour
ET 4801-4804 Senior Problem in Engineering Technology, 3 hours
ET 4970 Engineering Economy, 3 hours
2. completion of the minimum number of Engineering Technology total credit hours required in the applicable concentration as follows:

Computer Engineering Technology, 51 hours
Electro-Mechanical Engineering Technology, 63 hours
Mechanical Engineering Technology, 67 hours
3. completion of other specific courses as shown under the appropriate concentration.
NOTE: A grade of C or better is required on transfer credits accepted as part of a major in Engineering Technology.

## Concentration: Computer Engineering Technology

The Computer Engineering Technology concentration, accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21201, (410) 347-7700, provides the student with a sound technical base in electric and electronic circuits, digital systems, and computer hardware and software. Microcontroller, microprocessor, FPGA, and microcomputer applications in the area of control and automation as well as programming, data acquisition, transfer, and analysis are also emphasized.

Employment opportunities exist in various industrial fields that require the design and applications of digital computers such as manufacturing, medical, aerospace, control, instrumentation and measurements, and networking, installations, and maintenance of computers.

| Curriculum Requirements and Recommended Sequence |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN |  |  |  |
| ENGL 1010, 1020 (Comm) | 6 | MATH 1920 |  |
| MATH 1730 (Math) | 4 | PHYS 2020/2021 | 4 |
| MATH 1910 | 4 | ENGL 2020 or 2030 or | 4 |
| ET 1840, 3601 | 6 | HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | ET 3602, 3620, 3630 | 9 |
| HIST 2010, 2020, or 2030 | 6 | Humanities and/or Fine Arts | 3 |
| PHYS 2010/2011 (Nat Sci) | 4 | CSCI 1170, 2170 | 8 |
|  | $\mathbf{3 3}$ |  | $\mathbf{3 1}$ |
| JUNIOR |  |  |  |
| ENGL 3620 |  | SENIOR |  |
| ET 3640, 3650, 3670, | 3 | Social/Behavioral Sciences | 3 |
| 4640, 4660 |  | CSCI 3180 | 3 |
| Humanities and/or Fine Arts | 3 | ET 4915 | 3 |
| Social/Behavioral Sciences | 3 | ET 4610, 4670, 4420, |  |
| CSCI 3160 | 3 | ET 4710 | 18 |
| CHEM 1110/1111 (Nat Sci) | 4 | ET 4600 | 18 |
|  | $\mathbf{3 0}$ |  | 1 |
|  |  |  | $\mathbf{3 0}$ |

Students must take three three- or five-course sequences and the capstone course as follows:
Digital Electronics (ET 3601, 3620, 3640)
Microprocessor (ET 3620, 3640/3650, 4660, 4670)
Instrumentation and Control (ET 3601, 3602/3620, 3630, 4610)
Capstone course (ET 4801)

## Optional Computer Science Minor

The minor will include CSCI 1170, 2170, 3160, 3180 (14 hours) and at least 3 additional hours in upper-division computer science courses as approved by the minor and major advisors.

Students should consult their advisors each semester to plan their schedules.

## Minor in Electronics

The minor in Electronics consists of at least 16 semester hours including ET 3610, 3620, and 3630 plus two courses from ET 3640, 3650, 3660, 3670, 4600, 4610, 4640, 4660, 4670, or 4790. All are three credit hours except ET 4600 and 3670 which are two and 3610 which is four. Only non-majors may minor in Electronics.

## Concentration: Electro-Mechanical Engineering Technology

The Electro-Mechanical Engineering Technology concentration, accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21201, (410) 347-7700, is structured to prepare the student for positions in industry requiring the integration of electricity (for power and control) and mechanical devices (for force and motion) to perform tasks associated with manufacturing and the performance of services.

Employment opportunities exist in fields such as robotics, fluid power, industrial electricity, heating and air conditioning, and industrial automation.

| Curriculum Requirements and Recommended Sequence <br> FRESHMAN | SOPHOMORE |  |  |
| :--- | ---: | :--- | ---: |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| MATH 1730 | 4 | HUM 2610 (Hum/FA) | 3 |
| MATH 1910 | 4 | Social/Behavioral Sciences | 3 |
| ET 1210,1840,2310 | 9 | MATH 1530 (Math) | 3 |
| CHEM 1110/1111 (Nat Sci) | 4 | HIST 2010, 2020, or 2030 | 6 |
| COMM 2200 (Comm) | 3 | PHYS 2010/2011 (Nat Sci) | 4 |
|  | $\mathbf{3 0}$ | ET 3210, 3601, 3602,3360 | 12 |


| JUNIOR |  | SENIOR |  |
| :--- | ---: | :--- | :--- |
| Humanities and/or Fine Arts | 3 | Humanities and/or Fine Arts | 3 |
| MATH 2110 | 1 | Social/Behavioral Sciences | 3 |
| CSCI 1170 | 4 | ET 4915 | 3 |
| ET 3620, 3630, 3810, 3830, |  | ET 3650, 4600, 4610, 4640, |  |
| 3860,4420 | 18 | $4710,4802,4850,4860$, |  |
| PHYS 2020/2021 | 4 | 4970 | 24 |
|  | $\mathbf{3 0}$ |  | $\mathbf{3 3}$ |

Students must take four three- or four-course sequences and the capstone course as follows:
Robotics (ET 3810, 4850, 4860)
Control Systems (ET 3601, 3602, 3630, 4610)
Digital Circuits (ET 3601, 3602, 3620, 3650)
Engineering Mechanics (ET 1840, 3830, 3860)
Capstone course (ET 4802)
Students should consult their advisors each semester to plan their schedules.

## Concentration: Engineering Systems Technology

This program is designed to prepare students for positions and careers in both the industrial and service sectors. Certifications can be earned in lean manufacturing, Six Sigma (Green Belt level), and safety. Typical positions include junior industrial engineer, first-level management, Quality/Six Sigma analyst/leader, lean manufacturing leader, safety/ergonomics coordinator, production/project scheduler, inventory analyst, work team leader, and other related positions.

Work-based (Experiential) Learning: Maximum 30 semester hours. Up to 18 semester hours may be granted for approved work experience. Up to 18 semester hours may be granted for approved work-based learning. The total hours for both work experience and work-based learning may not exceed 30 semester hours. Students who do not have any applicable work experience may take internship courses (ET 2920, 3920, and 3930) or co-op courses (ET 2930, 2940, 3970, and 3980) and may apply these courses as part of this experiential learning. Students will be required to participate in a formal assessment process to quality for experiential learning credit.
Students should consult their advisors each semester to plan their schedules.

## Curriculum Requirements and Recommended Sequence* FRESHMAN <br> SOPHOMORE

ENGL 1010, 1020 (Comm) 6 ENGL 2020 or 2030 or
CHEM 1010/1011 (Nat Sci) 4 HUM 2610 (Hum/FA)
MATH 1730 (Math)
MATH 1910
PHYS 2010/2011 (Nat Sci)
ENGL 3620
Social/Behavioral Sciences
Humanities and/or Fine Arts
CSCI 1170
MATH 1530, PSY 3020,
ET 2310 or QM 2610
$\begin{array}{ll} \\ \text { Humanities and/or Fine Arts } & 3\end{array}$ ET 3210, 3260, 3601, 383012

## SENIOR

| HIST 2010, 2020, or 2030 | 6 | ET 4420, 4600, 4710, 4900 | 9 |
| :--- | ---: | :--- | ---: |
| COMM 2200 (Comm) | 3 | ET 4915, 4920, 4970, 4990 | 12 |
| Social/Behavioral Sciences | 3 | Directed electives* | 6 |
| ACTG 3000 | 3 | ET 2920 | 2 |
| ET 3602, 3810, 3910 | 9 | ET 4803 | 3 |
| ET 3960, 4590 | 6 |  | $\mathbf{3 2}$ |

Students should choose six credits of electives from the following courses: PSY 3320; ET 1210, 3360, 3860, 3950, 4280, 4370, 4850.

Students should consult their advisors each semester to plan their schedules.

## Concentration: Mechanical Engineering Technology

The Mechanical Engineering Technology concentration at MTSU enables students to obtain the skills necessary for placement in highly competitive jobs in machine design, manufacturing, engineering, field service engineering, technical sales, thermal analysis, product design, utilities operations, air conditioning design, plant operations, and a variety of other professions. Through design projects and laboratory training, students examine how to relate such skills to a variety of fields in mechanical engineering technology including product and machine design, power generation, utilities, and manufacturing. The educational quality of this program is especially high in that it provides students with the opportunity to mesh their in-class experiences with project-oriented assignments and real-world experience in national competitions such as the Great Moonbuggy Race, the Solar BikeRayce, SAE Formula One Collegiate Competition, Space Elevator, USLI Rocket Launch, and the Mini Baja Race.

The prospects for a graduate in mechanical engineering technology are as broad as the major concentration itself. Graduates can expect opportunities to work on a variety of projects from developing and producing engines and transportation equipment in the automobile, ship, rail, and aviation industries to working as a member on an engineering technologist design team to improve high-performance automobiles and airconditioned environments. Students graduating from mechanical engineering technology programs often find themselves in highly responsible, challenging, and extremely rewarding positions.

## Curriculum Requirements and Recommended Sequence <br> FRESHMAN <br> ENGL 1010, 1020 (Comm) <br> MATH 1730 (Math) <br> MATH 1910 <br> CHEM 1110/1111 (Nat Sci) <br> ET 1210, 1840, 2310 <br> CSCI 1170 <br> SOPHOMORE <br> ENGL 2020 or 2030 (Hum/FA) 3 ENGL 3620 PHYS 2010/2011 (Nat Sci) 4 Humanities and/or Fine Arts (2 prefixes) MATH 1920 ET 3210, 3360, 3601, 383012

JUNIOR
HIST 2010, 2020, or 2030
COMM 2200 (Comm)
Social/Behavioral Sciences
(2 prefixes)
ET 3260, 3602, 3840
ET 3810, 3860, 4330

## SENIOR

6 ET 4340, 4420,4710 7
3 ET 4850, 4970, 4815
ET 4860, 4803, 48309
ET 4915
9 ET 2920
32

## FRESHMAN

ENGL 1010, 1020
CHEM 1110/1111, 1120/1121
MATH 1910, 1920
ET 1840, 2310
CSCI 1170

SOPHOMORE
PHYS 2110/2111, 2120/2121 8
MATH 3110, 3120;
STAT 3150
ET 3830, 3840, 38609
ET 3360, 49706
COMM 22003
36
*Additional classes are available to juniors based on which school they are planning to attend. For example, MTSU offers a wide variety of engineering courses that may be available to third-year pre-engineering students. Students wanting to stay for a third year and take these courses may do so, but they must consult their advisors in advance.

Students should consult their advisors each semester to plan their schedules.

## Standard Four-Year Engineering Program

This program will require four years to complete. The student is required to take the freshman and sophomore years indicated above and then transfer to an engineering school. The engineering school would then require two years of additional study to complete requirements toward the degree.


The pre-engineering program at MTSU has been closely coordinated with several engineering schools. A student who elects to transfer should confer with his or her faculty advisor two semesters prior to transfer.

## Minor in Engineering Technology

The minor in Engineering Technology consists of 18 semester hours of courses as approved by the minor advisor. A minimum of 9 hours must be upper-division courses. The minor must include 8 semester hours in one of the following areas: drafting, electronics, engineering, industrial facilities and management, metals, or safety.

## Minor in Construction Management

The minor in Construction Management consists of 18 semester hours in Construction Management and Engineering Technology courses including CMT 3150 and 3160 plus 12 semester hours as approved by the minor advisor.

## Interdisciplinary Major in Environmental Science and Technology

The Department of Engineering Technology participates in an interdisciplinary major in Environmental Science and Technology in conjunction with Agribusiness and Agriscience, Biology, Chemistry, and Geosciences. A complete description of this program is found on page 80.

Courses in Concrete Industry Management [CIM]
See back of catalog for course descriptions.

## Courses in Construction Management Technology [CMT] <br> See back of catalog for course descriptions.

Courses in Engineering Technology [ET]
See back of catalog for course descriptions.
Courses in Environmental Science and Technology [EST]
See back of catalog for course descriptions.

## Graduate Study

The Engineering Technology Department offers the Master of Science with thesis and non-thesis options. Requirements and a list of graduate courses offered may be found in the graduate catalog.

# Department of Mathematical Sciences 

## Terrance Quinn, Chair <br> KOM 223D

Adamson, Bailey, Barnwal, Beck, Campbell, Chappell, Church, Clark, Ding, Dooley, Enderson, Green, Hart, Havener, Hong, Johnson, Khaliq, Kimmins, Klerlein, Krishnamani, Lea, Li, Lin, Lucas, Luo, Martin, McCormick, Melnikov, Murdock, Nelson, Rowell, Schmidt, Sinkala, Stephens, Tenpenny, Walsh, Worsey, Zha, Zhang, J. Zijlstra, R. Zijlstra

The purpose of the Department of Mathematical Sciences is to provide students education in the mathematical sciences necessary to function and succeed in an increasingly complex, technological world.
Courses offered by the department are designed to prepare students who plan to enter graduate schools or professional schools of medicine or engineering; to teach in elementary schools, secondary schools, or community colleges; to major in mathematics, in computer science, in the natural or physical sciences, or in other areas with mathematics requirements; or to enter careers in business, industry, or government. Courses also are provided to meet cultural and General Education requirements.
Programs in the department lead to the Bachelor of Science degree with a major in Mathematics. Students choose one of the following concentrations: Professional Mathematics, Mathematics Education, Applications of Mathematics, or Actuarial Science. Minors are offered in Mathematics; in Mathematics for Managerial, Social, and Life Sciences; and in Statistics.

The following specialized courses do not count toward a Mathematics major or minor: MATH 1010, 1410, 1420, 1530, 1630, 1710, 1720, 1730, 1810, 1820, 2090, 2130, and 4010. However, MATH 1530, 1630, 1710, 1720, 1730, 1810, 1820, and 2130 may count toward a minor in Mathematics for Managerial, Social, and Life Sciences.

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Mathematics

A major in Mathematics requires the mathematics core of 21 hours plus 15 hours of specified upper-level courses in the department and at least 12 hours of supporting coursework (either in or out of the department). The supporting coursework must complement the student's program and be approved by the mathematics advisor. A single minor outside the department is required.

Every Mathematics major is required to declare a concentration. Concentrations include Professional Mathematics, Mathematics Education, Applications of Mathematics, and Actuarial Science.

Every Mathematics major is required to complete the Seminar in Mathematics, MATH 4990. All courses in the Mathematics major or minor must be completed with a grade of C or better. All courses transferred from other institutions for credit in the Mathematics major or minor must carry a grade of C or better and be approved by the department chair.

## Mathematics Core

Each student majoring in the department must complete the following core (21 hours):
MATH 1910 (Calculus I), 4 hours
MATH 1920 (Calculus II), 4 hours
MATH 3110 (Calculus III), 4 hours
MATH 2010 (Elements of Linear Algebra), 3 hours
MATH 3460 (Foundations of Higher Mathematics), 3 hours
MATH 2050 (Probability and Statistics), 3 hours* OR
STAT 3150 (Mathematical Statistics I), 3 hours
*Students in the Mathematics Education concentration must concurrently enroll in MATH 2110 (Data Analysis, 1 hour).
Students with a concentration in Actuarial Science may substitute STAT 3150 for MATH 2010; and ACSI 4200 for MATH 3460.

## Concentration: Professional Mathematics

Students opting to study the discipline of mathematics will choose between tracks in general mathematics and advanced mathematics. In addition to the mathematics core, they will take 9 additional upper-level courses in the department chosen with the approval of the mathematics advisor. A single minor outside of the department and CSCl 1170 are required.

## Advanced Mathematics Track

Students interested in preparing for a graduate degree in mathematics should pursue this track. In addition to the mathematics core, they must take MATH 3120, 4250, 4510; two courses from MATH 3260, 4230, 4270, 4420, 4530, 4700; and 9 hours of approved supporting coursework chosen from among upper-level courses in the department. The program must include at least one sequence in either algebra (4420/4510), analysis (4230-4250), or differential equations (3120-3260). Six hours of a foreign language are recommended.

Students should consult their advisors each semester to plan their schedules.

| Curriculum Requirements and Recommended Sequence for |  |  |  |
| :---: | :---: | :---: | :---: |
| Professional Mathematics-Advanced |  |  |  |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | COMM 2200 (Comm) | 3 |
| MATH 1910 (Math) | 4 | MATH 2010, 3110, 3460 | 10 |
| MATH 1920 | 4 | MATH upper-division |  |
| MATH 2050 | 3 | elective | 3 |
| Natural Sciences | 4 | Natural Sciences | 4 |
| CSCI 1170 | 4 | HIST 2010, 2020, or 2030 | 6 |
| Minor | 3 | Minor | 3 |
| Humanities and/or Fine Arts | 3 |  | 29 |
|  | 31 |  |  |
| JUNIOR |  | SENIOR |  |
| MATH 3120, 4510 | 6 | MATH 4250, 4990 | 6 |
| Math electives | 6 | MATH electives | 6 |
| Minor | 6 | Minor | 6 |
| Social/Behavioral Sciences |  | Electives | 12 |
| (2 prefixes) | 6 |  | 30 |
| Humanities and/or Fine Arts | 3 |  |  |
| ENGL 2020 or 2030 or |  |  |  |
| HUM 2610 (Hum/FA) | 3 |  |  |
|  | 30 |  |  |

## General Mathematics Track

Students desiring a broad general background in mathematics should pursue this track. In addition to the mathematics core, they must take MATH 3120, 4510; three additional courses from MATH 3260, 4230, 4250, 4270, 4310, 4320, 4420, 4530, 4700 and STAT 3150, 4190; and 9 hours of approved supporting coursework chosen from among upper-level courses in the department.

## Students should consult their advisors each semester to plan their schedules.

## Concentration: Mathematics Education

Students preparing to teach mathematics at the secondary level (grades 7-12) must complete the major in Mathematics with a concentration in Mathematics Education. In addition to the mathematics core, they must take as upper-division coursework MATH 3070, 4510, 4620, 4990, and one elective in the department. Supporting coursework consists of MATH 3320, 3330, 4540, and CSCI 1170. A minor in secondary education is required. (See Department of Educational Leadership for a complete description.) Students seeking state licensure must also pass all applicable portions of the Praxis Series Exams, developed and administered by the Educational Testing Service. For the latest information regarding these exams contact the Office of Testing Services (KUC 327, 898-2863). To complete their programs of study in a timely manner, students must consult their major and minor advisors each semester.

| Curriculum Requirements and Recommended Sequence for <br> Mathematics Education <br> FRESHMAN | SOPHOMORE |  |  |
| :--- | ---: | :--- | ---: |
| MATH 1910 (Math) | 4 | MATH 2010, 3110, 3460, |  |
| MATH 1920, 2050 or 3150, |  | 3070 | 13 |
| $\quad 2110$ | 8 | CSCl 1170 | 4 |
| ENGL 1010, 1020 (Comm) | 6 | COMM 2200 (Comm) | 3 |
| Humanities and/or Fine Arts | 3 | HIST 2010, 2020, or 2030 | 6 |
| Natural Sciences (2 prefixes) | 8 | ENGL 2020 or 2030 or |  |
| FOED 1110§ | 3 | HUM 2610 (Hum/FA) | 3 |
|  | $\mathbf{3 2}$ | FOED 2110§ | 3 |
|  |  |  | $\mathbf{3 2}$ |


| JUNIOR |  |
| :--- | ---: |
| MATH 3320, 3330, 4510, |  |
| 4540 | 12 |
| MATH elective* | 3 |
| Social/Behavioral Sciences |  |
| (2 prefixes) | 6 |
| Secondary Education minor§ | 9 |
|  | $\mathbf{3 0}$ |

*Approved by advisor
§See Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Concentration: Applications of Mathematics

Students desiring to study applications of mathematics and statistics in business, government, and industry may choose between tracks in statistics, business, or industrial mathematics. All three tracks blend theory and practice to provide students with background for employment or graduate studies.

## Statistics Track

The statistics track offers students a program of study in one of the broadest areas of applied mathematics. Statistical methods are used in many fields, including agriculture, business, communications, government, health, industry, public policy, sports, and science. Courses provide students the opportunity to learn data analysis and to develop skills in statistical methods of wide application. Emphasizing a blend of theory and practice, the program is designed to provide students with the necessary background for employment as statisticians in the public or private sector and to provide a solid foundation for those students interested in graduate studies.
In addition to the mathematics core, students pursuing this track must take STAT 3150 and 4190; MATH 4990; and two courses from STAT 4200, 4320, 4360, 4370, 4380. One minor outside the department is required. Students also complete supporting coursework of 20 hours that complement the student's program chosen with approval of the statistics advisor. These courses include computing, information systems, and other relevant courses.
Students should consult their advisors each semester to plan their schedules.

Curriculum Requirements and Recommended Sequence for Applied Mathematics-Statistics

## FRESHMAN

| ENGL 1010, 1020 (Comm) | 6 |
| :--- | ---: |
| MATH 1910 (Math) | 4 |
| MATH 1920 | 4 |
| Natural Sciences | 4 |
| Support course* | 6 |
| Humanities and/or Fine Arts | 3 |
| Social/Behavioral Sciences | 3 |
|  | $\mathbf{3 0}$ |

JUNIOR
MATH 3460
STAT 3150,4190
STAT elective**
Support course*
Minor
Social/Behavioral Sciences
ENGL 2020 or 2030 or
$\quad$ HUM 2610 (Hum/FA)

## SENIOR

STAT elective** 3
MATH 49903
Support course* 8
Minor 6
Humanities and/or Fine Arts 3
Electives 8

31
$\square$
$\square$


路

## SOPHOMORE

COMM 2200 (Comm)

3
30
$\begin{array}{lr}\text { Natural Sciences } & 4 \\ \text { HIST 2010, 2020, or } 2030 & 6 \\ & 29\end{array}$
*Approved by advisor
**STAT 4200, 4320, 4360, 4370, 4380

## Business Track

This track is appropriate for students who seek a broad background from such diverse but mutually supportive areas as mathematics, statistics, computer science, and business. The program prepares students for the job market or for further study in the more specialized areas of actuarial science, opera-

In addition to the mathematics core, students pursuing this track must take STAT 4190, ACSI 4200, and either STAT 4200 or 4360. The supporting coursework consists of 11 hours of computer sciplan their schedules.


$$
\text { **STAT 4200, 4320, 4360, 4370, } 4380
$$ tions research, statistics, computer science, or finance. ence or information systems courses. The student must complete a minor in the Jennings A. Jones College of Business as well as ACTG 2110 and 2120 or 3000 and ECON 2410, 2420.

Students should consult their advisors each semester to

Curriculum Requirements and Recommended Sequence for Applied Mathematics-Business

## FRESHMAN

ENCL 1010, 1020 (Comm)
MATH 1910 (Math)
MATH 1920
Computing courses
Natural Sciences
Humanities and/or Fine Arts
Social/Behavioral Sciences

## JUNIOR

STAT 3150 or MATH 2050
STAT 4190
ACSI/MATH 4200
Computing courses
ACTG 2110 and 2120 or ACTG 3000
Minor
ENGL 2020 or 2030 or HUM 2610 (Hum/FA) 26-29
*Choose from ACSI 4220, 4230, 4630, 4640 and STAT 4320, 4380

## SOPHOMORE

COMM 2200 (Comm) 3
MATH 2010, 3110, 346010
ECON 2410 (Soc/Beh Sci) 3

## ECON 2420

HIST 2010, 2020, or 20306
Natural Sciences 4
Elective 3
32

## SENIOR

STAT 4360 or 42003
ACSI/STAT electives* 6
MATH 4990
6
Humanities and/or Fine Arts 3
Minor 12
$\begin{array}{rr}3-6 & \text { Electives } \quad 2-5 \\ 6 & \mathbf{2 9 - 3 2}\end{array}$
.

## Industrial Mathematics Track

The industrial mathematics track offers students a program of study that incorporates the areas of mathematics that contribute to business and industry. Coursework is designed to produce graduates who have strong qualifications that make them competitive for positions in industry and provides a solid foundation for students interested in pursuing graduate study in the area. The minor must be chosen from Computer Science, Physics, Chemistry, Biology, Aerospace, or Engineering Technology.
In addition to the mathematics core, students pursuing this track must take MATH 3120, 3260, 4250, and 4310. Required supporting coursework includes CSCI 1170 and 2170. Nine additional hours of supporting coursework must be chosen with the approval of the mathematics advisor from MATH 4601, 4230, 4270, 4320, 4700 and STAT 4190.

## Students should consult their advisors each semester to plan their schedules.

Curriculum Requirements and Recommended Sequence for Applied Mathematics-Industrial Mathematics

## FRESHMAN

ENGL 1010, 1020 (Comm)
SOPHOMORE

MATH 1910 (Math)
MATH 1920
CSCI 1170, 2170
Natural Sciences
COMM 2200 (Comm)
HIST 2010, 2020, or 2030

JUNIOR
MATH 2010, 4250
STAT 3150 or MATH 2050
MATH 3120, 3260
Social/Behavioral Sciences Minor
MATH elective*
HIST 2010, 2020, or 2030
ENGL 2020 or 2030 or HUM 2610 (Hum/FA) 3 MATH 3110, $3460 \quad 7$ PHYS 2110/2111 (Nat Sci) 4 PHYS 2120/2121
Social/Behavioral Sciences 3 Humanities and/or Fine Arts 3 Minor

## SENIOR

MATH 43103
MATH 4990
MATH/STAT electives
Minor
Humanities and/or Fine Arts 6 $\begin{array}{ll}\text { Humanities and/or Fine Arts } & 3 \\ \text { Electives } & 4\end{array}$ 3
30
upper-division actuarial science courses consisting of ACSI 4140, 4220, 4230, 4330, and two elective courses chosen from ACSI 4240, 4340, 4630, 4640 and STAT 4200; and supporting coursework consisting of STAT 4190 and 4320 and MATH 4990. The student is required to complete ACTG 3000, ECON 2410, 2420, and FIN 3610. A minor from the Jennings A. Jones College of Business is required. A minor in Insurance is strongly suggested. A Computer Science or Information Systems elective and CSCI 1170 are required.


## Minor in Mathematics

A minor in Mathematics consists of 18 semester hours including MATH 1910 and 1920. The remaining 10 hours of electives must be selected with the approval of the Mathematics minor advisor. All courses in the Mathematics minor must be completed with a grade of C or better. All courses transferred from other institutions for credit in the Mathematics minor must carry a grade of C or better and be approved by the department chair. Students must complete at least 3 semester hours at the upper-division level in the minor through MTSU.

## Minor in Mathematics for Managerial, Social, and Life Sciences

A minor in Mathematics for Managerial, Social, and Life Sciences consists of 18 semester hours including MATH 1810 and 1820 with the remaining 12 hours as approved by the minor advisor. The remaining courses must be selected from a list of approved courses; see the minor advisor for details. Note that a student may count QM 2610 and 3620 as one 3 -hour course and may count CSCI 1160 or 1170 as one 3-hour course.

## Minor in Statistics

A minor in Statistics requires 18 semester hours and consists of STAT 3150, 4190, 4360, 4370, 4380 and one course to be selected from MATH 3190, 3120, 3260, 4310, 4320, or CSCI 3180. With advisor approval, MATH 2050 may be substituted for either STAT 4190, 4360, 4370, or 4380. Additionally, with advisor approval, one semester of calculus may be counted as the elective course. All courses in the Statistics minor must be completed with a grade of C or better. All courses transferred from other institutions for credit in the Statistics minor must carry a grade of C or better and be approved by the department chair. Students must complete at least 3 semester hours at the upper-division level in the minor through MTSU.

## Courses in Actuarial Science [ACSI]

See back of catalog for course descriptions.

## Courses in Mathematics [MATH]

See back of catalog for course descriptions.

## Courses in Statistics [STAT]

See back of catalog for course descriptions.

## Honors College

MATH 1730, 1910, and 1920 are offered regularly for students in the University Honors College. Upon request by the Honors College, MATH 1010 and 1710 are offered. MATH 4600 can also be offered as an Honors course.

## Cooperative Education

MATH 2930, 2940, 3970, 3980. Cooperative Education Experience I, II, III, IV. One to three credits each. Experiences must be taken in sequence. Pass/Fail.

## Graduate Study

The Master of Science and Master of Science in Teaching degrees are offered in mathematics. A minor in Mathematics is offered for the master's degree. Requirements for these degrees and a list of the courses offered for graduate credit are in the Graduate Catalog.

# Department of Military Science 

## Lieutenant Colonel Tharrel Kast Professor of Military Science Forrest Hall

Brannom, Daugherty, Giles, Billingsley
The Department of Military Science offers courses applicable to all branches of the United States Army and through which a student can earn an academic minor. These courses give students a broad knowledge of Army leadership, management, and technical skills thereby preparing them for an Army commission and subsequent entrance to an officer's basic branch course at one of the Army service schools. The objectives of producing officers through the ROTC (Reserve Officers Training Corps) program are to

1. provide officers a broad educational base;
2. provide a basic military education for students;
3. teach basic fundamentals and techniques of leadership and management;
4. develop, in conjunction with other academic disciplines, individual character and attributes required of an officer in the U.S. Army.

## Military Science Curriculum

Military Science courses are designed to fulfill the educational and training requirements for commissioning in the U.S. Army (Regular Army, U.S. Army Reserve, or Army National Guard). The curriculum consists of a basic course (first two years) and an advanced course (final two years). The basic course is open to all MTSU students without incurring any military service obligation. Army, Navy, Marine Corps, or Air Force basic training graduates can be placed directly into the advanced course. Advanced placement may also be earned by attending the four-week leader training course at Fort Knox, Kentucky, normally between the sophomore and junior years. The advanced course is offered during the last four semesters of Military Science and includes a five-week Leader Development and Assessment Course (LDAC) at Fort Lewis, Washington. Upon successful completion of the advanced course and upon graduation from the University, the student will be commissioned a second lieutenant in the United States Army.

| FRESHMAN (Basic) |  | SOPHOMORE (Basic) |  |
| :--- | :--- | :--- | :--- |
| MS 1010 | 2 | MS 2010 | 2 |
| MS 1020 | 2 | MS 2020 | 2 |
|  |  | MS 3080 | 2 |
|  |  | MS 3000* | 6 |
| JUNIOR (Advanced) |  | SENIOR (Advanced) |  |
| MS 3110 | 3 | MS 4110 | 3 |
| MS 3120 | 3 | MS 4120 | 3 |
| MS 3130 | 6 |  |  |

*MS 3000 is only for students who have not had freshman or sophomore ROTC class or have not been to basic training.
NOTE: Students may also enroll in MS 1000 to participate in physical training, drill team, and/or Forrest Raiders.

## Minor in Military Science

A minor in Military Science consists of 20 semester hours and is available to those students who complete all advanced level requirements. The following courses are required of all students: MS 3110 (3 hrs.), 3120 (3 hrs.), 3130 (6 hrs.), 4110 ( 3 hrs .), 4120 ( 3 hrs .); and MS 3080 (2 hrs.)

## Army ROTC Scholarship Program

Students enrolled at MTSU are eligible to apply for two- and three-year Army ROTC scholarships which pay for tuition, fees, and a book allowance, plus a monthly stipend per year. High school seniors are eligible to apply for a four-year scholarship during the senior year. Additionally, there are National Guard and Army Reserve Scholarships available.

## ROTC Nurse Summer Training Program

This three-week clinical leadership experience is open only to nursing students who have completed one clinical nursing course and MS 3130. The student receives pay; in addition, travel, lodging, and most meal costs are defrayed by the U.S. Army. There is a 120-hour clinical assignment with an Army Nurse Corps preceptor at an Army hospital in the U.S. or overseas. Nursing students receive 3 semester hours of credit for NURS 4035 Special Topics in Nursing.

## Uniforms and Pay

Students enrolled in the basic course do not wear uniforms and are not required to have a particular haircut. Textbooks are provided free of charge.
Advanced course students, junior and seniors, are provided uniforms and textbooks free of charge. They must sign a contract with the U.S. government and complete the advanced course, resulting in an active Army, National Guard, or Army Reserve commission as a 2 nd lieutenant upon graduation. While enrolled in the advanced course, the student receives \$4,500-5,000 per year and approximately \$1,000 plus travel costs for LDAC attendance.

Courses in Military Science [MS]
See back of catalog for course descriptions.

## School of Nursing

Lynn C. Parsons, Director Cason-Kennedy Nursing Building 201

Campbell, Cooper, Harris, Hix, Holder, Keil, Lavender, Lindsey, Ludwig, Marquart, McCauley, McInnis, O'Leary, Purnell, Revell, Sauls, Severson, Spann, Stone, Sullivan, Taylor, Warise, D. Wilson, L. Wilson, Windmiller

The School of Nursing offers a four-year program leading to a Bachelor of Science in Nursing. The school also offers pre-nursing curriculum advisement for students planning to enter a nursing program elsewhere.
The purposes of this degree program are to

1. provide quality nursing education which prepares graduates for professional nursing practice as generalists;
2. prepare graduates who have an appropriate base for specialized study in nursing practice, education, administration, or research;
3. provide graduates with a professional practice base that is responsive to the changing health care needs of the citizens of Tennessee and the nation.

Graduates of the program receive preparation designed to enable them to

1. communicate through a variety of media to facilitate the exchange of ideas, knowledge, and information;
2. employ critical thinking abilities for personal and professional development and nursing practice refinement;
3. develop professional knowledge and skills necessary to design, coordinate, and lead within the health care system;
4. utilize the nursing process as a foundation for nursing practice;
5. exhibit personal and professional development responsive to changes in nursing, health care, and society.

## Bachelor of Science in Nursing

The Nursing Program consists of four academic years. Students enter the program as pre-nursing majors and must complete the first three semesters of a pre-nursing curriculum consisting of General Education courses and nursing prerequisites. Students then apply for admission to the last five semesters which include 71 semester hours of upper-division nursing courses. When a student applies for admission to the last five semesters and is accepted and becomes enrolled, he/she is then classified as a Nursing major. The number of students accepted into the nursing courses is limited, making the application process competitive.

Upon successful completion of the program, graduates are awarded the B.S.N. and become eligible to sit for the National Council Licensure Examination (NCLEX) for Registered Nurse ( RN ) licensure.

Pre-nursing students enrolled in the University and pursuing the first three semesters of the curriculum should maintain a minimum 2.75 cumulative grade point average and are required to earn no less than a $\mathrm{C}(2.00)$ in any prerequisite course. Nursing clinicals may be offered in evening, night, or weekend shifts.

## Sample Program of Study

The following program of study is recommended; however, students are expected to seek advising from the nursing faculty each semester to ensure proper sequence for program completion. The faculty reserves the right to make changes in curricula requirements and/or course sequencing as appropriate.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

| Required Nursing Curriculum for the B.S.N. <br> FRESHMAN | SPRING |  |  |
| :--- | ---: | :--- | ---: |
| FALL | 3 | ENGL 1020 (Comm) | 3 |
| ENGL 1010 (Comm) | 4 | BIOL 2020/2021 | 4 |
| BIOL 2010/2011 (Nat Sci) | 3 | PSCI 1030/1031 or |  |
| MATH 1530 (Math) | 3 | CHEM 1010/1011 |  |
| COMM 2200 (Comm) | 3 | or 1030/1031 (Nat Sci) | 4 |
| HIST 2010, 2020, or 2030 | $\mathbf{1 6}$ | PSY 1410 (Soc/Beh Sci) | 3 |
|  |  | HIST 2010, 2020, or 2030 | 3 |
|  |  | $\mathbf{1 7}$ |  |



Special Provisions for Licensed Practical Nurses (LPN)
Students holding the LPN license must meet freshman standards for admission to the University. A minimum cumulative GPA of 2.75 is required for admission into upper-division nursing. Applicants must have no less than a grade of C (GPA 2.0) in all nursing courses.

Each applicant pool will be considered separately. Students not admitted must reapply for consideration in the next pool of applicants.
Each LPN who has graduated from an NLN-accredited program and holds an LPN license will satisfy 11 credit hours of required courses (NURS 3350, 3360, and 4005).
Those students holding the LPN license from nonaccredited or foreign nursing schools will have to complete proficiency exams in addition to the other sophomore- and junior-level nursing courses.

## Special Provisions for Licensed <br> Two-Year and Hospital Diploma Graduates

Students holding the RN license must meet freshman and sophomore requirements. Each registered nurse who has graduated from an NLN-accredited program with an associate degree in nursing or a hospital diploma in nursing will satisfy 38 credit hours of required courses including HLTH 1530/1531. This credit, however, will be held in escrow until the student has matriculated and successfully completed NURS 3010, 3030, 3040, 3111, 3170, 3370, and 3570. Those holding degrees from non-NLN accredited or foreign nursing schools will have to complete proficiency exams in addition to the other junior-level nursing courses before credit is awarded for nursing courses.
Students holding R.N. licensure must complete the following courses:

## JUNIOR LEVEL

NURS 30103
NURS 30302
NURS 30401
NURS 31113
NURS 3170
NURS 3370
NURS 35703

SENIOR LEVEL

| NURS 4530 | 3 |
| :--- | ---: |
| NURS 4560 | 3 |
| NURS 4570 | 3 |
| NURS 4580 | 3 |
| Elective | 3 |
|  | $\mathbf{1 5}$ |

## Admission and Progression in the Pre-nursing Curriculum

1. Any student formally admitted to the University may pursue the pre-nursing curriculum.
2. An information and application form, obtained from the School of Nursing, Cason-Kennedy Nursing Building 201, must be completed and on file in the School of Nursing.
3. Pre-nursing students are expected to seek advising from the nursing faculty each semester to ensure the proper sequence for program completion.


## Admission and Progression in the Upper-division Nursing Curriculum

1. An updated information and application form and a progression to the junior level form must be on file in the School of Nursing.
2. Transcript validation of all prerequisite courses must be on file in the MTSU Records Office.
3. Student must have completed BIOL 2010/2011 with a grade of C (2.0) or better before making application to upper-division nursing.
4. Add $1 / 2$ point to composite score for any student who can provide documented evidence of clinical experience providing direct patient care for a period of at least 380 hours within the two years prior to making application to upper-division nursing.
5. Applicants must have no grade less than a $C$ (2.00) in any prerequisite and General Education course by the end of Summer Term (for those entering in Fall Semester), or by the end of Fall Semester (for those entering in Spring Semester).
6. Scores from a standardized examination along with the cumulative college grade point average will be used to calculate a composite score and to rank candidates for progression to the upper division. To be considered for admission to upper-division nursing, a minimum GPA of 2.75 is required.
7. Students must attain a minimum grade of $C(2.00)$ in all theory courses as well as a "pass" in each corresponding lab/clinical course.
8. Comprehensive assessment tools and/or standardized exams are administered throughout the curriculum. Expenses associated with these exams are the responsibility of the student, and evaluation methods are incorporated into the course grades
9. Students will be asked to present evidence of physical and/or mental health prior to or at any time during their enrollment in the nursing courses. Students must be physically, emotionally, and cognitively able to meet the criteria required for clinical skills. Students must be able to perform clinical skills without physical or psychological threat to themselves or others. Students who have chronic health problems which are controlled and which do not put themselves or others in danger are eligible to be considered for admission.
10. Faculty reserves the right to determine each student's eligibility to participate in clinical rotations based upon satisfactory preparation, meeting School of Nursing and clinical agency's policies, and performance at a safe level of practice. If any of these are not satisfactory, faculty may give a student an unsatisfactory grade and ask a student to leave the clinical agency for the day.
11. Students with infectious diseases will not be permitted to participate in clinical experiences. Causes for clinical absences must be cleared with the instructor and reported to the clinical agency before the clinical experience is to begin. Unexcused absences will be counted as unsatisfactory clinical performance.
12. Students will be dismissed from the Nursing major if they
a. commit a breach of ethics or gross professional negligence, or
b. use mind-altering drugs or alcohol when engaged in any nursing activity in or outside of class, or
c. fail to progress due to unsuccessful attainment of requirements. Students who fail to progress will be readmitted on a space-available basis. Only one readmission for failure to progress will be allowed. Students admitted from other nursing programs in which a grade of D (less than 2.00 ) was made in nursing will not be readmitted.
d. violate the student honor code.
13. If a student fails a nursing course at MTSU, he/she must repeat that course at MTSU.
14. Further specific details regarding admission and progression are available in the School of Nursing.

## Accreditation

The Bachelor of Science in Nursing program holds full approval by the Tennessee Board of Nursing and is accredited by the National League for Nursing, Accrediting Commission, and Commission on Collegiate Nursing Education.

## Costs

Nursing students pay the same fees as do all other undergraduate students at the University. These fees are described in detail elsewhere in this catalog. Additional expenses incurred by nursing students include (costs subject to change)

1. the cost of white uniforms, name pin, shoes, hosiery, watch with second hand, and stethoscope (approximately \$350)
2. skill lab supply costs (vary with each course)
3. liability insurance (\$10)
4. assessment tools and standardized exams (approximately $\$ 90$ per semester).

## Pre-nursing Curriculum for Other Nursing Schools

Students planning to enter other schools of nursing must carefully select their courses according to the pre-nursing curriculum prescribed by the school to which they will apply. Nursing advisors will assist students with their course selections.

## Courses in Nursing [NURS]

See back of catalog for course descriptions.

## Graduate Study

The School of Nursing offers the Master of Science in Nursing through the Regents Online Degree Program (RODP). Requirements and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Physics and Astronomy 

Ron Henderson, Interim Chair<br>Wiser-Patten Science Building 219

Cook, Erenso, Ford, Gritton, Higgins, Klumpe, Lee, Montemayor, Robertson, Smith, Weller

The Department of Physics and Astronomy offers students the opportunity to study the fundamental principles and methodologies of theoretical, experimental, and computational physics. The physics core curriculum forms the framework for the Physics major. Each student then completes the rest of the program of study with a variety of electives according to his or her interests and career objectives. The core curriculum, coupled with upper-level electives, provides strong preparation for advanced study in physics or astronomy or a career in industrial physics or engineering or simply lays the foundation for a rigorous undergraduate education, regardless of one's desired field of employment after the baccalaureate degree.
The departmental program of study leads to a Bachelor of Science degree in Physics. Concentrations in Medical Physics and Astronomy are available. Minors in Physics, Electro-Acoustics, and Astronomy are also available.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Physics

The major in Physics consists of 27 semester hours of required core courses, plus 9 hours of upper-division electives in physics and astronomy. The core curriculum consists of PHYS 2110/2111, 2120/2121 (or 2010/2011, 2020/2021), 3100, 3110, 3150, 3610, 3800, 3900, 3910, 4850, and 4900. Also required are CHEM 1110/1111, 1120/1121 and MATH 1910, 1920. The following program is suggested for the first two years. For the third and fourth years, each student should work closely with his/her advisor to tailor a program which will meet individual requirements. A minimum of 12 semester hours in the Physics major must be taken at MTSU.

| Recommended Sequence <br> FRESHMAN |  |  |  |
| :--- | ---: | :--- | ---: |
| ENGL 1010, 1020 (Comm) | 6 | COPHOMORE |  |
| COMM 2200 (Comm) | 3 |  |  |
| PHYS 2110/2111 (Nat Sci) | 4 | HIST 2010, 2020, or 2030 | 3 |
| and 2120/2121 OR | 4 | PHYS 3100, 3110 | 6 |
| PHYS 2010/2011 (Nat Sci) | (4) | PHYS 3150, 3160 | 6 |
| and 2020/2021 | (4) | CSCl 1170 | 4 |
| MATH 1910 (Math) | 4 | Electives | 9 |
| MATH 1920 | 4 |  | $\mathbf{3 1}$ |
| CHEM 1110/1111 (Nat Sci) | 4 |  |  |
| CHEM 1120/1121 | 4 |  |  |

Credit may be received for PHYS 2110-2121 or 2010-2021, but not for both series.
Courses satisfying the remaining areas of General Education are to be taken during the junior and senior years.

## Concentration: Medical Physics

The Medical Physics concentration is designed to prepare students for graduate work in medical physics and radiation oncology physics, eventually leading to a career as a medical physicist in a clinical or academic setting. In addition to the chemistry, math, and 27 -hour core curriculum requirements for the Physics degree, the following courses are also required:

PHYS 3111 Modern Physics Laboratory
PHYS 3160 Topics and Methods of Theoretical Physics II
PHYS 3600 Radiation Oncology Physics
PHYS 4310 Electricity and Magnetism
PHYS 4330 Electricity and Magnetism II
PHYS 4380 Introduction to Quantum Mechanics
PHYS 4600 Topics in Medical Physics
BIOL 2010/2011 Human Anatomy and Physiology I
BIOL 2020/2021 Human Anatomy and Physiology II

## Concentration: Astronomy

The Astronomy concentration is designed to prepare students for graduate work in astronomy or astrophysics. In addition to the chemistry, math, and 27-hour core curriculum requirements for the Physics degree, the following courses are also required:

## ASTR 1031 Observing the Universe

ASTR 2030 Solar System Astronomy
ASTR 2040 Stars, Galaxies, and Cosmology
ASTR 3400 Fundamentals of Astrophysics
ASTR 3401 Experimental Astronomy
ASTR 4850 Astronomy Research
ASTR 4900 Astronomy Senior Thesis

## Teacher Licensure in Physics

Students seeking a license to teach physics in secondary schools (grades 7-12) must complete (1) a major in Physics, (2) a minor in Secondary Education, and (3) additional teacher licensure requirements. Students can also become licensed to teach physics under the Science major (see page 118).

## Additional Teacher Licensure Requirements

In addition to the General Education requirements (see pages 64-67) the following courses are required for teacher licensure in physics:

MATH through 1920
BIOL 1110/1111, 1120/1121 General Biology
CHEM 1110/1111, 1120/1121 General Chemistry I and II
ASTR 1030 Exploring the Universe
PHYS 2010-2021 Non-Calculus-Based Physics I/Laboratory OR
PHYS 2110-2121 Calculus-Based Physics I/Laboratory
GEOL 1040/1041 Physical Geology

## Secondary Education Minor Requirements

Students must contact their Secondary Education minor advisors for approval of appropriate courses.
NOTE: See Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Major Requirements

Students who want to teach secondary physics must complete the Physics major in the following manner:
PHYS 2010/2011, 2020/2021 Non-Calculus-Based Physics I OR
PHYS 2110/2111, 2120/2121 Calculus-Based Physics I
PHYS 3100, 3110 Modern Physics I and II
PHYS 3150 Topics and Methods of Theoretical Physics I
PHYS 3310 Concepts and Applications of Digital Electronics
PHYS 3350 Concepts and Applications of Analog Electronics
PHYS 3610 Thermodynamics
PHYS 3800 Physics Seminar
PHYS 3900 Physics Practicum
PHYS 3910 Advanced Physics Laboratory

## Minor in Electro-Acoustics

The minor in Electro-Acoustics consists of at least 21 semester hours, 18 of which are required: MATH 1910; PHYS 1600, 3310, and 3350; and ET 3610. Remaining elective may be chosen from PHYS 3000, ET 3620, or ET 3660.

## Minor in Physics

The minor in Physics consists of 19 semester hours in physics and astronomy including PHYS 2110/2111, 2120/2121 (2010/2011, 2020/2021). Students minoring in Physics should work closely with their Physics advisor to tailor a program which meets their needs. At least four upper-division hours must be taken at MTSU.

## Minor in Astronomy

The minor in Astronomy consists of 19 semester hours in astronomy and physics, 10 of which are required: ASTR 1031, 3401, and PHYS 2010/2011, 2020/2021 (or PHYS 2110/2111, $2120 / 2121$ ). The remaining 9 credits of electives may be chosen from ASTR 1030, 2030, 2040, 3050, and 3400. At least four upper-division hours must be taken at MTSU.

## Courses in Astronomy [ASTR]

See back of catalog for course descriptions

## Courses in Physics [PHYS]

See back of catalog for course descriptions.

## Honors College

The Department of Physics and Astronomy offers the following courses in Honors: ASTR 1030 and 1031. See online class schedule and Honors information in this catalog.

# JENNINGS A. JONES COLLEGE OF BUSINESS 

E. James Burton, Dean<br>Business and Aerospace Building N219

E. Dwight Bullard, Associate Dean<br>Business and Aerospace Building N219

Troy A. Festervand, Associate Dean for Graduate and Executive Education
Business and Aerospace Building N222
Nancy M. Bragg, Assistant to the Dean
Business and Aerospace Building N219
Gretchen R. Leming, Manager, Advising Center
Business and Aerospace Building N219
Paula T. Calahan, Academic Advisor
Business and Aerospace Building N219
Amanda J. Chambers, Academic Advisor
Business and Aerospace Building N219
S. Sue Farmer, Coordinator, Undergraduate Services

Business and Aerospace Building N233

## Accounting • Business Communication and Entrepreneurship • Computer Information Systems • Economics and Finance • Management and Marketing

$\mathrm{T}_{\mathrm{h}}$he Jennings A. Jones College of Business seeks to provide the intellectual foundation for students' lifelong learning and success. Drawing students extensively from the regional population with an increasing emphasis on national and international diversity, the Jones College utilizes traditional and technology-based pedagogies to create a positive teaching/learning environment.

In addition to a sustaining emphasis on quality teaching and learning through classroom research, student professional organizations, and advisory activity, the faculty of Jones College also contributes to business, professional, and civic affairs through public service and intellectual pursuits.

The Jones College commits to quality, accessibility, and value as guiding principles.
Specific departmental objectives, requirements for majors and minors, and descriptions of courses follow each departmental listing.

## Guiding Principles

To achieve our mission, the faculty of the Jennings A. Jones College of Business commits to these guiding principles:

## Quality

Students experience quality learning opportunities that are enhanced by faculty committed to effective teaching and expanding knowledge in their disciplines through research. The college provides quality facilities and access to technology used in the business world. Course offerings and course content are regularly reviewed to maintain currency. Student and faculty interaction with the business community further contributes to educational quality.

## Accessibility

We are the college of opportunity in middle Tennessee, offering a wide variety of courses, programs, and degrees in support of our constituencies. We offer traditional campus courses as well as evening, off-campus, and distance learning courses. Faculty members are accessible on campus and through e-mail, faculty Web sites, and the University computer network. Students have access to both full-time college advisors and faculty advisors.

## Value

The college is a gateway to knowledge, providing a foundation for lifelong learning and the success of students. Awarding degrees is an important recognition of student accomplishment in the learning process. Value is added by a faculty that demonstrates quality teaching, scholarly research, and service to the profession, the community, the region, and beyond. This linkage of scholarship, teaching, and learning is the college's bond with students, the public, and the business community. Value to constituencies is strengthened through a philosophy of responsiveness and accountability.

## Jones College Structure

One of the seven undergraduate colleges of the University, Jones College has a traditional, discipline-based structure of five academic departments. Decisions for the college are made by the chief academic/administrative officer, in appropriate consultation with an executive committee consisting of department chairs and associate deans. A broader steering committee, which adds the faculty chairs of all standing committees, is consulted when appropriate. Much of the work of the college is conducted through its standing committee structure.
Committed to continuous improvement, the Jones College believes that structure facilitates the accomplishment of goals. If structure hinders programs of continuous improvement, it should be reviewed and modified to enhance goal attainment.

## Departments and Programs

The Jennings A. Jones College of Business has five academic departments:

- Accounting
- Business Communication and Entrepreneurship
- Computer Information Systems
- Economics and Finance
- Management and Marketing

Specific departmental objectives, requirements for majors and minors, and descriptions of courses follow each departmental listing.

The Jennings and Rebecca Jones Business and Economic Research Center is an integral part of the Jennings A. Jones College of Business. The center coordinates research studies for the college; publishes the journal Tennessee's Business and newsletters Mid-State Economic Indicators and Global Commerce, monographs, and conference papers; acts as a repository of business and economic data; and assists faculty, students, and the broader community with research needs.

The college also supports or houses the following centers, projects, and endowments:

- Stock Market Game
- Tennessee Small Business Development Center
- Tommy T. Martin Chair of Insurance
- Jack O. Weatherford Chair of Finance
- Economic Education Center
- Jennings A. Jones Chair of Excellence in Free Enterprise
- Jennings and Rebecca Jones Chair of Excellence in Urban and Regional Planning
- Leadership Middle Tennessee

Jones College business and accounting programs are accredited by AACSB International, the Association to Advance Collegiate Schools of Business.

## Undergraduate Admission

## Pre-Business Admission

Students who plan to major in Jones College are designated "pre-business" in the department of their major until they have met the following requirements and have been fully admitted. Majoring in business is a two-step process: (1) admission to MTSU (see page 25), and (2) completion of the following requirements:

- Complete a minimum of 30 semester hours of degree credits (excluding academic enrichment and high school deficiencies)
- Complete all high school deficiency requirements
- Complete all academic enrichment requirements
- Have at least a 2.25 cumulative GPA on all attempted college-level coursework
- Complete ACTG 2110, QM 2610, and ECON 2410 and 2420 with a passing grade and a minimum 2.00 GPA.


## Full Admission

After completeing pre-business requirements, students planning to major in business must complete the Jones College application for admission, available at the advising office in Business and Aerospace Building N219.

Jones College majors who have attained junior status (60 or more semester hours completed) may register for the following courses prior to full admission: BCEN 3510, BLAW 3400, FIN 3010, INFS 3100, MGMT 3610, MKT 3820. Registration in these courses does not guarantee admission into Jones College. Jones College majors may not register for other upperdivision business courses until they have been fully admitted into Jones College.

## Nonbusiness Majors in Upper-Level Courses

Students from other colleges at MTSU may enroll in 30004000 level Jones College courses under the following conditions:

1. They have attained junior status.
2. They have obtained permission from the office of the Jones College dean.
3. They have met course-specific prerequisites.
4. They have a cumulative GPA of 2.00 .

## Graduation Requirements

1. Students majoring in business must attain a 2.00 GPA in their major courses and in Jones College courses to graduate. Jones College courses include those with the prefixes ACTG, BUAD, BLAW, BCEN, ECON, FIN, INFS, MGMT, MKT, and QM.
2. Students majoring in business must be admitted to Jones College at least one semester prior to their graduation date.
3. Jones College majors must complete the required business minor with a minimum 2.00 GPA .
a. All business majors (except those majoring in Business Administration) must complete the Business Administration minor.
b. Business Administration majors must complete the Economics and Finance minor.
4. Students choosing a minor in Jones College must attain a minimum 2.00 GPA in the selected business minor to meet graduation requirements.
These admission standards have been established by the Jones College faculty and administration.

## Degree Requirements

The Jennings A. Jones College of Business offers undergraduate programs leading to the Bachelor of Business Administration (B.B.A.) and the Bachelor of Science (B.S.) degrees. Each program includes courses for a specific minor. Specified minors cannot be omitted, but additional minors outside the Jennings A. Jones College of Business may be elected. The same courses may not be used to meet degree requirements in more than one major or minor. B.B.A. degrees are accredited by AACSB International, the Association to Advance Collegiate Schools of Business. Degree programs are offered in

- Accounting (B.B.A.)
- Business Administration (B.B.A.)
- Business Education (B.S.)
- Economics (B.B.A.)

Concentrations in Public Finance and Labor Relations

- Economics (B.S.)
- Entrepreneurship (B.B.A.)
- Finance (B.B.A.)

Concentrations in Business Finance, Financial Institution Management, Insurance, and Real Estate

- Information Systems (B.B.A.)
- Management (B.B.A.)
- Marketing (B.B.A.)
- Office Management (B.B.A.)

We do not offer an online business degree.

## Bachelor of Business Administration (B.B.A.) Degree

Each candidate for a Bachelor of Business Administration (B.B.A.) degree must meet the following:

1. the University Degree Requirements (see page 60);
2. the General Education requirements (see pages 64-67);
3. the following business courses:

ACTG 2110, 2120, Principles of Accounting I and II, 6 hours
ECON 2410, 2420, Principles of Economics, Macroeconomics and Microeconomics, 6 hours
QM 2610, Statistical Methods I, 3 hours
BLAW 3400, Legal Environment of Business, 3 hours*
BCEN 3510, Business Communication, 3 hours
BCEN 4510, Business Report Writing, or
ECON 3210, The Financial System and the Economy, 3 hours* FIN 3010, Business Finance, 3 hours*
INFS 3100, Principles of Management Information Systems, 3 hours*
MGMT 3610, Principles of Management, 3 hours*
MGMT 3620, Operations Management, 3 hours
MKT 3820, Principles of Marketing, 3 hours*
QM 3620, Statistical Methods II, 3 hours
BUAD 4980, Business Policy, 3 hours
4. a major consisting of a minimum of 24 semester hours of courses as specified by each college department;
5. a minimum of 50 percent of required business hours must be taken at MTSU;
6. a minimum of 3 upper-division hours in the minor must be taken at MTSU;
7. Business Policy, BUAD 4980, must be taken at MTSU during the last semester of coursework (students will not be permitted to enroll until completion of courses marked with an asterisk (*) in item 3 above);
8. two separate majors in business cannot be completed simultaneously.

## Bachelor of Science (B.S.) Degree

Each candidate for a Bachelor of Science (B.S.) degree must meet the following:

1. the University Degree Requirements (see page 60);
2. the General Education Requirements (see pages 6467);
3. the specific requirements for the B.S. degrees as listed under departmental sections of the catalog for the following programs:
a. Business Education major includes a minor in Secondary Education leading to licensure to teach business subjects;
b. Business Education major with a required minor in Business Administration for students not seeking licensure to teach business subjects;
c. Economics liberal arts major without a specific required minor.

## Second Bachelor's Degree

Students seeking a second bachelor's degree should review the requirements in this catalog (see page 62).

All students seeking a second bachelor's degree in business should

- obtain program approval and upper-division forms from the Jones College Academic Advising Center;
- meet the degree requirements shown on the upper-division form for the specific major and catalog year selected.
Equivalent courses completed at other institutions will not be required for the second bachelor's degree in business. At least 50 percent of the total business hours required for a second degree must be taken at MTSU.


## Prerequisites

All students must complete or be enrolled in all lower-division requirements before enrolling in upper-division business courses. Courses may have additional prerequisites; see the course descriptions in this catalog.

## Transfer Credit

Middle Tennessee State University accepts all transfer college credit from institutions of higher learning (see page 27). When transcripts are received, an Applicant Transfer Credit Evaluation Form is sent to the applicant identifying how transfer courses equate to MTSU courses.
Applicants should meet with an advisor in the Jennings A. Jones College of Business for assistance in identifying which courses apply toward a business degree. All transfer credits may not meet specific course requirements, but they can often be used to meet elective requirements.

The Jennings A. Jones College of Business permits a lowerdivision transfer course to satisfy a specific upper-division business course requirement after a student successfully passes an MTSU comprehensive examination on the course under consideration.

Approval to take a comprehensive exam is granted by the department chair. The decision is based on a review of the educational background of the student to assess the probability that the student has gained enough knowledge from a similar course or courses to be likely to pass the exam. A proficiency level of 70 percent or higher must be attained to pass such an exam. A copy of the exam results will be retained in the department office. When a student passes such an exam, the department chair will recommend a course substitution using the lower-division transfer course or courses to meet an upper-division course requirement.

Students may attempt the test two times provided at least four months have passed since the last test was attempted. Comprehensive exams are available for the following courses: BLAW 3400, Legal Environment of Business, 3 hours
BCEN 3510, Business Communication, 3 hours
BCEN 4510, Business Report Writing, 3 hours
ECON 3210, The Financial System and the Economy, 3 hours FIN 3010, Business Finance, 3 hours
INFS 3100, Principles of Management Information Systems, 3 hours
MGMT 3610, Principles of Management, 3 hours
MGMT 3620, Operations Management, 3 hours
MKT 3820, Principles of Marketing, 3 hours
QM 3620, Statistical Methods II, 3 hours
Other courses at the discretion of the department chair


# Department of Accounting 

Jeffrey L. Hamm, Chair<br>Business and Aerospace Building N425C

Abernathy, Bahmanziari, Benson, Burton, Bush, Colvard, Cox, Daniel, Davis, Farmer, Foote, B. Harper, P. Harper, Harrington, James, Johns, Kile, Koski, Phillips, Reynolds, Smith, Thomas, Wall, Ward, Wermert

The mission of the Department of Accounting is to provide students with a learning experience in accounting and business law that offers technical competency, critical thinking applications, opportunities for intellectual inquiry, and exposure to professional career opportunities. Fulfilling this mission requires that faculty members maintain continuous intellectual growth, keep abreast of current developments in accounting education, and provide service to the profession.

The program provides a combination of specialized training for entry into all fields of accounting. Successful completion of this program results in the Bachelor of Business Administration degree. Graduates may be eligible to sit for the CPA (Certified Public Accountant) examination in Tennessee by completing 150 semester hours.

Students graduating with accounting degrees from MTSU have been quite successful in pursuing careers with CPA firms, large corporations, emerging companies, government entities, consulting firms, and a variety of other companies and institutions. The Accounting degree programs also assist students in pursuing professional certifications, such as the CPA (Certified Public Accountant), CMA (Certified Management Accountant), CIA (Certified Internal Auditor), and CISA (Certified Information Systems Auditor).
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Accounting

In addition to meeting the Jennings A. Jones College of Business requirements (see page 143), an Accounting major consists of 24 semester hours of accounting and requires a minimum of 2.00 GPA . At least 50 percent of the required major hours must be taken in residence at MTSU. Majors must earn a C (2.00) or better in all accounting courses.

## Required Courses

ACTG 3110, 3120 Intermediate Accounting I and II
ACTG 3310 Cost Accounting
ACTG 4510 Accounting Systems
ACTG 4550 Introduction to Federal Income Tax
ACTG 4620 External Auditing I OR
ACTG 4640 Internal Auditing
ACTG 4650 Financial Accounting Standards
ACTG elective* 3 hours
*Any upper-division accounting course can be used for the ACTG elective except ACTG 3000, 3020, and 4420.

The following is the required course outline for the Accounting major with a minor in Business Administration.

## Required Program

Accounting-B.B.A. Degree
FRESHMAN
ENGL 1010, 1020 (Comm)
MATH 1630 (Math)
COMM 2200 (Comm)
Natural Sciences (2 prefixes)
Social/Behavioral Sciences
ECON 2410 (Soc/Beh Sci)
ECON 2420
Nonbusiness elective

## JUNIOR

QM 3620
INFS 3100
MGMT 3610, 3620
BCEN 3510
FIN 3010
ACTG 3110, 3120, 3310, 4510

## SOPHOMORE

ENGL 2020 or 2030 or HUM 2610 (Hum/FA) Humanities and/or Fine Arts (2 prefixes)
HIST 2010, 2020, or 20306
ACTG 2110, 2125
QM 2610; INFS 2200 6

6
Nonbusiness elective 3

## SENIOR

BLAW 3400, 34306
ECON 32103
MKT 38203
ACTG 4550, 4620 or 46406
ACTG 46503
ACTG elective 3
$\begin{array}{lr}\text { BUAD } 4980 & 3 \\ & 27\end{array}$
*Any upper-division accounting course can be used for the ACTG elective except ACTG 3000, 3020, and 4420.

## Minor in Accounting

An Accounting minor consists of 18 approved accounting hours. At least 6 hours must be taken in residence at MTSU. Credit is not allowed on an Accounting minor for (a) ACTG 1110; (b) both ACTG 3000 and ACTG 2110, 2120, or 2125; nor for (c) both ACTG 3310 and ACTG 3020. A 2.00 GPA is required in the Accounting minor.

## Combined Minor in Accounting/Information Systems <br> A student may obtain a combined Accounting/Information

 Systems minor consisting of 18 semester hours which includes ACTG 3000 (or 2110 and 2120 or 2125), INFS 2200, 3100, and 3800 , plus 6 hours of upper-division ACTG electives not to include both ACTG 3310 and 3020 . This is an excellent minor for students pursuing majors outside the Jennings A. Jones College of Business. A 2.00 GPA is required in the Accounting/Information Systems minor.
## Minor in Business Law

A minor in Business Law consists of BLAW 3400 and 3430; 9 additional hours of business law; and three hours in management, marketing, economics, finance, or accounting approved in advance by the department coordinator. A 2.00 GPA is required in the Business Law minor.

## Courses in Accounting [ACTG]

See back of catalog for course descriptions.

## Courses in Business Law [BLAW]

See back of catalog for course descriptions.

## Honors College

The Department of Accounting periodically offers the following Honors courses: ACTG 2110, 2120, and 3000; BLAW 3400.

## Graduate Study

Requirements for the Master of Science in Accounting/Information Systems and for the Master of Business Administration degrees and a list of the courses offered for graduate credit are published in the Graduate Catalog.


# Department of Business <br> Communication and Entrepreneurship 

Stephen D. Lewis, Chair Business and Aerospace Building N429C

Balachandran, Blair, Geho, Hemby, Henderson, McGrew, Roberts, Rollins, M. Smith, V. Smith, White, Wilson

The mission of the Department of Business Communication and Entrepreneurship is to educate students through a blend of cultural knowledge, economic literacy, communication skills, basic business tools, and specialized knowledge to help them assume roles as consumers, workers, entrepreneurs, and citizens. Program offerings provide a quality business education with appropriate background for professional administrative office careers. Specialized instruction in business education and marketing education prepares graduates for secondary teaching and corporate training. Baccalaureate programs provide a foundation for graduate study.
The Business Communication and Entrepreneurship (BCEN) Department offers undergraduate majors in Business Education, Entrepreneurship, and Office Management. The Business Education major leads to the Bachelor of Science degree while the Entrepreneurship and Office Management majors lead to the Bachelor of Business Administration. The department is a state-approved Office Education Center and provides courses and workshops required of public school business and office education teachers.
Minor programs are offered in Business Communication, Entrepreneurship, Marketing Education, and Office Management.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Business Education

Business Education majors receive preparation for teaching business subjects in junior and senior high schools, vocationaltechnical schools, and junior colleges. The Business Education major who is licensed to teach will have a minor in Secondary

Education. The Business Education major will be licensed to teach all business courses as outlined under the section below titled "Teacher Licensure Requirements."

| Recommended Program <br> Business Education-B.S. Degree <br> FRESHMAN |  |  |  |
| :--- | ---: | :--- | ---: |
| ENGL 1010, 1020 (Comm) | 6 | SOPHOMORE |  |
| MATH 1630 or 1810 (Math) | 3 | HUM 2020 or 2030 or |  |
| COMM 2200 (Comm) (Hum/FA) |  |  |  |
| Coman | 3 | Humanities and/or |  |
| Natural Sciences (2 prefixes) | 8 | Fine Arts (2 prefixes) | 6 |
| Social/Behavioral Sciences | 3 | HIST 2010, 2020, or 2030 | 6 |
| BCEN 1400, 2320 | 6 | BCEN 2330, 2340 | 6 |
|  | $\mathbf{2 9}$ | ECON 2410 (Soc/Beh Sci) | 3 |
|  |  | ECON 2420 | 3 |
|  |  | ACTG 2110, 2120 | 6 |
|  |  | QM 2610 | 3 |
|  |  |  | $\mathbf{3 6}$ |
| JUNIOR |  | SENIOR |  |
| FOED 1110, 2110 | 6 | YOED 3500, 4000, 4110 | 15 |
| SPED 3010 | 3 | FIN 3010 | 3 |
| BLAW 3400 | 3 | BCEN 4240, 4710 | 6 |
| MGMT 3610 | 3 | Elective | 1 |
| BCEN 3510, 4250, 4340, |  |  | $\mathbf{2 5}$ |
| 4510 | 12 |  |  |
| MKT 3820 | 3 |  |  |
|  | $\mathbf{3 0}$ |  |  |

## Teacher Licensure Requirements

## Business Education

Business Education majors will be licensed to teach all courses in the business and business technology areas. Students must take business and specialty exams required for special endorsement areas.

## Business/Business Technology

By completing the Business Education major as outlined, one is automatically licensed to teach the following courses: Accounting I and II; Administrative Management Systems; American Business/Legal Systems; Automated Accounting; Business Economics; Computer Productivity Applications; Database Design/Management; Desktop Publishing; Document Creation Design; Electronic Commerce/Web Page Design; Financial Planning; Information Management Systems; Interactive Multimedia Design; International Business/Marketing; Internet Navigation Communication Systems; Keyboarding; Keyboarding Applications; Management; Networking Essentials; Personal Computing; Principles of Business; Programming; Programming Applications; Spreadsheet Applications.

## Marketing Certification

Business Education majors can be licensed to teach marketing education by taking BCEN 4520 and 4600.
NOTE: Licensure requirements are subject to change by action of the State Board of Education; those graduating should consult a business education or marketing education advisor.
NOTE: Students who have not had keyboarding in secondary school must take BCEN 1310.
NOTE: Students should submit documentation of work experience to their advisors or enroll in BCEN 4810.

## Major in Business Education, Nonteaching

Students who seek to graduate without meeting licensure requirements are not required to take the courses for the Secondary Education minor and should complete the requirements below.
Additionally, a business education, nonlicensure training and development option may be selected and includes the following courses: BCEN 4200, 4410, 4450, 4660, 4810 or approved BCEN 4000 elective, and BUAD 4980.
Both options include a Business Administration minor and 50 percent of the required major hours in residence at MTSU.

## Recommended Program

Business Education: Nonteaching Option-B.S. Degree

| FRESHMAN |  | SOPHOMORE |  |
| :--- | ---: | :--- | ---: |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| MATH 1630 or 1810 (Math) | 3 | HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | Humanities and/or |  |
| Natural Sciences (2 prefixes) | 8 | Fine Arts (2 prefixes) | 6 |
| Social/Behavioral Sciences | 3 | HIST 2010, 2020, or 2030 | 6 |
| BCEN 1400, 2320 | 6 | ACTG 2110, 2120 | 6 |
| Nonbusiness elective | 1 | ECON 2410 (Soc/Beh Sci) | 3 |
|  | $\mathbf{3 0}$ | QM 2610 | 3 |
|  |  | BCEN 2330 | 3 |

## JUNIOR

## SENIOR

BCEN 3010
BCEN 4810 or BCEN upper-division elective 3
BCEN 4240 or BCEN upper-division elective 3
BCEN electives
6
Nonbusiness electives 6
Nonbusiness upper-division electives BUAD 4980 3
30

Business Education: Training and Development OptionB.S. Degree

## FRESHMAN

ENGL 1010, 1020 (Comm) 6
MATH 1630 or 1810 (Math)
COMM 2200 (Comm)
Natural Sciences (2 prefixes)
ECON 2410 (Soc/Beh Sci) 3
BCEN 1400, 2330
Nonbusiness elective

## JUNIOR

INFS 3100
MGMT 3610, 3620
SOPHOMORE
ENGL 2020 or 2030 or HUM 2610 (Hum/FA)
Humanities and/or
Fine Arts (2 prefixes
HIST 2010, 2020, or 20306
Social/Behavioral Sciences 3
ACTG 2110, 21206
ECON 24203
QM 2610

## SENIOR

BCEN 44503
BCEN 4810 or BCEN
upper-division elective
BCEN 3510, 4510
BCEN 4200, 4410, 4660
9
FIN 3010
BLAW 3400
BCEN elective
BCEN 3010
Nonbusiness electives 9
BUAD 49803
Nonbusiness elective
BCEN 2340
MGMT 3610, 3620


$\square$

## Minor in Marketing Education

A minor in Marketing Education consists of the following 15 hours: BCEN 1400, 2900, 3510, 4520, and 4600. Six hours must be taken at MTSU. A 2.00 GPA is required in the Marketing Education minor.

## Major in Entrepreneurship

The major in Entrepreneurship offers preparation to students for successful venture creation and implementation and provides them opportunities to acquire the necessary operational knowledge to start a new enterprise and to study business communication, marketing, finance, management, economics, accounting, and information systems from an entrepreneurial perspective. The curriculum is flexible—students may tailor the program to fit specific needs while acquiring the business background necessary for pursuing entrepreneurial goals. Successful business professionals contribute to the program and an advisory board of recognized entrepreneurial leaders mentors students. Specialized courses, an internship, and interaction with acknowledged business leaders are intended to provide the impetus to start and operate a successful business.
A major in Entrepreneurship consists of 30 hours, 50 percent of which must be taken in residence at MTSU, and includes a Business Administration minor. Course recommendations for the major follow.

## Recommended Program <br> Entrepreneurship-B.B.A. Degree <br> FRESHMAN

| ENGL 1010, 1020 (Comm) | 6 |
| :--- | ---: |
| MATH 1630 or 1810 (Math) | 3 |
| COMM 2200 (Comm) | 3 |
| Natural Sciences (2 prefixes) | 8 |
| Social/Behavioral Sciences | 3 |
| ECON 2410 (Soc/Beh Sci) | 3 |
| BCEN 1400 | 3 |
| Nonbusiness elective | 1 |
|  | $\mathbf{3 0}$ |

## JUNIOR

QM 3620

## SOPHOMORE

ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)
Humanities and/or Fine Arts (2 prefixes)
HIST 2010, 2020, or 20306
ACTG 2110, 21206
ECON 2420
BCEN 2900
QM 2610

INFS 3100
MGMT 3610, 3620
MKT 3820

## SENIOR

BCEN 2330 or 2340 or INFS 2200
MGMT 3650, 49206
BCEN $4620 \quad 3$
BCEN 4810 or MGMT/MKT
4950

FIN 3010
BCEN 4810 or MGMT/MKT 4950
BLAW 3400
MKT upper-division elective
Nonbusiness elective
BUAD 4980

## Minor in Entrepreneurship

A minor in Entrepreneurship consists of the following 18 hours: BCEN 1400, 2900; ACTG 3000 or FIN 3000; MGMT 3610, 4920; and MKT 3820. Nine hours must be taken at MTSU. A 2.00 GPA is required in the Entrepreneurship minor.

## Major in Office Management

Office Management majors receive preparation to become administrative office managers, word processing managers, and administrative assistants. The program offers preparation for support positions in other business areas such as banking, real estate, and management. The major consists of 30 hours, 50 percent of which must be in residence at MTSU, and includes a Business Administration minor. Course requirements for the major are listed below.

## Recommended Program

Office Management-B.B.A. Degree
FRESHMAN

| FRESHMAN |  | SOPHOMORE |  |
| :--- | ---: | :--- | :--- |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| MATH 1630 or 1810 (Math) | 3 | HUM 2610 (Hum/FA) |  |
| COMM 2200 (Comm) | 3 | Humanities and/or |  |
| Natural Sciences (2 prefixes) | 8 | Fine Arts (2 prefixes) | 6 |
| ECON 2410 (Soc/Beh Sci) | 3 | HIST 2010, 2020, or 2030 | 6 |
| BCEN 2320, 2330 | 6 | Social/Behavioral Sciences | 3 |
| Nonbusiness elective | 1 | ACTG 2110, 2120 | 6 |
|  | $\mathbf{3 0}$ | ECON 2420 | 3 |
|  |  | QM 2610 | 3 |

JUNIOR
QM 3620
INFS 3100
MGMT 3610,3620
BCEN $2340,3510,3010$
FIN 3010
MKT 3820
BLAW 3400

| SENIOR |  |
| :--- | ---: |
| BCEN $4350,4510,4640$, |  |
| $\quad 4660$ | 12 |
| BCEN 4810 | 3 |
| BCEN electives | 6 |
| Nonbusiness electives | 6 |
| BUAD 4980 | 3 |
|  | $\mathbf{3 0}$ |

## Minor in Office Management

A minor in Office Management consists of 15 hours and must include BCEN 3010, 3510, and 4640. The remaining 6 hours are to be selected from BCEN 1310 or $2320,2330,4350$, 4510, 4660, and 4670. Nine hours must be taken at MTSU. A 2.00 GPA is required in the Office Management minor.

## Minor in Business Communication

A minor in Business Communication consists of 15 hours and must include BCEN 3510, 4510, and 4660. The remaining 6 hours are to be selected from BCEN 1550, 2320, 2330, 4670, and 4900. Nine hours must be taken at MTSU. A 2.00 GPA is required in the Business Communication minor.

## Courses in Business Communication and Entrepreneurship [BCEN]

See back of catalog for course descriptions.

## Graduate Study

The Business Communication and Entrepreneurship Department offers a graduate major leading to a Master of Business Education degree. Requirements and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Computer Information Systems 

Stanley E. Gambill, Chair<br>Business and Aerospace Building N333C

Adams, Aggarwal, Apigian, Brooks, C. Clark, J. Clark, Freeman, Gober, Greer, Hennington, Holmes, Jih, Jones, Keedy, Korzaan, Lee, Maier, Morris, Murtaza, Seipel

The mission of the Department of Computer Information Systems is to provide programs to prepare students to solve business problems through the use of computer information systems, computer tools, and techniques; to prepare students in the management of computer information systems; to provide foundation courses to students in other fields; to encourage intellectual contributions that advance the state of knowledge in the application of information technology and quantitative methods to the solution of business problems; and to promote the involvement of department members in service activities.
The Computer Information Systems program is designed to prepare the student to assume information systems/ technology responsibilities in any organization. Exposure to a broad range of business functions coupled with learned information systems concepts and skills will serve the student well in positions such as computer programmer, database designer/administrator, data communications manager/specialist, systems analyst, computer marketing specialist, or information center specialist.
At least 50 percent of the required major hours must be taken in residence at MTSU for a major in Information Systems and 6 hours for a minor. All Information Systems majors have a built-in minor in Business Administration.

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Information Systems

In addition to meeting the business requirements (see page 143), an Information Systems major consists of 30 hours of information systems courses. Majors must earn an overall minimum GPA of 2.00 in their required information systems courses.
The following 24 hours are required of all Information Systems majors:
INFS 2400 Web Development
INFS 2600 Programming Logic with VB.NET
INFS 3200 Business Application Development
INFS 3400 Object-Oriented Programming with C\#.NET
INFS 3800 Project Management and Systems Development
INFS 4790 Database Design and Development
INFS 4900 Business Data Communications
INFS 4950 Advanced Web-Enabled Application Development
In addition, 6 hours of electives must be chosen from the following courses:
INFS 2730 Programming Languages
INFS 3500 Knowledge Management Systems
INFS 3990/4990 Independent Study in Information Systems
INFS 4200 Data-Enhanced Internet Applications
INFS 4300 Security Assurance and Information Systems Auditing
INFS 4420 Information Systems Internship
INFS 4500 New Technologies in Information Systems
INFS 4740 Information Resource Management
INFS 4830 Database Programming
The following is the required course outline for the Information Systems major with a minor in Business Administration.

## Required Program <br> Information Systems-B.B.A. Degree <br> FRESHMAN

ENGL 1010, 1020 (Comm) 6 ENGL 2020 or 2030 or MATH 1630 or 1810 (Math) 3 HUM 2610 (Hum/FA) COMM 2200 (Comm)

Humanities and/or Fine Arts (2 prefixes)
Natural Sciences (2 prefixes)
HIST 2010, 2020, or 2030
ECON 2410 (Soc/Beh Sci)
INFS 2400
Social/Behavioral Sciences
Nonbusiness elective
ACTG 2110, 2120
ECON 2420
QM 2610

## JUNIOR

QM 3620

## SENIOR

ECON 3210
INFS 3200, 3400, 3800, 4790, 4900, 4950
INFS electives
QM 40103
INFS 3100

BUAD 49803
MGMT 3610, 3620
MKT 3820
3
3
FIN 3010
BCEN 3510
INFS 2600
3

## Minor in Information Systems

A minor in Information Systems consists of 15 semester hours of coursework in information systems, 6 hours of which must be taken at MTSU. INFS 3100 and an INFS upper-division elective are required. In addition, 9 hours of approved INFS electives are required. A 2.00 GPA is required in the Information Systems minor

## Combined Minor in Accounting/Information Systems

A student may obtain a combined Accounting/Information Systems minor consisting of 18 semester hours which include ACTG 3000 (or 2110 and 2120), INFS 2200, 3100, and 3800, plus 6 hours of upper-division ACTG electives, not to include both ACTG 3310 and 3020. This is an excellent minor for students pursuing majors outside the Jennings A. Jones College of Business. A 2.00 GPA is required in the Accounting/Information Systems minor.

## Courses in Information Systems [INFS]

See course descriptions in back of catalog.

## Courses in Quantitative Methods [QM]

See course descriptions in back of catalog.

## Graduate Study

Requirements for the Master of Science in Accounting/Information Systems and for the Master of Business Administration degrees and a list of the courses offered for graduate credit are published in the Graduate Catalog.


# Department of Economics and Finance 

Charles Baum, Chair Business and Aerospace Building N329C

Beauchamp, Deme, DePrince, Eff, Evans, Fayissa, Ford, Fowler, Givens, Graddy, Hannah, Haskew, Hollman, Homaifar, Kawahito, Klein, Lee, Michello, Owens, Penn, Rennhoff, Salter, Sarver, Schmitz, Timmons, Zhao, E. Zietz, J. Zietz

The mission of the Department of Economics and Finance is to teach students the foundations of economics and finance theory and methodology with a global perspective on markets and the institutional environment.

The department offers programs which lead to the B.B.A. degree with majors in either Economics or Finance through the Jones College of Business and to the B.S. degree with a major in Economics through the College of Liberal Arts.

The Economics major program studies how society allocates scarce resources and comprises two parts-microeconomics and macroeconomics. Microeconomics studies individual firms and consumers and models the decisions they make in various types of markets and other institutional settings. Macroeconomics examines national income, growth, unemployment, and prices that result from the interaction of microeconomic agents. Economics majors may select a concentration in Public Finance or Labor Relations.
The Finance major program focuses on the financial sectors of modern economies. Students are provided analytical foundations and an introduction to financial processes and institutions. Finance majors may select a concentration in Business Finance, Financial Institution Management, Insurance, or Real Estate.

Students majoring in Economics and Finance are well prepared for careers in the private business sector, for public government service, and for graduate studies in business and law.
Minors are offered in Economics, Industrial Relations, Economics/Finance, Finance, Real Estate, Insurance, and Real Estate/Insurance.
The department houses the Weatherford Chair of Finance and the Martin Chair of Insurance. Holders of the two chairs are charged with promoting study leading to
careers in financial institution management and insurance, respectively.

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Economics

Economics majors are encouraged to enroll in Honors sections of 2410 and 2420.

A major in Economics leading to the B.B.A. degree requires that the student, at a minimum, complete

1. the business requirements (see page 143) in the college;

2 ECON 3210, 3510, 4440, and 4570;
3. at least 15 additional upper-division hours in economics. This program incorporates a minor in Business Administration and requires 50 percent of the required major hours in residence at MTSU.

A concentration in Public Finance or Labor Relations may be developed by completing the economics requirements in no. 2 above and completing 15 additional upper-division hours in economics with 9 semester hours selected from appropriate courses in the economics listings.

## Recommended Program

Economics-B.B.A. Degree FRESHMAN
ENGL 1010, 1020 (Comm)
MATH 1630 (Math)
COMM 2200 (Comm)
Natural Sciences (2 prefixes)
ECON 2410 (Soc/Beh Sci)
MATH 1810 or 1910
Nonbusiness elective

## JUNIOR

QM 3620 or ECON 4620
BLAW 3400
MGMT 3610
ECON 3210, 3510, 3520
BCEN 3510
FIN 3010
INFS 3100
Elective

## SOPHOMORE

ENGL 2020 or 2030 or
HUM 2610
Humanities and/or Fine Arts (2 prefixes)
HIST 2010, 2020, or 2030
Social/Behavioral Sciences
ACTG 2110, 2120
ECON 2420
QM 2610

## SENIOR

MKT 38203
MGMT 36203
ECON 4440
ECON electives
ECON upper-division electives
Business elective
BUAD 4980

## Nonbusiness Economics Program

Students desiring a more flexible program than outlined above may elect to pursue a B.S. degree in Economics. Candidates for this degree are not required to complete the Jennings $A$. Jones College of Business requirements, but they must meet the specific B.S. degree requirements listed in this catalog (see page 61). Any student electing the B.S. alternative should consult directly with the department chair to develop an acceptable degree program. This degree is offered through the

College of Liberal Arts and is not considered a degree in business administration. A maximum of 25 percent of courses for a B.S. degree in Economics can be taken in business courses. Students must complete at least one minor.

| Recommended Program |  |  |  |
| :--- | ---: | :--- | ---: |
| Economics—B.S. Degree |  | SOPHOMORE |  |
| FRESHMAN | 6 | ENGL 2020 or 2030 or |  |
| ENGL 1010, 1020 (Comm) |  |  |  |
| MATH 1630 (Math) | 3 | HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | Humanities and/or |  |
| Natural Sciences (2 prefixes) | 8 | Fine Arts (2 prefixes) | 6 |
| Social/Behavioral Sciences | 3 | HIST 2010, 2020, or 2030 | 6 |
| ECON 2410 (Soc/Beh Sci) | 3 | MATH 1810 or 1910 | 3 |
| Nonbusiness elective | 4 | ECON 2420 | 3 |
|  | $\mathbf{3 0}$ | QM 2610 | 3 |
|  |  | Nonbusiness elective | 3 |
|  |  | Elective | 3 |
| JUNIOR |  |  | $\mathbf{3 0}$ |
| QM 3620 or ECON 4620 | 3 | SENIOR |  |
| ECON 3210, 3510, 3520 | 9 | ECON upper-division | 3 |
| Electives | 6 | electives |  |
| Upper-division electives | 9 | ECON electives | 6 |
| Nonbusiness elective | 3 | Upper-division electives* | 9 |
|  | $\mathbf{3 0}$ |  | $\mathbf{3 0}$ |

*Student must complete 42 hours of upper-division courses.

## Minor in Economics

A minor in Economics requires a minimum of 15 semester hours. The minor must include ECON 2410, 2420, and at least 9 hours of upper-division courses in economics. This includes 3 hours at MTSU. A 2.00 GPA is required in the Economics minor.

## Minor in Industrial Relations

A minor in Industrial Relations must include ECON 4420 and 4510 and MGMT 3810. The remaining 6 hours are to be selected from ECON 4490 or 4390 and MGMT 4660 or 4690. This includes 3 hours at MTSU. A 2.00 GPA is required in the Industrial Relations minor.

## Minor in Economics/Finance

A minor in the combined areas of economics and finance requires ECON 2410, 2420, 3210, and 9 additional hours, 6 of which must be upper-division hours in finance. This minor is not available to students majoring in the B.S. in Economics. A 2.00 GPA is required in the Economics/Finance minor.

## Major in Finance

A major in Finance leading to the B.B.A. degree requires that the student, at a minimum, complete

1. the business requirements (see page 143) in the college;
2. ECON 3210 and at least 21 additional hours in finance. Concentrations are available in Business Finance, Financial Institution Management, Insurance, or Real Estate. Students who choose the Business Finance concentration must include FIN 3810, 4010, 4110, 4810, 4860; 6 hours of finance electives; and 3 hours of economics/finance electives. Students selecting the concentration in Financial

Institution Management must include FIN 3610, 3810, 4260, 4360, 4440, 4810, 4860, and 3 hours of economics/finance electives. Those pursuing the Insurance concentration must include FIN 3610, 4110, 4750; 3 hours of insurance electives; 3 hours of finance electives; and 3 hours of economics/finance electives. This concentration also must include 6 hours from the following: FIN 3660, 3710, 4710, and 4730. FIN 3660 and 4710 lead toward the CLU examinations and FIN 3710 and 4730 lead toward the CPCU examinations. Students selecting the concentration in Real Estate must include FIN 2450, $3810,4430,4440,4470$ or $4710 ; 4500$ or $4550 ; 3$ hours of finance electives; and 3 hours of economics/finance electives. The programs incorporate a minor in Business Administration and require 50 percent of major courses in residence at MTSU.

| Recommended Program |  |  |  |
| :---: | :---: | :---: | :---: |
| Finance: Business Finance Concentration-B.B.A. Degree |  |  |  |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| MATH 1630 (Math) | 3 | HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | Humanities and/or |  |
| Natural Sciences (2 prefixes) | 8 | Fine Arts (2 prefixes) | 6 |
| ECON 2410 (Soc/Beh Sci) | 3 | HIST 2010, 2020, or 2030 | 6 |
| MATH 1810 or 1910 | 3 | Social/Behavioral Sciences | 3 |
| Nonbusiness elective | 430 | ACTG 2110, 2120 | 6 |
|  |  | ECON 2420 | 3 |
|  | QM 2610 |  | 3 |
|  |  |  | 30 |
| JUNIOR |  | SENIOR |  |
| QM 3620 | 3 | MGMT 3620 | 3 |
| BLAW 3400 | 3 | MKT 3820 | 3 |
| ECON 3210 | 3 | FIN 4010, 4110, 4810, |  |
| INFS 3100 | 3 | 4860 | 12 |
| BCEN 3510 | 3 | FIN electives | 6 |
| MGMT 3610 | 3 | ECON/FIN elective | 3 |
| FIN 3010, 3810 | 6 | BUAD 4980 | 3 |
| ACTG 3020 | 3 |  | 30 |
| Elective | 3 |  |  |
|  | 30 |  |  |
| Recommended Program |  |  |  |
| Finance: Financial Institution Management ConcentrationB.B.A. Degree |  |  |  |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| MATH 1630 (Math) | 3 | HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | Humanities and/or |  |
| Natural Sciences (2 prefixes) | 8 | Fine Arts (2 prefixes) | 6 |
| ECON 2410 (Soc/Beh Sci) | 3 | HIST 2010, 2020, or 2030 | 6 |
| MATH 1810 or 1910 | 3 | Social/Behavioral Sciences | 3 |
| Nonbusiness elective | 4 | ACTG 2110, 2120 | 6 |
|  | 30 | ECON 2420 | 3 |
|  |  | QM 2610 | 3 |


| JUNIOR |  | SENIOR |  |
| :--- | ---: | :--- | ---: |
| QM 3620 | 3 | MGMT 3620 | 3 |
| BLAW 3400 | 3 | MKT 3820 | 3 |
| ECON 3210 | 3 | ACTG 3020 | 3 |
| INFS 3100 | 3 | FIN 4260, 4360, 4440, |  |
| BCEN 3510 | 3 | 4810,4860 | 15 |
| MGMT 3610 | 3 | ECON/FIN elective | 3 |
| FIN 3010, 3610, 3810 | 9 | BUAD 4980 | 3 |
| Elective | 3 |  | $\mathbf{3 0}$ |
|  | $\mathbf{3 0}$ |  |  |

## Recommended Program

Finance: Insurance Concentration-B.B.A. Degree

## FRESHMAN

ENGL 1010, 1020 (Comm)
MATH 1630 (Math)

## SOPHOMORE

COMM 2200 (Comm)
Natural Sciences (2 prefixes)
ECON 2410 (Soc/Beh Sci)
MATH 1810 or 1910
Nonbusiness elective

## JUNIOR <br> QM 3620 <br> BLAW 3400 <br> ECON 3210 <br> INFS 3100 <br> BCEN 3510 <br> FIN 3010, 3610 <br> MKT 3820 <br> MKT 38

ENGL 2020 or 2030 or HUM 2610 (Hum/FA) 3
Humanities and/or
Fine Arts (2 prefixes) 6
HIST 2010, 2020, or 20306
Social/Behavioral Sciences 3
ACTG 2110, 21206
ECON 24203
QM 26103

## SENIOR

MGMT 36203
FIN 4110, $4750 \quad 6$
FIN $3660,3710,4710$,
or 4730
*Students pursuing the CLU should take FIN 3660 and 4710, and students pursuing the CPCU should take FIN 3710 and 4730.

Recommended Program
Finance: Real Estate Concentration-B.B.A. Degree

## FRESHMAN

ENGL 1010, 1020 (Comm)
SOPHOMORE
MATH 1630 (Math)
COMM 2200 (Comm)
Natural Sciences (2 prefixes)
ECON 2410 (Soc/Beh Sci)
MATH 1810 or 1910
Nonbusiness elective
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA) 3
Humanities and/or
Fine Arts (2 prefixes)
HIST 2010, 2020, or 20306
Social/Behavioral Sciences 3
ACTG 2110, 21206
ECON 24203
QM 26103

## JUNIOR

QM 3620

## SENIOR

MKT 38203
FIN 4710 or 4470,44406
FIN 3810, 4430, 45509
ECON 45003
FIN elective 3
ECON/FIN elective 3
BUAD 49803

BLAW 3400
ECON 3210
INFS 3100
MGMT 3610, 3620
BCEN 3510
FIN 2450, 3010
Elective

FIN elective 3
FIN Insurance elective 3
ECON/FIN elective 3
Business elective 3
$\begin{array}{lr}\text { BUAD } 4980 & 3 \\ & 30\end{array}$

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## Minor in Finance

A minor in Finance consists of a minimum of 15 semester hours with at least 12 upper-division hours in finance. This includes 3 hours at MTSU and must include FIN 3000 or 3010. A 2.00 GPA is required in the Finance minor.

## Minor in Real Estate

A minor in Real Estate consists of FIN 2450, FIN 3000 or 3010, BLAW 4470, and 6 hours of coursework in real estate approved in advance by the minor advisor. This includes 3 hours at MTSU. A 2.00 GPA is required in the Real Estate minor.

## Minor in Insurance

A minor in Insurance consists of FIN 3610 and 12 hours of coursework in insurance approved in advance by the minor advisor. This includes 3 hours at MTSU. A 2.00 GPA is required in the Insurance minor.

## Minor in Real Estate/Insurance

A composite minor in Real Estate/Insurance consists of FIN 2450, 3610; MKT 3820; FIN/BLAW 4470; 3 hours of coursework in insurance; and 3 hours of coursework in real estate approved in advance by the minor advisor. This includes 3 hours at MTSU. A 2.00 GPA is required in the Real Estate/ Insurance minor.

## Courses in Economics [ECON]

See back of catalog for course descriptions.

## Courses in Finance [FIN]

See back of catalog for course descriptions.

## Graduate Study

The Master of Arts and Ph.D. degrees are offered in Economics. Degree requirements and a list of the courses offered for graduate credit may be found in the Graduate Catalog.


# Department of Management and Marketing 

Jill Austin, Chair<br>Business and Aerospace Building N121

Beauchamp, Bobbitt, Buckner, Bullington, L. Clark, R. Clark, Edmondson, Festervand, Foote, Friz, Gilbert, Graeff, Kemp, Kempf, Kethley, Lester, Morrell, Moser, Mpoyi, Mullane, Nelson, Phillips, Roy, Singer, Smith, Sokoya, Srivastava, Tang, E. Thomas, J. Thomas, Tillery, Tran, Ward, Warren, Welborn, Wilson, Xia, Yue

The mission of the Department of Management and Marketing is to offer students learning experiences that are based on excellence in teaching. The department provides the educational foundation for both students' success in management, marketing, and business administration careers and for their further study in these fields. Learning opportunities are provided through a variety of teaching methods, using technology where appropriate to enhance students' learning. To further support teaching, the department encourages faculty members to achieve excellence in research and scholarly activities. The department is also committed to serving students through advising and through developing relationships in the business community.
Students may choose from four majors: Management, Marketing, Business Administration, and Entrepreneurship. These programs of study lead to a Bachelor of Business Administration degree. The majors offer the skills necessary for a wide range of business careers in management, marketing, and general administration and also provide the basic undergraduate preparation necessary for admission to and satisfactory performance in graduate study in business.

The major in Management offers preparation for specialized careers in human resources management, operations management, and general administrative careers in business, government, industry, and non-profit organizations. Management electives are listed in the introductory paragraph of the Major in Management section. Typical career titles in human resources management include training/development manager, human resources recruiter, employee relations specialist, industrial/labor relations specialist, employee selection manager, employee
benefits administrator, and compensation specialist. Typical career titles in operations management include production scheduler, quality control analyst, capacity planning analyst, operations systems analyst, inventory control specialist, materials manager, logistics manager, and quality assurance manager.
The major in Marketing prepares students for assuming all marketing responsibilities in the small organization and specialized marketing activities in the larger organization. Typical career titles in marketing include the following: retail manager, retail buyer, sales/marketing representative, sales manager, market research analyst, promotions strategist, logistics coordinator, and advertising account manager. The major in Marketing offers preparation for specialized careers in sales, retailing, promotion, and business-to-business marketing. Students interested in these areas are encouraged to choose their marketing electives from the list provided in the major program requirements section.
The major in Business Administration offers preparation for general business careers for students who do not wish to choose a specific area of study in business.
The major in Entrepreneurship offers students preparation for successful venture creation and implementation and provides opportunities for them to acquire the necessary operational knowledge to start a new enterprise and to study business communication, marketing, finance, management, economics, accounting, and information systems from an entrepreneurial perspective.
Minor programs of study within the department include Management, Marketing, Business Administration, and Entrepreneurship. A course may not be used to satisfy both major and minor requirements.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Business Administration

A major in Business Administration consists of 24 semester hours ( 50 percent taken at MTSU) selected from the following:
I. Financial Analysis (3 hours)

ACTG 3020, 3110, or 3310 (3)
II. Management ( 6 hours)

MGMT 3630, 3810, or 4680 (3)
MGMT 3640, 3710, 3730, 3750, 3770, 4610, or 4700 (3)
III. Marketing ( 6 hours)

Any 6 hours of upper-division Marketing electives except MKT 3970/3980, 4990, OR 4950

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IV. Business Environment (9 hours)
BLAW 3430, 3460, 4450, 4490, or 4500 (3)
MGMT OR MKT 4710 or ECON 4440 (3) MKT 3930 OR MGMT 3890 (3)
```

Recommended Program
Business Administration-B.B.A. Degree

## FRESHMAN

ENGL 1010, 1020 (Comm)
MATH 1630 or 1810 (Math) COMM 2200 (Comm)
Natural Sciences (2 prefixes)
ECON 2410 (Soc/Beh Sci)
ECON 2420
Nonbusiness elective
SOPHOMORE
ENGL 2020 or 2030 or HUM 2610 (Hum/FA)
Humanities and/or
Fine Arts (2 prefixes) 6
HIST 2010, 2020, or 20306
Social/Behavioral Sciences 3
ACTG 2110, 21206
QM 26103
Nonbusiness elective 3
30

## JUNIOR

## SENIOR

QM 3620
MGMT 3640, 3710, 3730,
3750, 3770, 4610, or 4700

3
MGMT 3610, 3620
MGMT 3630, 3810, or 4680
BCEN 3510
MKT 3930 or MGMT 3890
BLAW 3430, 3460, 4450,
4490, or 4500
FIN 3810 or 4110
3
BLAW 3400
MGMT/MKT 4710 or ECON 4440

3
ECON 45703
MKT upper-division electives 6
BUAD 4980

NOTE: This program includes a combined Economics/Finance minor.

## Minor in Business Administration

A minor in Business Administration consists of INFS 2200 or 3100, ACTG 3000 (or 2110 and 2120), FIN 3000 or 3010, BLAW 3400 or 3430, MGMT 3610, and MKT 3820. A 2.00 GPA is required.

## Major in Entrepreneurship

A major in Entrepreneurship consists of 30 hours, 50 percent of which must be in residence at MTSU, and includes a Business Administration minor. Course requirements for the major are listed on page 148.

## Minor in Entrepreneurship

A minor in Entrepreneurship consists of the following 18 hours: BCEN 1400, 2900; ACTG 3000 or FIN 3000; MGMT 3610, 4920; and MKT 3820. Nine hours must be taken at MTSU. A 2.00 GPA is required.

## Major in Management

A major in Management consists of 27 hours of management courses. All Management majors must have 50 percent of the required management courses in residence at Middle Tennessee State University. Students interested in careers in human resources management are encouraged to choose their
management electives from the following list: MGMT 4490, 4500, 4510, 4620, 4640, 4650, 4660, 4690, 4830, 4950, 4990. Students interested in careers in production/operations management are encouraged to choose their management electives from the following list: MGMT 3710, 3730, 3750, 3770, 4610, 4700, 4950, 4990.

| Recommended Program |  |
| :--- | ---: |
| Management—B.B.A. Degree |  |
| FRESHMAN |  |
| ENGL 1010, 1020 (Comm) | 6 |
| MATH 1630 or 1810 (Math) | 3 |
| COMM 2200 (Comm) | 3 |
| Natural Sciences (2 prefixes) | 8 |
| ECON 2410 (Soc/Beh Sci) | 3 |
| ECON 2420 | 3 |
| Nonbusiness elective | 3 |
| MGMT 1500 or |  |
| nonbusiness elective |  |
|  | 1 |
|  | $\mathbf{3 0}$ |
| JUNIOR |  |
| QM 3620 | 3 |
| INFS 3100 | 3 |
| MGMT 3610, 3620, 3810 | 9 |
| MKT 3820 | 3 |
| ECON 3210 | 3 |
| BLAW 3400 | 3 |
| FIN 3010 |  |
| MGMT 3940 | 3 |
|  | 3 |

## SOPHOMORE

ENGL 2020 or 2030 or HUM 2610 (Hum/FA) 3
Humanities and/or Fine Arts (2 prefixes)
HIST 2010, 2020, or 2030
Social/Behavioral Sciences
ACTG 2110, 2120
Nonbusiness elective
QM 2610

## SENIOR

BCEN 3510
MGMT 3640, 47106
MGMT upper-division electives
ACTG 3020 or FIN 41103
MGMT 46803
BUAD 49803

NOTE: This program includes a minor in Business Administration.

## Minor in Management

A minor in Management consists of MGMT 3610 and 3620 and 9 hours of coursework in management approved by the department coordinator. Transfer students minoring in Management are required to complete a minimum of 6 hours of coursework in management at Middle Tennessee State University. A 2.00 GPA is required. It should be noted that QM 2610 is a prerequisite for MGMT 3620. Electives must be upper-division courses.

## Major in Marketing

A major in Marketing consists of 27 hours of marketing courses. All Marketing majors must have 50 percent of the required hours of marketing courses in residence at Middle Tennessee State University. Students interested in careers in sales are encouraged to choose their marketing electives from the following list: MKT 3840, 3855, 4800, 4850, 3850, 3950, 4950. Students interested in careers in retailing are encouraged to choose their marketing electives from the following list: MKT 3830, 3880, 3900, 3920, 3960, 4860, 4950. Students interested in careers in promotion are encouraged to choose their marketing electives from the following list: MKT 3840, 3850, 3855, 3865, 3900, 3920, 4170, 4950. Students interested in careers in business-to-business marketing are encouraged to choose their marketing electives from the following list: MKT 3840, 3860, 3870, 3950, 3960, 4810, and 4950.

| Recommended Program |  |  |  |
| :--- | ---: | :--- | ---: |
| Marketing-B.B.A. Degree |  | SOPHOMORE |  |
| FRESHMAN | 6 | ENGL 2020 or 2030 or |  |
| ENGL 1010, 1020 (Comm) |  |  |  |
| MATH 1630 or 1810 (Math) | 3 | HUM 2610 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | Humanities and/or |  |
| Natural Sciences (2 prefixes) | 8 | Fine Arts (2 prefixes) | 6 |
| ECON 2410 (Soc/Beh Sci) | 3 | HIST 2010, 2020, or 2030 | 6 |
| ECON 2420 | 3 | Social/Behavioral Sciences | 3 |
| Nonbusiness elective | 4 | ACTG 2110, 2120 | 6 |
|  | $\mathbf{3 0}$ | Elective | 3 |
|  |  | QM 2610 | 3 |
|  |  |  | $\mathbf{3 0}$ |
| JUNIOR |  | SENIOR |  |
| QM 3620 | 3 | ECON 3210 | 3 |
| INFS 3100 | 3 | MKT 3930, 4710, 4890 | 9 |
| MGMT 3610, 3620 | 6 | MKT upper-division |  |
| BLAW 3400 | 3 | electives | 12 |
| BCEN 3510 | 3 | BUAD 4000 | 3 |
| FIN 3010 | 3 | BUAD 4980 | 3 |
| MKT 3820, 3910 | 6 |  | $\mathbf{3 0}$ |
| MKT upper-division |  |  |  |
| elective | 3 |  |  |
|  | $\mathbf{3 0}$ |  |  |

NOTE: This program includes a minor in Business Administration.

## Minor in Marketing

A minor in Marketing consists of MKT 3820 and 12 hours of marketing electives. A 2.00 GPA is required. Transfer students minoring in Marketing must complete a minimum of 9 of the 15 hours of coursework in marketing at Middle Tennessee State University. Electives must be upper-division courses.

## Courses in Business Administration [BUAD]

See back of catalog for course descriptions.

## Courses in Management [MGMT]

See back of catalog for course descriptions.

## Courses in Marketing [MKT]

See back of catalog for course descriptions.

## Graduate Study

Requirements for the Master of Business Administration degree and a list of the courses offered for graduate credit are published in the Graduate Catalog.


## COLLEGE OF CONTINUING EDUCATION AND DISTANCE LEARNING

Mike Boyle, Dean<br>Fairview Building

$\mathrm{T}_{\mathrm{h}}$he College of Continuing Education and Distance Learning, through its four departments, strives to extend the services of the University to individuals and groups beyond the campus as well as meet the ongoing educational needs of the communities it serves.

The college manages all distance learning, off-campus, evening school, videoconferencing, and correspondence programs at the University, including the Adult Degree Completion Program (ADCP) and the Regents Online Degree Program (RODP). The college also administers the summer school program, providing support to faculty and staff. The Contracts and Public Service department works with state agencies to administer training programs throughout Tennessee and manages Faculty Public Service Grants. The Professional Development department manages hundreds of not-for-credit educational programs designed to meet specific needs of the public, corporations, state agencies, and other individuals and groups.
The overriding mission in all departments is to provide programs that meet the ongoing educational needs of adult and nontraditional students through various means that take into account time and travel constraints not typically faced by traditional students.


## Credit Area

## Distance Learning Courses

Distance learning courses, coordinated through the College of Continuing Education and Distance Learning, include videoconferencing, correspondence, and online/hybrid courses.

## Videoconferencing Courses

Videoconferencing courses send the instructor's "live" lectures at MTSU to students at remote sites. Sites include Chattanooga and Columbia State Community College. The videoconferencing classrooms are equipped with TV monitors and microphones so that students and instructors can interact. The instructor will visit the remote sites during the semester to assure that each student will have an opportunity to meet $\mathrm{him} /$ her in person. The instructor is also available during office hours at MTSU by phone, e-mail, or in person.

## Correspondence Courses

Correspondence courses involve individual, independent instruction of a student by an instructor on a one-to-one basis. Typically, this entails home study as well as the exchange of materials and evaluations. Interaction and feedback between correspondence course faculty and students take the forms of written assignments, testing, evaluations, guidance, and assistance through telephone, fax, e-mail, and other electronic communication. E-mail distance@mtsu.edu or call (615) 898-5332 for more information.

## Online/Hybrid Courses

Online/hybrid courses are accessed over the Internet through MTSU's course management system. Only students with strong experience on the Internet should register for an online/hybrid course. Students are required to have access to a computer and the Internet. A photo ID must be presented at all exams. All other assignments and quizzes will be available through the Internet. Students in hybrid classes may have up to 9 hours of required campus meetings, which may include midterm and/or final exams. Additional information may be obtained by visiting www.mtsu.edu/online.


MTSU offers several online graduate and undergraduate degree programs.

## Undergraduate

B.S. of Science Completion Program for Registered Nurses (RN to BSN) B.S. in Psychology

## Graduate

Master of Education

- in Administration and Supervision, concentration in Library Science (some on-campus meetings required)
- in Curriculum and Instruction, concentration in ESL

Education Specialist in Curriculum and Instruction (Ed.S.)

- specialization in ESL
- specialization in Technology and Curriculum Design
- specialization in Culture, Cognition, and the Learning Process

Master of Business Education
More information is available by calling (615) 898-5611.

## Evening School

The College of Continuing Education and Distance Learning serves students attending MTSU at night by assisting with registration, accepting payment of fees/fines for the Business Office, providing catalogs, making IDs, issuing parking permits, and offering other services to students outside regular daytime business hours. More information is available by contacting the Evening School Office, (615) 898-5611, or at www.mtsu. edu/learn/eveningschool.

## Off-campus Program

Credit courses are regularly scheduled at several off-campus locations in middle Tennessee, including Smyrna, Motlow, and Columbia State Community Colleges. Efforts are made to service any special requests for off-campus credit courses by business and industry, school systems, and agencies. For more information, contact (615) 898-2121 or visit www.mtsu. edu/learn/offcampus.

## Summer School

The College of Continuing Education and Distance Learning directs the summer school, which includes a substantial number of credit courses. For more information, visit www.mtsu.edu/learn/summerschool.

## Regents Online Degree Program (RODP)

Middle Tennessee State University and each of the colleges and universities in the Tennessee Board of Regents (TBR) system are working cooperatively to allow students to earn college degrees entirely online. The joint program is called the Regents Online Degree Program (RODP).
The online program currently includes a Bachelor of Science degree with a major in Liberal Studies or a Bachelor of Science degree with a major in Professional Studies and concentrations in Information Technology and Organizational Leadership. Students must earn a minimum of 120 hours; meet MTSU upper-division, residency, and senior hour requirements; meet MTSU General Education requirements; meet MTSU GPA re-
quirements; and complete the courses outlined in the degree program. Other programs available online include alternative licensure, add-on endorsements in Special Education and English as a Second Language, and occupational licensure.
Admissions, instruction, advising, library services, and other forms of student assistance are available online. The Regents online courses have been designed to be taught totally online in an interactive, asynchronous format. For advisement, please call (615) 898-5611.
Designed especially for adults who already have some college experience, the online degree program is also appropriate for students who have earned or are working on associate's degrees. For more information regarding degree requirements, please refer to the Regents Web site at www.tn.regentsdegrees .org or call (615) 898-5611.

## Adult Degree Completion Program

Some students may earn up to 30 elective credits toward the RODP and B.Unv.S. degree programs through a portfolio evaluation of prior learning. Please call (615) 898-5651 for more details.


# Professional Development 

The mission of the Professional Development department is to provide specialized continuing education programs to those interested in developing their professional expertise. This department does this through a variety of offerings and additional services to the University and the community.

## Online/On-Demand

Professional Development provides hundreds of online or on-demand courses covering a wide range of topics and issues. Courses covering topics as diverse as test preparation, software mastery, professional development, and personal enrichment are available. The list of courses is extensive and grows continuously. The list of online/on-demand courses can be found in the online Professional Development catalog at www.mtsu.edu/learn.

## Emergency Medical Technician (EMT)

This office manages a state-certified program designed to meet the educational requirements of individuals who seek to become licensed Emergency Medical Technicians (EMT).


The 213-hour course provides training for emergency care and stabilization to the critically ill and injured. Emphasis is placed on care at the scene and during transportation to a medical facility, IV maintenance, EOA, and epinephrine modules. In-depth study is done on patient assessment and shock physiology with fluid, intravenous therapy, and D50W administration as the focus. Actual experiences are provided and clinical and lab times are required in addition to class time. Information regarding this program may be found online at www.mtsu.edu/learn.

## Society for Human Resource Management (SHRM)

The Professional Development office provides in-class training for those who wish to pursue the professional designations offered by the Society for Human Resource Management. SHRM serves the needs of the human resource management professional by providing the most essential and comprehensive set of resources available. The society is committed to advancing the human resource profession and the capabilities of all human resource professionals to ensure that HR is an essential and effective partner in developing and executing organizational strategy. Information regarding this program may be found online at www.mtsu.edu/learn.

## Regents Online Continuing Education (ROCE)

Professional Development also manages the Regents Online Continuing Education program, which consists of professional development and workforce training programs offered through a consortium of Tennessee Board of Regents colleges, universities, and technology centers.
ROCE offers an extensive, nontraditional continuing education program for adults 18 or older regardless of educational background. Continuing education courses are designed to meet the demanding schedules of the workforce and provide training for industry-related certified programs.
Through short-term training, ROCE offers courses designed to upgrade skills and improve organizations, industries, and economic performance and to provide personal enrichment courses for persons who wish to obtain knowledge and learn new skills. All training is available online. ROCE program costs vary by course; fees are nonrefundable once the program starts.

## Continuing Education Units

Professional Development also certifies, monitors, and tracks the issuance of continuing education units, continuing professional education units, and continuing legal education units for the University and various professional groups and organizations.

## More Information

More information can be obtained by contacting the College of Continuing Education and Distance Learning, (615) 8982177. Additional information may be obtained by visiting www.mtsu.edu/learn.

# COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCE 

Harold D. Whiteside, Interim Dean<br>McWherter Learning Resources Center 100

Rick Short, Associate Dean for Program Planning, Accreditation, and Assessment Research
McWherter Learning Resources Center 102B
Phillip Waldrop, Associate Dean for Teacher Education
McWherter Learning Resources Center 102
Sandie Norton, Academic Advisor
Jones Hall 117
June Adams, Academic Advisor
Jones Hall 111
Angel Feagans, Graduation Coordinator
Cope Administration Building 102

Criminal Justice Administration • Educational Leadership •<br>Elementary and Special Education - Health and Human Performance •<br>Human Sciences • Psychology

Thhe specific objectives of the College of Education and Behavioral Science are to coordinate the teacher education programs of the University and prepare teachers who are reflective decision-makers; to provide professional courses in the preparation of teachers and school personnel; to provide programs and services for teachers and personnel already in service; and to provide appropriate experiences in the arts and behavioral sciences which contribute to a liberal education or for careers in these fields.

All academic units within the College of Education and Behavioral Science offer a variety of programs that seek to prepare graduates to be competitive in the respective discipline-related professions. Specific departmental objectives, requirements for majors and minors, and descriptions of courses follow each departmental listing.

## Laboratory Schools

The Homer Pittard Campus School is a laboratory unit of the Department of Elementary and Special Education. As a public school, comprising grades K through 6, the program operates under the supervision of the College of Education and Behavioral Science and the Rutherford County School System. The campus school serves the professional education programs in teacher education as a laboratory by providing varied opportunities for University students to study children, to study the school program, to participate in teaching activities, and to learn teaching theory.
Project Help, an educational program for preschool children who are disabled, is another laboratory in the College of Education and Behavioral Science. In addition to special education, it provides the setting for observation/participation experiences in several academic departments.

The Nursery School and Parent-Child Learning Center are located in the Department of Human Sciences and serve as teaching laboratories for child development and early childhood and elementary education.

## Accreditation

Teacher preparation programs for undergraduate and graduate programs through the Specialist in Education degree for the preparation of teachers and related school personnel are accredited by the National Council for Accreditation of Teacher Education. The College of Education and Behavioral Science holds membership in the Tennessee Association of Colleges for Teacher Education and the American Association of Colleges for Teacher Education.

## Admission to Teacher Education

Students who wish to prepare themselves for careers as teachers must make formal application for admission to the teacher education program. Applications must be filed no later than the second semester of the sophomore year. Students who transfer to Middle Tennessee State University after the completion of their sophomore years, or with more than 45 semester hours of credit, must make application during their first semester of residence at MTSU. Admission to teacher education is a prerequisite to enrollment in upper-division courses in Elementary Education (ELED), Reading (READ), Special Education (SPED) (except SPED 3010), Foundations of Education (FOED), or Youth Education (YOED).

To be formally admitted to the teacher education program, one must

1. complete the admission application;
2. have acceptable scores on the Pre-Professional Skills Test of Reading, Mathematics, and Writing as set by the Tennessee State Board of Education;
3. complete at least 45 semester hours with at least 6 semester hours at MTSU
4. complete FOED 1110 and FOED 2110 (or approved substitutes);
5. have an overall grade point average of 2.50 ( 2.75 as of January 1 , 2010); grades earned in basic and academic enrichment courses are not used in computation of the required average;
6. have three favorable professional interviews;
7. have disciplinary clearance from the Office of Teacher Education; 8. complete a background/fingerprinting check.

Application forms for Admission to Teacher Education may be secured from the Office of Professional Laboratory Experiences, McWherter Learning Resources Center 170. Information regarding tests is also available from the Office of Professional Laboratory Experiences.

## Postbaccalaureate Teacher Education Program

The postbaccalaureate teacher education program is designed for individuals who have completed baccalaureate degrees but who did not complete teacher preparation. The College of Education and Behavioral Science requires candidates to address any course and program deficiencies in their undergraduate education to ensure the attainment of the knowledge and skills required in general education, professional education, and the major for the teaching field. Additional coursework and program requirements will be determined by the teacher licensure analyst. Transcript analysis forms for the postbaccalaureate program are available in McWherter Learning Resources Center 175 and at www.mtsu.edu/~teachlic.

Postbaccalaureate students must also make formal application for admission to the teacher education program. Admission to teacher education is a prerequisite to enrollment in upper-division courses in Elementary Education (ELED), Reading (READ), Special Education (SPED) (except SPED 3010), Foundations of Education (FOED), or Youth Education (YOED).

## Directed Teaching

Directed teaching is the culminating professional experience in the pre-service education of teachers. Admission to directed teaching and the professional semester is based upon successful completion of the following requirements and formal application by the student. Applications must be filed at the beginning of the semester preceding the semester in which directed teaching is to be done. Students should confirm specific deadline dates for student teaching applications with the Office of Professional Laboratory Experiences. Directed teaching must be taken in the student's major endorsement.

To enroll in directed teaching and the professional semester one must

1. complete the admission application;
2. have completed formal admission to teacher education at the time that the application is filed;
3. have a grade point average of 2.50 overall ( 2.75 as of January 1 , 2010) and a 2.50 grade point average in the teaching major (grades earned in academic enrichment courses are not used in computation of the required average; computation of the grade point average in the teaching major will include all coursework taken in the departments contributing to the teaching major; this includes all coursework, if any, taken beyond the required and elective courses in the teaching major);
4. complete all education courses and appropriate methods course(s) with a grade of C - or better;
5. be classified as a senior, graduate student, or post-baccalaureate student;
6 . be favorably evaluated in the required field and laboratory experiences (course grades alone may not be used to meet this requirement);
6. submit a negative tuberculin test.

Directed teaching is a full-time, entire semester activity that takes place in either Fall or Spring semester of the senior year. It is the culminating experience of the professional education program, in which student teachers undertake two consecutive placements in local public schools.

## Licensure of Teachers

Completion of an approved program and recommendation by the University are required for a Tennessee Apprentice Teacher's License. Forms for making application for the initial Tennessee Teacher's License are available in the Teacher Licensing Office, McWherter Learning Resources Center 175 and at www.mtsu.edu/~teachlic.

All applicants for a teacher's license shall furnish the teacher licensing analyst a report of scores attained on the Praxis II Exam (Principles of Learning and Teaching) and certain designated Specialty Tests so that they may be submitted to the State Department of Education at the time of recommendation. When students make application to take the Praxis II Exams, they should indicate on the application form that their test scores be sent to

Teacher Licensure Analyst
College of Education and Behavioral Science
Middle Tennessee State University
Murfreesboro, Tennessee 37132
Information regarding minimum scores and applicable Praxis II NTE Specialty Area Tests is available in the office of the licensure analyst, McWherter Learning Resources Center 175.

To be recommended for a license, students who have majors in Interdisciplinary Studies, Early Childhood Education, or Special Education must have at least a 2.50 grade point average.
To be recommended for a license, students who have prepared to teach in grades $5-12,7-12$, or $\mathrm{K}-12$ must have an overall grade point average of 2.50 in the teaching major. Included in the computation are grades assigned in all courses attempted in departments contributing to the teaching major. This includes all coursework, if any, taken beyond the required elective courses in the teaching major. Grades earned in basic or developmental courses are not used in computing the average required.

## Early Childhood Education: Pre-Kindergarten through Grade 3

Requirements for the major in Early Childhood Education must be completed. Consult the Department of Human Sciences for requirements.

## Elementary Endorsement, Grades K-6 and 4-8

Requirements for the major in Interdisciplinary Studies must be completed. Consult the Department of Elementary and Special Education for requirements.

## Special Education, Grades K-12

Requirements for the major in Special Education must be completed. Consult the Department of Elementary and Special Education for requirements.


## Licensure: Secondary

Students seeking a license to teach in secondary schools must complete (1) a major in the subject they intend to teach, (2) a minor in Secondary Education, and (3) additional teacher licensure requirements.

Following is a list of the teacher education programs leading to initial licensure:

MTSU Major or Concentration
Agribusiness
Animal Science
Art Education
Business Education

## Biology

Chemistry
English
Family and Consumer Sciences

French
Geography
Geology
Geoscience
German
Health Education
History
Mathematics
Music (Instrumental)
(School Music Education)
Physical Education
Physics
Plant and Soil Science
Political Science
Science

Social Work
Spanish
Theatre

State Endorsement Area
Voc. Agriculture/Agriscience 7-12
Voc. Agriculture/Agriscience 7-12
Visual Arts K-12
Business/Business Technology 7-12
Marketing
Biology 7-12
Chemistry 7-12
English 7-12
Family and Consumer
Sciences 5-12

French 7-12
Geography 7-12
Earth Science 7-12
Earth Science 7-12
German 7-12
Health K-12
History 7-12
Mathematics 7-12
Instrumental Music K-12
Vocal/General Music K-12
Physical Education K-12
Physics 7-12
Voc. Agriculture/Agriscience 7-12
Government 7-12
Biology/Chemistry 7-12
Chemistry/Physics 7-12
Physics/Biology 7-12
School Social Work Pre-K-12
Spanish 7-12
Theatre K-12

## Dept./School to Consult for Information

Agribusiness and Agriscience
Agribusiness and Agriscience
Art
Business Communication and Entrepreneurship

Biology
Chemistry
English
Human Sciences

Foreign Languages and Literatures
Geosciences
Geosciences
Geosciences
Foreign Languages and Literatures
Health and Human Performance
History
Mathematical Sciences
Music
Music
Health and Human Performance
Physics and Astronomy
Agribusiness and Agriscience
Political Science
Biology
Chemistry
Physics and Astronomy
Social Work
Foreign Languages and Literatures
Speech and Theatre

# Department of Criminal Justice Administration 

Deborah Wilkins Newman, Chair Vaughn House 6

Powell, Rogers, Selva, Shulman

Courses in the Department of Criminal Justice Administration provide students with a well-rounded curriculum designed to meet the academic needs of those seeking careers in law enforcement, courts, and corrections as well as those already employed in the criminal justice system and related agencies.
A major in Criminal Justice Administration offers a foundation in liberal arts, a deep and broad knowledge of criminal justice, and an educational background uniquely tailored for each student pursuing a career in the criminal justice system. The student seeking a major in Criminal Justice Administration may choose either a Bachelor of Science degree in Criminal Justice, Criminal Justice with a concentration in Law Enforcement, or Criminal Justice with a concentration in Homeland Security. The concentration in Law Enforcement is designed for those with career goals or an interest in law enforcement at the local, state, and federal levels. The concentration in Homeland Security is designed for those seeking homeland security-related careers. The department also offers a minor in Homeland Security.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Criminal Justice Administration

Requirements for the major in Criminal Justice Administration include

1. 48 semester hours of criminal justice courses including the required core courses CJA 1100, 2200, 2400, 2600, 3200, 3400;
2. No concentration - 30 hours of CJA courses (as advised)
OR
Law Enforcement Concentration - 15 hours from the following: CJA 2900, 3230, 3250, 4220, 4260, 4330, 4340, 4530 and 15 hours from CJA courses (as advised) OR

Homeland Security Concentration - 15 hours from the following: CJA 3750, 4850, 4870; 6 hours from CJA 3250, 3900, 4330, 4860; and 15 hours of CJA guided electives;
3. 13 hours of general electives (as advised);
4. a minor of 18 hours (if minor requires more or less hours, adjustment will be made within general electives).
In order to graduate, all Criminal Justice majors must earn a grade of at least a C (2.00) in all core CJA courses: CJA 1100, 2200, 2400, 2600, 3200, and 3400.
Following is a suggested pattern of study; however, consultation with the assigned advisor is necessary before each registration.

## Recommended Curriculum

 FRESHMANENGL 1010, 1020 (Comm) 6 Humanities and/or Fine Arts Natural Sciences (2 prefixes)**
CJA 1100, 2200
CJA 2400, 2600
Minor

| 6 | COMM 2200 (Comm) | 3 |
| ---: | :--- | ---: |
| 3 | CJA 3200, 3400 | 6 |
| 8 | HIST 2010, 2020, or 2030 | 6 |
| 6 | Social/Behavioral Sciences |  |
| 6 | (2 prefixes) | 6 |
| 3 | CJA courses* | 6 |
| $\mathbf{3 2}$ | Minor | 3 |



| JUNIOR |  |
| :--- | ---: |
| ENGL 2020 or 2030 or |  |
| HUM 2610 (Hum/FA) | 3 |
| Mathematics | 3 |
| Humanities and/or Fine Arts | 3 |
| CJA courses | 15 |
| Minor | 6 |
|  | $\mathbf{3 0}$ |

## SENIOR

CJA courses 9
Minor 6
General electives 13

Minor 6 30
*CJA major with Law Enforcement or Homeland Security concentration must fulfill the 15-hour requirement
**PSCI 1030/1031 for CJA majors recommended

## Minor in Criminal Justice Administration

A minor in Criminal Justice Administration requires 18 semester hours including CJA 1100, 2200, and 2400 or 2600 plus 9 hours of criminal justice upper-division electives. CJA 4300 may not be used for the 9 hours of electives, but may be taken by minors.

## Minor in Homeland Security

The minor in Homeland Security provides the complementary knowledge and educational foundation for students seeking careers in their uniquely chosen majors with homeland security concerns. Topics include the operation of the criminal justice system, the methods and effects of terrorism, the means of providing security against terrorist acts in public and private businesses and industries, and the legal treatment of terrorist acts including detection, investigation, prosecution, and constitutional issues. Only non-Criminal Justice Administration majors may minor in Homeland Security. The minor requires 18 hours of CJA courses including 12 hours of required courses and 6 hours of guided electives.

## Required Courses ( 9 hours):

CJA 1100 Introduction to Criminal Justice Administration
CJA 3750 Terrorism and Criminal Justice
CJA 4850 Private and Industrial Security
One of the following (3 hours):
CJA 4860 Security Administration
CJA 4870 Security Law
Guided Electives (6 hours);
CJA 3250 Criminal Law
CJA 3400 Constitutional Issues and Criminal Justice
CJA 3900 Organized and White Collar Crime
CJA 4330 Criminal Investigation

## Courses in

## Criminal Justice Administration [CJA]

See back of catalog for course descriptions.

## Graduate Study

Requirements for the Master of Criminal Justice degree offered in conjunction with TSU and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Educational Leadership 

James Huffman, Chair Jones Hall 325

Boudreau, Brown, Butler, Clark, Craig, Eaker, Gilbert, Goodin, Hausler, Moseley, Peyton, Sanders, Snead, True, Watts, Weeks, Williams, Womack, Young

Courses in the Department of Educational Leadership are designed to meet the professional needs of students planning to teach. Persons preparing to teach in the secondary school must earn a major in an endorsable teaching field, complete appropriate General Education requirements, and minor in Secondary Education. The Secondary Education minor is offered through this department. A non-teaching minor in Education is also offered.

## Minor in Secondary Education

Students seeking a minor in Secondary Education must complete the following courses:
FOED 1110 Education as a Profession, 3 hours
FOED 2110 Educational Psychology, 3 hours*
SPED 3010 Survey of the Exceptional Child, 3 hours*
SPSE 3220 Technology in Teaching, 3 hours
YOED 3500 Instructional Design for Critical Thinking, 3 hours* READ 4460 Teaching Reading in the Content Areas, 3 hours** YOED 4000 Managing the Classroom for Instruction, 3 hours* (YOED 4000 and 4110/5110 must be taken concurrently.) YOED 4110 Directed Teaching, Grades 7-12, 9-12 hours
*Field experience required
**Not required for selected majors; READ 3340, Teaching Reading in the Secondary School (3 semester hours), is required of English majors in lieu of READ 4460.

## Minor in Education (Nonteaching)

The program for the nonteaching minor in Education is planned to provide a knowledge base for a public better informed on educational matters and for those students who wish to pursue study in professional education but are not interested in obtaining credentials for school teaching. The minor requires 18 semester hours including FOED 1110 and 2110 and 12 elective hours selected with the approval of the department chair or advisor for the nonteaching minor.

Courses in Foundations of Education [FOED]
See back of catalog for course descriptions.

## Courses in Youth Education [YOED]

See back of catalog for course descriptions.

## Courses in School Personnel Services Education [SPSE]

See back of catalog for course descriptions.

## Courses in Library Science [LIBS]

See back of catalog for course descriptions.

## Graduate Study

Requirements for the Master's and Specialist in Education degrees and a list of the courses offered for graduate credit are published in the Graduate Catalog.


# Department of Elementary and Special Education 

Connie Jones, Chair<br>Jones Hall 223

Alexander, Bass, Boulware, Burriss, Calder, Campbell, Craig-Unkefer, Gower, Khan, Means, Orellana, Rice, Ring, Ross, Rushlow, Solley, Tharp, Winters

Courses in the Department of Elementary and Special Education are designed to meet the professional needs of students preparing to teach at the elementary or middle school levels and to improve the teaching competencies of those presently employed as teachers. Programs in the department lead to the Bachelor of Science with majors in Interdisciplinary Studies or Special Education. Students majoring in Interdisciplinary Studies must select a teaching level of grades K-6 or 4-8. Special Education majors may choose between Modified Program, K-12 (for individuals with mild/moderate disabilities) or Comprehensive Program, K-12 (for individuals with severe/profound disabilities). A minor in Special Education is also available. Students interested in Early Childhood Education (Pre-K-4) should see that section under Department of Human Sciences. Students who wish to major in Interdisciplinary Studies but not pursue licensure are required to check with the Department of Elementary and Special Education in Jones Hall 223 to develop an appropriate course of study. Students should consult with their assigned advisors before each registration.

## Major in Interdisciplinary Studies

The major in Interdisciplinary Studies is designed to prepare teachers for elementary schools. It requires the following General Education, major, professional education, and enhanced student teaching courses:

General Education Requirements (41 hours)
MATH 1010 OR 1710 (Math), 3 hours
ENGL 1010, 1020 (Comm), 6 hours
COMM 2200 (Comm), 3 hours
HIST 2010 OR 2020 (History), 3 hours HIST 2030 (History), 3 hours
ENGL 2020 or 2030 (Hum/FA), 3 hours
ART 1030 OR MUS 1030 (Hum/FA), 3 hours
HIST 1110 OR 1120 (Hum/FA), 3 hours
GEOG 2000 (Soc/Beh Sci), 3 hours
HLTH 1530/1531 (Soc/Beh Sci), 3 hours
BIOL 1030/1031 (Nat Sci), 4 hours
PSCI 1030/1031 (Nat Sci), 4 hours

## Interdisciplinary Studies Major Requirements

Grades 4-8 Level Required Courses (27-34 hours)
READ 4130 Corrective Reading, 3 hours
ANTH 2010 Cultural Anthropology, 3 hours OR
COMM 3560 Intercultural Communication, 3 hours
HLTH 4300 The School Health Program, 3 hours
MATH 1410 Concepts and Structure of Elementary School
Mathematics, 3 hours
MATH 1420 Informal Geometry, 3 hours
READ 4035 Language and Literacy in the Middle Grades, 6 hours
PHED Activity, 1 hour
BIOL 3000 - Life Science for Elementary Teachers, 4 hours OR
PSCI 4030 - Experimental Physical Science, 4 hours

## 1-4 hour elective

NOTE: If the highly qualified area is Social Studies, add a 4-hour elective. If the highly qualified area is Science, BIOL 3000 and PSCI 4030 are both taken plus a 4-hour elective.

## Plus 15 hours from English/Language Arts

ENGL 2020 Themes in Literature and Culture, 3 hours
ENGL 2030 The Experience of Literature, 3 hours
ENGL 3340 African American Literature, 3 hours
ENGL 3360 Multicultural Literature of the United States, 3 hours
ENGL 3605 Applied Writing, 3 hours
ENGL 3755 Children's Literature: Folk/Fairy Tales, Legends, Myths, Ancient Stories, 3 hours
ENGL 3760 Introduction to Folklore, 3 hours
ENGL 4510 Modern English Grammar and Usage, 3 hours
ENGL 4750 Special Topics in Children's Literature, 3 hours
Plus 15 hours from Mathematics
MATH 1530 Applied Statistics, 3 hours
MATH 3320 Teaching Mathematics in Grades 5-8, 3 hours
MATH 4010 Selected Topics in Elementary Mathematics, 3 hours
MATH 3300 Discrete Mathematics for Middle Grade Teachers, 3 hours
MATH 3310 Functions: Connecting Algebra and Geometry for Middle
Grade Teachers, 3 hours

## Plus 8 hours from Science

ASTR 1030 Exploring the Universe, 3 hours
ASTR 1031 Observing the Universe, 1 hour
BIOL 4331 Biome Analysis, 1-4 hours
CHEM 1030/1031 Chemistry for Consumers/Lab, 4 hours
GEOL 1030/1031 Introduction to Earth Science/Lab, 4 hours
Plus 12 hours from Social Studies
ANTH 2010 Cultural Anthropology, 3 hours
HIST 1010 Survey Western Civilization I, 3 hours
HIST 1020 Survey Western Civilization II, 3 hours
HIST 1110 Survey World Civilization I, 3 hours, OR
HIST 1120 Survey World Civilization II, 3 hours
(both will not apply to 12 hours)
HIST 2010 Survey of United States History I, 3 hours, OR
HIST 2020 Survey of United States History II, 3 hours
(both will not apply to 12 hours)
HIST 2040 Survey African American History I, 3 hours
HIST 2050 Survey African American History II, 3 hours
PS 1010 Foundations of Government, 3 hours, OR
PS 2010 American Government and Politics, 3 hours
(both will not apply to 12 hours)
SOC 1010 Introductory Sociology, 3 hours
SOC 2010 Social Problems, 3 hours

## Professional Education

Grades K-6 Level ( 25 hours)
FOED 1110 Education as a Profession, 3 hours
FOED 2110 Educational Psychology, 3 hours
SPED 3010 Survey of the Exceptional Child, 3 hours
ELED 3050 Creating Learning Environments K-6, 3 hours
ELED 3150 Mathematics Methodology, 3 hours
ELED 3300 Instructional Design and Technology in the Elementary School, 3 hours
ELED 4350 Theory to Practice, 3 hours
ELED 4050 Classroom Assessment, 2 hours
ELED 4060 Methods of Teaching Social Studies, 2 hours
Grades 4-8 level ( 25 hours)
FOED 1110 Education as a Profession, 3 hours
FOED 2110 Educational Psychology, 3 hours
SPED 3010 Survey of the Exceptional Child, 3 hours
ELED 3070 Creating Learning Environments 5-8, 3 hours
ELED 3150 Mathematics Methodology, 3 hours
ELED 3300 Instructional Design and Technology in the Elementary School, 3 hours
ELED 4050 Classroom Assessment, 2 hours
ELED 4060 Methods of Teaching Social Studies, 2 hours
ELED 4400 Middle School Instruction, 3 hours

## Enhanced Student Teaching

ELED 4110 Directed Teaching, Grades K-8, 12 hours

## Major in Special Education

The major in Special Education requires 120 semester hours including courses which satisfy the General Education requirements. It is designed to prepare teachers in special education and will meet the Tennessee requirements for licensure in Special Education in either Modified Program, K-12 (for individuals with mild/moderate disabilities), or Comprehensive Program, K-12 (for individuals with severe/profound disabilities). Following are the program requirements.

## General Education Requirements

ENGL 1010, 1020 (Comm), 6 hours
COMM 2200 (Comm), 3 hours
HIST 2010, 2020, 2030 (History), 6 hours
ENGL 2020 or 2030 (Hum/FA), 3 hours
MUS 1030, ART 1030, PHIL 1030, HIST 1010 or 1020,
THEA 1030, ANTH 2210 (Hum/FA), 6 hours
MATH 1010 or 1710 (Math), 3 hours
BIOL 1030/1031 (Nat Sci), 4 hours
PSCI 1030/1031 or GEOL 1030/1031, 4 hours
GEOG 2000 plus PSY 1410, ECON 2410, ANTH 2010,
SOC 1010, or HLTH 1530/1531 (Soc/Beh Sci), 6 hours

## Special Education Major Requirements

Modified Program, K-12 (33 hours)
CDIS 3250 Speech and Language Development, 3 hours
SPED 3210 Practicum in Special Education (Modified), 3 hours*
SPED 3430 High Incidence Populations (Modified), 3 hours*
SPED 4000 Teaching Reading to Diverse Learners, 3 hours*
SPED 4150 Techniques, Methods, and Materials in Special
Education (Modified), 3 hours*
SPED 4160 Educational Assessment of Exceptional Children, 3 hours*
SPED 4170 Strategic Teaching and Learning in Secondary Special Education (Modified), 3 hours*
SPED 4240 Methods and Techniques of Behavior Management, 3 hours*
SPED 4250 Education in the Affective Domain, 3 hours*
SPED 4280 Assistive Technology in Special Education, 3 hours*
SPED 4380 Collaboration/Consultation, 3 hours*

## Comprehensive Program, K-12 (33 hours)

CDIS 3250 Speech and Language Development, 3 hours
SPED 3220 Practicum in Special Education (Comprehensive), 3 hours*
SPED 3440 Low Incidence Populations (Comprehensive), 3 hours*
SPED 4140 Techniques and Strategies for Instruction in Special Education (Comprehensive), 3 hours*
SPED 4240 Methods and Techniques of Behavior Management, 3 hours
SPED 4280 Assistive Technology in Special Education, 3 hours
SPED 4000 Teaching Reading to Diverse Learners, 3 hours
SPED 4120 Curriculum, Methods, and Materials for Special
Education (Comprehensive), 3 hours*
PHED 4910 Applied Kinesiology and Biomechanics, 3 hours
SPED 4380 Collaboration/Consultation, 3 hours*
SPED 4160 Educational Assessment for Exceptional Learners, 3 hours*

## Professional Education

## Modified Program, K-12

FOED 1110 Education as a Profession, 3 hours
FOED 2110 Educational Psychology, 3 hours
SPED 3010 Characteristics and Teaching of Diverse Learners, 3 hours
ELED 3150 Mathematics Methodology, 3 hours
ELED 3300 Instructional Design and Technology in the Elementary School, 3 hours
READ 4015 Language and Literacy, K-6, 6 hours

## Comprehensive Program, K- 6

FOED 1110 Education as a Profession, 3 hours
FOED 2110 Educational Psychology, 3 hours
SPED 3010 Survey of the Exceptional Child, 3 hours
ELED 3150 Mathematics Methodology, 3 hours
ELED 3300 Instructional Design and Technology in the Elementary School, 3 hours
READ 4015 Language and Literacy, K-6, 6 hours

## Special Education Guided Electives

Modified K-12 and comprehensive K-12
MATH 1410 Concepts and Structure of Elementary School Mathematics, 3 hours
MATH 1420 Informal Geometry, 3 hours
BIOL 3000 Life Science for Elementary Teachers, 4 hours
HLTH 3300 First Aid and Safety Education, 3 hours

## Enhanced Student Teaching

Modified Program, K-12
SPED 4350 Directed Teaching in Special Education (Modified), 12 hours
Comprehensive Program, K-12
SPED 4320 Directed Teaching in Special Education (Comprehensive), 12 hours
Recommended Curriculum - Modified $\dagger$

## FRESHMAN

BIOL 1030/1031 (Nat Sci)
COMM 2200 (Comm)
ENGL 1010, 1020 (Comm)
FOED 1110
MATH 1010 or 1710 (Math)
Humanities and/or Fine Arts
HLTH 3300
MATH 1410
PSCI 1030/1031 or
GEOL 1030/1031 (Nat Sci)

## JUNIOR

ELED 3150*
SPED 3210*
SPED 4170*
SPED 3430*
SPED 4280*
READ 4015*
SPED 4380*
SPED $4160^{*}$
SPED 4000*

## SOPHOMORE

ENGL 2020 or 2030 (Hum/FA) 3
FOED 21103
Humanities and/or Fine Arts 3
HIST 2010, 2020, or 20306
MATH 14203
BIOL 3000
ELED 3300
GEOG 2000 (Soc/Beh Sci) 3
SPED 3010

## SENIOR

SPED 4150*
*SPED 3010 and admission to teacher education are required before entering these courses.
$\dagger$ Due to the number of changes in this program, it is highly recommended that students work with a special education advisor. An advisor will assist each student to assure that he/she meets both licensure and graduation requirements. Some classes are offered only once a year. It is important to see an advisor to make sure of class offerings for each semester.


| Recommended Curriculum - Comprehensive $\dagger$ |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| BIOL 1030/1031 (Nat Sci) | 4 | ENGL 2030 (Hum/FA) | 3 |
| COMM 2200 (Comm) | 3 | FOED 2110 | 3 |
| ENGL 1010, 1020 (Comm) | 6 | Humanities and/or Fine Arts | 3 |
| FOED 1110 | 3 | HIST 2010 or 2020, 2030 | 6 |
| MATH 1010 | 3 | MATH 1420 | 3 |
| Humanities and/or Fine Arts | 3 | BIOL 3000 | 4 |
| HLTH 3300 | 3 | ELED 3300 | 3 |
| MATH 1410 | 3 | Social/Behavioral Sciences | 3 |
| PSCI 1030/1031 orGEOL 1030/1031 (Nat Sci) |  | SPED 3010 | 3 |
|  | 4 |  | 31 |
|  | 32 |  |  |
| JUNIOR |  | SENIOR |  |
| ELED 3150* | 3 | SPED 4120* | 3 |
| SPED 3220* | 3 | SPED 4240* | 3 |
| SPED 4140* | 3 | SPED 4160* | 3 |
| SPED 3440* | 3 | CDIS 3250 | 3 |
| SPED 4280* | 3 | SPED 4320 | 12 |
| READ 4015* | 6 | Social/Behavioral Sciences | 3 |
| SPED 4380* | 3 |  | 27 |
| PHED 4910* | 3 |  |  |
| SPED 4000* | 3 |  |  |
|  | 30 |  |  |

*SPED 3010 and admission to teacher education are required before entering these courses.
tDue to the number of changes in this program, it is highly recommended that students work with a special education advisor. An advisor will assist each student to assure that he/she meets both licensure and graduation requirements. Some classes are offered only once a year. It is important to see an advisor to make sure of class offerings for each semester.

## Minor in Special Education

The minor in Special Education requires 18 semester hours as recommended by an advisor in special education as assigned by the chair, Department of Elementary and Special Education.

Courses in Elementary Education [ELED]
See back of catalog for course descriptions.

## Courses in Reading [READ]

See back of catalog for course descriptions.

## Courses in Special Education [SPED]

See back of catalog for course descriptions.

## Graduate Study

The department offers at the graduate level the Master of Education degree with majors in Curriculum and Instruction (concentrations in Early Childhood Education, Elementary School Education, and Middle School Education), Reading, and Special Education (concentrations in Mildly/Moderately Disabled, Preschool Disabled, Severely/Profoundly Disabled, and Vision Disabilities). Graduate minors are available in Curriculum and Instruction, Reading, and Special Education. The Specialist in Education degree is offered with a major in Curriculum and Instruction and with a concentration in Elementary Education. Details may be found in the Graduate Catalog.

# Department of Health and Human Performance 

Dianne Bartley, Chair<br>Murphy Athletic Center 111

Anshel, Armstrong, Belcher, Binkley, Caputo, Cavin, Colclough, Corlew, Craze, Davis, Edwards, Ellis, Eveland-Sayers, Farley, Gray, Hendrichovsky, Higginbotham, Insell, Jubenville, Kang, Kerr, Matlock, Matusek, McGuire, McLaury, McNamara, Morgan, Neal, Ness, Ojeda, Owusu, Peck, Perry, Peterson, Phillips, Ramos, Rhoden, Shea, Shelar, Spray, Stewart, Stockstill, Umscheid, Veal, Weatherby, Whitehill, Winborn, Zengaro

The Department of Health and Human Performance offers students the opportunity to prepare for professional careers as teachers of health and of physical education; as fitness professionals in corporate and social agencies; as recreation and leisure service professionals in a wide range of settings; as health professionals in schools, industry, and allied areas; and as athletic trainers.
Programs in the department lead to the Bachelor of Science degree with majors in Health Education, Athletic Training, Recreation and Leisure Services, and Physical Education which also includes a concentration in Wellness and Exercise Science. Persons majoring in Health Education may select from concentrations in Health Science and Technology, Health Education and Lifetime Wellness, and Community and Public Health. Persons majoring in Recreation and Leisure Services may choose from three concentrations-Outdoor Recreation, Recreation Administration, and Recreational Therapy.
Those interested in a minor in the field can select courses accordingly. Minors in Athletic Coaching, Driver and Traffic Safety Education, Health, Health and Physical Education, Health and Human Performance, and Recreation are available.

[^4]
## Major in Physical Education

Teacher Licensure K-12—The major in Physical Education offers preparation for teaching positions in public and private elementary and secondary schools in Tennessee. The major requires PHED 3430, 3720, 3760, 3800, 3900, 3930, 4400, 4470, 4710, 4780, 4800/4801, 4900/4901, 4910, 4930, 4940, and 4990 and HLTH 4280. HLTH 1530/1531 is recommended. Students must complete a Secondary Education minor that incudes student teaching. The following curriculum is the recommended sequence of courses. Consultation with an advisor is required each semester.

## Recommended Curriculum

## FRESHMAN

## ENGL 1010, 1020 (Comm)

Natural Sciences
HLTH 1530 (Soc/Beh Sci)
PHED 3930
FOED 1110
Humanities and/or Fine Arts HIST 2010, 2020, or 2030

## SOPHOMORE

ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)
$\begin{array}{ll}\text { Natural Sciences } & 3\end{array}$
Social/Behavioral Sciences 3
PHED 3800
FOED 2110
PHED 4470, $4930 \quad 6$
SPED 3010
Math (statistics rec.)
COMM 2200 (Comm)

## SENIOR

PHED 4800/4801, 4910,

$$
\text { YOED } 3500
$$

Elective
YOED 4110, $4000 \quad 12$

## JUNIOR

PHED 4710, 3760, 3900, 3720, 3430
PHED 4900/4901, 4940, 4780, 4400
SPSE 3220
HLTH 4280

## JUNIOR

PHED 4910
EXSC 4830
EXSC 4810
BIOL 2020/2021
EXSC 4000
EXSC 4240
ATHC 4060
Electives

## Minor in Athletic Coaching

The minor requires 15 semester hours including ATHC 2710 or 2720, PHED 1200 or 1300, ATHC 3910, ATHC 4060 or 4690, ATHC 4800 plus 3 semester hours of professional courses related to specific coaching area(s).

## Minor in Driver and Traffic Safety Education

The minor in Driver and Traffic Safety Education requires 15 semester hours including PHED 3300 and SAFE 4320, 4850, and 4870. These courses offered only during Summer term.

## Major in Health Education

The major in Health Education provides basic experiences for those interested in preparing for numerous health and healthrelated professions. Persons majoring in Health Education may choose from a concentration in Health Science and Technology, Community and Public Health, and Health Education and Lifetime Wellness. Those seeking teacher licensure will complete a Secondary Education minor.

## Concentration: Health Science and Technology

The Health Science and Technology concentration is designed to accommodate transfer degrees in allied health or nursing. Students enter the University having completed certification requirements in nursing or one of the allied health fields and receive transfer credit once the required courses are completed. Graduates are prepared to teach in technical training programs, staff development or continuing education programs, or (with teacher licensure) in high school health science programs. In consultation with an advisor, the student will include the following:

## Recommended Curriculum

| SENIOR |  |
| :--- | ---: |
| PHED activity |  |
| ATHT 4000 | 3 |
| EXSC 4260 | 3 |
| EXSC 4010 | 3 |
| Electives | 5 |
| EXSC 4250 (final course) | 12 |
|  | $\mathbf{2 7}$ |

## FRESHMAN

ENGL 1010, 1020 (Comm)
Mathematics
COMM 2200 (Comm)
Natural Sciences (2 prefixes)
HLTH 1530/1531
NFS 1240
HUM 2130
PHED Activity

## SOPHOMORE <br> SOPHOMORE

    ENGL 2020 or 2030 or
        HUM 2610 (Hum/FA)
    Social/Behavioral Sciences
        (2 prefixes)
    Humanities and/or Fine Arts
        (2 prefixes)
    HIST 2010, 2020, or 20306
    BIOL 2030/2031 3
    HLTH 26003
    Minor
    PHED activity
    ENGL 2020 or 2030 or
Social/Behavioral Sciences (2 prefixes)
Humanities and/or Fine Arts (2 prefixes)

6
6
3
3
3
1

## e Arts

HIST 2010, 2020, or 2030
BIOL 2010/2011
NFS 1240
NFS 3280
ATHT 3580
EXSC 3500
Elective

NOTE: See Department of Educational Leadership on page 166 for Secondary Education minor requirements.

Physical Education-Persons who wish to pursue a non-teaching career may, in consultation with the assigned advisor, select two minors appropriate for realizing a professional goal.

## Concentration: Wellness and Exercise Science

The Wellness and Exercise Science concentration offers preparation for positions in corporate, hospital, and public wellness and fitness centers. The program also offers preparation for students seeking graduate degrees in exercise science and allied health, cardiac rehabilitation, and physical therapy.

## Recommended Curriculum

## RESHMAN

ENGL 1010, 1020 (Comm)
Mathematics
Natural Sciences (2 prefixes)
HLTH 1530 (Soc/Beh Sci)
Humanities and/or Fine Arts
HIST 2010, 2020, or 2030

## JUNIOR

BIOL 2030/2031, 3340
HLTH 3300
HLTH 4810
Electives
Minor

## SENIOR

| Certification/licensure | $0-17^{*}$ |
| :--- | ---: |
| Minor | 6 |
| Electives | 6 |
|  | $\mathbf{2 9}$ | Minor 6 6

29
*Required to obtain professional teaching license in health science

## Concentration: Health Education and Lifetime Wellness

The Health Education and Lifetime Wellness concentration is designed to prepare lifetime wellness instructors for grades 9-12. In consultation with an advisor, the student will include the following:

| Recommended Curriculum |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN |  | SOPHOMORE |  |
| HLTH 1530/1531 recommended | HLTH 3300 | 3 |  |
| $\quad$ (Soc/Beh Sci) | 3 | BIOL 2030/2031 | 3 |
| HLTH 3320 | 3 | SPED 3010 | 3 |
| FOED 1110, 2110 | 6 | General Education | 20 |
| NFS 1240 | 3 |  | $\mathbf{2 9}$ |
| General Education | 18 |  |  |
|  | $\mathbf{3 3}$ |  |  |
| JUNIOR |  |  |  |
| HLTH 4260, 4300, 4360, |  | HENIOR | 6 |
| 4400 | 12 | HLTH 4270, 4340 | 3 |
| PHED 3720, 3800, 3900§ | 9 | YOED 4000, 4110 | 12 |
| PHED 4900 | 3 | PHED 3930 | 3 |
| YOED 3500 | 3 | Advised elective | 3 |
| SPSE 3220 | 3 |  | $\mathbf{2 7}$ |
| PHED activity | 1 |  |  |
|  | $\mathbf{3 1}$ |  |  |

§See Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Concentration: Community and Public Health

The Community and Public Health concentration, approved by SABPAC (SOPHE/AAHE Baccalaureate Program Approval Committee), is designed to prepare health educators in community and public health strategies so that they may influence changes in public health practice for individuals, organizations, and/or communities. In consultation with an advisor, the student will include the following:

## Recommended Curriculum <br> FRESHMAN

HLTH 1530/1531 recommended

| (Soc/Beh Sci) | 3 |
| :--- | ---: |
| HLTH 3340 | 3 |
| NFS 1240 | 3 |
| PHED activity | 1 |
| General Education | 20 |
|  | $\mathbf{3 0}$ |

## JUNIOR <br> HLTH 3020, 4270, 4340, 4360, 4400, 4460, 4600, $4860 \quad 24$ <br> $\begin{array}{lr}\text { Minor } & 9 \\ & 33\end{array}$

## SOPHOMORE

| HLTH 3000, 3300, 3320 | 9 |
| :--- | ---: |
| BIOL 2030/2031 | 3 |
| PHED activity | 1 |
| Minor | 3 |
| General Education | 14 |
|  | $\mathbf{3 0}$ |

## SENIOR

HLTH 3250, 4810, 4870, 4900
HLTH 4250
Minor
General Education 4
Elective 1

## Minor in Health

The minor in Health requires 15 semester hours including HLTH 1530/1531, 3320, 4400, plus 6 hours of electives to be chosen from other health offerings or courses approved by the department chair.

## Minor in Health and Physical Education

The minor in Health and Physical Education requires 15 semester hours including HLTH 1530/1531, 4340; PHED 3800, 3930; and three credits in HLTH/PHED.

## Minor in Health and Human Performance

The minor in Health and Physical Education requires 15 semester hours including REC 3000, PHED 3300, EXSC 3500, and HLTH 4340; HLTH 1530/1531 or 3 activity hours for a total of 3 credits from PHED 1180, 1190, 1200, 1240, 1280, 1300, 1270, 1290, 1340, and 2071 or an additional upperlevel class (3000 and above) from the Department of Health and Human Performance with the permission of an advisor.

## Major in Recreation and Leisure Services

The major in Recreation and Leisure Services provides knowledge, skills, and experiences for students interested in preparing for positions in the recreation and leisure services profession. The major requires a general core accredited by NRPA which includes REC 3010, 3380, 3520, 3530, 3540, 3560, 4540, 4660, 4890, and 4900/01/02 (an extensive internship). Students may choose from concentrations in Recreational Therapy, Outdoor Recreation, or Recreation Administration. Students may choose to pursue a minor or advised electives of approximately 16 credit hours.

## Concentration: Recreational Therapy

Those choosing the Recreational Therapy concentration serve persons with disability and/or health-related issues in a variety of settings. Employment may be sought with clinical, psychiatric, or rehabilitation hospitals, community/transitional agencies, outdoor therapeutic programs, or other healthrelated agencies. A student graduating with this concentration may apply for national certification as a Certified Therapeutic Recreation Specialist. Ongoing consultation with an advisor is essential.

| Recommended Curriculum-Recreational Therapy |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN |  |  |
| SOPHOMORE |  |  |

$\begin{array}{ll}\text { REC } 3010 & 3 \\ \text { Humanities and/or Fine Arts } & 3\end{array}$
Humanities and/or Fine Arts

## JUNIOR

HIST 2010, 2020, or 2030
REC 4500, 4499, 3540
REC 4480
REC 4890 (Pre-internship)
REC 3560
BIOL 2030/2031
PSY 3230
PHED activity

## Concentration: Outdoor Recreation

Persons choosing the Outdoor Recreation concentration might establish careers with various natural resource-based agencies such as city, state, and national parks; resource management agencies; camp settings; and commercial and travel and tourism service providers. Ongoing consultation with an advisor is essential.

| Recommended Curriculum-Outdoor Recreation |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| BIOL 1030/1031 (Nat Sci) | 4 | HUM 2610 (Hum/FA) | 3 |
| GEOL 1040/1041 (Nat Sci) | 4 | Humanities and/or Fine Arts | 3 |
| ANTH 2010, PSY 1410, or SOC 101 (Soc/Beh Sci) | 3 | Mathematics <br> REC 3380, 3520, 3530 | 3 9 |
| COMM 2200 (Comm) | 3 | HIST 2010, 2020, or 2030 | 3 |
| REC 3010 | 3 | Advised electives | 9 |
| GEOG 2000 (Soc/Beh Sci) | 3 |  | 30 |
| Humanities and/or Fine Arts | 3 |  |  |
|  | 29 |  |  |
| JUNIOR |  | SENIOR |  |
| HIST 2010, 2020, or 2030 | 3 | REC 4540, 4580, 4660 | 9 |
| REC 3370, 3560, 3540 | 9 | REC 4901 (Internship) | 12 |
| REC 3570 | 3 | REC 3371, 4570 | 6 |
| REC 4890 (Pre-internship) | 1 | Advised electives | 6 |
| BIOL 4060, 4240/4241, |  |  | 33 |

## SENIOR

REC 4540, 46606
REC 4510, 45206
PSY 2300 or CDFS 33403
Advised electives
REC 4900 (Internship)

Advised elective 4

## JUNIOR

HIST 2010, 2020, or 2030
REC 3540, 4600/4601
REC 3560, 4550
PSY 2210 or 4380
REC 4110, 4490, or
3390 (select two)
Advised electives

## SENIOR

| REC 4540, 4660 | 6 |
| :--- | ---: |
| REC 4902 (Internship) | 12 |
| BCEN 2900 or MGMT 3810 | 3 |
| Advised electives | 7 |
| PHED activity | 1 |
| REC 4890 (Pre-internship) | 1 |
|  | $\mathbf{3 0}$ |6

## Minor in Recreation

The minor in Recreation consists of 15 semester hours of coursework in Recreation, 9 hours of which must be taken at MTSU. REC 3010 and 3530 are required plus 9 hours of approved REC electives.

## Major in Athletic Training

The Athletic Training Program consists of four academic years and is a limited enrollment program. The program's academic and clinical foundation is based upon the National Athletic Trainer's Association Educational Competencies and the Commission on Accreditation of Athletic Training Education accreditation standards and guidelines for entry-level athletic training education programs. The program consists of 120 credit hours, which include General Education, athletic training core courses, and major auxiliary courses. Students enter the program as pre-athletic training majors and must complete the first year of pre-athletic training curriculum consisting of General Education and athletic training prerequisite courses. Students then make formal application for admission to the last three years, which includes 50 hours of athletic training courses. When a student applies for admission and is accepted, the student is then classified as an Athletic Training major. The number of students accepted into the program is limited, making the application process competitive.
Students seeking admission to the program must have a 2.50 cumulative grade point average. The application process includes the following:

- completion of a formal application, which includes three letters of recommendation;
- successful completion of ATHT 3570 and 3580 and BIOL 2010/2011 with a minimum grade of B- in each;
- successful completion of pre-program clinical observations as part of ATHT 3570;
- successful completion of pre-program clinical proficiencies;
- successful completion of a minimum of 24 credit hours;
- interview with Athletic Training program admission committee.

After students have met the admission requirements, acceptance is based upon weighted criteria. Meeting minimal admission requirements does not guarantee admission to the program.
All students must sign a technical standards document as part of the application process. This document is attached to the program application form and is in the Athletic Training education program manual.

Once a student is admitted, he/she must follow a prescribed course of study, which includes both academic and clinical courses. Students must maintain a cumulative grade point average of 2.50. Students must achieve a B- or better in all ATHT courses and a C- or better in BIOL 2020/2021; NFS 1240; EXSC 4240, 4260, 4830; PHED 4910; ATHC 4060; and the natural sciences to continue in the program. If a student does not achieve a B - or better in an ATHT course and a C - or better in the above courses he/she must retake the course.

Only admitted students are allowed to register for athletic training clinical courses (ATHT 3000, 3001, 3002, 3003, 4430, 4950, and 4990). These courses require a structured clinical rotation under an approved clinical instructor/supervisor. Clinical courses provide the student with a variety of athletic training experiences including contact-collision, collision, and non-contact sports for males and females in the collegiate, high school, and professional sport environment. Students also take a practicum (ATHT 4430) in athletic training at the completion of their junior year, which requires a clinical rotation in a non-traditional sport environment (i.e., sports medicine clinic, physical therapy clinic). Students must complete all clinical courses with a minimum grade of $B$ - or better. If a student fails to get a minimum grade of B -, the student cannot matriculate on to the next clinical course. The student will be on leave from the clinical portion of the program for one year. The student can, however, continue taking academic coursework that does not require clinical courses as co-requisites or prerequisites upon approval of the program director. A student must successfully pass ATHT 3000-3001-3002-3003 and ATHT 4430 with a B- or better before continuing on to ATHT 4950 and the semi-independent field experience.
Students must have a minimum overall GPA of 2.50 to graduate from the program. Upon successful completion of the program, graduates are awarded a B.S. in Athletic Training and become eligible to sit for the Board of Certification Examination (BOC) for the Athletic Trainer.

## Recommended Curriculum <br> PRE-ATHLETIC TRAINING PROGRAM <br> FRESHMAN

FALL
ENGL 1010 (Comm)
ATHT 3580
MATH 1710 (Math)
COMM 2200 (Comm)
Humanities and/or Fine Arts
SPRING
ENGL 1020 (Comm)
PSY 1410 (Soc/Beh Sci) 3
ATHT 3570
HIST 2010
BIOL 2010/2011 $\quad 3$
15

## JUNIOR

FALL
ATHT 3960
ATHT 3002
ATHT 4500/4820
Social/Behavioral Sciences
NFS 1240

## SUMMER

ATHT 4430

## SENIOR

FALL
ATHT 4500/4820
ATHT 4950
ATHT 4000
EXSC 4240

| SPRING |  |
| :--- | ---: |
| ATHT 4960 | 3 |
| ATHT 4970 | 3 |
| ATHT 3003 | 3 |
| EXSC 4830 | 4 |
| Humanities and/or Fine Arts | 3 |
|  | $\mathbf{1 6}$ |

3

## SPRING

ATHT $4990 \quad 3$
ATHC $4060 \quad 3$
EXSC 42603
ATHT 4965

## Athletic Training Program Costs

Athletic training students pay the same fee schedules as do all other undergraduate students at the University. These fees are described in detail elsewhere in this catalog. Additional expenses incurred by athletic training students include

1. the cost of a uniform package - varies in price (yearly);
2. liability insurance - $\$ 35$ (yearly);
3. membership into the National Athletic Trainer's Association (yearly);
4. maintenance of professional rescuer CPR (yearly).

Verification of immunization status is required.

## Courses in Physical Education [PHED]

See back of catalog for course descriptions.

## Courses in Health [HLTH]

See back of catalog for course descriptions.

## Courses in Exercise Science [EXSC]

See back of catalog for course descriptions.

## Courses in Athletic Coaching [ATHC]

See back of catalog for course descriptions.

## Courses in Athletic Training [ATHT]

See back of catalog for course descriptions.

## Courses in Recreation [REC]

See back of catalog for course descriptions.

## Courses in Safety [SAFE]

See back of catalog for course descriptions.

## Graduate Study

The department offers the Master of Science in Health, Physical Education, Recreation with concentrations available in Health, Physical Education, Recreation, and Sport Management and a Master of Science with a major in Exercise Science. A Ph.D. in Human Performance with specializations available in Exercise Science, Health, Leisure Studies, Physical Education, or Kinesmetrics. Degree requirements and a list of courses offered for graduate credit are published in the Graduate Catalog.

# Department of Human Sciences 

Dellmar Walker, Chair<br>Ellington Human Sciences 100

Belcher, Bogle, Brickey, Bush, Coleman, Colson, Detmer, Emery, Hitchcock, Kwon, Miller, Oxford, Pisut, Poirier, Remsen, Ridgley, Robinson, Rudd, Sheehan-Smith, Stogner

The programs offered by the Department of Human Sciences are accredited by the American Association of Family and Consumer Sciences and provide a broad liberal education along with a specialty to prepare students for a wide spectrum of professions. The department also offers numerous opportunities in experiential and service learning. Career opportunities in human sciences include positions in social agencies, government agencies, community services, business, industry, health services, research laboratories, design, merchandising, teaching, and day care.

Programs leading to the Bachelor of Science degree are offered in five majors: Family and Consumer Studies with concentrations in Family and Consumer Sciences Education and Child Development and Family Studies; Interior Design; Nutrition and Food Science with a concentration in Dietetics; Textiles, Merchandising, and Design with concentrations in Apparel Design and Fashion Merchandising; and Early Childhood Education which licenses students to teach grades pre-kindergarten through fourth. The department also offers minors in Human Sciences, Nutrition and Food Science, and Textiles, Merchandising, and Design.
It is an institutional requirement that degree-seeking students complete the General Education requirements. Consultation with the assigned advisor is necessary before each registration.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Family and Consumer Studies

The curriculum leading to a major in Family and Consumer Studies is designed primarily for preparation in broad areas of the field. Electives may be used to build strong combinations with other fields of interest. A major in Family and Consumer Studies requires the selection of one concentration from the three available plus one minor outside the field of human sciences.

## Concentration: Family and <br> Consumer Sciences Education

The curriculum for the concentration in Family and Consumer Sciences Education offers preparation for students to teach family and consumer sciences education in grades 6-12. Licensure to teach family and consumer sciences requires a bachelor's degree from an institution approved for the training of teachers in family and consumer sciences and its occupational areas. Occupational endorsements may be added but are not a required part of the major. Those who successfully complete the program are qualified to teach in vocationally reimbursed family and consumer sciences programs as well as nonreimbursed programs. This curriculum also offers preparation for extension service, business, consumer services, and government agencies.

## Recommended Curriculum

 FRESHMANENGL 1010, 1020 (Comm) COMM 2200 (Comm) Natural Sciences (2 prefixes) FOED 1110§
HSC 1010
CDFS 3320
NFS 1240
FCSE 1400
FCSE 2510

| JUNIOR |  |
| :--- | ---: |
| HSC 3020 |  |
| CDFS 3340 | 3 |
| FCSE 3510 | 3 |
| Secondary Education minor§ | 3 |
| HSC 4410 | 3 |
| CDFS 4350 | 3 |
| HSC 3430 | 3 |
| IDES 4620 | 3 |
| TXMD 1100 | 3 |
|  | 3 |
|  | $\mathbf{3 0}$ |

SENIOR
HSC 44203
HSC $4000 \quad 1$
NFS 3100 or 32103
CDFS 43403
TXMD 31003
Secondary Education minor§ 15 28
§Please see the Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Concentration: Child Development and Family Studies

Child Development and Family Studies is a nationally approved program that offers preparation for a student to become a Certified Family Life Educator (CFLE). Completion of this program leads to career opportunities with family life education, social service agencies, day care programs (care giving and administration), crisis intervention programs, and senior citizen services; in business as consultants; in medical settings as child life specialists; and as advocates for children and families.

NOTE: Students interested in becoming Certified Family Life Educators (CFLE) must earn a grade of C- or higher in all CFLE-approved CDFS and related courses.

## Recommended Curriculum

 FRESHMANENGL 1010, 1020 (Comm)
Humanities and/or Fine Arts (2 prefixes)
MATH 1010 (Math)
CDFS 2350, 3320
HSC 1010
Natural Sciences (2 prefixes)

## JUNIOR

PSY 4600 or HLTH 4360
CDFS 4140, 4340
CDFS 4391
CDFS 4310, 4350, 4390
Minor
HIST 2010, 2020, or 2030

## SOPHOMORE

## SENIOR

HSC 4000
CDFS 3390, 4790

CDFS 4300, 4380, 4391, 4720,
HSC 4430, 4420,
NFS 4210, or 42516
CDFS 3300 or 4710 3-4
Minor 6
Electives 1-2
HSC 4101

## Major in Textiles, Merchandising, and Design

The major in Textiles, Merchandising, and Design leads to entry-level career opportunities in fashion-related industries and requires the selection of one concentration from the two available: Apparel Design and Fashion Merchandising. Textiles, Merchandising, and Design majors and minors must earn a grade of C or higher in all TXMD courses. Students earning a D or F will be required to repeat the course before being allowed to advance in the program.

The Textiles, Merchandising, and Design program consists of four academic years. Students enter the program as Textiles, Merchandising, and Design majors or minors and must complete the first two semesters of the Textiles, Merchandising, and Design curriculum consisting of General Education courses and Textiles, Merchandising, and Design prerequisites. Students then apply for admission to the last six semesters of the Textiles, Merchandising, and Design professional sequence of courses. When a student applies for admission to the last six semesters and is accepted and becomes enrolled, he/she is then classified as a TXMD major or minor admitted to the program and can then progress in required TXMD courses.


The number of students accepted into the TXMD program is limited, making the application process competitive.
Textiles, Merchandising, and Design students enrolled in the University and pursuing the first two semesters of the curriculum should maintain a minimum 2.50 cumulative grade point average and are required to earn no less than a C (2.00) in any prerequisite course.

## Concentration: Apparel Design

The B.S. degree with a concentration in Apparel Design allows the student to prepare for entry-level positions in the growing area of design, pattern making, and manufacturing. In addition to the major and concentration, a minor in Art, Entertainment Arts Design, Entrepreneurship, or Mass Communication (any area of MC study) is required.

## Recommended Curriculum

## FALL - FRESHMAN

ENGL 1010 (Comm)
TXMD 1110
HSC 1010
Natural Sciences
TXMD 1170

## FALL - SOPHOMORE

TXMD 2170
Humanities and/or Fine Arts
Social/Behavioral Sciences
HIST 2010, 2020, or 2030
COMM 2200

| SPRING - FRESHMAN |  |  |
| ---: | :--- | ---: |
| 3 | ENGL 1020 (Comm) |  |
| 3 | ART 1030, 1910, or |  |
| 1 | 1920 (Hum/FA) | 3 |
| 4 | Natural Sciences | 4 |
| 3 | NFS 1240 | 3 |
| $\mathbf{1 4}$ | MATH 1630 (or other math) | 3 |
|  |  | $\mathbf{1 6}$ |


| SPRING - SOPHOMORE |  |  |
| ---: | :--- | ---: |
| 3 | TXMD 2320 | 3 |
| 3 | TXMD 2180/2181 | 3 |
| 3 | Minor | 3 |
| 3 | ENGL 2020, 2030, or |  |
| 3 | HUM 2610 | 3 |
| $\mathbf{1 5}$ | HSC 3020 or TXMD 2110 | 3 |
|  |  | $\mathbf{1 5}$ |

FALL - JUNIOR
SPRING - JUNIOR
TXMD $3320 \quad 3$
TXMD 33703
HIST 2010, 2020, or 20303
Minor
CDFS 3320

## Minor

TXMD 3120

FALL - SENIOR
TXMD 4220
Minor
TXMD 3170 or 4170 or HSC 4043
Minor
Social/Behavioral Sciences
SPRING - SOPHOMORE
TXMD 2320
TXMD 2180/2181
3 3
 3

3
5

TXMD 3220
TXMD 3150

15

## SPRING - SENIOR

TXMD 4320
3
TXMD 4140
TXMD 41803
3
Minor or elective** 2
HSC $4410 \quad 3$
HSC 4000

[^5]
## Concentration: Fashion Merchandising

The B.S. degree with a concentration in Fashion Merchandising emphasizes the business functions of the promotion and sale of fashions in the retail sector and synchronization with the design, production, and retail functions in the manufacturing sector of the fashion industry. In addition to the major and concentration, a minor in one of the following areas is required: Business Administration, Management, Marketing, Mass Communication, or Entrepreneurship.

## Recommended Curriculum

FALL - FRESHMAN
ENGL 1010 (Comm)
TXMD 1110
SPRING - FRESHMAN

HSC 1010
Natural Sciences
TXMD 1170

FALL - SOPHOMORE
HIST 2010, 2020, or 2030
Social/Behavioral Sciences
Humanities and/or Fine Arts
COMM 2200
TXMD 2180/2181

FALL - JUNIOR
HSC 4430
TXRING - JUNIOR
TXMD 3220 or other app.* 3
ACTG 1100, 2110, or 3000
Minor 6
Elective 3
Minor 3 Elective
15

FALL - SENIOR
TXMD 3170
Minor
TXMD 4170
Social/Behavioral Sciences

| SPRING - SENIOR |  |
| :--- | ---: |
| TXMD 4150 | 3 |
| TXMD $4180^{*}$ | 3 |
| HSC 4410 | 3 |
| HSC 4000 | 1 |
| Minor or elective* | 3 |
| Electives | 2 |
|  | $\mathbf{1 5}$ |

The number of elective hours required depends upon the choice of minors. All students must have a minimum of 120 hours to graduate, so the number of elective hours may vary.
*A total of 6 semester hours must be earned and selected from any of the following courses: TXMD 2170, 3120, 4140, 4320; HSC 4043, 4103; or CDFS 3330.
**Minor may be selected from any of the following: Marketing - 15 hours; Business Administration - 18 hours; Entrepreneurship - 18 hours; Management - 15 hours; Mass Communication - 18 hours.

## Admission and Progression in the Textiles, Merchandising, and Design Curriculum Prior to Admission to the Professional Course Sequence

1. Any student formally admitted to the University may pursue the Textiles, Merchandising, and Design curriculum.
2. Textiles, Merchandising, and Design majors and/or minors are required to complete HSC 1010, TXMD 1110 and 1170 prior to applying for admission to the Professional Course Sequence.
Required 30 credit hours for application, with a grade of C (2.00) or better:
General Education ENGL 1010, 1020-6 hours
General Education Natural Science - 8 hours
General Education Math - 3 hours
General Education ART 1030-3 hours
TXMD 1110, $1170-6$ hours
HSC 1010-1 hour
Other from required professional support or general education courses - 3 hours
3. Textiles, Merchandising, and Design students are expected to seek advising from the TXMD faculty each semester to ensure that they are following the proper sequence for completion of the prerequisite courses.

## Admission and Progression in the Textiles, Merchandising, and Design Professional Course Sequence

1. An application form must be submitted to the Textiles, Merchandising, and Design program during the Spring semester prior to beginning the Professional Course Sequence. See application for final submission date.
2. Transcript validation of all prerequisite courses must be on file in the MTSU Records Office.
3. A cumulative undergraduate college grade point average of 2.50 is required for beginning eligibility.
4. Applicants must have no grade less than a C (2.00) in any prerequisite and General Education course by the end of Spring semester for those entering the Professional Course Sequence during the following Fall semester.
5. Scores from a standardized examination (ACT/SAT) along with the college grade point average will be used to rank candidates for progression to the Professional Course Sequence.
6. Students must attain a minimum grade of $C$ (2.00) in all Textiles, Merchandising, and Design courses.
7. Students may repeat a course only once to earn a minimum grade of C (2.00).
8. Students may repeat a maximum of two course (major or prerequisite).
9. Failure of more than two sequence or prerequisite courses will result in dismissal from the program. A failing grade is defined as receiving a grade of less than C (2.00).
10. Students will be dismissed from the Textiles, Merchandising, and Design major if they
a. commit a breach of ethics or gross professional negligence, b. fail to progress due to unsuccessful attainment of requirements.

Students who fail to progress will be readmitted on a space-available basis. Only one readmission for failure to progress will be allowed.
c. For transfer students who are admitted into the TXMD program, a grade of D/F from another school counts as the first "failing" attempt and the next incidence of $D / F$, in any major and/or prerequisite course at MTSU, counts as the second incident, thus resulting in dismissal from the program. (See item 7 above.)
11. If a student receives a D or F in a Textiles, Merchandising, and Design course at MTSU, he/she must repeat that course at MTSU.
12. Readmission to the program for any returning TXMD major who left the University in good standing will be granted on a space-available basis.
13. Further specific details regarding admission and progression are available in the Textiles, Merchandising, and Design program.

## Minor in Textiles, Merchandising, and Design

A minor in Textiles, Merchandising, and Design is offered with an option in either fashion merchandising or apparel design. Both options require TXMD 1110, 1170, and 2180/2181. In addition, students interested in fashion merchandising are required to take TXMD 3150, 3170, and 4150. Students selecting apparel design are required to take TXMD 2320 and 3220 and select one course from TXMD 3120, 3150, 3370 , or 4220.

## Major in Nutrition and Food Science

The major in Nutrition and Food Science offers preparation for careers in community nutrition services; county, state, and federal health departments; food systems management; food processing; food marketing; and quality control.

## Recommended Curriculum <br> FRESHMAN

ENGL 1010, 1020 (Comm)
MATH 1010 (Math)
Humanities and/or Fine Arts
(2 prefixes)
SOC 1010 (Soc/Beh Sci)
HSC 1010
NFS 2220
CHEM 1010/1011 or
1110/1111 (Nat Sci)
CHEM 1020/1021 or 1120/1121

## JUNIOR

HSC 4410, 4430
CDFS 3320
NFS 4210, 4250, 4270
CHEM 2030/2031
ENGL 2020 or 2030 or HUM 2610 (Hum/FA) Minor

## SOPHOMORE

NFS 3200, 3260, 3280
COMM 2200 (Comm) 3
Social/Behavioral Sciences 3
HIST 2010, 2020, or 20306
BIOL 2010/2011 (Nat Sci) 4
BIOL 2020/2021 4

## SENIOR

| NFS 4240, 4222 | 6 |
| :--- | ---: |
| NFS 4220, 4300 |  |
| ABAS 4200, 4810, or 4820 | 12 |
| HSC 4000 | 1 |
| Minor | 9 |
| Elective | 2 |
|  | $\mathbf{3 0}$ |

## Concentration: Dietetics

The Dietetics concentration is a Didactic Program in Dietetics (DPD) accredited by the Commission on Accreditation of Dietetics Education of the American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-4876. The program offers preparation for careers in dietetics as nutritionists, clinical or management dietitians, dietitians in private practice, and consulting dietitians. After completing the degree, students receive a verification statement that DPD requirements have been met, qualifying them to apply for a supervised practice program (dietetic internship). After completion of an internship, students must pass the national examination to become registered dietitians (R.D.) and be eligible for licensure as dietitians/nutritionists (L.D.N.) in the State of Tennessee. Students with baccalaureate degrees in other areas may complete the DPD requirements at MTSU. Transfer students must take a minimum of 18 hours in nutrition and food science at MTSU to include NFS 4220, 4222, 4300, 4310, and 4400.

## Recommended Curriculum <br> FRESHMAN

$\begin{array}{lr}\text { ENGL 1010, } 1020 \text { (Comm) } & 6 \\ \text { Social/Behavioral Sciences } & 3 \\ \text { Humanities and/or Fine Arts } & \\ \quad(2 \text { prefixes) } & 6 \\ \text { SOC } 1010 \text { (Soc/Beh Sci) } & 3 \\ \text { HSC } 1010 & 1 \\ \text { NFS 2220 } & 3 \\ \text { CHEM 1010/1011 (Nat Sci) } & 4 \\ \text { CHEM 1020/1021 } & 4 \\ & \mathbf{3 0}\end{array}$
JUNIOR
HSC 4410, 4430
CDFS 3320, 3330
NFS 4222, 4250, 4270
CHEM 2030/2031, 3530/3531 8
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)

## SOPHOMORE

| NFS 3200, 3260, 3280 | 9 |
| :--- | ---: |
| COMM 2200 (Comm) | 3 |
| MATH 1530 (Math) | 3 |
| HIST 2010, 2020, or 2030 | 6 |
| BIOL 2010/2011 (Nat Sci) | 4 |
| BIOL 2020/2021 | 4 |
|  | $\mathbf{2 9}$ |

## SENIOR

NFS 4210, 4220, 4240, 4280, 4290, 4800
BIOL 2230/2231
ACTG 1110 or 3000
HSC 4000

Students electing to major in Interior Design must complete all of the following courses with a grade of C (2.00) or better and be admitted to the professional sequence of IDES courses to progress beyond the first year of required coursework. Admission is limited, and therefore, competitive.

## Required 30 hours for application:

General Education ENGL 1010, 1020-6 hours
General Education Natural Science - 8 hours
General Education Math - 3 hours
General Education Humanities/Fine Arts (excluding ART 1030) - 3 hours General Education Social/Behavioral Sciences - 3 hours
HSC 1010 (section for IDES majors) - 1 hour
Other (from required professional support or general education courses) 6 hours

## Recommended Curriculum

FALL - FRESHMAN
ENGL 1010 (Comm)
Humanities and/or Fine Arts
HSC 1010
Natural Sciences
Mathematics
FALL - SOPHOMORE
IDES 2700
IDES 2710
ART 1910, 1920, or 1930
ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)
COMM 2200

FALL - JUNIOR
IDES 3700
IDES 3730
IDES 3770
IDES 4700
TXMD 3100

FALL - SENIOR
IDES 4730
IDES 4780
IDES 4790
CDFS 3330 or HSC 4430 or NFS 1240
CDFS 3320

| SPRING - FRESHMAN |  |
| :--- | ---: |
| ENGL 1020 (Comm) | 3 |
| Social/Behavioral Sciences | 3 |
| Natural Sciences | 4 |
| ART 1620 | 3 |
| HIST 2010 or 2020 or 2030 | 3 |
|  | $\mathbf{1 6}$ |

SPRING - SOPHOMORE
IDES 37103

IDES 36003
IDES 37503
IDES 37203
ART 1910, 1920, or $1930 \quad 3$ 15

SPRING - JUNIOR

IDES 4740
IDES 37403
IDES 47103
IDES $3760 \quad 3$
SPRING - SENIOR
IDES 4760
$\begin{array}{ll}\text { IDES } 4760 & 3 \\ \text { IDES } 4770 & 3\end{array}$
Social/Behavioral Sciences 3
MKT 3820
HIST 2010, 2020, or 2030

## Admission and Progression in the Interior Design Curriculum Prior to Admission to the Professional Course Sequence

1. Any student formally admitted to the University may pursue the Interior Design curriculum.
2. Interior Design majors are required to complete HSC 1010 (for IDES majors) prior to applying for admission to the professional course sequence.
3. Interior Design students are expected to seek advising from the Interior Design faculty each semester to ensure that they are following the proper sequence for completion of the prerequisite courses.

## Admission and Progression in the Interior Design Professional Course Sequence

1. An application form must be submitted to the Interior Design program during the Spring semester prior to beginning the professional course sequence. See application for final submission date.
2. Transcript validation of all prerequisite courses must be on file in the MTSU Records Office.
3. A cumulative undergraduate college grade point average of 2.50 is required for beginning eligibility.
4. Applicants must have no grade less than a C (2.00) in any prerequisite and General Education course by the end of Spring semester for those entering the professional sequence the following Fall.
5. Scores from a standardized examination (ACT/SAT) along with the college grade point average will be used to rank candidates for progression to the professional sequence.
6. Students must attain a minimum grade of $C(2.00)$ in all Interior Design courses.
7. Students will be dismissed from the Interior Design major if they
a. commit a breach of ethics or gross professional negligence,
b. fail to progress due to unsuccessful attainment of requirements. Students who fail to progress will be readmitted on a space-available basis. Only one readmission for failure to progress will be allowed. Students admitted from other interior design programs in which a grade of D (less than 2.00) was made in interior design will not be readmitted.
8. If a student receives a D or F in an Interior Design course at MTSU, he/she must repeat that course at MTSU.
9. Further specific details regarding admission and progression are available in the Interior Design program.

## Major in Early Childhood Education

The major in Early Childhood Education is offered by the Department of Human Sciences. The curriculum for the major in Early Childhood Education is designed to prepare teachers in the area of early childhood education and to meet the Tennessee requirements for licensure to teach pre-kindergarten, kindergarten, and first through third grades. Emphasis is placed on the development of the young child within the context of the family and on integrating developmentally appropriate practice within educational settings.*
*A grade of C- or higher is required for all CDFS courses.

## Special comments:

1. Practica should be taken in this order: CDFS 4380, 4300, 4330; CDFS 4110.
2. Method courses should be completed in the junior year: ELED 3150 and CDFS 4375.

| Recommended Curriculum |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN | SOPHOMORE |  |  |
| ENGL 1010, 1020 (Comm) | 6 | CDFS 3310, 4320, 4370 | 9 |
| MATH 1010 (Math) | 3 | GEOC 2000 (Soc/Beh Sci) | 3 |
| MATH 1410 | 3 | CHEM 1030/1031 or |  |
| FOED 1110, 2110 | 6 | GEOL 1030/1031 or |  |
| CDFS 2350 | 3 | PSCI 1030/1031 or |  |
| HSC 1010 | 1 | ASTR 1030/1031 (Nat Sci) | 4 |
| BIOL 1030/1031 (Nat Sci) | 4 | HIST 2010, 2020, or 2030 | 6 |
| ART 1030 or DANC 1000 or |  | ANTH 2010 or PS 1010 or |  |
| $\quad$ MUS 1030 or PHIL 1030 or |  | PS 2010 or AAS 2100 |  |
| THEA 1030 (Hum/FA) | 6 | (Soc/Beh Sci) | 3 |
|  |  | COMM 2200 (Comm) | 3 |
|  | $\mathbf{3 2}$ | SPED 3010 | 3 |
|  |  |  | $\mathbf{3 1}$ |
| JUNIOR |  | SENIOR |  |
| ELED 3050 | 3 | CDFS 4350, 3320 | 6 |
| CDFS 4300 | 3 | CDFS 4330, 4360 | 6 |
| MUED 4670 | 4 | NFS 4251 | 3 |
| ELED 3300 | 3 | HSC 4000 | 1 |
| CDFS 4380 | 3 | CDFS 4110 | 12 |
| PHED 3500 | 4 |  | $\mathbf{2 8}$ |
| ART 3200 | 3 |  |  |
| ELED 3150 | 3 |  |  |
| ENGL 2020 or 2030 or |  |  |  |
| HUM 2610 (Hum/FA) | 3 | 4 |  |

## Minor in Human Sciences

The minor in Human Sciences consists of a minimum of 18 semester hours of courses offered by the Department of Human Sciences elected to meet the concentration needs of the student.

## Courses in Human Sciences [HSC]

See back of catalog for course descriptions.

## Courses in Textiles, Merchandising, <br> and Design [TXMD]

See back of catalog for course descriptions.

## Courses in Nutrition and Food Sciences [NFS]

See back of catalog for course descriptions.

## Courses in Child Development <br> and Family Studies [CDFS]

See back of catalog for course descriptions.

## Courses in Family and Consumer Sciences Education [FCSE]

See back of catalog for course descriptions.

## Courses in Interior Design [IDES]

See back of catalog for course descriptions.

## Graduate Study

A Master of Science in Human Sciences with concentrations in Child Development and Family Studies or Nutrition and Food Science is offered. A minor in Human Sciences is also available. Requirements and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Psychology 

Dennis Papini, Chair<br>Jones Hall 103

Anshel, Bauer, Belsky, Bernstein, Boyer-Pennington, Brantley, Brinthaupt, Burke, Choi, Compton, Crooks, Dansby, Davis, Foster, Fromuth, Fuller, Guttman, Hamilton, Hein, Holt, Johnson, Jones, Kelly, Kendrick, Kim, Langston, Lee, Littlepage, Magne, McCarthy, Moffett, Musicant, Pennington, Quarto, Rust, G. Schmidt, S. Schmidt, Short, Slicker, Stevens, Tate, Traughber, Ujcich-Ward, Van Hein, Wallace, Whiteside

The Psychology major is designed for students with a variety of career goals and interests and leads to a Bachelor of Science degree. The Pre-graduate School concentration is designed for students intending to apply for Ph.D. or master's programs. A minor in Psychology is also available. In addition, the Department of Psychology offers a major and a minor in Industrial/Organizational Psychology. The Industrial/Organizational Psychology major leads to a Bachelor of Science degree. Additional specialized minors are offered in Mental Health Services, Life Span Development, Neuroscience, and Behavioral Research.
A student with more than one major and/or minor in the Department of Psychology cannot use the same coursework for more than one program. Some courses may be used in more than one program, but in no case can a single course be used to satisfy requirements in more than one program.
Consultation with the assigned advisor is recommended before each registration. Students may access the name of their advisor on the department Web site. Students who have ever taken a course at another university should consult a department transfer advisor.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Psychology

A common set of core courses is required of all Psychology majors. The specific interests and career goals of each student determine the remainder of the program. The curriculum is arranged to provide familiarity with scientific bases of psychology for students preparing for careers in a variety of professions; the knowledge and skills necessary for graduate work in psychology; and the academic preparation and technical skills for students who plan to work in health-related, business and/or research settings after completing their undergraduate work.

The major in Psychology requires a minimum of 38 semester hours including a course in each of the nine following core areas (with a grade of C- or above), plus 12 additional hours of psychology electives (at least 9 hours upper division). To meet the Mathematics General Education requirement, Psychology majors must take MATH 1710 or 1730. Two minors are required. Students may choose a psychology minor offered by the department, but this is not required. At least one minor, however, must be from outside the department.

NOTE: Major in Psychology (Online) - Students who are interested in pursuing an online Psychology major should see the College of Continuing Education and Distance Learning Web site or office.

## Core Area, Required Courses

General, PSY 1410
Seminar on Careers in Psychology, PSY 2000
Social, PSY 2210
Developmental, PSY 2300
Statistics, PSY 3020
Research Methods, PSY 3070/3071
Abnormal/Personality, PSY 3230 or 3590
Sensation-Perception or Behavioral Neuroscience, PSY 4030 or 4240
Cognition/Learning, PSY 4040 or 4480
Recommended Curriculum
FRESHMAN

## FIRST SEMESTER

ENGL 1010 (Comm)
Natural Sciences
MATH 1710 or 1730 (Math)
PSY 1410 (Soc/Beh Sci)
Humanities and/or Fine Arts 3
16-17

## SOPHOMORE YEAR

COMM 2200 (Comm)
Natural Sciences
HIST 2010, 2020, or 2030
ENGL 2020 or 2030 or

## SECOND SEMESTER

ENGL 1020 (Comm) 3
Humanities and/or Fine Arts 3
PSY 2210, 2300, 20007
Minor 3

## JUNIOR AND SENIOR YEARS

| Psychology | 21 |
| :--- | ---: |
| Minors | $24-30$ |
| Electives | $7-8$ |
|  | $\mathbf{5 5 - 5 9}$ |

HUM 2610 (Hum/FA)
3
Social/Behavioral Sciences 3
Minor
PSY 3020, 3070/3071
29

## Minor in Psychology

The minor in Psychology requires 15 semester hours including PSY 1410, at least 3 hours at the lower division level, and at least 6 hours at the 3000 or 4000 level.

## Concentration: Pre-graduate School

Students who apply for the Pre-graduate School concentration should be those who will be competitive applicants for Ph.D. or competitive master's programs. GPA is an important consideration for admission to these programs. A subcommittee of the Undergraduate Studies Committee will screen students applying for the concentration, and students will be admitted to the program only upon approval of their application. A minimum GPA of 3.25 is required for application.
To graduate with this concentration, students must achieve an overall GPA of 3.25 . It is recommended that students apply for admission to this concentration between the completion
of 45 and 60 hours. The Pre-graduate School concentration requires 41 semester hours of psychology and one minor from outside the Department of Psychology.

## Required Courses

PSY 1410 General Psychology
PSY 2000 Seminar on Careers in Psychology
PSY 2210 Psychology of Social Behavior
PSY 2300 Developmental Psychology
PSY 3020 Basic Statistics for Behavioral Science
PSY 3070/3071 Research Methods
PSY 3230 Abnormal Psychology OR
PSY 3590 Personality
PSY 4030 Psychology of Sensation and Perception OR
PSY 4240 Behavioral Neuroscience
PSY 4040 Introduction to Cognitive Psychology OR PSY 4480 Learning Theories
PSY 4070 Advanced Statistics for the Behavioral Sciences
PSY 4080 Advanced Research Methods OR
UH 4950 Honors Independent Research (with prior approval) OR
PSY 3990 Research in Psychology (with prior approval)
Plus 9 additional hours of psychology electives (at least 6 upper division)

| Recommended Curriculum |  |
| :--- | ---: |
| FRESHMAN |  |
| FIRST SEMESTER |  |
| ENGL 1010 (Comm) | 3 |
| Natural Sciences | 4 |
| MATH 1710 or 1730 (Math) | $3-4$ |
| PSY 1410 (Soc/Beh Sci) | 3 |
| Humanities and/or Fine Arts | 3 |
|  | $\mathbf{1 6 - 1 7}$ |

## SOPHOMORE YEAR

COMM 2200 (Comm)
Natural Sciences
HIST 2010, 2020, or 2030
ENGL 2020 or 2030 or HUM 2610 (Hum/FA)
Social/Behavioral Sciences

## SECOND SEMESTER

ENGL 1020 (Comm) 3
Humanities and/or Fine Arts 3
PSY 2210, 2300, 20007
Minor 3
16
16-17

Mino
PSY 3020, 3070/3071
field* is required. To meet the General Education Mathematics requirement, Industrial/Organizational Psychology majors must take MATH 1710 or 1730.

## Psychology Foundation Courses

Required Courses ( $\mathbf{1 6}$ hours)
PSY 1410 General Psychology
PSY 2210 Psychology of Social Behavior
PSY 3020 Basic Statistics for Behavioral Sciences
PSY 3070/3071 Research Methods
PSY 4260 Introduction to Psychological Testing
Electives (6 hours)
PSY 3230 Abnormal Psychology
OR PSY 3590 Personality
PSY 4040 Introduction to Cognitive Psychology OR PSY 4480 Learning Theories

## I/O Psychology Courses

## Required Courses ( $\mathbf{1 8}$ hours)

PSY 3320 Introduction to Industrial and Organizational Psychology
PSY 4360 Organizational Psychology
PSY 4270 Personnel Selection and Placement
PSY 4290 Wage and Salary Administration
PSY 4330 Industrial/Organizational Training and Development
PSY 4370 Motivation and Work Attitudes
Electives (6 hours from the following courses):
PSY 4070 Advanced Statistics for the Behavioral Sciences
PSY 4380 Group Dynamics
PSY 4390 Persuasion
PSY 4610 Adult Psychology and Aging
PSY 4720 Multicultural Perspectives in Psychology and Education
PSY 4730 Apprenticeship: Industrial
PSY 4340 Human Factors Psychology (offered infrequently)
PSY 4350 Safety Psychology (offered infrequently)
*Students must complete a minor in one of the following fields: Business Administration, Business Law, Industrial Relations, Information Systems, Engineering Technology (Industrial Facilities and Management or Safety courses only), Management, Mass Communication, Political Science (Public Administration), Sociology, Speech, Statistics. Other minors may be approved by the major advisor.

| Recommended Curriculum |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  |  |  |
| FIRST SEMESTER |  | SECOND SEMESTER |  |
| ENGL 1010 (Comm) | 3 | ENGL 1020 (Comm) | 3 |
| HIST 2010, 2020, or 2030 | 3 | Natural Sciences | 4 |
| Humanities and/or Fine Arts | 3 | HIST 2010, 2020, or 2030 | 3 |
| PSY 1410 (Soc/Beh Sci) | 3 | PSY 2210 | 3 |
| MATH 1710 or 1730 (Math) | 3-4 | Humanities and/or Fine Arts | 3 |
|  | -16 |  | 16 |


| SOPHOMORE YEAR | JUNIOR YEAR |  |  |
| :--- | ---: | :--- | ---: |
| ENGL 2020 or 2030 or |  |  |  |
| PSY 3070/3071, 4260 and |  |  |  |
| HUM 2610 (Hum/FA) | 3 | PSY 4040 or 4480 | 10 |
| COMM 2200 (Comm) | 3 | PSY 4360 | 3 |
| Natural Sciences | 4 | I/O Psychology | 3 |
| Social/Behavioral Sciences | 3 | Minor | 6 |
| PSY 3230 or 3590 or 4610 | 3 | Electives | 6 |
| PSY 3020, 3320 | 6 |  | $\mathbf{2 8}$ |
| Minor | 6 | SENIOR YEAR |  |
|  | $\mathbf{2 8}$ | l/O Psychology | 15 |
|  |  | Minor | $6-9$ |
|  |  | Electives* | $11-12$ |
|  |  |  | $\mathbf{3 2 - 3 6}$ |

*Elective hours depend on math course selected.

## Minor in Industrial/Organizational Psychology

The minor in Industrial/Organizational Psychology requires 15 semester hours. Students who are also pursuing a Bachelor of Science degree in Psychology may select Industrial/Organizational Psychology as one of their two minors.

## Required Courses (9 hours)

PSY 3320 Introduction to Industrial and Organizational Psychology
PSY 4360 Organizational Psychology
PSY 4270 Personnel Selection and Placement OR
PSY 4330 Industrial/Organizational Training and Development

## Elective Courses (6 hours)

PSY 4270 Personnel Selection and Placement (if not taken as a required course)
PSY 4290 Wage and Salary Administration
PSY 4330 Industrial/Organizational Training and Development (if not taken as a required course)
PSY 4340 Human Factors Psychology
PSY 4350 Safety Psychology
PSY 4370 Motivation and Work Attitudes
PSY 4380 Group Dynamics

## Minor in Life Span Development

The Life Span Development minor is designed to provide more specialized instruction in life span and human development issues and is appropriate for students with majors or minors in psychology, social work, sociology, health education, gerontology, women's studies, health care related fields, and similar areas.

Required Courses (9 hours)
PSY 4190 Child Psychology
PSY 4210 Adolescent Psychology
PSY 4610 Adult Psychology and Aging
Elective Courses (choose two, 6 hours)
PSY 2300 Developmental Psychology
PSY 3240 Abnormal Child Psychology
PSY 4250 Psychology of Exceptional Children
PSY 4440 Social Psychology of Close Relationships
PSY 4600 Psychosexual Adjustment
PSY 4620 Psychology of Women
PSY 4630 Death and Dying
PSY 4720 Multicultural Perspectives in Psychology and Education

## Minor in Mental Health Services

The Mental Health Services minor prepares students for entry-level positions in mental health settings. It is designed for students planning to work in mental health, health care, social service, and other settings where they would deal with mental health issues, including careers such as social work, counseling, medicine, gerontology, health education, and child and family services.

## Required Courses (6 hours)

PSY 3230 Abnormal Psychology
PSY 4110 Issues and Ethics in Mental Health Services OR
PSY 4655 Foundations of Mental Health Counseling
Choose one from the following developmental/diversity group:
PSY 3250 Perspectives on Black Psychology
PSY 4190 Child Psychology
PSY 4210 Adolescent Psychology
PSY 4600 Psychosexual Adjustment
PSY 4610 Adult Psychology and Aging
PSY 4620 Psychology of Women
PSY 4720 Multicultural Perspectives in Psychology and Education

## Choose one from the following skills group:

PSY 4400 Behavioral Modification
PSY 4470 Theories of Counseling
PSY 4650 Health Psychology
Choose one from the following theory and application group:
PSY 3240 Abnormal Child Psychology
PSY 4250 Psychology of Exceptional Children
PSY 4260 Introduction to Psychological Testing
PSY 4460 Psychology of Happiness and Well-Being
PSY 4630 Death and Dying
PSY 4655 Foundations of Mental Health Counseling (if not taken as a required course)

Recommended but not required:
PSY 4740, 4750, or 4760 Apprenticeship: Child, Pre-Clinical, Adolescent (1-3 hours)

## Minor in Neuroscience

The Neuroscience minor provides a neuroscience background for students planning to pursue advanced degrees in psychology, counseling, biology, education, medical professions, and neuroscience and for students seeking additional training for jobs in assessment, rehabilitation, and treatment of children and adults with brain damage, brain diseases, and drug rehabilitation. This is a 16 -hour minor.

## Required Courses (10 hours)

PSY 2190 Human Brain, Behavior, and Consciousness
PSY 4240 Behavioral Neuroscience
BIOL4560/4561 Neurobiology/Lab**
Elective Courses (6 hours)
PSY 4780 Human Neuropsychology*
PSY 4030 Psychology of Sensation and Perception
PSY 4050 Applied Psychopharmacology
PSY 4130 Laboratory in Psychology (Sensation and Perception)
PSY 4150 Laboratory in Psychology (Behavioral Neuroscience)
PHIL 4550 Philosophy of Mind
It is recommended that PSY 2190 be taken prior to the other required and elective courses in the Neuroscience minor.
*PSY 4240 is a prerequisite for PSY 4780.
**BIOL 1110/1111 and 1120/1121 are prerequisites for BIOL 4560.

## Interdisciplinary Minor in Behavioral Research

The Behavioral Research minor is designed to provide more specialized instruction in research skills and data analysis and is appropriate for students planning careers emphasizing research and/or quantitative analysis including students majoring in fields such as psychology, sociology, political science, marketing, and mathematics. This minor may be particularly attractive to students wanting to pursue graduate work. The minor in Behavioral Research requires 15 semester hours.

| Basic Statistics (3-7 hours) |  |  |
| :---: | :---: | :---: |
| PSY | 3020 | Basic Statistics for Behavioral Science (lab may be required-see online schedule) |
| SOC | 3050 | Data Analysis |
| PS | 4000 | Quantitative Methods of Research (social sciences) |
| QM | 2610 | Statistical Methods I |
| MATH | 1530 | Applied Statistics |

Basic Research Methods (3-7 hours)
PSY 3070/3071 Research Methods
SOC 3040 Research Methods
SW 2630 Interviewing Skills for Social Work Practice
SW 3110 Research Methods for Social Work Practice
MKT 3930 Marketing Research

## Advanced Statistics (3-6 hours)

PSY 4070 Advanced Statistics for the Behavioral Sciences
QM 3620 Statistical Methods II
PS 4110 Quantitative Methods of Research
MATH 2050 Probability and Statistics

## Advanced Research Methods (3-6 hours)

PSY 4080 Advanced Research Methods
PHIL 4500 Philosophy of Science
MKT 4880 Applied Marketing Research
*No more than 7 credit hours in a single department may count toward the interdisciplinary minor unless the student surpasses the required 15 hours necessary for this minor.
*No more than 7 credit hours may be taken toward this minor in the same department or discipline in which a student is majoring.
*Courses will not be counted for both the major and the minor.
*A student who is majoring in any of the areas listed in the Basic Statistics category or the Basic Research category and is taking any course in the category as a part of his or her major requirement may take no more than 3 credit hours (or 4 credit hours if taking the course with a lab) from other departments in that category.

If you have any questions about this minor, contact Dr. Jwa Kim at 615-898-2002.

## Courses in Psychology [PSY]

See back of catalog for course descriptions.

## Honors College

The Department of Psychology offers periodically the following Honors courses: 1410, 2210, 2300, 4620, 4650, and 4720.

## Graduate Study

Requirements for the Master of Education degree in Professional Counseling, the Specialist in Education with a major in Curriculum and Instruction, the Master of Arts degree in Psychology, and a list of the courses offered for graduate credit are published in the Graduate Catalog.


## COLLEGE OF LIBERAL ARTS

John N. McDaniel, Dean<br>Todd Hall 231<br>Mark E. Byrnes, Associate Dean<br>Todd Hall 231<br>Hilary Stallings, Manager, Recruitment and Resources<br>Todd Hall 231<br>Judith Albakry, Academic Advisor<br>Todd Hall 221<br>Lucy Langworthy, Academic Advisor<br>Todd Hall 221<br>Kathy Jones, Graduation Coordinator<br>Todd Hall 221

Art • English • Foreign Languages and Literatures • Geosciences • History - Music • Philosophy • Political Science • Social Work • Sociology and Anthropology • Speech and Theatre

Thehe College of Liberal Arts, through its ten academic departments and one school, educates and serves all MTSU students in the University's General Education Program; offers graduate and undergraduate majors, concentrations, minors, interdisciplinary programs, and teacher preparation programs; and provides a wide variety of cocurricular activities including lecture series, concerts, performances, and exhibitions. With diverse programs in the humanities; social and earth sciences; and visual, performing, and communication arts, the college brings together an outstanding faculty and students to form a community devoted to lifelong learning, scholarship, research and discovery, and public service. Through both curricular and cocurricular offerings, the college also seeks to enrich the University and regional community with scholarly and cultural activities designed to promote among all University citizens and patrons a broad knowledge of liberal arts disciplines; a commitment to continual intellectual growth; the ongoing improvement of skills that enhance communication, problem-solving, and creative and critical thinking; and a global perspective that supports an appreciation of the cultural diversity within our region and beyond.

Following are the curricula, courses, and specific requirements for majors, concentrations, minors, and interdisciplinary programs offered or coordinated by each of the academic units within the college.

# Department of Art 

Jean Nagy, Chair
Todd Hall 227C
Anfinson, Baggarly, Buxkamper, Donovan, Dummons, Higgins, Johnson, Kelker, Lorson, Nuell, Phouthavong-Houghton, Recchia, Rushlow, Sickler-Voigt, Tewell

Programs in the Department of Art lead to the Bachelor of Science, the Bachelor of Fine Arts, or the Bachelor of Arts degree. Persons pursuing the B.S. degree will major in Art Education; this program offers preparation for public school teaching at all grade levels and for gradu-ate-level study in the field of art education.
In order to earn the B.F.A. degree, a student majors in Art and selects one of two concentrations-Graphic Design or Studio. These programs offer preparation for work as a commercial artist/designer and/or for advanced study in a studio area of interest.

Persons pursuing the B.A. degree major in Art History may elect a concentration in Modern and Contemporary, Medieval and Renaissance, or Non-Western: pre-Columbian, Latin American, African, and African American, or a general track without a concentration. This program offers preparation for those who wish to pursue careers in museums, galleries, or arts organizations and/or further study at the graduate level.
Minors in Art and Art History also are available.
Students transferring into department programs may be required to submit a portfolio of artwork for review before transfer credits are approved.
Transfer and MTSU students in any Art major (except Graphic Design concentration students) must have completed each foundation course-ART 1610, 1620, 1630, 1640, 1910, 1920, and 1930-with a grade of C (2.00) or better before progressing to their major courses.
Transfer and MTSU students in the Graphic Design concentration will continue to use candidacy program requirements listed on next page.

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

Recommended Lower-Division Curriculum
FIRST YEAR - FALL
ENGL 1010 (Comm)
FIRST YEAR - SPRING
Natural Sciences
ENGL 1020 (Comm)
ART 1610
Natural Sciences
ART 1620
ART 1630
4
ART 1640
ART 1920
ART 1910

SECOND YEAR - FALL
COMM 2200 (Comm)
Mathematics
History
Entry-level studios

SECOND YEAR - SPRING
ENGL 2020 or 2030 or HUM 2610 (Hum/FA)
HIST 2010, 2020, or 2030
Social/Behavioral Sciences
Entry-level studio
Second-level studio

## Major in Art

The B.F.A. program is designed for those who wish to work professionally as artists in art-related fields and/or work toward a graduate degree (M.F.A.). All students pursuing a major in Art are required to complete the General Education requirements as specified by the department. Students should consult with their advisors each semester in order to plan their schedules of courses.
Students electing the Studio concentration choose a studio emphasis from ceramics, painting, printmaking, or sculpture. Students in the Studio concentration must take 3 to 6 hours in directed problems leading to a senior exhibit. This is listed in the course descriptions as Level VI in each area.

## Concentration: Studio

The Studio concentration requires the completion of a minimum of 79 semester hours in art-related courses including

1. 30 hours of major core courses: ART 1610, 1620, 1630, 1640, 1910, 1920, 1930; PHIL 4100; and two upper-division art history courses;
2. 18 hours from a single studio area: Levels I, II, III, IV, V, and VI chosen from ceramics, painting, printmaking, or sculpture;
3. 22 hours of guided electives consisting of
a. Studio electives: 10 hours selected from entry- and upper-level courses in one or more of the following studio areas: book arts, ceramics, computer art, drawing, graphic design, interactive design, printmaking, painting, and sculpture.
b. Art electives: 12 hours selected from entry- and upper-level courses in one of the following areas: book arts, ceramics, computer art, drawing, graphic design, printmaking, painting, art history, sculpture, and multimedia. Courses should be relevant to the student's area of emphasis.
4. Art minor: 9 hours selected from entry- and upper-level courses in one of the following areas: book arts, ceramics, graphic design, printmaking, painting, and sculpture.

## Studio Portfolio Review

Each candidate for the B.F.A. degree with a Studio concentration must sign up for and submit representative samples of his or her art coursework to a Studio Portfolio Review and appear in person to discuss his/her progress toward the B.F.A. This will take place at the first scheduled Studio Portfolio Review that is immediately prior to or immediately following the student's successful completion of ART 1610, 1620, 1630, 1640, two art history courses, and four studio courses.

## Concentration: Graphic Design

The Graphic Design concentration requires the completion of a minimum of 79 semester hours in art and graphic-related courses including

1. 19 hours of foundation courses: ART 1610, 1620, 1630, 1640, 1910, 1920, and 1 additional hour as advised by department
2. 18 hours of core graphic design courses taken in the following sequence: ART 2310, 2325, 3325, 3330, 4310, 4320
3. 3 hours of ART 4330 - Internship, which may be taken concurrently with ART 4320
4. 15 hours of specified graphic-related electives:
A. ART 3930 or 4390
B. ART 3550 or 3770
C. ART 4280 or 4290
D. PHOT 2050 or ADV 3020
E. PHOT 3200 or ART 3610 or 3620
5. 9 hours of specified studio electives, complete 3 courses from:
A. ART 2130 or 3140
B. ART 2510
C. ART 3650 or 2620
D. ART 2710
E. ART 2810 or 3820
6. 6 hours of upper-division art history
A. ART 4920
B. One additional upper-division course in art history
7. 9 hours of a minor in art approved by the advisor and chosen from the approved areas

The Graphic Design concentration within the Department of Art includes a candidacy program based on successful completion of certain required classes with specified minimum grade point expectations and performance for retention in Graphic Design. The candidacy program imposes requirements in several areas:

1. Admission to most upper-division professional courses in the Graphic Design concentration will be restricted to students admitted to candidacy.
2. All students in the Graphic Design concentration should apply for admission to candidacy at the end of the semester in which they will have completed 45 semester hours of coursework.
3. At a minimum, students in the Graphic Design concentration must have completed each of the following courses with a grade of C (2.00) or better before applying for candidacy:

ART 1610 Two-Dimensional Design
ART 1620 Drawing I
ART 1630 Three-Dimensional Design
ART 1640 Drawing II
ART 2310 Graphic Design Technologies
ART 2325 Typographic Design
ART 3325 Word and Image
4. At a minimum, students applying for candidacy in the Graphic Design concentration must have an overall GPA of at least 2.00 on all University-level coursework.
5. Students applying for candidacy in the Graphic Design concentration must twice submit for juried review a portfolio containing work completed in the courses listed in item 3 above. (The majority of the work in the portfolio must be two-dimensional.) The first portfolio review will follow completion of ART 2325 and a second review will follow completion of ART 3325. If after the second portfolio review a student is not admitted to candidacy the student may, with modifications, submit the portfolio one additional time before being asked to find another major or concentration.

## Career Opportunities in Art

Students interested in career opportunities in art should consult their advisors for information regarding preparatory MTSU courses, graduate programs, certification, etc., for careers in arts administration and art therapy.

## Minor in Art

A general minor in Art requires the following sequence of courses: ART 1610, 1620, 1630, 1640, and two studio courses, one of which must be upper division and taken in residence.

Students majoring in Mass Communication programs take the following sequence, as requested by that college, for the Art minor: ART 1610, 1620, 1630, 1640, and two studio or art history classes, one of which must be upper division and taken in residence. Media Design majors in Mass Communication have the option of substituting ART 1910 or 1920 for ART 1640.

Students in the Digital Media Communication concentration in the Department of Electronic Media Communication take the following sequence, as requested by that college, for the Art minor: ART 1610, 1620, 2310, 3930, 4390, 4400. Digital Media Communication students have the option of substituting another appropriate upper-division interactive studio course for 3930, 4390, and 4400.

## Major in Art Education

The B.S. program in Art Education is designed for those who wish to teach in public schools. All students pursuing a major in Art Education are required to complete the General Education requirements as specified by the department and as required for certification. Students should consult with their advisors each semester in order to plan their schedule of courses.

Students majoring in Art Education minor in Secondary Education.

NOTE: Please see the Educational Leadership Department on page 166 for Secondary Education minor requirements.

## Art Education

The major in Art Education requires the completion of a minimum of 59 semester hours in the Department of Art.

1. ART 1610, 1620, 1630, 1640, 2200, 2510, 2710, 3210, 3220, 3230, and 3240;
2. 14 hours from ART $3550 ; 2130,3140$ or $4000 ; 3520 ; 3720,2810$, 3820, to include one series of two courses in a two-dimensional area and one series of two courses in a three-dimensional area plus an additional pair of either two-dimensional (2510 and 3550 or 2130 and 3550 or 2710 and 3720) or three-dimensional (2510 and 3520 or 2810 and 3820) offerings;
3. ART 1910, 1920, 1930 and 3 hours of upper-division art history.

## Department of Art Visual Resource Center

Located in Andrew L. Todd Hall 223, the Visual Resource Center creates digital images for the art faculty and provides a digital database of art images for use by Department of Art faculty and students. The expanding digital database comprises over 25,000 art images from prehistoric to contemporary eras. It offers images in a variety of formats for study or use in presentations. Other resources include over 50,000 analog slides available for checkout to the University population at large.
Hours are Monday through Friday from 8:00 a.m. until 4:30 p.m. Contact the curator at 615-898-5532.

## General Departmental Information

1. Students majoring in the department, or who are taking one or more art courses, may be required to attend various extracurricular activities including, but not limited to, exhibitions, films, and lectures during the semester.
2. The Department of Art reserves the right to retain certain selected examples of student work for teaching purposes and as a part of its permanent collection.
3. Students will be responsible for the purchase of certain materials in many courses as required by the instructor.
4. Various courses offered within the department may require of all students enrolled the effective use of communication skills, both written and verbal, which reflect university-level abilities.
5. Students majoring in Art with a Studio concentration are required to participate in a Studio Portfolio Review.
6. ART 4000 (Workshop) and 4640 (Advanced Art Problems) may be taken for a maximum of 9 hours each, no more than 3 hours per semester, and still count for undergraduate credit and graduation.
7. Levels I and II courses, which include book arts and ceramics, may be taken without prerequisites by non-art majors when so designated in the class schedule.
8. All courses are offered on a laboratory basis except ART 1910, 1920, 1930, 3870-3872, 3880, 3990, 4900, 4905, 4910, 4920, 4940, and 4960.

9. The Department of Art affirms that a theoretical and working understanding of the historical meanings and studio applications of the human image are critical in the education of visual art students. To develop such an understanding, Department of Art courses often utilize images of clothed and unclothed human figures and, in certain studio classes, live nude models.

## Major in Art History

The B.A. program in Art History is designed for those who wish to pursue careers in museums, galleries, or arts organizations and/or pursue further study at the graduate level. All students pursuing a major in Art History are required to complete the General Education requirements as specified by the department. Students should consult with their advisors each semester in order to plan their schedules of courses.
Students majoring in Art History may elect a general track with no concentration or choose from concentrations in Modern and Contemporary; Medieval and Renaissance; and Non-Western: pre-Columbian, Latin American, African, and African American. Art History majors must maintain a GPA of at least 2.50 in the major and complete a senior thesis before graduation.

## Art History

The major in Art History requires the completion of a minimum of 43 semester hours.

1. Major core of 18 hours:
a. 12 hours of art history courses: ART 1910, 1920, 1930, and 3940
b. HIST 1020
c. PHIL 2110
2. a. Concentration of 25 semester hours chosen from the following: Modern and Contemporary
ART 3880, 3990, 4880, 4900, 4910, 4920, 4940, 4960*
Non-Western
ART 3870, 3871, 3872, 3880, 4870, 4880, 4910, 4940, 4960*
Medieval and Renaissance
ART 3760, 3860, 3910, 3960, 4910, 4940, 4960*
*May be repeated for up to 10 hours credit
b. General track with no concentration
3. A minor of at least 15 hours taken from courses in art or another liberal arts discipline approved by the student's academic advisor
4. General electives of 9 hours
5. Foreign language courses in French, German, or Spanish of at least 12 hours in a single language; two courses must be at the intermediate or advanced level.

## Minor in Art History

A minor in Art History requires the following sequence of courses: ART 1910, 1920, and 1930, followed by 9 hours of elective, upper-division art history courses.

## Courses in Art [ART]

See back of catalog for course descriptions.

## Graduate Study

The department offers a minor at the graduate level. Requirements and a list of courses offered for graduate credit are published in the Graduate Catalog.

# Department of English 

Thomas Strawman, Chair<br>Peck Hall 302


#### Abstract

Albakry, Ashok, Badley, Baines, Barnett, Blackwell, Boldt, Bradley, Brantley, Bray, Brewer, Burleson, Cain, Casal, Casson, Cavender, Chapman, Clayton, Comas, Cox, Dayton, E. Donovan, K. Donovan, Dubek, Flanigan, Gaitely, Gardner, D. Gentry, W. Gentry, Hague, Helford, Hibbard, Hixon, Hollings, Holtzclaw, Hoop, Hopkirk, J. Jackson, M. Jackson, Johnson, J. Kates, R. Kates, Kerrick, King, Kirkman, Knox, Kostkowska, Lavery, Lawrence, Lee, Levine, Lutz, Lynn, Mackin, Marchant, McClure-Wade, McCluskey, McDaniel, Miller, Minichillo, Mitchell, Myatt, Neth, Ostrowski, Otto, Petersen, Phillips, Porth, Reed, Renfroe, Rhodes, Saksena, Scannell, Sherman, Smith, Sublette, Therrien, Tormey, Tyner, Walker, Williams, Wilson, Wilt


Courses in the Department of English meet the General Education needs of all students through the development of verbal and written communication skills and the appreciation of literature. The department offers two undergraduate English major programs (the Bachelor of Arts degree and the Bachelor of Arts with a concentration in Secondary English Teacher Licensure) and an English minor. Several interdisciplinary minors are also housed in the English Department.
The nonteaching Bachelor of Arts program is designed to give students a well-rounded background in the study of the English language and its literature. Students in our program have gone on to careers in editing, public relations, management, public service, and many other areas that value clarity of expression and logical thinking. Others have gone on to graduate programs, law school, or other professional education. Students in the Bachelor of Arts with teacher licensure program are offered preparation to teach English in grades 7-12 in the state of Tennessee.
All students in the English Department are assigned an advisor upon declaration of an English major. Students should meet with their advisors for guidance in planning their schedules and fulfilling all requirements. Those intending to get a professional license to teach English must consult with their advisors early in their university careers in order to ensure completion of the degree in a timely fashion. The University does not recommend anyone for licensure in English who has not satisfied requirements set by the College of Education and Behavioral Science for postbaccalaureate endorsement.
The English Department participates in interdisciplinary majors and minors in African American Studies; American Culture; Classical Studies; Early Modern European Studies; Environment and Human Society; Film Studies;

Global Studies; Great Books; Linguistic Studies; Media, History, and Culture; Medieval Studies; Middle Eastern Studies; Native American Studies; Russian Studies; Southern Studies; Twentieth-Century European Studies; Women's and Gender Studies; and Writing. See page 80 for a listing of interdisciplinary minors with their coordinating departments.
Before beginning the junior year, students should fill out an upper-division form with an advisor and file it with the Records Office. For 3000- and 4000 -level courses, there is normally a prerequisite of $\mathbf{9}$ semester hours of English with a grade of C- or better.

## General Requirements

A minimum of 9 semester hours in General Education composition and literature is required of all students for graduation. Students complete this requirement by taking ENGL 1010 and 1020 in sequence and ENGL 2020, ENGL 2030, or HUM 2610.

Students must pass ENGL 1010 and 1020 in sequence before taking ENGL 2020 or 2030 or HUM 2610. A minimum grade of C- in ENGL 1010 and 1020 is required to receive credit.
All first-time freshmen must take the ACT or SAT and have their scores reported to MTSU as part of the application procedure. On the basis of the ACT or SAT scores, MTSU will exempt students with credit from ENGL 1010 and 1020, place students in ENGL 1010, or require further testing as a basis for placement decisions. Placement is based on the following scores:
Enhanced ACT English score of 15-18: Placement in ENGL 1009 or further testing (See Academic Enrichment, page 98.)
Enhanced ACT English score of 19-31: Placement in ENGL 1010
Enhanced ACT English score of $\mathbf{3 2}$ or greater: Exemption from ENGL 1010 and 1020 with credit
Enhanced ACT English Score below 15: (See Academic Enrichment, page 98.)
SAT Verbal Score of 390-450: Placement in ENGL 1009 or further testing (See Academic Enrichment, page 98.)
SAT Verbal Score of 460-710: Placement in ENGL 1010
SAT Verbal Score of $\mathbf{7 2 0}$ or greater: Exemption from ENGL 1010 and 1020 with credit
SAT Verbal Score below 390: (See Academic Enrichment, page 98.)
Students also may be exempt from ENGL 1010 with credit by scoring 3 or better on the CEEB (see page 33). Students may earn credit for ENGL 2030 by scoring satisfactorily on CLEP exams (see page 32).
Students without ACT or SAT scores, students whose native language is not English, and students who challenge their placement in ENGL 1009 will need to take a placement test.
Based on placement test results, students whose native language is not English may need to enroll in ENGL 1008 or 1009 for ESL students before being allowed to enroll in ENGL 1010.

Successful completion of ENGL 1009, 1010, and 1020 requires a grade of C - or better. The grade of N may be awarded in ENGL 1009, 1010, and 1020. An N may be awarded only to students who are completing the course for the first time and who have met all course requirements (including completing all writing assignments and meeting attendance requirements) yet who have not demonstrated satisfactory writing skills to pass the course with a C - or better. The grade of N can be assigned only for a student's first completed attempt of ENGL 1009, 1010, and/or 1020; in subsequent attempts the student will be assigned a grade of $F$ if minimum writing standards are not met. The grade of $N$ is not punitive; it will calculate into Hours Attempted but not into Quality Hours, and thus it will not have an impact upon a student's GPA. However, since the grade is calculated into Attempted Hours, students receiving financial aid are strongly encouraged to contact the Financial Aid Office to see what, if any, impact an $N$ grade may have on their status.
All students will complete the required 9 semester hours of English General Education by passing the following courses in the sequence in which they are listed.

1. ENGL 1010
2. ENGL 1020
3. ENGL 2020 or 2030

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.
The English major is considered a "resident" major. Students may not apply more than twelve (12) hours of upperdivision distance learning (Web-based, correspondence, or videoconference) to the major, and no more than three of these hours may be taken outside of MTSU. English minors may not apply more than three hours of upper-division distance learning towards the minor.

## Teacher Licensure

Students seeking a license to teach in secondary schools (grades 7-12) must complete (1) a major in the subject they intend to teach; (2) a minor approved for the B.A. degree (see p. 60) or any interdisciplinary minor (see p. 80); and (3) the Secondary Education minor.

NOTE: Please see Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Major in English

A major in English consists of a minimum of 33 upper-division semester hours.

1. Students should take the required ENGL 3000 as soon as possible after declaring an English major or completing freshman and sophomore General Education requirements for English.
2. ENGL 3010, 3020, and 3030 are required of all English majors.
3. One course must be included from each of the following seven groups:
I. British Literature I: Courses numbered 3100 or 4100 (or a 3900/4900 special topics course focusing on British literature before the Restoration)
II. British Literature II: Courses numbered 3200 or 4200 (or a 3900/4900 special topics course focusing on British literature after the Restoration)
III. American Literature: Courses numbered 3300 or 4300 (or a 3900/4900 special topics course focusing on American literature)
IV. World Literature and Backgrounds of English Studies: Courses numbered 3400 or 4400 (or a $3900 / 4900$ special topics course focusing on world literature, or such courses outside the department as HUM 3950 and WMST 4209)
V. Writing, Language, and Pedagogy: Courses numbered 3500 or 3600 or 4500 or 4600
VI. Gender Studies or Cultural Studies: Courses numbered 3700 or 4700 (or a 3900/4900 special topics course focusing on gender or cultural studies, or such courses outside the department as FREN 3130)
VII. Film or Popular Literature: Courses numbered 3800 or 4800 (or a 3900/4900 special topics course focusing on popular literature or with a substantial film component)
4. With the approval of an advisor, the requirements above may be slightly modified to reflect a student's special interests, especially in cases where a student wishes to take additional courses in a concentrated area of study.
5. Students who wish to pursue a license to teach English in grades 7-12 should carefully follow the major requirements outlined in Concentration: Secondary English Teacher Licensure below.
6. Courses from the Special Topics 3900/4900 number sequence will apply to the category(ies) appropriate to the topic. Each special topics course will be substituted into the appropriate category by the student's advisor.
7. When taught by an English faculty member, certain interdisciplinary Honors seminars (UH 3500 and 4600) may be substituted, with approval, in one of the above groups.
8. ENGL 1010, 1020, 2020, 2030, or other lower-division English courses may not be counted as part of the hours required for an English major.
Majors are expected to consult a member of the English faculty each semester regarding the selection and arrangement of electives. Recommended minors for English majors include Foreign Language, History, Linguistics, Philosophy, Political Science, Speech and Theatre, Film Studies, Writing, and Women's and Gender Studies, but students may choose a minor either from those listed under the B.A. requirements (page 60) or from the interdisciplinary minors (page 80).
All students pursuing a major in English must complete the General Education requirements. Following is a suggested pattern of study for the first two years; however, consultation with an assigned advisor is necessary before each registration.
[^6]
## Concentration: Secondary English Teacher Licensure

A major in English that also satisfies the academic requirements for teacher licensure consists of a minimum of 32 upper-division semester hours.

1. Students should take the required ENGL 3000 in the second semester of the sophomore year or as soon as possible after declaring the English major.
2. ENGL 3010, 3020, and 3030 are required of all English majors.
3. ENGL 3745, 4500, and 4510 are required of all majors seeking teacher licensure in English.
4. One course must be completed from each of the following three groups:
a. One Shakespeare course
b. ENGL $3735,3300,3340$, or 3360
c. ENGL 3400, 3420 , or 3430
5. Two hours of upper-division English electives are required and are usually satisfied with a 3-hour course. Recommended electives include Advanced Composition, History of the English Language, Teaching ESL Writing and Grammar, Introduction to Linguistics, Modern Poetry, or any 4000-level special topics course.
Teaching majors are expected to consult with an English faculty advisor each semester to select coursework and choose a B.A. minor (in addition to the minor in Secondary Education). Recommended B.A. minors include Anthropology, Biology, Business Administration, Classical Studies, Early Modern European Studies, Economics, Foreign Language (French, German, or Spanish), Geography, Geology, History, Latin American Studies, Linguistics, Mathematics, Medieval Studies, Philosophy, Political Science, Psychology, Speech and Theatre, Sociology, Twentieth-Century European Studies, and Women's and Gender Studies.

In order to complete the English licensure program in four years, students are encouraged to work closely with a faculty advisor and to follow during their first two years the pattern of study suggested below.

| Recommended Curriculum for Teaching Majors |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 (Hum/FA) | 3 |
| Natural Sciences (2 prefixes) | 8 | ENGL 3000 | 3 |
| Foreign Language 1010, 1020 | 6 | Mathematics | 3 |
| HIST 2010, 2020, or 2030 | 6 | Foreign Language 2010, 2020 | 6 |
| COMM 2200 (Comm) | 3 | Social/Behavioral Sciences (2 prefixes) | 6 |
| Humanities and/or Fine Arts | 3 | FOED 1110 and 2110§ | 6 |
|  | 32 | HUM 2610 or other |  |
|  |  | Humanities and/or Fine Arts | 3 |

NOTE: Please see Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Minor in English

A minor in English requires a minimum of 15 upper-division hours including ENGL 3000. ENGL 1010 and 1020 cannot be counted as part of the hours required for the minor, nor can the 3 hours of sophomore literature. Minors may not enroll in ENGL 3010, 3020, or 4500, which are open only to English majors.

## Interdisciplinary Minors

Interdisciplinary minors are open to all students at the University. The Department of English coordinates the interdisciplinary minors in Film Studies, Great Books, and Writing. See Interdisciplinary Minors beginning on page 80.

## Courses in English [ENGL]

See back of catalog for course descriptions.

## Special Topics and Selected Topics Courses

The English Department curriculum includes courses that focus on special topics of interest to students and faculty. Courses such as ENGL 3450, 4230, 4330, 4570, 4750, 4860, and the entire 4900 course sequence make it possible to offer a greater variety of courses to satisfy degree requirements. The following is only a partial list of the special topics offered by the department. New special topics are approved every year.
A World of Studies: Narratives from Around the World (ENGL 3450)
African Diaspora (ENGL 4900)
American Drama (ENGL 4920)
American Independent Films (ENGL 4860)
American Naturalism and Realism (ENGL 4900)
American Popular Literature in the Nineteenth Century (ENGL 4900)
Autobiography (ENGL 4940)
British Children's Literature (ENGL 4750)
Browning and Tennyson (ENGL 4230)
Children and Film (ENGL 4750)
Children's Fantasy Fiction (ENGL 4750)
Children's Language (ENGL 4570)
Contemporary Novel of the Americas (ENGL 4950)
Contemporary World Cinema (ENGL 4860)
Development of the Novel in the Nineteenth Century (ENGL 4930) Horror Film (ENGL 4860)
Jane Austen and Popular Culture (ENGL 4230)
Language and Politics (ENGL 4570)
Literature of the Vietnam War (ENGL 4730)
Lyric Poetry (ENGL 4910)
Masters of Mystery (ENGL 4980)
Modern Arabic Literature in Translation (ENGL 4900)
Selected Topics in Language and Literature (ENGL 4910)
Multicultural Literature for Children and Adolescents (ENGL 4750)
Standard English in Society (ENGL 4570)
The Appeal of Harry Potter (ENGL 4980)
The Captivity Narrative in Early American Literature (ENGL 4940)
The Inklings (ENGL 4900)
The Modern Novel (ENGL 4930)
United States Slave Narratives (ENGL 4940)
Women Writers of the Restoration and Eighteenth Century (ENGL 4900)
Women's Popular Fiction (ENGL 4930)

## Honors College

The Department of English offers the following courses in Honors:
ENGL 1010 (Fall Semester)
ENGL 1020 (Spring Semester)
ENGL 2020 (Fall and Spring Semester)
ENGL 2030 (Fall Semester)

## Upper-Division Honors

ENGL 3230, 3340, 3410, 3840, 3850, 4130, 4140, 4310, 4410, and 4780

## Graduate Study

The Master of Arts and Ph.D. degrees are offered in English. Requirements for these degrees and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Foreign Languages and Literatures 

Thomas Heine, Interim Chair<br>Boutwell Dramatic Arts Building 301

Ananth, Conley, Da, Diaz, Goldberg, Hedgepeth, Lyons, Maisonneuve, McBreen, McCullough, Mistron, Morris, Neely, Nogueira, Novella, Rice, Rusciolelli, Thomas

Courses in foreign languages and literatures are designed to meet the needs of all students and to develop communication skills and appreciation of cultures and literatures. The major is offered for those preparing to teach foreign languages, for students wishing to develop proficiency in the languages, for students preparing for international careers, and for students planning for graduate study.

The major in Foreign Languages has three concentra-tions-French, German, and Spanish-and leads to either the Bachelor of Arts or Bachelor of Science degree. Minors are offered in French, German, and Spanish, and courses in Arabic, Chinese, Hebrew, Italian, Japanese, Latin, Portuguese, and Russian are available.
Interdisciplinary minors coordinated through the Department of Foreign Languages and Literatures include Early Modern European Studies, Latin American Studies, Linguistic Studies, Portuguese Studies, and Classical Studies.

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Teacher Licensure

Students seeking a license to teach a foreign language in secondary schools (grades 7-12) must complete (1) a major in the language they intend to teach; (2) FL 4500, Introduction to Teaching Foreign Languages; (3) a minor; and (4) the Secondary Education minor. Each student must pass an oral interview in the target language at the high intermediate level.

## Minor Requirements

Students must take a 15-18 hour approved minor acceptable for a B.A. degree.

## Secondary Education Minor Requirements

Students must contact their Secondary Education minor advisors for approval of appropriate courses. (For specific procedures and additional requirements for teacher licensure, see page166)

NOTE: Please see Department of Educational Leadership on page 166 for Secondary Education minor requirements.

## Major in Foreign Languages

A student majoring in Foreign Languages must select one of the concentrations and specialize in either French, German, or Spanish. A major consists of 35 semester hours in one language (excluding 1010) and must include at least 20 hours of upper-division work.

French specialists are required to take FREN 3010, 3040, 3080, either 3050, 3070, 3060, or 3110, and two 4000level courses. Native speakers of French will substitute FREN 3110, 3120, or an additional 4000-level course for 3010 and 3040 .

German specialists are required to take GERM 3010, 3020, and two 4000-level courses.

Spanish specialists are required to take SPAN 3010, 3020, and two 4000 -level courses. Native speakers of Spanish should consult with their advisors.

Majors should choose HUM 2610, Foreign Literature in Translation, to satisfy part of the General Education Humanities and/or Fine Arts requirements.

Majors should pursue the following lower-division program:
Recommended Curriculum

FRESHMAN
ENGL 1010, 1020 (Comm) Natural Sciences
Foreign language 1010, 1020
or 2010, 2020
Social/Behavioral Sciences COMM 2200 (Comm)

## SOPHOMORE

HUM 2610 (Hum/FA) 3
Humanities and/or Fine Arts (2 prefixes)
Foreign language 2010, 2020
or 3010, 3020
HIST 2010, 2020, or 20306
Mathematics 3
Electives 6

Before beginning the junior year, the student should file a degree plan with his or her advisor.

## Minor in French, German, Japanese, or Spanish

A minor in French, German, Japanese, or Spanish requires 18 semester hours in the selected language (excluding 1010), including 9 hours of 3000-and/or 4000-level courses.

## Advanced Placement Credit

A student scoring 3 or above on the Advanced Placement Exam for French, German, Latin, or Spanish of The College Entrance Examination Board (CEEB) will receive 6 credit hours (1010 and 1020). In addition, a student possessing knowledge of French, Spanish, German, or Latin resulting from high school study, family background, or foreign travel may earn up to 12 hours lower-division credit on the basis of a placement examination, provided the student does not already have college credit in the language for which he/she is seeking placement credit and provided the student successfully completes one course in the language at MTSU.
Students may make arrangements to take the placement test in the Media Lab, Boutwell Dramatic Arts Building 303B.

NOTE: No student is permitted to take 1010, 1020, 2010, and 2020 in a foreign language out of sequence without the permission of the instructor. Similarly, no student who has successfully completed an upper-level course will be permitted to enroll in a lower-division course in the same language without the permission of the instructor.

## Interdisciplinary Minors

Interdisciplinary minors are open to all students in the University. The Department of Foreign Languages and Literatures coordinates the interdisciplinary minors in Classical Studies, Early Modern European Studies, Latin American Studies, Portuguese Studies, and Linguistic Studies. See Interdisciplinary Minors beginning on page 80 .

## Class Attendance Policy

The instructor can at his/her own discretion drop a student after two class meetings if the student fails to attend the first two class meetings.

## Course in Foreign Languages [FL]

See back of catalog for course descriptions.

## Courses in Humanities [HUM]

See back of catalog for course descriptions.

## Courses in Arabic [ARAB]

See back of catalog for course descriptions.
Courses in Chinese [CHIN]
See back of catalog for course descriptions.

## Courses in French [FREN]

See back of catalog for course descriptions.

## Courses in German [GERM]

See back of catalog for course descriptions.
Courses in Hebrew [HEBR]
See back of catalog for course descriptions.

## Courses in Japanese [JAPN]

See back of catalog for course descriptions.

## Courses in Latin [LATN]

See back of catalog for course descriptions.

## Courses in Portuguese [PORT]

See back of catalog for course descriptions.
Courses in Russian [RUSS]
See back of catalog for course descriptions.

## Courses in Spanish [SPAN]

See back of catalog for course descriptions.

## Graduate Study

The department offers the Master of Arts in Teaching degree. Requirements for this degree and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Geosciences 

## Ronald L. Zawislak, Chair <br> Kirksey Old Main 325B

Abolins, Boda, Brown, Collins, Cribb, Garbharran, Harris, Hiett, Henry, Lobegeier, Nolan, O'Farrell, Ogden, Volker

Courses in the Department of Geosciences are designed to meet the General Education needs of all students, to broaden their knowledge of the physical environment, to enhance their cultural development, and to provide a solid foundation for those planning to enter fields in which geographical and geological knowledge is essential.

The department offers programs leading to a Bachelor of Science degree with a major in Geoscience and concentrations in Geography or Geology. To provide the student with maximum opportunities for career preparation, the two concentrations are subdivided into six career patterns: geography for teachers, geography, and geographic techniques within the Geography concentration; and geology, earth science, and earth science for teachers within the Geology concentration. Proper selection of courses will permit a student to work as a professional in a chosen area, pursue graduate studies, or be licensed to teach.
Minors in Geography, Geology/Earth Science, and Remote Sensing are offered, and the department participates in the Environmental Science and Technology major.
The Geosciences Department also sponsors an internship program which provides opportunities to receive on-the-job training with various agencies employing persons with geographic/geologic training. Details of this program may be obtained from the department.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Geoscience

All students pursuing the major in Geoscience must complete the General Education requirements and the departmental core requirements as follows:
GEOL 1030 Introduction to Earth Science, 3 hours*
GEOL 1031 Introduction to Earth Science Lab, 1 hour*
OR student may substitute GEOL 1040/1041 Physical Geology
for GEOL 1030/1031
GEOG 2000 Introduction to Regional Geography, 3 hours**

## Additionally:

For Geography concentration:
GEOG 4380 Cartography, 4 hours
For Geology concentration:
GEOL 3050 Field Methods in Geology, 2 hours
GEOL 3060 Computer Methods in Geology, 3 hours
*Can also serve as part of General Education requirement for Natural Sciences
**Can also serve as part of General Education requirement for Social/ Behavioral Sciences

Following is a suggested pattern of study for the first two years; however, consultation with the assigned advisor is necessary before registration.

## Recommended Curriculum

## FRESHMAN

ENGL 1010, 1020 (Comm)
Natural Sciences (2 prefixes)
Social/Behavioral Sciences
COMM 2200 (Comm)
Requirements as advised

## SOPHOMORE

ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)
Humanities and/or Fine Arts
$\quad 3$
$\quad(2$ prefixes $)$
HIST 2010, 2020, or 2030
Social/Behavioral Sciences
Mathematics
Requirements as advised3

## Concentration: Geography

## Career Pattern: Geography for Teachers

This program offers preparation for the student to meet professional requirements for teaching geography in the public schools and for graduate studies. This career pattern requires a minimum of 75 hours (in addition to the departmental core requirements).

[^7]Departmental Elective (3 hours)

In addition to major courses, the student must meet the following requirements:

1. A cognate (additional general education requirements) of 18 hours:
ANTH 2010 Cultural Anthropology
PS 1010 Foundations of Government
PS 3210 International Relations
PS 4220 World Politics
PS 4240 American Foreign Policy
SOC 1010 Introductory Sociology
2. A minor in Secondary Education (30 hours), involving education courses and directed teaching. Student must contact Secondary Education minor advisor for approval of appropriate courses for licensure. For specific procedures and additional requirements for teacher licensure, see appropriate catalog section.
NOTE: Please see the Educational Leadership Department on page 166 for information on Secondary Education minor.

## Concentration: Geography

## Career Pattern: Geography

This program is designed for students who plan to become professional geographers or who wish to pursue graduate study in geography and/or related fields. This career pattern requires a minimum of 75 hours (in addition to the departmental core requirements).

```
Required courses: (21 hours)
GEOG 1030 Physical Geography
GEOG 4360 Cultural Geography
GEOG 3401 or 3402 Field Course
GEOG 4550 Global Issues
GEOG 4490 Remote Sensing OR
    GEOG 4520 Image Interpretation
GEOG 4530 Geographic Information Systems
Two of the following regional courses: (6 hours)
GEOG 3120 Geography of Tennessee
GEOG 3410 Geography of the United States and Canada
GEOG 3420 Geography of Latin America
GEOG 3430 Geography of Europe
GEOG 3440 Geography of Asia
GEOG 3460 Geography of the Former Soviet Union
GEOG 3470 Geography of Africa
GEOG 4500 Geography of the Middle East
Two of the following topical courses: ( 6 hours)
GEOG 4310 Resource Management and Conservation
GEOG 4320 Economic Geography
GEOG 4330 Political Geography
GEOG 4340 Historical Geography
GEOG 4370 Urban Geography
GEOG 4470 Rural Settlement
GEOG 4480 Recreational Geography
GEOG 4540 Geography of Native Americans
```


## General Electives (6 hours)

Two minors (18 hours each) are required. These are to be selected in consultation with and approved by the major academic advisor.

## Concentration: Geography

## Career Pattern: Geographic Techniques

This program provides basic skills in the methods used to acquire, analyze, and present spatial information about the Earth's surface. These techniques are widely employed by government and industry in natural resource and environmental management, urban and regional planning, utility management, and transportation planning. This career pattern requires a minimum of 75 hours (in addition to the departmental core requirements).

## Required courses: ( $\mathbf{3 0}$ hours: 26 in GEOG and 4 in GEOL)

GEOG 1030 Physical Geography
GEOG 3401 or 3402 Field Course
GEOG 4490 Remote Sensing
GEOG 4510 Laboratory Problems in Remote Sensing
GEOG 4520 Image Interpretation
GEOG 4530 Geographic Information Systems
GEOG 4570 Advanced Geographic Information Systems
GEOL 4020 Geomorphic Regions of the United States

## Departmental Elective (3 hours)

## General Electives (6 hours)

Two minors (18 hours each) are required. These are to be selected in consultation with and approved by the major academic advisor.

## Minor in Geography

The minor in Geography requires 18 hours (all in courses with a GEOG designation) to be selected by the student and approved by a member of the faculty assigned as advisor. The minor will be specific enough to support the student's career plans.

## Concentration: Geology

## Career Pattern: Geology

This program is designed for students who plan to become professional geologists or who wish to pursue graduate study in geology. The Geology career pattern consists of 93 hours distributed between major field core requirements ( 12 hours), career pattern requirements ( 39 hours), two cognates ( 19 hours and 18 hours), and general electives ( 5 hours). An additional 27 hours of General Education requirements are required.

## Required courses: 39-43 hours

| GEOL | 1040/1041 Physical Geology/Lab* |
| :---: | :---: |
| GEOL | 1050 Historical Geology |
| GEOL | 3000 Mineralogy |
| GEOL | 3050 Field Methods in Geology** |
| GEOL | 3060 Computer Methods in Geology** |
| GEOL | 3160 Geologic Literature and Report Writing |
| GEOL | 4000 Petrology and Petrography |
| GEOL | 4020 Geomorphic Regions of the United States |
| GEOL | 4030 Invertebrate Paleontology |
| GEOL | 4070 Sedimentation and Stratigraphy |
| GEOL | 4080 Structural Geology |
| GEOL | 4100 Geophysical Prospecting |
| GEOL | 4130 Hydrogeology |
| GEOL | 4580 Seminar in Geology |

Geology elective to be chosen from the following: (3 hours)
GEOL 3010 Oceanography
GEOL 4140 Inorganic Geochemistry
GEOL 4150 Environmental Applications of Hydrogeology
Two cognates consisting of the following:
Cognate 1: 19 hours
CHEM 1110/1111 General Chemistry I (w/lab)
CHEM 1120/1121 General Chemistry II (w/lab)
MATH 1910 Calculus I
MATH 1920 Calculus II
GEOG 4530 Geographic Information Systems

## Cognate 2: 18 hours

BIOL 1110/1111 General Biology
PHYS 2010/2011 Non-Calculus-Based Physics I (w/lab) OR
PHYS 2110/2111 Calculus-Based Physics I (w/lab)
(approved) Geology Field Camp in western U.S.
Math/Science elective (required approval by major academic advisor) Plus 3 hours of Geoscience electives

Second semester physics (PHYS 2020/2021 or 2120/2121 may be substituted for BIOL 1110/1111. Computer Science I, CSCI 1170, and Probability and Statistics, MATH 2050, are strongly recommended.

## Concentration: Geology

## Career Pattern: Earth Science

The earth science program has two curricula. One, technical curriculum, is designed for those desiring a general background in earth science. The second, Earth Science for Teachers, is for those planning to teach the earth sciences.
The technical curriculum consists of 89 hours distributed between major field core requirements ( 12 hours), career pattern requirements ( 11 hours), career pattern electives ( 18 hours), a cognate ( 18 hours), a minor ( 18 hours), and general electives ( 12 hours). The minor, which must be in Chemistry, Physics, Biology, Mathematics, or Computer Science, will be selected by the student and approved by the major academic advisor. An additional 31 hours of General Education requirements are required.

```
Required courses: (16-20 hours)
GEOL 1040/1041 Physical Geology/Lab*
GEOL }1050\mathrm{ Historical Geology
GEOL 3010 Oceanography
GEOL 3050 Field Methods in Geology**
GEOL 3060 Computer Methods in Geology**
GEOL 4020 Geomorphic Regions of the United States
*Not required of students with an A or B in both GEOL }1030\mathrm{ and GEOL }103
**Departmental core requirements
Electives to be chosen from the following: (18 hours)*
ABAS 3340 Soil
GEOL 3000 Mineralogy
GEOL 4000 Petrology and Petrography
GEOL 4030 Invertebrate Paleontology
GEOL 4050 Meteorology
GEOL 4070 Sedimentation and Stratigraphy
GEOL 4080 Structural Geology
GEOL 4090 Problems in Geology
GEOL 4100 Geophysical Prospecting
GEOL 4130 Hydrogeology
GEOL 4150 Environmental Applications in Hydrogeology
*22 hours if GEOL 1040/1041 not taken
```


## Technical Cognate: (18 hours)

GEOG 4530 Geographic Information Systems
MATH 1720 Plane Trigonometry
Additional 12 hours of technical electives to be approved by major academic advisor

Science or Math Minor: (18 hours approved by major academic advisor)

## Concentration: Geology

## Career Pattern: Earth Science for Teachers

The Earth Science for Teachers curriculum is designed for those who plan to teach earth science in the secondary school system. This curriculum consists of 97 hours distributed between major field core requirements ( 12 hours), career pattern requirements ( 8 hours), career pattern electives ( 14 hours), a cognate (33 hours), and a minor in Secondary Education (30 hours) involving education courses and directed teaching. An additional 27 hours are required for General Education. Student must contact Secondary Education minor advisor for approval of appropriate courses for licensure. For specific procedures and additional requirements for teacher licensure, see appropriate catalog section.
NOTE: Please see the Educational Leadership Department on page 166 for information on the Secondary Education minor.

## Required Courses: (8 hours)

GEOL 1050 Historical Geology
GEOL 3401 or 3402 Field Course
Fourteen (14) hours of electives to be chosen from:
GEOL 3000 Mineralogy
GEOL 3010 Oceanography
GEOL 4000 Petrology and Petrography


GEOL 4020 Geomorphic Regions of the United States
GEOL 4030 Invertebrate Paleontology
GEOL 4070 Sedimentation and Stratigraphy
GEOL 4080 Structural Geology
GEOL 4130 Hydrogeology
GEOG 4310 Resource Management and Conservation
GEOG 4490 Remote Sensing
ABAS 3340 Soil
Math/Science Cognate: (33 hours)
CHEM 1010/1011 General Chemistry I (w/lab)
CHEM 1020/1021 General Chemistry II (w/lab)
PHYS 2010/2011 Non-Calculus-Based Physics I (w/lab)
PHYS 2020/2021 Non-Calculus-Based Physics II (w/lab)
BIOL 1110/1111, 1120/1121 General Biology (w/lab)
MATH 1720 Plane Trigonometry
GEOL 4050 Meterology
ASTR 1030/1031 Exploring the Universe OR
ASTR 3400 Fundamentals of Astrophysics

## Minor in Geology/Earth Science

The minor in Geology/Earth Science requires GEOL 1040/1041 (or GEOL 1030/1031 with a grade of A or B) and GEOL 1050 plus 10-14 additional hours at the 3000 level or above.

## Minor in Remote Sensing

The minor in Remote Sensing consists of 19 semester hours to be taken in the sequence listed below:
GEOG 1030 Physical Geography
GEOG 4490 Remote Sensing
GEOG 4510 Laboratory Problems in Remote Sensing
GEOG 4520 Image Interpretation
GEOG 4530 Geographic Information Systems

## Interdisciplinary Major or Minor in Environmental Science and Technology

The Department of Geosciences participates in an interdisciplinary major in Environmental Science and Technology in conjunction with Agribusiness and Agriscience, Biology, Chemistry, and Engineering Technology. A complete description can be found under the Interdisciplinary Majors and Minors found on page 80.

Courses in Geography [GEOG]
See back of catalog for course descriptions.

## Courses in Geology [GEOL]

See back of catalog for course descriptions.

## Honors College

The Department of Geosciences offers the following courses in Honors: GEOG 2000, GEOL 1030.

## Graduate Study

The department offers minors in Geography and Earth Science/Geology at the graduate level. The list of available courses offered can be found in the Graduate Catalog.

# Department of History 

Amy Sayward, Chair<br>Peck Hall 223

Bakari, Beemon, Bynum, Chao, Colvin, Conard, Crawford, Doyle, Foley, Foster, Garrison, Haas, Heffington, Hoffschwelle, Holloway, Hunt, Jones, Leone, Martin, McCormack, McCusker, McWatters, Myers-Shirk, Nelson, Norkunas, Pruitt, Rich, Rosenmuller, Rowe, Rupprecht, Scherzer, West, Williams, Woods

Courses in the Department of History are designed to meet the General Education needs of all students as well as to provide a solid foundation for those planning to pursue careers in history, law, journalism, business, and other fields.

The department offers a Bachelor of Arts degree in History and a Bachelor of Arts degree in History (teaching). The department also offers a minor in History.

## General Education Requirements

All students seeking a degree from the University must complete 6 semester hours in General Education History, selected from HIST 2010, 2020, and 2030. Sophomore-level standing (or above) is recommended for 2010, 2020, and 2030. For General Education Humanities and/or Fine Arts, one course of Western Civilization $(1010,1020)$ or of World Civilizations $(1110,1120)$ may be taken (see pages 64-67).

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in History (B.A.)

A major in History consists of 39 semester hours ( 13 courses). Four are lower-division courses: two 1000-level courses consisting of $1010^{*}$ or 1110* and 1020* or 1120*; two 2000-level courses selected from 2010*, 2020*, and 2030*. Nine are upper-division courses, one of which must be 3010 (Historian's Craft); two must be selected from each of the following areas: global, European, and U.S.; the remaining two may be any upper-division courses. The student must also fulfill all the other requirements for the B.A. degree (see page 60), to include a foreign language and a specific minor listed for the B.A. History majors are to see their departmental advisors at least once per semester.

[^8]Major in History (B.A.) Recommended Curriculum

## FIRST YEAR

ENGL 1010, 1020 (Comm) COMM 2200 (Comm)
Foreign Language 1010, 1020
HIST 1010 or 1110 and
1020 or 1120 (Hum/FA)
Natural Sciences
Social/Behavioral Sciences Math

THIRD YEAR
HIST 3010
Upper-division history U.S., European, Global electives
Minor(s)/Electives
15
SECOND YEARENGL 2020 or 2030 orHUM 2610 (Hum/FA)3
Foreign Language 2010, 2020 ..... 6
HIST 2010, 2020, or 2030 ..... 6
Natural Sciences ..... 4
Humanities and/or Fine Arts ..... 3
Social/Behavioral Sciences ..... 3
Minor(s)/Electives ..... 6
31
FOURTH YEAR
Upper-division historyU.S., European, Globalelectives12
Minor(s)/Electives ..... 1628

## Minor in History

A minor in History requires 18 semester hours ( 6 courses). Students choose one course from HIST 1010*, 1020*, 1110*, or $1120^{*}$; and one course from HIST 2010*, 2020*, 2030*, 2040, or 2050; and four upper-division courses (one of which must be in each of these areas: global, European, U.S.; and one other upper-division course).
*Courses counting as General Education requirements also needed for the History minor

## Major in History (B.A.) with Teacher Licensure

A major in History with teacher licensure consists of 39 semester hours ( 13 courses): five lower-division courses: 1110*, 1120*, 2010*, 2020*, and 2030 ( 3060 may substitute for 2030); and eight upper-division courses. Of the eight upperdivision History courses, one must be 3010 (Historian's Craft); two must be selected from each of the following areas: global, European, and U.S.; and the remaining course may be any upper-division History course. Students must also fulfill all the other requirements for the B.A. degree (see page 60), to include a foreign language** and a specific minor listed for the B.A., and must meet additional teacher licensure requirements and the Secondary Education minor requirements. History majors are to see their departmental advisors at least once per semester.
*Courses counting as General Education requirements also needed for the History major
**Prerequisites in foreign language may result in more than 124 hours

## Add-on Endorsement for Teacher Licensure in History

An add-on endorsement in History requires 21 hours (7 courses). Those courses are HIST 1110, 1120, 2010, 2020, 3010, one upper-division course in United States history, and one upper-division course in either global or European history. This endorsement assumes an initial teaching licensure and lacks three upper-division hours to fulfill the requirements for a History minor.

## Secondary Education Minor Requirements

Students must contact the Secondary Education minor advisor for approval of appropriate courses. (For specific procedures and additional requirements for teacher licensure, see page 163.)

NOTE: Please see the Educational Leadership Department on page 166
O for information for Secondary Education requirements.

Major in History (B.A.) with Teacher Licensure
Recommended Curriculum

## FIRST YEAR*

ENGL 1010, 1020 (Comm)
HIST 1110 (Hum/FA) and 1120
Natural Sciences
GEOG 2000 (Soc/Beh Sci)
Math
FOED 1110

## SECOND YEAR

6 ENGL 2020 or 2030 or HUM 2610 (Hum/FA) 3
COMM 2200 (Comm) 3

Foreign Lang. 2010, 20206
HIST 2010, 2020, or 20309
Natural Sciences 4
Humanities/Fine Arts 3
PS 1010 or 2010 or
ECON 2410 (Soc/Beh Sci) 3
FOED 21103 34

## THIRD YEAR

HIST 3010
Upper-division history U.S.,
European, Global, electives
Minor(s) to include education 18

## FOURTH YEAR

Upper-division history, U.S., European, Global electives
Minor(s) to include student teaching 21 30
*Prerequisites in foreign language may result in more than 124 hours;
3-6 hours of 1000-level foreign languages may be needed the first year.

## Interdisciplinary Minors

Interdisciplinary minors are open to all students in the University. The Department of History coordinates the interdisciplinary minors in African American Studies; Media, History, and Culture; Environment and Human Society; Medieval Studies; Southern Studies; Twentieth-Century European Studies; and American Culture. See Interdisciplinary Minors beginning on page 80.

## Courses in History [HIST]

See back of catalog for course descriptions.

## Graduate Study

The department offers the Master of Arts and Doctor of Philosophy in Public History degrees. Requirements for these degrees and a list of the courses offered for graduate credit are published in the Graduate Catalog.

## School of Music

## George T. Riordan, Director <br> Wright Music Building 150

Aliquo, Allsbrook, Bela, Bundage, Cancryn, Cornish, Davila, Dawson, DeBoer, Erice, Isley-Farmer, Lambright, Linton, Little, Loucky, McWhirter, Miyakawa, Nies, Pigg, Poythress, Pruett, Rice-See, Shearon, Simmons, Smith, Stone, Thomas, Waldecker, Wells, West Osterfield, Yelverton

The purposes of the School of Music are to educate and mentor music students to become articulate musicians, successful as music teachers, performers, composers, scholars, businesspersons in music-related enterprises, and/or students in advanced degree programs; to welcome students whose studies are concentrated in other fields into a community of music education and appreciation, instrumental and vocal instruction, and ensemble participation; to enrich the musical life of the University and community through public music performance and non-curricular instruction; and to provide leadership and maintain professional relationships and activities with musicians regionally, nationally, and internationally.

The school offers programs leading to the Bachelor of Music degree. Students may choose from seven concentrations within this major-Instrumental Music Education, Vocal/General Music Education K-12, Voice Performance, Instrumental Performance, Music Industry, Theory-Composition, and Jazz Studies. Minors in Music, American Music Studies, and Music Industry are also available.

The Philip C. Howard Music Library, located within Instructional Media Resources in LRC 101, houses audio and video recordings, musical scores, and reference materials. Anyone with a valid MTSU ID may borrow scores. Recordings circulate only to faculty and staff but may be used by anyone in-house.
The School of Music has been an accredited baccalaureate and graduate degree granting institutional member of the National Association of Schools of Music since 1970. The Bachelor of Music degree programs with concentrations in Instrumental Music Education and Vocal/General Music Education K-12 are accredited by the National Council for Accreditation of Teacher Education (NCATE).

The School of Music encourages its students to consider study abroad. MTSU is a member of two study-abroad consortia: KIIS (Kentucky Institute for International Studies) and CCSA (Cooperative Center for Study Abroad). Students may earn academic credit for their participation in these programs, and financial aid from MTSU may be used for them. Interested students should contact the

Study Abroad Office, (615) 898-5179, and check the consortia Web sites at www.kiis.org and www.nku.edu/ccsa.

## Requirements for Admission to the Bachelor of Music Degree

To be admitted into the Bachelor of Music degree program, all entering students must pass an audition before the faculty on their major instrument or voice. Students who do not pass the audition may be allowed, at the discretion of the faculty, to enroll in private music lessons or class instruction for one semester only. At the end of the semester the student must reaudition for admission into the program.
In addition, all prospective new or transfer undergraduate majors and minors are required to take the Music Theory and Aural Skills Diagnostic Exam to determine appropriate placement in the music theory program. For additional information and to schedule a time for the exam, contact the School of Music Office, Wright Music Building, Room 150, (615) 8982469. Students may not enroll in any music theory course until the exam is taken.
Students seeking a Bachelor of Music degree should refer to The School of Music Undergraduate Student Handbook that serves as the official document of the school concerning specific additional degree requirements and school policies and procedures. It is essential that all music majors consult their advisors each semester.

## Curricular listings include General Education requirements

 in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.
## All Bachelor of Music Concentrations Require the Following:

General Education Requirements - 41 hours

## Music Core Curriculum - $\mathbf{2 6}$ hours

MUS 1010 Recital Attendance ( 6 semesters) 0 credit
MUTH 1110 Theory and Aural Skills I 4 credits
MUTH 1120 Theory and Aural Skills II 4 credits
MUHL 1610 The World of Music
2 credits
MUTH 2110 Theory and Aural Skills III 3 credits
MUTH 2120 Theory and Aural Skills IV 3 credits
MUHL 3010 History of Western Art Music I 3 credits
MUHL 3020 History of Western Art Music II 3 credits
MUTH 4130 Orchestration and Arranging 2 credits
MUS 3140 Conductingl
2 credits
All music majors must take class piano or private piano instruction until they pass the piano proficiency examination prescribed by their degree programs. Students should see their advisors for details.

Students must earn a grade of C- or higher in MUTH 1110, 1120, 2110, 2120 (music theory sequence) and MUHL 1610, 3010, 3020 (music history sequence).

## Teacher Licensure

Students seeking a license to teach music in the public schools must complete (1) a major in Music following the concentration in either Instrumental Music Education or Voca//General Music Education K-12, (2) minor in Secondary Education, (3) the General Education Program, and (4) additional teacher licensure requirements. Students must contact a Secondary Education minor advisor for additional details and requirements relating to Teacher Licensure (see page 163).
NOTE: Please see the Educational Leadership Department on page 166 for Secondary Education minor requirements.

## Jury Examinations

All music majors and minors are required to participate in jury examinations in their primary performing areas. Nonmusic majors registered for private lessons may be required to perform a jury examination at the discretion of the instructor. Jury examinations are held to measure the student's progress at the conclusion of each semester. Those students who have presented and passed their senior recitals during the semester may be excused from jury examinations.

Undergraduate Music majors must pass a upper-division jury to qualify for applied music study at the MUAP 3000 level. A Music major must take his or her upper-division jury no later than the end of the sixth semester and if not passing must take an upper-division jury again the next semester. A third attempt must be accompanied by extraordinary circumstances and must carry the approval of the studio teacher and director of the School of Music.

## Concentrations in Music

Students majoring in Music must pursue one of seven concentrations. Requirements for each concentration follow:

## Concentration 1: Instrumental Music Education

MUED 1310 Woodwind Techniques I
MUED 1320 Percussion Techniques 1
MUED 1330 Brass Techniques
MUED 1410 String Techniques
MUS 1510 Class Voice I OR
MUS 2371 Applied Voice 1
MUS 1530 Class Piano I* 1
MUS 1540 Class Piano II*
MUED 2000 Philosophy and Introduction to Music Education 2
MUED 2320 Instrumental Music Lab (1+1) 2
MUED 3200 Music in the Elementary Grades for Music Majors 3
MUED 3230 Instrumental Materials
MUED 3250 Band Organization and Marching Band Techniques
MUED 3310 Woodwinds Techniques II
MUEN 3--- Ensembles** (9 hrs. participation required) 0
MUAP 2--- Private Instruction 4
MUAP 4--- Private Instruction 3
MUPD 3050 Jazz Pedagogy
MUS 3150 Conducting II Instrumental
MUTH 4110 Form and Analysis 2
MUAP 4800 Partial Senior Recital 34
*Not required if piano major instrument
**Ensembles
Primary Instrument: Brass, Woodwind, Percussion
3 hours from:
MUEN 3100
4 hours from:
MUEN 3110, 3120, 3300
1 hour from:
MUEN 37-0 (chamber ensemble)
1 hour from:
MUEN 3--- (elective ensemble)
Primary Instrument: Orchestral Strings
5 hours from:
MUEN 3300
2 hours from:
MUEN 3700, 3740
1 hour from:
MUEN 37-0 (chamber ensemble)
1 hour from:
MUEN 3--- (elective ensemble)
Primary Instrument: Piano
4 hours from:
MUEN 3000
2 hours from:
MUEN 3730
3 hours from:
MUEN 3--- (elective ensemble)
Primary Instrument: Guitar
4 hours from:
MUEN 3720
1 hour from:
MUEN 37-0 (chamber ensemble)
3 hours from:
MUEN 3--- (elective ensemble)

## Secondary Education Minor

Please see the Educational Leadership Department on page 166 for Secondary Education minor requirements.

## Concentration 2: Vocal/General Music Education

MUS 1530 Class Piano I*
MUS 1540 Class Piano II*
MUS 15-0 Class Guitar I or II
MUED 2000 Philosophy and Introduction to Music Education
MUED 2210 Instrumental Techniques for Music Classroom
MUED 2310 Choral Music Lab (two semesters, 1 cr. ea.)
MUPD 2180 Diction for Singers I (English or Latin)
MUPD 2--- Diction for Singers II, III, or IV
MUS 2530 Class Piano III
MUS 2540 Class Piano IV
MUED 3190 General Music in the Middle and Senior High School
MUED 3200 Music in the Elementary Grades for Music Majors
MUED 3220 Choral Music in the Middle and Senior High School
MUS 3160 Conducting II Choral 2
MUTH 4110 Form and Analysis
MUEN 3--- Ensembles** (9 hrs. participation required)
MUAP 2--- Private Instruction
MUAP 4--- Private Instruction
MUAP 4800 Partial Senior Recital

## SUBTOTAL

## **Ensembles

Primary Instrument: Piano or Organ
3 hours from:
MUEN 3000
2 hours from:
MUEN 3730
4 hours from:
MUEN 3200, 3210, 3220, 3230, 3260
Primary Instrument: Voice
5 hours from:
MUEN 3200, 3230
2 hours from:
MUEN 3210, 3220
2 hours from:
MUEN 3--- (elective ensemble)
Primary Instrument: Guitar
3 hours from:
MUEN 3200, 3210, 3220, 3230, 3260
5 hours from:
MUEN 3720
1 hour from:
MUEN 3--- (elective ensemble)

## Secondary Education Minor

Please see the Educational Leadership Department on page 166 for Secondary Education minor requirements.

## Concentration 3: Voice Performance

MUS 1530 Class Piano I 1
MUS 1540 Class Piano II 1
MUPD 2180 Diction for Singers I (English and Latin) 2
MUPD 2190 Diction for Singers II (Italian) 2
MUS 2530 Class Piano III 1
MUS 2540 Class Piano IV 1
MUAP 3800 Junior Recital
MUTH 4110 Form and Analysis
MUPD 2200 Dicion 2
MUPD 2200 Diction for Singers III (German) 2
MUPD 2210 Diction for Singers IV (French) 2
MUPD 4310 Vocal Pedagogy
MUHL 4710 Vocal Literature
MUEN 3--- Ensembles** (9 hrs. participation required) 7
MUAP 2372 Private Instruction-Voice 8
MUAP 4373 Private Instruction-Voice 12
Foreign Language***
MUAP 4900 Senior Recital 2
SUBTOTAL 52
**Ensembles
NOTE: Nine (9) hours of ensemble participation are required, but only seven (7) of those hours may be counted toward degree requirements; the remaining two hours may be taken for zero (0) credit.

## 6 hours from:

MUEN 3200, 3210, 3220, 3230, 3260
3 hours from:
MUEN 3250
***Foreign language proficiency: One year of foreign language proficiency in Italian, French, or German must be established through examination by the Department of Foreign Languages and Literatures or by a passing grade for the second semester (1020) of Elementary Italian, French, or German. In addition, three credit hours of study are required in a second foreign language, either Italian, French, or German.


Primary Instrument: Brass
6 hours from:
MUEN 3110, 3120
3 hours from:
MUEN 3710
3 hours from:
MUEN 3260
2 hours from:
MUEN 3300, 3400, 3700, 3710
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3260
1 hour from:
MUEN 3--- (elective ensemble)
Primary Instrument: Orchestral Strings
8 hours from:
MUEN 3300
5 hours from:
MUEN 3740
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
2 hours from:
MUEN 3--- (elective ensembles)
Primary Instrument: Woodwinds*
5 hours from:
MUEN 3110, 3120
5 hours from:
MUEN 3300
4 hours from:
MUEN 3750
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
1 hour from:
MUEN 3--- (elective ensemble)
*Saxophone majors may substitute their 5 orchestra hours with any ensemble elective.

Primary Instrument: Percussion
6 hours from:
MUEN 3110, 3120
3 hours from:
MUEN 3300

4 hours from:
MUEN 3500
3 hours from:
MUEN 3400, 3410, 3430, 3200, 3210, 3220, 3230, 3240, 3260

## Concentration 4b: Instrumental Performance - <br> Guitar

MUS 1530 Class Piano I 1
MUS 1540 Class Piano II 1
MUS 2530 Class Piano III 1
MUS 2540 Class Piano IV 1
MUTH 3110 Counterpoint 3
MUAP 3800 Junior Recital 1
MUHL 4060 Survey of Guitar Literature 2
MUTH 4110 Form and Analysis 2
MUPD 4350 Guitar Pedagogy
MUEN 3--- Ensembles**
MUAP 2412 Private Instruction-Guitar
$\begin{array}{ll}\text { MUAP } 4413 \text { Private Instruction-Guitar } & 12\end{array}$
MUAP 4900 Senior Recital 2
Upper-division Music Elective 2
SUBTOTAL
Free Electives 7
**Ensembles
NOTE: Ten (10) hours of ensemble participation are required, but only eight (8) of those hours may be counted toward degree requirements; the remaining two hours may be taken for zero (0) credit.

## 5 hours from:

MUEN 3720
1 hour from:
MUEN 3700
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260

## 3 hours from:

MUEN 3--- (elective ensemble)

## Concentration 4c: Instrumental Performance Piano

MUTH 3110 Counterpoint 3
MUAP 3800 Junior Recital 1
MUTH 4110 Form and Analysis 2
MUPD 4320 Piano Pedagogy 2
MUHL 4690 Piano Literature 3
MUEN 3--- Ensembles** 8
MUAP 2352 Private Instruction-Piano 8
MUAP 4353 Private Instruction-Piano 12
Foreign Language 6
Music Electives 5
MUAP 4900 Senior Recital 2
SUBTOTAL 52
**Ensembles
NOTE: Ten (10) hours of ensemble participation are required, but only eight (8) of those hours may be counted toward degree requirements; the remaining two hours may be taken for zero (0) credit.
4 hours from:
MUEN 3000
2 hours from:
MUEN 3730
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
3 hours from:
MUEN 3--- (elective ensembles)

| Concentration 4d: Instrumental Performance - Organ |  |
| :--- | :--- |
| MUTH 3110 Counterpoint | 3 |
| MUAP 3800 Junior Recital | 1 |
| MUTH 4110 Form and Analysis | 2 |
| MUPD 4330 Organ Pedagogy | 2 |
| MUHL 4720 Organ Literature | 2 |
| MUEN 3--- Ensembles** | 8 |
| MUAP 2362 Private Instruction-Organ | 8 |
| MUAP 4363 Private Instruction-Organ | 12 |
| Foreign Language | 6 |
| Music Electives | 6 |
| MUAP 4900 Senior Recital | 2 |
| SUBTOTAL | $\mathbf{5 2}$ |

**Ensembles
NOTE: Ten (10) hours of ensemble participation are required, but only eight (8) of those hours may be counted toward degree requirements; the remaining two hours may be taken for zero (0) credit.
4 hours from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
3 hours from:
MUEN 3000
3 hours from:
MUEN 3--- (elective ensembles)

## Concentration 5: Music Industry

A student in the Music Industry concentration may declare jazz as an emphasis but must first pass the upper-division jury in classical performance before continuing studies in jazz. The Partial Senior Recital requirement would be in jazz performance.
MUS 1530 Class Piano I*
MUS 1540 Class Piano II*
MUTH 3020 Commercial Songwriting
MUHL 3670 History of Popular Music in America
MUTH 4190 Introduction to MIDI and Sound Synthesis
MUS 4270 Music Internship
MUAP 4800 Partial Senior Recital
MUEN 3--- Ensembles**
MUAP 2--1 Private Instruction
MUAP 4--1 Private Instruction
Upper-division music electives
SUBTOTAL
*Not required if piano major instrument
All students must complete Recording Industry minor
**Ensembles
Primary Instrument: Guitar
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
4 hours from:
MUEN 3720
3 hours from:
MUEN 3--- (elective ensembles)
Primary Instrument: Piano
4 hours from:
MUEN 3000
1 hour from:
MUEN 3730
3 hours from:
MUEN 3--- (elective ensembles)
Primary Instrument: Organ
4 hours from:
MUEN 3000
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
3 hours from:
MUEN 3--- (elective ensembles)

Primary Instrument: Brass 5 hours from:
MUEN 3100, 3110, 3120, 3300
3 hours from:
MUEN 3--- (elective ensembles)
Primary Instrument: Woodwind
5 hours from:
MUEN 3100, 3110, 3120, 3300
3 hours from:
MUEN 3--- (elective ensembles)
Primary Instrument: Orchestral Strings
6 hours from:
MUEN 3300
2 hours from:
MUEN 3740
Primary Instrument: Percussion
5 hours from:
MUEN 3100, 3110, 3120, 3300
3 hours from:
MUEN 3500
Primary Instrument: Voice
5 hours from:
MUEN 3200, 3210, 3220, 3230, 3340, 3260
2 hours from:
MUEN 3250
1 hour from:
MUEN 3--- (elective ensembles)

## Concentration 6: Theory-Composition

MUS 1530 Class Piano I* 1
MUS 1540 Class Piano II* 1
MUS 2530 Class Piano III 1
MUS 2540 Class Piano IV 1
MUTH 3110 Counterpoint 3
MUTH 4110 Form and Analysis
MUTH 4190 Principles and Practices of Electronic Music
MUAP 2342 Composition
MUAP 4342 Composition
MUHL 4630 Seventeenth- and Eighteenth-Century Music
MUHL 4640 Nineteenth-Century Music
MUHL 4650 Twentieth-Century Music
MUAP 2--1 Private Instruction
MUAP 4--1 Private Instruction
MUAP 4900 Senior Recital
MUEN 3--- Ensembles**
SUBTOTAL
*Not required if piano major instrument
**Ensembles
Primary Instrument: Guitar
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
5 hours from:
MUEN 3720
1 hour from:
MUEN 3700
2 hours from:
MUEN 3--- (elective ensembles)
Primary Instrument: Piano
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
3 hours from:
MUEN 3000
1 hour from:
MUEN 3730

## 4 hours from:

MUEN 3--- (elective ensembles)
Primary Instrument: Organ
3 hours from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
3 hours from:
MUEN 3000
3 hours from:
MUEN 3--- (elective ensembles)
Primary Instrument: Brass and Woodwinds
3 hours from:
MUEN 3300
3 hours from:
MUEN 3100, 3110, 3120
1 hour from:
MUEN 3200, 3210, 3220, 3230, 3240, 3250, 3260
2 hours from:
MUEN 3--- (elective ensembles)
Primary Instrument: Orchestral Strings
6 hours from:
MUEN 3300
2 hours from:
MUEN 3740
1 hour from:
MUEN 3--- (elective ensembles)
Primary Instrument: Percussion
5 hours from:
MUEN 3110, 3120
1 hour from:
MUEN 3300
3 hours from:
MUEN 3500
Primary Instrument: Voice
5 hours from:
MUEN 3200, 3210, 3220, 3230, 3240, 3260
2 hours from:
MUEN 3250
2 hours from:
MUEN 3--- (ensemble electives)

## Concentration 7: Jazz Studies

SOC 4170, HIST 2040, OR HIST 2050
and
MUTH 3170, MUHL 4130, OR MUTH 4190
and
MUS 1530 Class Piano I*
MUS 1540 Class Piano II*
MUS 2670 Jazz Piano Lab
MUHL 2910 Styles and Analysis of Jazz
MUPD 3050 Jazz Pedagogy
MUHL 4530 History of Jazz
MUTH 3160 Jazz Theory I
MUTH 4170 Jazz Arranging
MUTH 4180 Improvisation I
MUTH 4280 Jazz Arranging II
MUTH 4380 Improvisation II
MUAP 2--- Private Instruction
MUAP 2--- Private Instruction (Jazz)
MUAP 4--- Private Instruction (Jazz)
$\begin{array}{lll}\text { MUEN } & 3--- & \text { Ensembles** } \\ \text { MUAP } & 4800 & \text { Partial Senior Recital }\end{array}$

## SUBTOTAL

*Not required if piano major instrument
**Ensembles
NOTE: Twelve (12) hours of ensemble participation are required, but only eleven (11) of those hours may be counted toward degree requirements; the remaining hour may be taken for zero (0) credit.
Primary Instrument: Saxophone, Trumpet, and Trombone
6 hours from:
MUEN 3400
6 hours from:
MUEN 3430
Primary Instrument: Piano, Bass, Drums, Guitar
4 hours from:
MUEN 3400
4 hours from:
MUEN 3430
4 hours from:
MUEN 3--- (ensemble electives)
Primary Instrument: Voice
6 hours from:
MUEN 3200, 3210, 3220, 3230, 3250, 3260
6 hours from:
MUEN 3240

MUHL 4130 Survey of World Music
MUHL 3670 History of Popular Music in America

## Minor in American Music Studies <br> (21-23 hours) <br> Required courses (12-14 hours): <br> MUTH 1110 Theory and Aural Skills I AND 4 <br> MUTH 1120 Theory and Aural Skills II OR 4 <br> MUTH 3160 Jazz Theory I AND 3 <br> MUTH 3170 Jazz Theory II 3 <br> $\begin{array}{lll}\text { AND } & & \\ \text { ANTH } 2010 & \text { Cultural Anthropology OR } & 3\end{array}$ <br> GEOG 4360 Cultural Geography 3 <br> AND <br> MUHL 4660 American Music 3

Guided Electives (9 hours) to be selected from the following:
MUHL $4530 \quad$ History of Jazz
MUHL 4130 Survey of World Music 3
MUHL 3150 Musics of the South 3
MUHL 3670 History of Popular Music in America 3
MUHL 4650 Twentieth-Century Music 3
RIM 3000 History of the Recording Industry 3
RIM 3100 Music as Popular Culture 3
SOC 4170 The Social Context of Southern Music 3

## Minor in Music <br> (20 hours) <br> Music Theory <br> MUTH 1110 Theory and Aural Skills I 4 <br> MUTH 1120 Theory and Aural Skills II 4

Private Instruction 4
4 semesters of private instruction in one field
Ensembles
2 semesters of ensemble participation
AND
Students will choose from the following two options:
Option \#1
MUS 1030 Introduction to Music 3
And choose one of the following four courses:
MUHL 4530 History of Jazz
MUHL 3120 Masterworks of Classical Music
.
.
.

## Option \#2

MUHL 1610 The World of Music 2
MUHL 3010 History of Western Art Music I 3
MUHL 3020 History of Western Art Music II 3

## In Addition

The student must fulfill all prerequisites for any course within the minor. Students must complete at least three semester hours at the upper-division level through MTSU in the minor.

## Minor in Music Industry <br> (24 hours) <br> Music Theory <br> MUTH 1110 Theory Aural Skills I 4 <br> MUTH 1120 Theory and Aural Skills II 4

Plus 12 credits selected from:
MUHL 1610 The World of Music 2
MUS 1030 Introduction to Music 3
MUTH 2110 Theory and Aural Skills III 3
MUTH 2120 Theory and Aural Skills IV 3
MUTH 3020*Commercial Songwriting 2
MUHL 3670 History of Popular Music in America 3
MUTH 4130 Orchestration and Arranging 2
MUTH 4170 Jazz Arranging 2
MUTH 4180 Improvisation I 2
MUTH 4190* Principles and Practices of Electronic Music 3
MUTH 4290*Electronic Music II 3
RIM/MUTH 4590* MIDI Studio Techniques 3
*Permission to enroll is given by the Recording Industry Department

## Private Instruction and/or Ensembles

Four semesters of private instruction and/or ensembles

## In Addition

The student must fulfill all prerequisites for any course within the minor. Students must complete at least three semester hours at the upper-division level through MTSU in the minor.

## Courses in Music [MUS]

See back of catalog for course descriptions.
Courses in Applied Music [MUAP]
See back of catalog for course descriptions.

## Courses in Music Education [MUED]

See back of catalog for course descriptions.

## Courses in Music Ensembles [MUEN]

See back of catalog for course descriptions.

## Courses in Music History

 and Literature [MUHL]See back of catalog for course descriptions.
Courses in Music Pedagogy [MUPD]
See back of catalog for course descriptions.

## Courses in Music Theory [MUTH]

See back of catalog for course descriptions.

## Graduate Study

The school offers the Master of Arts degree. Requirements for this degree and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Philosophy 

Ron Bombardi, Chair<br>James Union Building 302

Hinz, Johnson, Magada-Ward, Oliver, Principe, Purcell
The Department of Philosophy offers courses intended to acquaint students with philosophical methods, systems, and problems, as well as supply a philosophical background for graduate study in philosophy or related areas. Courses in religious studies are intended to acquaint students with the history and the beliefs of the major religions of the world. Programs in the department lead to a Bachelor of Arts degree with a major in Philosophy. Minors are offered in Philosophy and Religious Studies.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Philosophy

The major in Philosophy consists of 30 semester hours of philosophy courses including PHIL 2110, 4010, and 4020.
All students pursuing a major within this department must complete the General Education requirements. Following is a suggested pattern of study for the first two years; however, consultation with the assigned advisor is necessary before each registration.

| Recommended Curriculum |  |  |  |
| :---: | :---: | :---: | :---: |
| FRESHMAN |  | SOPHOMORE |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| Natural Sciences (2 prefixes) | 8 | HUM 2610 (Hum/FA) | 3 |
| PHIL 1030 (Hum/FA) | 3 | HIST 2010, 2020, or 2030 | 6 |
| Major/minor electives as advised | 10 | Social/Behavioral Sciences (2 prefixes) |  |
| COMM 2200 (Comm) | 3 | PHIL 2110, 3150 | 6 |
|  | 30 | Major/minor electives as advised | 9 |

## Minor in Philosophy

A minor in Philosophy consists of 15 semester hours of philosophy courses.

## Minor in Religious Studies

A minor in Religious Studies consists of 15 semester hours of courses in religious studies. PHIL 3200, 3300, and ANTH 4750 may be counted in the 15 hours.

## Courses in Philosophy [PHIL]

See back of catalog for course descriptions.

## Courses in Religious Studies [RS]

See back of catalog for course descriptions.

## Honors College

PHIL 1030 is offered periodically.


# Department of Political Science 

Clyde Willis, Interim Chair<br>Peck Hall 209

Byrnes, Carleton, DiPaolo, Franklin, Korobkov, Langenbach, Livingston, Maynor, McDaniel, Petersen, Perez-Reilly, Sloan, Tesi, Vernardakis

Courses in the Department of Political Science meet the needs of many students: those interested in public service, private business, or professional careers; those who wish to go to law school; those interested in international relations and foreign service employment in the public or private sector; and those interested in teaching government and social studies in secondary schools.
To accommodate these needs and interests within the objectives of liberal education, the department offers programs leading to the Bachelor of Arts and Bachelor of Science. The major areas and appropriate degrees follow:

1. a Political Science major (B.A. or B.S.) with either a
a. general focus or
b. Public Administration concentration or
c. Pre-law concentration;
2. an International Relations major (B.S.).

Minors are offered in Political Science, International Relations, and Public Administration. Interdisciplinary minors in Urban Studies, Russian Studies, Paralegal Studies, and African Studies are coordinated by the department.
All students at the University must fulfill the General Education requirements. These courses are primarily in the fields of English, history, science, and mathematics. Following are suggested curricula, but students should study the requirements carefully and consult with their advisors on those courses.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Political Science

The major in Political Science requires 33 semester hours of work, including PS 1010, 2010, 4000, and 4800.* All majors must include work in at least five of the following groups:

1. American government (PS 2020, 3050, 3060, 3100, 3160, 3170, 3320, 3330, 3340, 3350, 3400, 3420, 4120, 4250, 4360, 4410)
2. Comparative government (PS 3200, 3220, 3780, 3790, 4180, 4190, 4260, 4300, 4310, 4770, 4900)
3. International relations (PS 2130, 3210, 3220, 3500, 3510, 3780, 3910, 4030, 4126, 4210, 4220, 4240, 4250, 4260)
4. Public law (PS 2440, 3010, 3370, 3380, 3500, 3530, 4040, 4590)
5. Public administration (PS 3250, 3260, 3400, 3440, 4050, 4290, 4630)
6. Political theory and research methods (PS 4020, 4110, 4230, 4700, 4920, 4930)
*Those with a Pre-law concentration must take PS 1010, 2010, 4800, and two of the four following courses: PS 4000, 4230, 4700, 4920. Those with no concentration must take one of the following courses: PS 4230, 4700, 4920.

| Recommended Curriculum <br> FRESHMAN |  |  |  |
| :--- | ---: | :--- | ---: |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| COMM 2200 (Comm) | 3 | HUM 2610 (Hum/FA) | 3 |
| Mathematics | 3 | Humanities and/or Fine Arts |  |
| PS 1010 (Soc/Beh Sci) | 3 | (2 prefixes) | 6 |
| PS 2010 | 3 | Social/Behavioral Sciences | 3 |
| Natural Sciences (2 prefixes) | 8 | HIST 2010, 2020, or 2030 | 6 |
| Foreign Language/Minor* | 6 | PS area requirements | 6 |
|  | $\mathbf{3 2}$ | Foreign Language/Minor | 6 |
|  |  |  | $\mathbf{3 0}$ |

## JUNIOR

PS area requirements
PS 4000
Minors

## SENIOR

PS 4230, 4700, or 49203
PS 4800 3
Electives
6 Minors 12
30
Flectives
7
28
*Students pursuing the B.S. degree rather than the B.A. degree should take a second minor.

## Concentration: Public Administration

The Public Administration concentration is for those seeking administrative careers in government or public service agencies. A combination of general political science courses, core public administration courses, pertinent political science electives, and courses in related disciplines provides a sound background for an administrative career. Included in the major must be some work in five of the six political science subfields. Required courses are PS 1010, 2010, 4000, 4800 (general); PS 3250, 4290 (core); nine semester hours from PS 2020, 3160, 3260, 3400, 3440, 4050, 4590, 4630 (core); and six or more semester hours of coursework in political science relevant to public administration and the student's interests. In addition the student must complete INFS 3100 and ECON 2410, 2420. ACTG 2110, 2120 are recommended. Recommended minors include Accounting, Business Administration, Criminal Justice Administration, Economics, Finance, English, Information Systems, Psychology, and Sociology.

## Recommended Curriculum FRESHMAN

ENGL 1010, 1020 (Comm)
COMM 2200 (Comm)
Mathematics
PS 1010 (Soc/Beh Sci)
PS 2010
Natural Sciences (2 prefixes)
Foreign Language/Minor
6
3
3
3
3
8
6
32

## SOPHOMORE

ENGL 2020 or 2030 or HUM 2610 (Hum/FA)
Humanities and/or Fine Arts (2 prefixes)
ECON 2410 (Soc/Beh Sci) 6
(Soc/Beh Sci)
ECON 24203
HIST 2010, 2020, or 20306
PS 3250
Foreign Language/Minor

## JUNIOR

INFS 3100
SENIOR
PS 4000
PS designated courses
Minors
ACTG 2110, 2120

| SENIOR |  |
| :--- | ---: |
| PS 4800 | 3 |
| PS 4290 | 3 |
| PS | 9 |
| Minors | 12 |
| Elective | 1 |
|  | $\mathbf{2 8}$ |

## Concentration: Pre-law

The Pre-law concentration is designed for the student who plans to attend law school. A combination of core political science courses and courses in related disciplines has been found to provide a sound background for law school. Some law schools will not accept any professional or technical courses as part of their minimum requirement. It is essential that the student consult with his or her advisor in instances where such courses will be taken. In addition to meeting the basic requirements for the Political Science major, the Pre-law student must enroll in ECON 2410 (or 2420); PHIL 2110; COMM 3210 (or 2200); and PS 3530 (or ENGL 4605); ACTG 3000 or BLAW 3400; and one upper-division PS law class.

## Recommended Curriculum

## FRESHMAN

ENGL 1010, 1020 (Comm)
COMM 2200 (Comm)
Mathematics
PS 1010 (Soc/Beh Sci)
PS 2010
Natural Sciences (2 prefixes)

## SOPHOMORE

ENGL 2020 or 2030 or HUM 2610 (Hum/FA) 3 Humanities and/or Fine Arts (2 prefixes) 6
ECON 2410 (Soc/Beh Sci) or ECON 24203
HIST 2010, 2020, or 20306
PS 24403
PHIL 21103
Foreign Language/Minor 6

## SENIOR

PS Political Theory 6
PS cognate course 3
Minors 12
PS area requirement 3
Electives $\quad 4$

Foreign Language/Minor
JUNIOR
PS 3370,3380
ENGL 4605 or PS 3530
ACTG 3000 or BLAW 3400
PS 4800
Minors
PS area requirement
oreign Language/Minor

## Minor in Political Science

The minor in Political Science requires 18 semester hours of work, including PS 1010 and 2010.

## Minor in Public Administration

The minor in Public Administration requires 18 semester hours of work: PS 2010, 3250, and 12 semester hours to be selected from PS 2020, 3160, 3260, 3400, 3440, 4050, 4120, 4290 (maximum 3 hours), 4590, 4630.

## Major in International Relations

The major in International Relations requires 33 semester hours of work including PS 1010, 2010, 3210, 3220, and 4240. All majors must choose two courses from each of the following subfields:

1. International relations (PS 3500, 3510, 3780, 3910, 4030, 4126, 4210, 4220, 4250, and 4260)
2. Comparative government (PS 3200, 3220, 3780, 3790, 4180, 4190, 4260, 4300, 4310, 4770, 4900)
3. The remaining six hours may be drawn from any of the courses listed above or from PS 4000, 4200, 4230, 4290 (with prior approval), 4700, 4800, 4920, and 4930.
Substitutions may be made with the advisor's consent.
It is preferable that minors and electives be in foreign languages, humanities, or social science offerings that significantly contribute to an understanding of economic, geographical, historical, and cultural factors in international relations or in areas that provide students with substantive skills related to a professional environment such as business and computer science. Recommended related courses in social science are ANTH 2010; ECON 2410, 4440, 4470; GEOG 3420, 3430, 3460, 4330, 4500; HIST 3150, 4530, 4330, 4340; SOC 4510, 4520. Interdisciplinary minors with a cross-cultural or area studies emphasis are also recommended.

| Recommended Curriculum |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN | SOPHOMORE |  |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| COMM 2200 (Comm) | 3 | HUM 2610 (Hum/FA) | 3 |
| Mathematics | 3 | Humanities and/or Fine Arts |  |
| PS 1010 (Soc/Beh Sci) | 3 | $(2$ prefixes) | 6 |
| PS 2010 | 3 | Social/Behavioral Sciences | 3 |
| Natural Sciences (2 prefixes) | 8 | HIST 2010, 2020, or 2030 | 6 |
| Minor | 6 | PS 3210, 3220 | 6 |
|  | $\mathbf{3 2}$ | Minor | 6 |
|  |  |  | $\mathbf{3 0}$ |
|  |  |  |  |
| JUNIOR |  | SENIOR |  |
| PS subfields (IR/Comp) | 6 | PS 4240 | 3 |
| PS designated course | 3 | PS subfields (IR/Comp) | 6 |
| Minor | 12 | Minor | 12 |
| Electives | 9 | PS designated course | 3 |
|  | $\mathbf{3 0}$ | Electives | 4 |
|  |  |  | $\mathbf{2 8}$ |

## Minor in International Relations

The minor in International Relations requires 18 semester hours from PS 1010, 2010, 3030, 3210, 3220, 3500, 3510, 3780, 3790, 3910, 4126, 4180, 4190, 4200, 4210, 4220, 4240, 4260, 4300, 4310, 4770, 4900, 4920. PS 1010, 2010, and 3210 are mandatory.

## Major or Minor in Political Science with Teacher Licensure

Students who want to teach government in high school should minor in Secondary Education; complete 12 hours of history (may include General Education requirements); minor in History (highly recommended), Economics, or Geography; and take 33 hours in political science. These must include PS 1010, 2010, 4000, 4800; PS 3210 or 4220; PS 4230, 4700, 4920, or 4930; and 15 elective hours with at least one course in three of four specified areas-American Government, Public Law, Public Administration, and Comparative Government. Students must also complete additional teacher licensure requirements including COMM 2200 and either HIST 1010, 1020,1110 , or 1120.

Students with teacher licensure in History, Geography, and Economics who are seeking an add-on endorsement in Government must take PS 1010, 2010, 2440, 3210 or 4300, 2020 or 4120 , and an upper-division class in political theory for a total of 18 hours. Students without licensure in History, Geography, and Economics who are seeking an add-on endorsement in Government must take the classes above plus 3 additional hours of political science (a total of 21 hours).

NOTE: Please see the Educational Leadership Department on page 166 for Secondary Education minor requirements.

## Interdisciplinary Minors

Interdisciplinary minors are open to all students in the University. The Department of Political Science coordinates the interdisciplinary minors in African Studies, Urban Studies, Paralegal Studies, and Russian Studies. See Interdisciplinary Minors beginning on page 80.

## Courses in Political Science [PS]

See back of catalog for course descriptions.

## Courses in Paralegal Studies [PLEG]

See back of catalog for course descriptions.

## Honors College

The department offers these courses in Honors:
Political Science 1010 (Fall)
Political Science 2010 (Spring)
Political Science 4230 (Fall)

## Graduate Study

A graduate minor is offered in Political Science. Requirements and a list of the courses offered for graduate credit are published in the Graduate Catalog.

## Department of Social Work

## Rebecca Smith, Chair <br> Peck Hall 309

Chansuthus, Darby, Fontanesi-Seime, Frost, Lancaster, Rucker, Sanborn, Shaw-McEwen

The social work profession is dedicated to helping all people develop their strengths, to helping build a more economically and socially just society, and to helping the world become a better place in which to raise our families. Student training is offered through class work and special student work experiences to demonstrate how to relate effectively to all types of people and to appreciate how emotional, social, economic, political, and spiritual forces influence the behavior of those we are helping.
The Social Work Department has a number of scholarships for majors and information about them can be obtained from the department.
Some social work courses are open to nonmajors.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Social Work

The major in Social Work leads to a Bachelor of Social Work (B.S.W.) degree which is accredited by the Council on Social Work Education. The program's primary objective is to prepare the student for beginning professional practice in social work. It also provides a foundation for students planning to pursue graduate study in social work.
Students who choose to pursue a major in Social Work must take a minimum of 54 hours including SW 2570, 2630, 3000, 3110, 3120, 3160, 3161, 3200, 4480, 4580, 4590, 4650, 4680, and 4690; and one of the following: SW 3050, 3100, 3170, 3250, 4150, 4200, 4430, 4440, 4620, 4640, 4720. Social Work majors meet General Education Social/Behavioral Sciences requirements by taking SOC 1010 and PSY 1410 and one of the Natural Sciences requirements by taking BIOL 1030/1031. The student must earn a $C$ or better in all courses in the major in order to graduate.

## Minor Required of Social Work Majors

Social Work majors are required to have a minor of 15 hours. They may select any minor; however, it is suggested that they discuss with their advisors the advantages of certain minors.

## Admission to the Social Work Program

All Social Work majors must be formally admitted to the Social Work Program in order to be admitted into the field work courses and to obtain a Bachelor of Social Work degree. Students who are not yet formally admitted will be identified as pre-social work majors.

1. Requirements for admission to the Social Work Program:
a. completion of at least 60 semester hours toward a degree including at least 41 hours of General Education requirements;
b. completion of SW 2570, Introduction to Social Work, and 3 additional hours in social work courses with a grade of C or better;
c. an overall GPA of 2.00 for degree credit courses;
d. completion of at least 40 hours of volunteer work in a social agency, hospital, or social service organization. A reference form will be utilized as documentation of performance. Full or part-time social work employment may be considered in lieu of volunteer work;
e. possession of personal qualities consistent with social work values and ethics and the ability to relate to others with warmth and emotional stability.
2. Application procedure. Student must complete an application packet which consists of
a. application for Social Work major form;
b. three reference forms, at least one of which is from an MTSU social work professor;
c. essay;
d. current University transcript.
3. Criteria for acceptance into the Social Work Program:
a. submission of completed application packet by deadline date of the appropriate semester;
b. judgment of satisfactory quality of essay and suitability for professional social work by Social Work Faculty Admissions Committee;
c. satisfactory performance of required number of volunteer hours based on reference form;
d. a majority of "above average" and "outstanding" ratings on reference forms.

In addition, acceptance into the Social Work Program will be based upon the Social Work Faculty Admissions Committee's assessment of the student's potential for graduating with a B.S.W. degree and the student's interest and commitment to the pursuit of a career in the field of social services. Before any student is denied, the entire faculty must vote on the recommendation of the admissions committee.

## Recommended Curriculum FRESHMAN

ENGL 1010, 1020 (Comm)

MATH 1010 (Math)
SOC 1010 (Soc/Beh Sci)
PSY 1410 (Soc/Beh Sci)
SW 2570
Elective or minor

## JUNIOR

SW 3110, 3120, 3161, 3200, 4580
Social Work elective
Electives or minor

## SOPHOMORE

ENGL 2020 or 2030 or HUM 2610 (Hum/FA)
Humanities and/or Fine Arts (2 prefixes)
HIST 2010, 2020, or 2030
SW 2630, 3000, 3160
Elective or minor

## SENIOR

SW 4480, 4590, 4650, 4680, 4690
Elective or minor

## Minor in Social Welfare

The Social Welfare minor requires 15 semester hours. Students are required to take SW 2570 and four other social work courses of their choice.

## Certification/Endorsement in School Social Work

A school social worker's job is to assess the causes of academic and behavioral problems of children and develop a plan to address those concerns. The primary functions of the school social worker are working with children and families in crisis and assisting families of children with special needs.

To receive a certification in School Social Work from Middle Tennessee State University, the student must take the following courses:

```
FOED 2110 Educational Psychology
SPED 3010 Survey of the Exceptional Child
CDFS 4350 Parenting
SW 3250 School Social Work
```

Students must also complete two field placements in school settings. Upon completion of these requirements, students should contact the Social Work Office for authorization to apply for licensure. The Teacher Licensing Office in the College of Education and Behavioral Science handles the paperwork for application for licensure.

## Interdisciplinary Minors

Interdisciplinary minors are open to all students in the University. The Department of Social Work coordinates the interdisciplinary minor in Health Care Services. See Interdisciplinary Minors beginning on page 80 .

## Courses in Social Work [SW]

See back of catalog for course descriptions.

## Graduate Study

The department partners with APSU and TSU in offering the Mid-Tennessee Collaborative Master of Social Work Program, effective Fall 2009 with advanced standing effective Fall 2010. Requirements for this degree and a list of courses offered for graduate credit are published in the Graduate Catalog.

# Department of Sociology and Anthropology 

Jackie Eller, Interim Chair Todd Hall 342

Aday, Amey, Austin, Breault, Canak, Carter, Dye, Hampton, Hinote, Hodge, I. Leggett, W. Leggett, MacLean, Mertig, Pace, Peres, Smith, Wallace, Webber

The curriculum of the Department of Sociology and Anthropology are designed to serve the General Education needs of all students, to offer training for careers in applied fields, and to prepare students for graduate study in sociology, anthropology, and the applied social sciences.
Occupational fields include archaeology, corrections, social research, teaching, personnel, industrial relations, journalism, applied sociology or anthropology, religion, gerontology, foreign service, and social and cultural research. Every attempt is made to assist the student in working toward specific career goals.
The department offers programs leading to a Bachelor of Science degree with majors in Anthropology or Sociology and a Bachelor of Arts in Sociology with concentrations in Sociology or Anthropology. Minors in Sociology, Anthropology, Criminology, and Family Studies are available. Interdisciplinary minors in Archaeology, Asian Studies, and Native American Studies are coordinated by the department.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Sociology

To meet the requirements for the B.A. or B.S. degree, a student majoring in Sociology must take a minimum of 30 semester hours in sociology including SOC 1010, 3040, 3050, 3060, and 4980. Students working toward the B.S. degree are required to complete two minors, one of which may be within the department. The faculty advisor should be consulted for the specific requirements of each emphasis program. Persons pursuing the B.A. degree should consult page 60 of this catalog for the requirements.

In order to graduate, all students must complete, with the approval of their advisors, the General Education requirements.

| Recommended Curriculum |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN |  |  |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| SOC 1010* (Soc/Beh Sci) | 3 | HUM 2610 (Hum/FA) | 3 |
| Mathematics | 3 | SOC electives | 6 |
| Natural Sciences (2 prefixes) | 8 | HIST 2010, 2020, or 2030 | 6 |
| Humanities and/or Fine Arts |  | COMM 2200 (Comm) | 3 |
| $\quad$ (2 prefixes) | 6 | Social/Behavioral Sciences | 3 |
| Elective | 3 | SOC 3040*, 3050* | 7 |
|  | $\mathbf{2 9}$ | Elective | 3 |
|  |  |  | $\mathbf{3 1}$ |
|  |  | SENIOR |  |
| JUNIOR | 3 | SOC 4980* | 3 |
| SOC 3060* | 6 | SOC elective | 3 |
| SOC electives | 21 | Minor courses | $18-21$ |
| Minor | $\mathbf{3 0}$ | Electives | $4-7$ |
|  |  |  | $\mathbf{2 8 - 3 4}$ |

*Required courses

## Major in Anthropology

Two options are available for students interested in pursuing studies in Anthropology: 1) a Bachelor of Science in Anthropology; or 2) a Bachelor of Arts in Sociology with a concentration in Anthropology.

1. The major in Anthropology leading to a B.S. requires a minimum of 36 semester hours in the department. Required hours include ANTH 3010, 3210, 3310, 3410, and 4890 plus 21 hours of additional anthropology courses to be chosen in consultation with the advisor.
2. The B.A. in Sociology with a concentration in Anthropology is for students with interests in anthropology pursuing a second major where only the Bachelor of Arts degree is available. Required are 36 semester hours of anthropology including ANTH 3010, 3210, 3310, 3410, and 4890 plus 21 hours of additional anthropology courses to be chosen in consultation with the advisor.

## Minor in Criminology

The Criminology minor offers students an understanding of the social and psychological aspects of crime, including an in-depth examination of the typologies and classifications of crime; national and international crime patterns; various classical and contemporary theories of crime; causal and associated factors such as gender, race, class, and age; an understanding of victims; and preventative strategies. The minor requires 15 semester hours, including 6 hours of required courses and 9 hours of electives.

\section*{Required Courses: <br> | SOC | 4300 | Criminology |
| :--- | :--- | :--- |
| SOC | 4540 | Juvenile Delinquency |}

General Electives:

| ANTH 3650 | Forensic Anthropology |
| :--- | :--- |
| ANTH 3710 | Topics in Anthropology (with approval of advisor) |
| CJA 3700 | Women, Crime, and Justice Administration |
| CJA 3900 | Organized and White Collar Crime |
| PSY 4120 | Psychology of Criminal Behavior |
| PSY 4220 | Correctional Psychology |
| SOC 3210 | Drugs and Alcohol |
| SOC 3250 | Social Deviance |
| SOC 4140 | Violence in the Family <br> SOC 4150Topics in Sociology (with prior approval of <br> advisor) |
| SOC 4160 | Sociology of Gangs <br> SOC <br> Sociology Internship (highly recommended for <br> applied direction) |

## Minor in Family Studies

The minor in Family Studies requires 15 semester hours including SOC 4050. The student must select the remaining 12 hours from the following electives: SOC 2500, 3150, 3400, 4140, and 4500; SW 4620; and CDFS 4390.

## Recommended Curriculum <br> FRESHMAN

ENGL 1010, 1020 (Comm)
ANTH 2010 (Soc/Beh Sci)
Mathematics
Natural Sciences (2 prefixes)
ANTH electives
Elective


## JUNIOR

ANTH 3310*, 3410*
ANTH electives
Minor
*Required courses

## Minor in Anthropology

The minor in Anthropology requires 18 semester hours of anthropology including ANTH 2010 and 2210.

## Interdisciplinary Minors

Interdisciplinary minors are open to all students in the University. The Department of Sociology and Anthropology coordinates the interdisciplinary minors in Archaeology, Asian Studies, and Native American Studies. See Interdisciplinary Minors beginning on page 80.

## Courses in Sociology [SOC]

See back of catalog for course descriptions.

## Courses in Anthropology [ANTH]

See back of catalog for course descriptions.

## Graduate Study

The department offers the Master of Arts degree in Sociology. Requirements for this degree and a list of the courses offered for graduate credit are published in the Graduate Catalog.

# Department of Speech and Theatre 

Rebecca Fischer, Chair<br>Boutwell Dramatic Arts Building 205

Anderson, Boyd, Brea-Spahn, Church, Clark, Donnell, Garrard, Gibson, Halladay, Hansen, Hunt, Kim, Macon, McCormick, Nofsinger, Raffo, Richards, Seward, Smith, Sniderman, Willingham

Courses in the Department of Speech and Theatre are designed to meet the General Education needs of all students; to develop a wide range of skills to promote effective communication; to foster and sustain the understanding of theatre and dance within artistic, cultural, social, and historical contexts; to diagnose and treat persons with communication disorders; and to prepare students for careers in both corporate and nonprofit organizations.
The department offers a major in Speech and Theatre with concentrations in Communication Studies, Theatre, and Communication Disorders. Speech and Theatre is also the home department for an interdisciplinary major in Organizational Communication. Departmental programs lead to either a Bachelor of Arts or Bachelor of Science degree.
Minors in Speech and Theatre, Communication Disorders, Entertainment Arts Design, and Dance are available. The department also participates in five interdisciplinary minors-Aging Studies, Health Care Services, Linguistic Studies, Leadership Studies, and Entertainment Technology. In addition, the department offers four cocurricular programs-MTSU Debate, University Dance, University Theatre, and MTSU Speech-Language and Hearing Clinic.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Major in Speech and Theatre

The major in Speech and Theatre is designed to provide students with maximum opportunities to develop theoretical and practical appreciation of all phases of human communication. For students following the Communication Studies or Theatre concentration, preparation is offered for the pursuit of graduate study in a number of fields or for entry into professions including secondary school teaching, professional theatre, and communication work in business, industry, and government. The Communication Disorders concentration offers
preparation for careers dealing with evaluation, treatment, and prevention of human communication disorders. Students who complete the Communication Disorders concentration often pursue graduate study in speech-language pathology, audiology, or related health professions.
All students pursuing a major within this department must complete the General Education requirements. The following is a suggested pattern of study for the first two years; however, consultation with the assigned advisor is necessary before each registration.

## Recommended Curriculum FRESHMAN

ENGL 1010, 1020 (Comm) Mathematics
COMM 2200 (Comm)
Humanities and/or Fine Arts (2 prefixes)
Major/Minor courses as advised

## SOPHOMORE

ENGL 2020 or 2030 or HUM 2610 (Hum/FA)
HIST 2010, 2020, or 2030
Social/Behavioral Sciences (2 prefixes)
Natural Sciences (2 prefixes)
Major/Minor courses as advised

All students majoring in Speech and Theatre must complete COMM 2200 (Fundamentals of Communication) and earn a grade of C or better for the course to count as a prerequisite or to count towards graduation.

Students majoring in Speech and Theatre must receive a grade of $C$ (2.00) or better in all courses in their concentration for the course to count as a prerequisite or to count toward graduation.
Transfer students may apply toward a major or minor in Speech and Theatre up to 12 semester hours of freshman and sopho-more-level speech and theatre courses (1000- and 2000-level) taken at other institutions, provided the grade in each course is a C or better and provided each course is either equivalent to an MTSU course or is an acceptable elective in the speech and theatre disciplines. Upper-division speech and theatre courses taken at other institutions will be evaluated (see Acceptance of Transfer Credit) and may be accepted for credit toward a major or minor in Speech and Theatre, provided the grade in each course is a $C$ or better and provided each course is either equivalent to an MTSU course or is an acceptable elective in the speech and theatre disciplines.

## Concentration: Communication Studies

Courses focus on developing a wide range of skills to promote effective communication, analysis, and adaptability. Classical foundations and current research are covered. Students pursuing the Communication Studies concentration must complete COMM 2300, 3210, 3220, 3300, 3560, 4320, 4650, 4700, 4800 and ORCO 3240 plus 15 hours from the following: COMM 2150, 3020, 3225, 3230, 3325, 3340, 3350, 3570, 3580, 3620, 3630, 4260, 4620, 4630, 4800, 4900; CDIS 3250; ORCO 3250, 3500, 3650.
Students pursuing the Communication Studies concentration must also select at least one appropriate minor approved by the student's academic advisor.

## Concentration: Theatre

Students pursuing the concentration in Theatre typically aim for performance careers, graduate school or conservatory, or theatre management. The minor in Entertainment Arts Design is encouraged. Students must complete COMM 2200 plus THEA 1030 and the following required Theatre courses: THEA 2110, 2500, 3100, 3200, 3700, 4800, 4810, 4990 plus 2 hours of THEA 3900 and 2 hours of THEA 4900. Students must also complete 9 hours from the following guided electives: THEA 3400, 3600, 3800, 3810, and 4820. Students pursuing the B.A. degree take twelve (12) courses in one foreign language and a cognate, and students pursuing the B.S. degree take a cognate and one minor. Students may select from the following four cognates:

## Performance

## Required (6 hours):

THEA 3510 and 4500
Upon completion of 3510 and 4500, students must audition and interview for admission to the cognate. If the student is not accepted, THEA 3510 and 4500 will count toward the 9 hours of guided electives required by the department.
Required (6 hours):
THEA 4560 and 4580
6 hours selected from:
THEA 3500, 3910, 4290, 4570; MUHL 3140, 3670

## Directing

6 hours from THEA 4700, 4820, or 4290
3 hours from THEA 3000, 3300, 3310, 3400, 4100, 4200, 4220
6 hours from THEA 3510, 3800, 4560
3 hours from HIST 3030, 3040, 3150, 4220, 4240, 4410, 4750;
THEA 4890
Child Drama
Required (12 hours):
THEA 3600, 4600, 4610, 4620
6 hours selected from:
ENGL 3740; THEA 3510, 3910, 4290, 4500, 4700
Dance (18 hours)
DANC 1000, 2000, 3010, 3040, 4000, 4100, 4110, 4800

## Concentration: Communication Disorders

This program focuses on diagnosis and aid for those who have speech or hearing problems. It provides a foundation for students who wish to continue study at the graduate level to become certified as speech-language pathologists or audiologists or who wish to pursue other careers related to communication disorders.

Students pursuing the concentration in Communication Disorders must complete CDIS 3050, 3150, 3200, 3260, 3300, 3350, 3400, 4500, 4850, 4900, and either CDIS 3450 or 4800. Students must also complete a minimum of 9 hours of supervised clinical practicum through enrollment in CDIS 4550-4650 and 4700-4730 and a minimum of 12 hours of guided electives. Prior to enrollment in clinical methods, students must achieve a minimum overall GPA of 2.60 in 60 credit hours or 3.00 in the last 30 credit hours, a minimum GPA of 2.80 in the major, and a minimal grade of $C$ in each prerequisite course. To enroll in and continue clinical practicum, students must meet academic and professional eligibility criteria established by the faculty and published in the clinic manual. Academic criteria include the clinical methods GPA standards, mastery of phonetic features, and competence in
speaking and writing. Students who do not receive a grade of B- or higher in both English composition courses (ENGL 1010 and 1020) will be required to take an additional English course to improve writing proficiency.

## Major in Organizational Communication

The interdisciplinary major in Organizational Communication offers students preparation for careers in employee communication, special events and fundraising, and corporate and nonprofit communication. Opportunities for professional growth and networking are offered through IABC, the student chapter of the International Association of Business Communicators.

All students majoring in Organizational Communication must receive a grade of $\mathrm{C}(2.00)$ or better in all courses in the major for the course to count as a prerequisite or to count toward graduation.

Students pursuing the 30-hour interdisciplinary major in Organizational Communication must complete COMM 2300, 3300, 3340; COMM 3220 or PSY 4380; ORCO 3240, 3250 or 4200, 3500, 3750, 4500; ORCO 3650. Students must also take a statistics course (such as PSY 3020 or SOC 3050 or QM 2610 or MATH 1530) and 3 hours from COMM 4900 (1-3 hrs.), COED 2930 (3 hrs.), COMM 3620, 3630, 4620, 4630, or ORCO 4220 and must choose 18 hours from cognate list (see below). Students will have approximately 25 hours in electives and may also choose a minor to fulfill some of these hours; however, a minor is not required.
Students majoring in Organizational Communication must complete the General Education requirements. The following is a suggested pattern of study. Consult with an advisor before each registration.

## Recommended Curriculum FRESHMAN

ENGL 1010, 1020 (Comm) COMM 2200 (Comm)
COMM 2300
Humanities and/or Fine Arts
(2 prefixes)
Mathematics
Natural Sciences
Electives

## JUNIOR

COMM 3220 or PSY 4380
ORCO 3500, 3750
COMM 3300 or LEST 3010
Statistics
Cognate
Electives

## SOPHOMORE

ENGL 2020 or 2030 or HUM 2610 (Hum/FA) 3

## ORCO 3240

ORCO 3250 or 4200
Social/Behavioral Sciences (2 prefixes)
HIST 2010, 2020, or 20306
Natural Sciences 4
Elective 3

## SENIOR

SOC 3950 or $4560 \quad 3$
COMM 33403
ORCO 3650 or SOC 41503
ORCO 45003
Cognate
Electives 9

28

| Students choose 18 hours from the cognate list below: |  |  |
| :---: | :---: | :---: |
| Organizations (6 hours) |  |  |
| ATHC | 4800 | Administration of High School and College Athletics |
| ATHT | 4820 | Organization and Administration of Athletic Training |
| BCEN | 2900 | Entrepreneurship |
| BCEN | 3010 | Office Management |
| MGMT | 3610 | Principles of Management |
| MGMT | 3810 | Human Resources Management |
| MKT | 3820 | Principles of Marketing |
| PR | 3040 | Public Relations Principles |
| PSY | 3320 | Introduction to Industrial and Organizational Psychology |
| REC | 3010 | Introduction to Recreation and Leisure Services |
| REC | 3390 | Tourism and Commercial Recreation |
| RIM | 3600 | Survey of the Recording Industry |
| SOC | 3950 | Social Organizations and Institutions |
| SOC | 4560 | Organizational Structures and Processes |
| THEA/ORCO |  |  |
|  | 3800 | Introduction to Arts Management |
| Intercultural/International (3 hours) |  |  |
| BCEN | 4670 | International Business Communication |
| CJA | 4220 | Community Relations and Minority Problems |
| COMM | 3350 | Multicultural Communication |
| COMM | 3560 | Intercultural Communication |
| COMM | 3570 | Communication in the Middle East |
| FREN | 3030 | Business French |
| GERM | 3030 | Business German |
| HIST | 4810 | History of Women in the Third World |
| MGMT | 4620 | International Human Resource Management |
| MGMT | 4730 | Global Comparative Management |
| MES | 2010 | Introduction to Middle East Studies |
| PS | 3000 | The Political Status of Women in the World |
| PS | 3030 | Introduction to Human Rights |
| PSY | 4720 | Multicultural Perspectives in Psychology and Education |
| RIM | 3890 | International Recording Industry |
| SPAN | 3030 | Business Spanish |
| SPAN | 3060 | Introduction to Hispanic Culture |
| Diversity (3 hours) |  |  |
| BCEN | 4680 | Diversity in the Workplace |
| CJA/WMST |  |  |
|  | 3700 | Women, Crime, and Justice Administration |
| COMM | 3225 | Gender Communication |
| GERO | 2600 | Introduction to Gerontology |
| HLTH | 4390 | Women's Health |
| MGMT | 4500 | Employment Discrimination Law |
| ORCO | 3245 | Women, Leadership, and Communication |
| PS | 3010 | Women and the Law |
| PS | 3170 | Civil Rights Policy and Politics |
| PSY | 3250 | Perspectives on Black Psychology |
| SOC | 3400 | Gender and Society |
| PSY | 4610 | Adult Psychology and Aging |
| PSY | 4620 | Psychology of Women |
| REC | 3380 | Introduction to Recreation for Persons with a Disability |
| REC | 4470 | Leisure and Aging |
| SOC | 4010 | Social Inequity |
| SOC | 4240 | Race and Ethnic Relations |
| SOC | 4510 | Social Movements and Social Change |
| SOC | 4550 | Sociology of Religion |
|  |  |  |
| ATHC/PSY |  |  |
|  | 4060 | Sport Psychology |
| BCEN | 3510 | Business Communication |
| BLAW | 3400 | Legal Environment of Business |
| CDIS | 3050 | Introduction to Communication Disorders |
| COMM | 4800 | Special Topics in Communication |


| ECON/MGMT |  |  |
| :--- | :--- | :--- |
|  | 4510 | Unions and Collective Bargaining |
| ENGL | 3605 | Applied Writing |
| ENGL | 3620 | Professional Writing |
| HLTH | 4400 | Drugs and Violence in Health Education |
| HLTH | 4860 | Program Planning in Health Education |
| JOUR | 2710 | Media Writing |
| JOUR/EMC/RIM |  |  |
|  | 3650 | Free Expression, Mass Media, and the American |
|  |  | Public |
| LEST | 4500 | Topics in Leadership Studies |
| MGMT | 3940 | Business Ethics |
| MGMT | 3890 | Managerial Decision Making |
| MKT | 3840 | Personal Selling |
| MKT | 3850 | Promotion |
| MKT | 3865 | Sports Marketing |
| MKT | 3920 | Entertainment Marketing |
| ORCO | 4000 | Topics in Organizational Communication |
| PHIL | 2110 | Elementary Logic and Critical Thinking |
| PHIL | 3150 | Ethics |
| PSY | 4370 | Motivation and Work Attitudes |
| PSY | 4390 | Persuasion |
| RIM | 3770 | Publicity in the Recording Industry |
| RIM | 4320 | Concert Promotion and Touring |
| SOC | 4150 | Topics in Sociology |
| SOC | 4790 | Sport and Society |
| THEA/ORCO |  |  |
|  | 4850 | Development for Arts Organizations |
|  |  |  |

## Minor in Speech and Theatre

The minor in Speech and Theatre consists of 18 semester hours and includes COMM 2200. A student may concentrate coursework for the minor in the Communication Studies or Theatre concentration with the specific course requirements based primarily upon the individual student's academic interests and needs. Those students who wish to minor in Speech and Theatre should consult the department chair.

## Minor in Communication Disorders

The minor in Communication Disorders consists of 18 semester hours of courses selected from the listing for the Communication Disorders concentration.

## Minor in Entertainment Arts Design

This minor is designed for students majoring in Human Sciences, Electronic Media Communication, Recording Industry, Speech and Theatre, and others who plan a career in theatrical or entertainment design. The minor consists of 15 hours of courses selected from the approved list (below) after consulting with the minor advisor. Courses taken to meet major field of study requirements or other minor requirements may not be counted toward this minor.

| THEA | 2110 | Stagecraft |
| :--- | :--- | :--- |
| THEA | 3000 | Sound Design for Arts and Entertainment |
| THEA | 3100 | Make-Up Techniques for Performers |
| THEA | 3200 | Introduction to Costume for Arts and Entertainment |
| THEA | 3300 | Scene Design |
| THEA | 3400 | Introduction to Lighting for Arts and Entertainment |
| THEA | 4000 | Advanced Sound Design for Arts and Entertainment |
| THEA | 4100 | Special Effects Make-Up |
| THEA | 4200 | Costume Technology and Production |
| THEA | 4210 | Advanced Costume Technology and Production |
| THEA | 4220 | Costume Design for Arts and Entertainment |

THEA 4230 Advanced Costume Design for Arts and Entertainment
THEA 4290 Problems in Theatre
THEA 4300 Advanced Scenic Design
THEA 4390 Topics in Scenography
THEA 4400 Intermediate Lighting for Arts and Entertainment

## Minor in Dance

The Dance minor emphasizes cultural, social, and historical aspects of dance. Coursework meets National Dance Association standards. The minor requires 18 semester hours to include DANC 1000, 2000, 2010, 2020, 2040, 4100, and 4800.

## Interdisciplinary Minors

Interdisciplinary minors are open to all students in the University. The Department of Speech and Theatre coordinates the interdisciplinary minor in Leadership Studies. See Interdisciplinary Minors beginning on page 80.

## Teacher Licensure

The Speech and Theatre Department offers one teacher licensure program: Theatre (grades K-12).

## Teacher Licensure in Theatre K-12

Students will complete a major in Speech and Theatre by following a specified program in the Theatre concentration.

There is also a Secondary Education minor requirement. Students must contact their Secondary Education minor advisors for approval of appropriate courses. (For specific procedures and additional requirements for teacher licensure, see page 163.)

NOTE: Please see the Educational Leadership Department on page 166 for Secondary Education minor requirements.

## Cocurricular Requirements

The Speech and Theatre Department supports, directs, and staffs four cocurricular programs to supplement classroom theory and to benefit the University and surrounding communities. Students receive practical training through participation in cocurricular programs:
MTSU Debate-The debate program provides active intercollegiate competitive opportunities. The program is open to all undergraduate students in good academic standing.

University Dance-The MTSU Dance minor is housed in the Department of Speech and Theatre. Each year the department produces an "Evening of Dance" and one or more studio showcases. All students are invited to audition for the "Evening of Dance." The department also has a Ballet Association for students interested in the art of ballet.
University Theatre-The University Theatre program presents three major dramatic productions during the academic year plus a children's theatre production. All University Theatre performances are open to the public. Students majoring in Speech and Theatre and following the Theatre concentration participate in some aspect of each production. However,
participation is open to all members of the University and local community.
MTSU Speech-Language and Hearing Clinic-The SpeechLanguage and Hearing Clinic is open to all students at the University in need of speech, language, and hearing diagnosis and therapy. There is no charge to MTSU students for this service. Diagnostic and therapeutic services for persons in the midstate area with speech-language and hearing problems are also provided for a nominal fee. Students in the Communication Disorders concentration work in the clinic under the direct supervision of faculty members certified by the American Speech-Language-Hearing Association.

## Courses in Communication [COMM]

See back of catalog for course descriptions.

## Courses in Communication Disorders [CDIS]

See back of catalog for course descriptions.

## Courses in Dance [DANC]

See back of catalog for course descriptions.

## Courses in Leadership Studies [LEST]

See back of catalog for course descriptions.

## Courses in Organizational Communication [ORCO] <br> See back of catalog for course descriptions.

## Courses in Theatre [THEA]

See back of catalog for course descriptions.

## Honors College

The Speech and Theatre Department offers Honors classes in COMM 2150, 2200 and 3300 and THEA 1030.

## Graduate Study

A minor in Speech and Theatre is offered at the graduate level. The specific course requirements may be designed to meet the academic needs of the individual graduate student. Courses from communication studies, theatre, and communication disorders may be taken for graduate credit. The Graduate Catalog has details and course listings.

## COLLEGE OF MASS COMMUNICATION

Roy L. Moore, Dean<br>Mass Communication 247<br>John Omachonu, Associate Dean<br>Mass Communication 248<br>Hattie Traylor, Academic Advisor<br>Mass Communication 238A<br>Sarah Jackson, Academic Advisor<br>Mass Communication 238B<br>Janet Billingsley, Graduation Coordinator<br>Mass Communication 130<br>Electronic Media Communication • Journalism • Recording Industry

Thhe College of Mass Communication provides professional education for individuals aspiring to careers in the fields of electronic media communication (including photography), journalism, and the recording industry, as well as academic preparation for advanced studies. The college is dedicated to fostering an appreciation of the media's role in a democracy and developing better-informed citizens within the University community by providing theoretical foundations, professional skill sets, research, creative activity, experiential learning, and public service. Students are offered broad-based knowledge encompassing a global perspective and a professional ethos, as well as an affinity for free expression, critical thinking, and diversity of thought.

Following are the curricula, courses, and specific requirements for majors and minors in each department or school.

The college offers the Bachelor of Science degree with majors in Mass Communication and Recording Industry.
Mass Communication majors have an opportunity to specialize in one of six concentrations: Advertising-Public Relations, Media Design and Graphics, or Journalism in the School of Journalism; and Photography, Electronic Media Communication, or Digital Media Communication in the Department of Electronic Media Communication. Additional specialties are available in the various concentrations.

Majors in the Department of Recording Industry may choose a concentration in Commercial Songwriting, Music Business, or Production and Technology.

All curricular programs throughout the College of Mass Communication attempt to address a common, minimum set of core competencies. The current core competencies include

1. literacy;
2. history, theory, and research appropriate to the area;
3. law, ethics, and policy appropriate to the area.

The College of Mass Communication does not participate in the plus/minus (+/-) grading system. Therefore, the only grades that will be issued for coursework in the college are A, B, C, D, and F. Mass Communication majors must earn a C or better in each course in the college in order to graduate.

## Candidacy Program

The College of Mass Communication includes a candidacy program for all majors in the college. (See specific pages for Journalism, Electronic Media Communication, and Recording Industry.) This program is based on research indicating a relationship between completion of certain required classes with certain minimum grade point expectations and both performance and retention in the major. In addition, the requirements specified in the candidacy program are consistent with requirements of our national accrediting agency.

## Liberal Arts and Sciences Requirements

All students in the School of Journalism and in the Department of Electronic Media Communication must complete 65 approved liberal arts and sciences hours to meet graduation requirements.
Courses in the following rubrics are considered liberal arts and sciences courses:

AAS - African American Studies
ANTH - Anthropology
ARAB - Arabic
ART - Art
ASTR - Astronomy
CHEM - Chemistry
CHIN - Chinese
COMM - Communication Studies
CSCI - Computer Science
DANC - Dance
ECON - Economics
ENGL - English
FL - Foreign Languages
FREN - French
GEOG - Geography
GEOL - Geology
GERM - German

GERO - Gerontology
GS - Global Studies
HEBR - Hebrew
HIST - History
HUM - Humanities
ITAL - Italian
JAPN - Japanese
LEST - Leadership Studies
MATH - Mathematics
MES - Middle East Studies
MUAP - Applied Music
MUED - Music Education
MUEN - Music Ensembles
MUHL - Music History and
Literature
MUPD - Music Pedagogy
MUS - Music

MUTH - Music Theory
ORCO - Organizational
Communication
PHIL - Philosophy
PHYS - Physics
PORT - Portuguese
PS - Political Science
PSCI - Physical Science
PSY - Psychology
QM - Quantitative Methods
RS - Religious Studies

RUSS - Russian
SOC - Sociology
SPAN - Spanish
UH - University Honors
WMST - Women's Studies
SW - Social Work
STAT - Statistics
THEA - Theatre
MUSI (old)
SCI (old)
SPEE (old)

The following courses are also considered to be liberal arts and sciences courses:
INFS 2200 - Introduction to Microcomputing (comparable to CSCI 1150)
INFS 3100 - Principles of Management Information Systems
REC 3000 - Leisure in Your Life
The following minors are considered liberal arts and sciences minors:
African American Studies, American Culture, Anthropology, Archaeology, Art, Asian Studies, Biology, Chemistry, Classical Studies, Computer Science, Dance, Early Modern European Studies, Economics, Economics and Finance, English, Environment and Human Society, Film Studies, Gerontology, Global Studies, Great Books, Health Care Services, History, Latin American Studies, Leadership Studies, Mathematics, Medieval Studies, Music, Native American Studies, Philosophy, Political Science, Psychology, Social Welfare, Southern Studies, Speech and Theatre, Twentieth Century European Studies, Urban Studies, Writing, and Women's and Gender Studies. Minors in the departments of Foreign Languages and Literatures, Geosciences, Physics and Astronomy, and Sociology and Anthropology also meet requirements.

## Minor in Mass Communication

A total of 18 hours of coursework is required for the minor in Mass Communication. Interested persons should contact the director of the School of Journalism or the chairs of Electronic Media Communication or Recording Industry departments for a minor advisor before beginning coursework. A grade point average of 2.00 is required in a Mass Communication minor.

## University Media

Students majoring in Mass Communication are urged to become involved with the various campus media because they offer excellent opportunities for practical experience. These include student publications-Sidelines, the student newspaper; Collage, the student creative magazine-WMOT-FM, the campus NPR-affiliated radio station; Channel 10, the studentoperated cable television channel; WMTS, a student-operated, low-power radio station; and MT Records.

# Department of Electronic Media Communication 

Dennis Oneal, Chair<br>Mass Communication 250

Barr, Berg, Bratten, Gordon, Harris, Heigle, Heinrich, Jimison, Johnson, Kalwinsky, Nichols, Norton, Pondillo, Spires, Quarles, Woodard, Zheng

Majors in this department work toward a Bachelor of Science degree with a major in Mass Communication and a concentration in Photography, Electronic Media Communication, or Digital Media Communication. The Electronic Media Communication concentration is further broken down into specialties-electronic media journalism, electronic media management, electronic media production, and digital animation.
Students in the Photography concentration take 36 to 40 hours of coursework and students in the Electronic Media concentration (electronic media production, electronic media journalism, electronic media management, or digital animation) take 33 to 40 hours of coursework in the College of Mass Communication. Students in the Digital Media Communication concentration take 21 to 40 hours of coursework in the College of Mass Communication. A minimum of 80 hours must be taken outside the college with at least 65 hours in the liberal arts and sciences. Total university credit for practicum and internship courses cannot exceed six hours.
The Department of Electronic Media Communication will not accept any more than 12 semester hours of transfer credit toward either a major or minor in the department. This is a maximum number of credits that will be accepted and does not constitute a guarantee that each student desiring to transfer up to 12 semester hours into the program will be granted credit for all transfer hours. Each case will be judged on an individual basis.

Transfer credit will not be granted for any course taken at a nonaccredited institution. Transfer credit will normally be granted for theory/concept courses such as American Media and Social Institutions if the credit comes from an accredited institution of higher education. Transfer credit will not normally be granted for production courses taken at other institutions. No transfer credit will be awarded for any production course taken at an institution not accredited by the Accrediting Council on Education in Journalism and Mass Communication. For
skills courses taken at an ACEJMC-accredited institution, transfer credit may be awarded on a case-by-case basis.

Further information on departmental procedures for awarding transfer credit is available from the department.
All students in the Department of Electronic Media Communication are required to complete one 18 -hour minor in the liberal arts and sciences and may be required to complete a second minor depending upon the area of study. Students in the Electronic Media Communication (electronic media production, electronic media journalism, electronic media management, and digital animation), Digital Media Communication, and Photography concentrations may not minor in any area of the College of Mass Communication.
All sequences in the Department of Electronic Media Communication require admission to candidacy upon completion of 45 semester hours of university-level coursework. Specific requirements are listed below by sequence. Most upper-division courses in the department have admission to EMC candidacy as a prerequisite.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Concentration: Photography

The Photography program integrates technical competence and visual awareness. Experiences promote personal and professional growth toward careers in photography and media photography.
In addition to the core competencies outlined below, all Photography students take a two-dimensional design course in the Art Department.

## Admission to Candidacy

To be admitted to candidacy in the Photography concentration, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of C (2.00) or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710 or equivalent writing competency (grade of B or better in ENGL 1010 and 1020)
ENGL 1010 and 1020
3. Grade of C or better in each of the following:

PHOT 3040
PHOT 2050
PHOT 3110
4. Minimum GPA in PHOT 2050, 3040, and 3110 of 2.50
5. Minimum overall GPA in all college coursework of 2.50
6. Math course satisfying General Education requirements.

## Recommended Curriculum <br> \section*{FRESHMAN}

ENGL 1010, 1020 (Comm)
COMM 2200 (Comm)

## SOPHOMORE

| ENGL 2020 or 2030 or |  |
| :--- | ---: |
| HUM 2610 (Hum/FA) | 3 |
| Humanities and/or |  |
| Fine Arts (2 prefixes) | 6 |
| HIST 2010, 2020, or 2030 | 6 |
| Social/Behavioral Sciences |  |
| (2 prefixes) | 6 |
| PHOT 3040, 3110, 3120 | 9 |
|  | $\mathbf{3 0}$ |

## Photography Required Courses <br> College Core:

JOUR/EMC/RIM 1020 American Media and Social Institutions
JOUR 2710 Media Writing (or equivalent writing competency)
JOUR/EMC 4250 Mass Media Law OR
PHOT 4190 Ethics and Law for Visual Communicators

## Required Courses:

PHOT 2050 Basic Black and White Photography
PHOT 3040 History of Photography
PHOT 3110 Intermediate Photography I
PHOT 3120 Intermediate Photography II
PHOT 3810 Color Photo Communication I
PHOT 4040 Color Photo Communication II
EMC/PHOT 4060 Photojournalism
PHOT 4280 Editorial Photography

## Electives in Major:

Select three courses (total no more than 7 hours):
EMC/PHOT 3200 Still Digital Imaging
EMC 4800 Seminar in Media Issues (photo related)
EMC 4900 Individual Problems in Mass Communication
PHOT 3580 Photography Practicum
PHOT 4000 Photography Internship
PHOT 4190 Ethics and Law for Visual Communicators
PHOT 4220 Advanced Photojournalism
PHOT 4270 Photo Illustration
PHOT 4290 Documentary Photography
Total hours in the college: 33-40
Other Requirements:
Minor in liberal arts or science
ART 1610 Two-Dimensional Design
CSCI 1150 Computer Orientation
At least 65 semester hours in liberal arts and sciences
Total other requirements: 80-87

## Concentration: Electronic Media Communication

The Electronic Media Communication program blends theoretical and "hands-on" approaches to electronic media education. Students choose a specialty area that best fits their career goals. Students in the specialty areas of electronic media production, electronic media journalism, electronic media management, and digital animation enroll in EMC 2410, Introduction to Electronic Media (digital animation students may substitute EMC 2500, Survey of New Media) and EMC 3120, Sight, Sound, and Motion.

Electronic media journalism offers preparation for work in the electronic news field of reporting and news management. Electronic media production helps prepare graduates for work in production at television stations, production and postproduction houses, and corporate production settings. Studio
production courses are complemented with field production coursework. Electronic media management offers preparation for work in "behind-the-scenes" areas of broadcast stations and cable systems from programming to advertising and sales, combining the business and creative aspects of electronic media. Digital animation offers preparation for work in the television and video graphics professions. The specialty area also includes photo digital imaging, which is important to both the still photographer and the video animator. Students are encouraged to complete their education with internships in professional settings. Used for instruction are an electronic newsroom, a 100,000-watt FM radio station affiliated with National Public Radio, a student-operated FM station, a cable television channel, two TV studios, postproduction rooms, and a 40-foot mobile production lab.

## Recommended Curriculum

## FRESHMAN

ENGL 1010, 1020 (Comm)
COMM 2200 (Comm)
Natural Sciences (2 prefixes)
CSCI 1150
JOUR/EMC/RIM 1020
Electives

## Admission to Candidacy

To be admitted to candidacy in the electronic media journalism sequence, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of C (2.00) or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710, EMC 3020, EMC 3060, or equivalent writing competency (grade of B or better in ENGL 1010 and 1020)
ENGL 1010 and 1020
3. Grade of C or better in each of the following:

EMC 2410
EMC 3120
4. Minimum overall GPA in all coursework of 2.50 .
5. Math course satisfying General Education requirements.

## Electronic Media Journalism Requirements

College Core:
JOUR/EMC/RIM 1020 American Media and Social Institutions
JOUR 2710 Media Writing OR
EMC 3020 Writing for the Electronic Media OR
EMC 3060 Writing for Digital Media OR
equivalent writing competency
JOUR/EMC 4250 Mass Media Law (or equivalent competency)

## Department core:

EMC 2410 Introduction to Electronic Media
EMC 3120 Sight, Sound, and Motion
Specialty:
$\begin{array}{lll}\text { EMC } & 3410 & \text { Electronic Media News Writing } \\ \text { EMC } & 3500 & \text { Electronic Media News Reporting and Producing } \\ \text { EMC } & 3740 \text { Advanced Electronic Media News Reporting }\end{array}$

## Select one:

EMC 3020 Writing for the Electronic Media
EMC 3030 Electronic Media Advertising
EMC 3110 Radio Station Operations

EMC 3140 Multi-Camera Directing and Producing
EMC 3150 Single-Camera Directing and Producing
EMC 3570 Broadcast Announcing/Performance
EMC 4140 Electronic Media Programming
EMC 4430 Electronic Media Management
Mass Comm elective hours (6-13)
Total hours in the college: 33-40
Other requirements:
Minor in liberal arts
CSCI 1150 Computer Orientation OR
INFS 2200 Introduction to Microcomputing OR
INFS 3100 Principles of Management Information Systems
At least 65 semester hours in liberal arts and sciences

## Total other requirements: 80-87

## Admission to Candidacy

To be admitted to candidacy in the electronic media production sequence, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of $C$ (2.00) or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710, EMC 3020, EMC 3060, or equivalent writing competency (grade of B or better in ENGL 1010 and 1020)
ENGL 1010 and 1020
3. Grade of C or better in each of the following:

EMC 2410
EMC 3120
4. Minimum overall GPA in all college coursework of 2.50.
5. Math course satisfying General Education requirements.

## Electronic Media Production Requirements

## College Core:

JOUR/EMC/RIM 1020 American Media and Social Institutions
JOUR 2710 Media Writing OR
EMC 3020 Writing for the Electronic Media OR
EMC 3060 Writing for Digital Media OR
equivalent writing competency
JOUR/EMC 4250 Mass Media Law (or equivalent law competency)
Department Core:
EMC 2410 Introduction to Electronic Media
EMC 3120 Sight, Sound, and Motion
EMC 3130 Television Production
Specialty:
EMC 3140 Multi-Camera Directing and Producing OR
EMC 3150 Single-Camera Directing and Producing
EMC 4940 Advanced Seminar (6 hours)
Elective hours (9-13)
Total hours in the college: 33-40

## Other Requirements:

Minor in liberal arts
CSCI 1150 Computer Orientation OR
INFS 2200 Introduction to Microcomputing OR
INFS 3100 Principles of Management Information Systems
At least 65 semester hours in liberal arts and sciences
Total other requirements: 80-87

## Admission to Candidacy

To be admitted to candidacy in the electronic media management sequence, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of $\mathrm{C}(2.00)$ or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710, EMC 3020, EMC 3060, or equivalent writing competency (grade of B or better in ENGL 1010 and 1020)
ENGL 1010 and 1020
3. Grade of C or better in each of the following:

EMC 2410
EMC 3120
4. Minimum overall GPA in all college coursework of 2.50.
5. Math course satisfying General Education requirements.

## Electronic Media Management Requirements

College Core:
JOUR/EMC 1020 Understanding Mass Media
JOUR 2710 Media Writing OR
EMC 3020 Writing for the Electronic Media OR
EMC 3060 Writing for Digital Media OR
equivalent writing competency
JOUR/EMC 4250 Mass Media Law (or equivalent law competency)
Department Core:
EMC 2410 Introduction to Electronic Media
EMC 3120 Sight, Sound, and Motion

## Specialty:

EMC 3030 Electronic Media Advertising
EMC 3110 Radio Station Operations
EMC 4010 Electronic Media Sales
EMC 4140 Electronic Media Programming
EMC 4430 Electronic Media Management
Major elective hours (minimum 3, maximum 10)
Total hours in the college: 33-40

## Other Requirements:

Minor in liberal arts
CSCI 1150 Computer Orientation OR
INFS 2200 Introduction to Microcomputing OR
INFS 3100 Principles of Management Information Systems
At least 65 semester hours in liberal arts and sciences

## Total other requirements: 80-87

## Admission to Candidacy

To be admitted to candidacy in the digital animation sequence, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of C (2.00) or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710, EMC 3020, EMC 3060, or equivalent writing competency (grade of B or better in ENGL 1010 and 1020)
ENGL 1010 and 1020
3. Grade of C or better in each of the following

ART 1610
ART 1620
EMC 3120
CSCI 1150 or equivalent
4. Minimum overall GPA in all college coursework of 2.50.
5. Math course satisfying General Education requirements.

Digital Animation Requirements
College Core:
JOUR/EMC/RIM 1020 American Media and Social Institutions
JOUR 2710 Media Writing OR
EMC 3020 Writing for the Electronic Media OR
EMC 3060 Writing for Digital Media OR
equivalent writing competency
JOUR/EMC 4250 Mass Media Law OR
PHOT 4190 Ethics and Law for Visual Communicators

## Department Core:

EMC 2410 Introduction to Electronic Media OR
EMC 2500 Survey of New Media Communication
EMC 3120 Sight, Sound, and Motion
EMC 3130 Television Production
Specialty:
PHOT 2050 Basic Black and White Photography
EMC/PHOT 3200 Still Digital Imaging
EMC 3040 Electronic Graphics for Television
EMC 3300 Introduction to Digital Animation
EMC 3310 Intermediate Digital Animation
EMC 4300 Advanced Digital Animation
Electives (4 hours maximum)
Total hours in the college: 36-40
Other requirements
Required Art minor (ART 1610, 1620, 1630, $1640+6$ hours): 18
CSCI 1150 Computer Orientation
Digital animation students should take the first courses in their Art minor prior to taking digital animation courses.
At least 65 semester hours in liberal arts and sciences
Total other requirements: 80-84


## Concentration: Digital Media Communication

The Digital Media Communication concentration is an interdisciplinary program focusing on the development of interactive and new media. With a strong foundation in the rhetorical tradition of content development and visual communication, the program's practical and theoretical base prepares students for new media professions ranging from media convergence to multiplatform interactive productions.

## Recommended Curriculum

FRESHMAN
ENGL 1010, 1020 (Comm) COMM 2200 (Comm)
Natural Sciences (2 prefixes) Mathematics
CSCI 1150
EMC/JOUR/RIM 1020
Elective

## SOPHOMORE

ENGL 2020 or 2030 or
HUM 2610 (Hum/FA)
3
Humanities and/or
Fine Arts (2 prefixes)
HIST 2010, 2020, or 20306
Social/Behavioral Sciences
(2 prefixes)
EMC 25003
ART 16103
Elective

## Admission to Candidacy

To be admitted to candidacy in the Digital Media Communication concentration, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of $\mathrm{C}(2.00)$ or better in each of the following:

JOUR/EMC/RIM 1020
EMC 2500
3. Grade of C or better in each of the following:

CSCI 1150
ART 1610
4. Grade of B or better in ENGL 1010 and 1020 or JOUR 2710
5. Minimum overall GPA in all coursework of 2.50 .
6. Math course satisfying General Education requirements.

## Digital Media Communication Requirements

## College Core:

JOUR/EMC/RIM 1020 American Media and Social Institutions
Digital Media Core:

| ART | 1610 | Two-Dimensional Design |
| :--- | :--- | :--- |
| CSCI | 1150 | Computer Orientation |
| EMC | 2500 | Survey of New Media Communication |
| EMC | 3120 | Sight, Sound, and Motion |
| EMC | 3460 | Media and Messages |
| EMC | 4460 | Digital Communication Applications ( 6 hrs.) OR |
| EMC 4460 | Digital Communication Applications ( 3 hrs .) AND |  |
| EMC 4000 | Broadcast Internship (3 hrs.) |  |

## Legal/Ethical Competency

Choose one:
CSCI 3420 Social, Ethical, and Legal Implications of Computing
RIM 3700 Copyright Law
PHOT 4190 Ethics and Law for Visual Communicators
JOUR/EMC 4250 Mass Media Law
JOUR/EMC/RIM 3650 Free Expression, Mass Media, and the American Public

## Media Writing Competency

## Choose one:

JOUR 2710 Media Writing
EMC 3020 Writing for the Electronic Media
EMC 3060 Writing for Digital Media

Management/Marketing Requirement:
Choose one:
MGMT 3610 Principles of Management
MKT 3820 Principles of Marketing
Specialties
Students should choose 15 hours from one of the two specialties below to complete the Digital Media Communication concentration.

| Specialty A |  |  |
| :--- | :--- | :--- |
| GRAF | 2950 | Media Design Applications |
| GRAF | 3010 | Media Design and Visual Language |
| EMC | 3130 | Television Production |
| PHOT | 3200 | Still Digital Imaging (Photoshop) |
| EMC | 3300 | Introduction to Digital Animation |
| EMC | 4940 | Advanced Seminar - Electronic Media Production |
| RIM | 3010 | Audio Fundamentals |
|  | (MATH 1710 is a prerequisite for RIM 3010) |  |
| RIM | 4200 | Digital Audio Technology |
| ART | 4280 | Digital Illustration |
| CSCI | 3038 | Computer Languages: Python |

Specialty B
PR 3360 Public Relations Communication
PR 3380 Public Relations Publications
PR 4740 Public Relations Campaigns
ADV 3480 Advertising Media Planning
ADV 4160 Advertising Copywriting
ADV 4170 Advertising Campaigns
JOUR 4850 Ethics and Mass Communication
EMC 4210 Mass Communication and Society
EMC 4430 Electronic Media Management
EMC/PHOT 4060 Photojournalism
PHOT 4220 Advanced Photojournalism
Total hours in the college: 39
Other Requirements:
Required Art Minor (18 hours: ART 1610, 1620, 2310, 3930, 4390, and 4400)
At least 65 semester hours in liberal arts and sciences
Total other requirements: 81

## Courses in Photo Communication [PHOT]

See back of catalog for course descriptions.

## Courses in Electronic Media Communication [EMC]

See back of catalog for course descriptions.

## Honors College

The Department of Electronic Media Communication periodically offers the following courses in Honors: 1020, 2410, 3120, 4120, 4250, 4790, and 4800. See online class schedule and Honors information in this catalog.

# School of Journalism 

Zeny Sarabia-Panol, Interim Director Mass Communication 249

Alligood, Applegate, Asthana, Badger, Blake, Bodle, Burriss, Eason, Farwell, Foss, Hinton, Kim, Kimbrell, Lim, Livingston, Loubere, Marcellus, Moore, Rawls, Reineke, Wong

The School of Journalism offers work leading to the Bachelor of Science degree with a major in Mass Communication and concentrations in Advertising-Public Relations, Media Design and Graphics, or Journalism (newspaper/magazine). A total of 37-39 hours of coursework is required for the major in the School of Journalism. A minimum of 80 hours must be taken outside the college, with at least 65 hours in the liberal arts and sciences. Students outside the college may choose to minor in Mass Communication with an emphasis in any of the School of Journalism's concentrations.
Transfer credit of up to 12 semester hours toward the major or minor is allowed after careful review of catalog course descriptions. The School of Journalism will not normally grant transfer credit for courses taken at institutions not accredited by the Accrediting Council on Education in Journalism and Mass Communication.

Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

Freshmen/sophomores in all concentrations should follow this general outline of courses; selection of junior and senior courses should be made in consultation with the advisor. Majors must have a C (2.00) or better in all mass communication courses.

| Recommended Curriculum |  |  |  |
| :--- | ---: | :--- | ---: |
| FRESHMAN |  |  |  |
| ENGL 1010, 1020 (Comm) | 6 | ENGL 2020 or 2030 or |  |
| COMM 2200 (Comm) | 3 | HUM 2610 (Hum/FA) | 3 |
| Natural Sciences (2 prefixes) | 8 | Social/Behavioral Sciences |  |
| JOUR 1020, 2710 | 6 | $(2$ prefixes) | 6 |
| Humanities and/or |  | HIST 2010, 2020, or 2030 | 6 |
| Fine Arts (2 prefixes) | 6 | Consult advisor for course(s) |  |
|  | $\mathbf{2 9}$ | in major <br> Mathematics | $3-6$ |
|  |  | Minor electives* | 3 |
|  |  |  | 6 |
|  |  | $\mathbf{2 7 - 3 0}$ |  |

[^9]
## Concentration: Advertising-Public Relations

Advertising and public relations are distinct fields; these programs help students prepare for positions in advertising agencies and departments, media sales and management, advertising production and design, public relations agencies and departments, and organizational and employee relations.

## Advertising

Although students in advertising are primarily oriented toward either the creative or management side of the business, they essentially take the same courses in advertising. Creative students usually minor in liberal arts areas such as English and art. In addition to the required liberal arts minor, management students usually complete their second minor in a business area such as marketing.
Advertising students take the following required courses. Students should check the prerequisites for each course.

## Admission to Candidacy

To be admitted to candidacy, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of C (2.00) or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710
ADV 3020
ENGL 1010 and 1020 Math course satisfying General Education Mathematics requirement
3. Minimum overall GPA in all school and university coursework of 2.50 .

Advertising Required Courses:
Foundations ( 6 credits)
JOUR 1020 American Media and Social Institutions
JOUR 3650 Free Expression, Mass Media, and the American Public

Writing/Design (12 credits)
JOUR 2710 Media Writing
ADV 4160 Advertising Copywriting
Plus two of the following:
GRAF 2950 Media Design Applications
PR 3360 Public Relations Communication
PR 3380 Public Relations Publications
Conceptual (9 credits)
ADV 3020 Survey of Advertising
Choose two:
GRAF 2010 Media Design and Visual Language
JOUR 3510 Media History and American Culture
JOUR 4250 Mass Media Law
JOUR 4210 Mass Communication and Society
JOUR 4660 Mass Media Research
JOUR 4780 Media and Markets
JOUR 4790 Global News and World Media Cultures
JOUR 4800 Seminar in Media Issues
JOUR 4850 Ethics and Mass Communication
Professional Topics ( 6 credits)
ADV 3480 Advertising Media Planning
ADV 4230 Advertising Management
Special/Senior Topics (3 credits)
ADV 4170 Advertising Campaigns

Practicum/Internship or Upper-Division Elective (1-3 credits)
JOUR 3580 MC Practicum
JOUR 4000 MC Internship
Journalism upper-division elective
Total hours in the college: 37-39

## Public Relations

Students in public relations may choose the general program or a specialty in the recording industry; both programs require 37-39 credits. By the junior year, students should choose one minor in the liberal arts and sciences, plus 15 hours, approved by their major advisors, in the Jennings A. Jones College of Business. With permission of the advisor or the director of the School of Journalism, a student may replace the 15 hours in the Jennings A. Jones College of Business with a minor in the basic or applied sciences or a second minor in the liberal arts and sciences.

## Admission to Candidacy

To be admitted to candidacy, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of $\mathrm{C}(2.00)$ or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710
PR 3040
ENGL 1010 and 1020
Math course satisfying General Education Mathematics requirement
3. Minimum overall GPA in all school and university coursework of 2.50 .

Public Relations Required Courses:
Foundations ( 6 credits)
JOUR 1020 American Media and Social Institutions
JOUR 3650 Free Expression, Mass Media, and the American Public

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Writing/Design (15 credits)
Writing
JOUR 2710 Media Writing
PR 3360 Public Relations Communication
Choose one:
JOUR 3530 Feature Writing
JOUR 3450 Editing
JOUR 3520 Specialized Journalism
Design
GRAF 2010 Media Design and Visual Language
Choose one:
GRAF 2950 Media Design Applications
PR 3380 Public Relations Publications
Conceptual (9 credits)
PR 3040 Public Relations Principles
Choose two:
ADV 3020 Survey of Advertising
JOUR 3510 Media History and American Culture
JOUR 4250 Mass Media Law
JOUR 4210 Mass Communication and Society
JOUR 4660 Mass Media Research
JOUR 4780 Media and Markets
JOUR 4790 Global News and World Media Cultures
JOUR 4800 Seminar in Media Issues
JOUR 4850 Ethics and Mass Communication
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Professional Topics (3 credits)
Choose one:
PR 3400 Case Studies in Public Relations
GRAF 3910 Basic Media Design
JOUR 3090 Reporting
Senior Topics (3 credits)
PR 4740 Public Relations Campaigns
Internship/Practicum or Upper-Division Elective (1-3 credits)
Choose one:
JOUR 3580 MC Practicum
JOUR 4000 MC Internship
JOUR upper-division elective
Total hours in the college: 37-39
Public Relations/Recording Industry Specialty Required Courses: Foundations ( 6 credits)
JOUR 1020 American Media and Social Institutions
JOUR 3650 Free Expression, Mass Media, and the American Public

Writing/Design (15 credits)

## Writing

JOUR 2710 Media Writing
PR 3360 Public Relations Communication
RIM 3770 Publicity in the Recording Industry
Design
GRAF 2010 Media Design and Visual Language
Choose one:
PR 3380 Public Relations Publications
GRAF 2950 Media Design Applications
Conceptual (9 credits)
PR 3040 Public Relations Principles
RIM 3600 Survey of the Recording Industry
Choose one:
ADV 3020 Survey of Advertising
JOUR 3510 Media History and American Culture
JOUR 4250 Mass Media Law
JOUR 4210 Mass Communication and Society
JOUR 4660 Mass Media Research
JOUR 4780 Media and Markets
JOUR 4790 Global News and World Media Cultures
JOUR 4800 Seminar in Media Issues
JOUR 4850 Ethics and Mass Communication
Professional Topics (3 credits)
Choose one:
GRAF 3910 Basic Media Design
JOUR 3450 Editing
JOUR 3530 Feature Writing
PR 3400 Case Studies in Public Relations
RIM 3720 Artist Management
RIM 4320 Concert Promotion and Touring
RIM 3890 International Recording Industry
RIM 4620 Marketing of Recordings

## Senior Topics (3 credits)

PR 4740 Public Relations Campaigns
Internship/Practicum or Upper-Division Elective (1-3 credits)
Choose one:
Journalism elective
JOUR 3580 MC Practicum
JOUR 4000 MC Internship/
RIM 4000 Recording Industry Internship: Business
Total hours in the college: 37-39

## Concentration: Media Design and Graphics

Media Design and Graphics involves all the elements of visual communication, from traditional typography to digitized design for newsletters, newspapers, magazines, and the Web. The sequence's main emphasis is publication design, including print and interactive media that deliver information, opinion, and entertainment via printed publications ranging from informational graphics, brochures, books, magazines, and newspapers to the digital production in various multimedia forms, including the Internet.
Media Design and Graphics students take the following required courses. Students should check the prerequisites for each course.

## Admission to Candidacy

To be admitted to candidacy, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of $C$ (2.00) or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710
GRAF 2010
ENGL 1010 and 1020
Math course satisfying General Education Mathematics requirement
3. Minimum overall GPA in all school and university coursework of 2.50.

Media Design and Graphics Required Courses:
Foundations (6 credits)
JOUR 1020 American Media and Social Institutions
JOUR 3650 Free Expression, Mass Media, and the American Public
Writing/Design (12 credits)
Writing (9 credits)
JOUR 2710 Media Writing
JOUR 3450 Editing
Choose one:
JOUR 3090 Reporting
JOUR 3530 Feature Writing
EMC 3020 Writing for the Electronic Media
EMC 3060 Writing for Digital Media
Design
GRAF 3910 Basic Media Design (Media Design and Graphics concentration)
Conceptual Topics (12 credits)
GRAF 2010 Media Design and Visual Language
Choose three:
JOUR 3510 Media History and American Culture
JOUR 4250 Mass Media Law
JOUR 4210 Mass Communication and Society
JOUR 4660 Mass Media Research
JOUR 4780 Media and Markets
JOUR 4790 Global News and World Media Cultures
JOUR 4850 Ethics and Mass Communication
PHOT 4190 Ethics and Law for Visual Communicators
Senior Topic ( 6 credits)
GRAF 4010 Publication Design
GRAF 4180 Advanced Media Design
Internship (1-3 credits)
Choose one or a combination of not more than 3 hours total
JOUR 3580 MC Practicum
JOUR 4000 MC Internship
Journalism upper-division elective
Total hours in the college: 37-39

## Concentration: Journalism

The concentration in Journalism offers preparation for students who wish to be news reporters, copy editors, feature writers, editorial writers, and freelance magazine writers. Students should check the prerequisites for each course.

## Admission to Candidacy

To be admitted to candidacy, the student must meet the following requirements:

1. 45 hours completed before applying for candidacy
2. Grade of $C(2.00)$ or better in each of the following: JOUR/EMC/RIM 1020
JOUR 2710
JOUR 3090
ENGL 1010 and 1020
Math course satisfying General Education Mathematics requirement
3. Minimum overall GPA in all school and university coursework of 2.50.


## Journalism Required Courses:

## Foundations ( 6 credits)

JOUR 1020 American Media and Social Institutions
JOUR 3650 Free Expression, Mass Media, and the American Public

## Writing/Design (12 credits)

JOUR 2710 Media Writing
JOUR 3090 Reporting
Choose one:
JOUR 3530 Feature Writing
JOUR 4440 Advanced Reporting
Choose one:
JOUR 3450 Editing
GRAF 2950 Media Design Applications
Conceptual ( 12 credits)
Choose four:
GRAF 2010 Media Design and Visual Language
JOUR 3510 Media History and American Culture
JOUR 4250 Mass Media Law
JOUR 4210 Mass Communication and Society
JOUR 4660 Mass Media Research
JOUR 4780 Media and Markets
JOUR 4790 Global News and World Media Cultures
JOUR 4850 Ethics and Mass Communication
Professional Topics (3 credits)
Choose one:
JOUR 3520 Specialized Journalism
JOUR 3590 Magazine Writing and Editing
JOUR 4300 Reviewing and Criticism
Special/Senior Topics (3 credits)
JOUR 4800 Seminar in Media Issues
Practicum/Internship (1-3 credits)
Choose one:
JOUR 3580 MC Practicum
JOUR 4000 MC Internship
Total hours in the college: 37-39

## Minor in Art for Mass Communication Students

Students majoring in Mass Communication programs take the following sequence for the Art minor: ART 1610, 1620, 1630, 1640, and two studio or art history classes, one of which much be upper division and taken in residence. Media Design and Graphics students have the option of substituting ART 1910 or 1920 for ART 1640.

## Courses in Advertising [ADV]

See back of catalog for course descriptions.
Courses in Media Design and Graphics [GRAF]
See back of catalog for course descriptions.

## Courses in Journalism [JOUR]

See back of catalog for course descriptions.

## Courses in Public Relations [PR]

See back of catalog for course descriptions.

# Department of Recording Industry 

Christian Haseleu, Chair<br>Bragg Mass Communication 251

Adam, Akins, Alleyne, Barnet, Collier, Crabtree, Dahan, DeSalvo, Dougan, Fischer, Fleming, FoqIra, Hill, Hutchison, Keel, Macy, McKinnie, Merchant, Mulraine, Newman, O'Brien, Pfeifer, Piekarski, Taylor, Wald, B. Wood, M. Wood

The Department of Recording Industry is internationally known for its innovative programs of study. The purpose of these programs is to prepare students for positions in virtually any phase of the audio production and music industries, to be entrepreneurs, or for postgraduate study. The department offers a Bachelor of Science degree in Recording Industry with concentrations in Music Business, Audio Production, and Commercial Songwriting. For those in the Music Business concentration, the department offers the "fast track" B.S./M.B.A. program in cooperation with the Jennings A. Jones College of Business.
Internships with a variety of companies and organizations in the industry are available for selected students. Opportunities to meet industry professionals, network, and develop contacts are provided throughout each semester. The department offers study abroad programs in Russia in connection with State University of Management in Moscow and in Great Britain. Audio engineering and production courses are taught in five departmental studios, a cinema remix room, a MIDI lab, a digital audio lab, a mastering lab, and a postproduction lab, all located on campus. Music Business students have access to modern marketing software and the most current industry data. Students in Commercial Songwriting work with professional songwriters.
The program is designed with advice from the National Academy of Recording Arts and Sciences, the National Association of Recording Merchandisers, the Society of Professional Audio Recording Services, and numerous industry professionals and executives.
The department offers a minor in Recording Industry for Music majors in the Music Industry concentration and other interested students. The department also offers a minor in Entertainment Technology in cooperation with the Speech and Theatre Department.
Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

## Transfer Credit Policy

Transfer credit into the Recording Industry major and minor will be accepted for the following core courses, lower-division courses, and non-RIM courses only: RIM 1020, 1230, 3000, 3010, 3600, 3700, 4700, PHYS 1600, MUHL 3670, PS 3530, ENGL 3810, JOUR 2710, and SOC 4170. Only 3 hours of transfer credit may be counted toward the major from among PHYS 1600, MUHL 3670, PS 3530, ENGL 3810, JOUR 2710, and SOC 4170 . For students transferring from an institution that does not have an articulation agreement with MTSU, a course content evaluation and transfer validation test may be required before acceptance of the transfer of any RIM courses. Contact the department office for details.
NOTE 1: Students who take and pass MUTH 1110 Theory and Aural Skills I at MTSU with a C- or better and who are minoring in any Music minor are exempt from RIM 1230 Musicianship for Engineers but must take an additional 3 hours from the prescribed list of major electives.
NOTE 2: Students who take and pass MUTH 1110 Theory and Aural Skills I at MTSU with a C- or better and who are not minoring in any Music minor can have MUTH 1110 substituted for RIM 1230 Musicianship for Engineers and receive 4 hours credit toward the RI major.
NOTE 3: Students who take and pass a college-level Music Theory I course at another institution and who are minoring in any Music minor must take and pass the Music Theory and Aural Skills Diagnostic Exam offered by the School of Music. Those who pass will have the requirement for RIM 1230 Musicianship for Engineers waived but must take an additional 3 hours from the prescribed list of major electives. Students who do not pass the Music Theory and Aural Skills Diagnostic Exam must take MUTH 1000 Elements of Music or RIM 1230 Musicianship for Engineers before taking MUTH 1110.
NOTE 4: Students who take and pass a college-level music theory course at another institution with a C- or better and who are not minoring in any Music minor can have that course substituted for RIM 1230 Musicianship for Engineers and receive 3 or 4 hours credit toward the Recording Industry major.

## General Education Requirements for Recording Industry Majors

For General Education Mathematics, Recording Industry majors must take MATH 1710 or a higher level math course. MATH 1010 will not meet this requirement.

## Computer Literacy Requirements for Recording Industry Majors

To meet the computer literacy requirement, Recording Industry majors should take CSCI 1150 or INFS 2200 or minor in Computer Science. CSCl 1000 will not meet this requirement. NOTE: INFS 2200 is required for Business Administration minors.

## Admission to Candidacy

Students are required to be admitted to candidacy to earn a degree as a Recording Industry major in the College of Mass Communication and as a prerequisite to enrollment in most upper-division courses within the college. To apply for candidacy, a student must have

1. completed all academic enrichment requirements;
2. completed all high school deficiencies;
3. completed 45 hours (not to include academic enrichment courses);
4. completed the math requirement (College Algebra or higher level math) with a minimum 2.0 grade;
5. completed candidacy courses (JOUR/EMC/RIM 1020; RIM 3000, 3010,3600 ) with a minimum 2.0 grade in each;
6. maintained good standing (not on probation).

The department will open a limited number of candidacy slots in the concentrations each year. Candidacy will be granted three times per year, after the end of the Fall and Spring Semesters and Summer Term. Candidacy will be granted into one concentration only. Changing concentrations will require a reapplication to candidacy. Eighty-five percent of available slots in each concentration will be awarded based on the candidacy formula score. The candidacy formula will include weighted numbers for cumulative GPA, required mathematics course (College Algebra) grade, candidacy course GPA, and total hours earned. Score $=($ cumulative GPA $\times 3)+($ College Algebra grade $\times 3)+($ candidacy course GPA $\times 4)+$ (total hours x .05).

Fifteen percent of available slots in each concentration will be awarded based on a faculty committee recommendation on an appeal application. Appeal applications will be accepted after formula slots have been announced early in the Fall and Spring Semester and Summer Term. Appeal recommendations will be based on exceptional circumstances and/or exceptional talent and/or diversity considerations.
Applications for admission to candidacy are available at the Recording Industry Department office and should be submitted by students during the semester in which they will have completed the foregoing requirements.
Students may not take other RIM courses, with the exception of the candidacy requirements, RIM 1230 and RIM 3650, until they have successfully completed admission to candidacy.

## Grading Policy

Students majoring in Recording Industry must receive grades of C or better in all Recording Industry courses in order for them to count toward the major. A minimum grade of C is required in all classes that are prerequisite to Recording Industry classes. Recording Industry majors may be required to take an exit examination in order to graduate.
NOTE: Students who fail to attend the first class meeting of any RIM course without prior arrangement with the instructor will lose their places in class and those spaces will be made available to other students. This includes labs.

## Dual Concentration

For a dual concentration, students must complete the required core and both required sub-cores plus enough electives to reach 48 hours in the major. Students must achieve candidacy in both concentrations. The minor choice must be approved by the chair.

## Major in Recording Industry

In addition to 41 hours of General Education requirements, a student must take 48 hours of Recording Industry courses with a concentration in Music Business, Audio Production, or Commercial Songwriting. Recording Industry majors complete one minor. See minors for Recording Industry majors below for information on the available minors.

## Concentration: Music Business

## All majors are required to take:

EMC/JOUR/RIM
1020 American Media and Social Institutions
RIM 3000 History of the Recording Industry
RIM 3010 Audio Fundamentals
RIM 3600 Survey of the Recording Industry
RIM 3700 Copyright Law
RIM 4700 Contracts and Legal Issues

## Sub-core:

RIM 3720 Artist Management
RIM 3900 Music Publishing
RIM 4320 Concert Promotion and Touring
RIM 4620 Marketing of Recordings
Electives - students must choose 18 hours from the following:
RIM 3020 Commercial Songwriting
RIM 3100 Music as Popular Culture
RIM 3200 History of Country Music
RIM 3500 Lecture Series
RIM 3580 RIM Practicum*
RIM 3650 Free Expression, Mass Media, and the American Public
RIM 3770 Publicity in the Recording Industry
RIM 3780 Entertainment Reporting and Writing
RIM 3890 International Recording Industry
RIM 4000 Recording Industry Internship: Business*
RIM 4510 Study Abroad
RIM 4630 Recording Industry Research
RIM 4690 New Media for the Music Business
RIM 4720 Record Retail Operations
RIM 4730 The A\&R Function
RIM 4740 Studio Business Operations
RIM 4800 Understanding the Nashville Music BusinessPast and Future
RIM 4810 Topics in Recording Industry
RIM 4820 Record Label Operations
RIM 4840 Music Publishing Administration
RIM 4900 Individual Problems in the Recording Industry
Of the $\mathbf{1 8}$ hours of electives, up to $\mathbf{3}$ credit hours may be selected from the following courses:
MUHL 3670 History of Popular Music in America
PS 3530 Legal Writing and Research
ENGL 3810 British Popular Culture
SOC 4170 The Social Context of Southern Music
JOUR 2710 Media Writing

[^10]Summary of Requirements for Music Business Concentration:
Recording Industry core: 18
Music Business sub-core: 12
Music Business electives: 18
Total hours in the major: 48

## Music Business M.B.A. Fast Track

This program is designed to allow students in the Music Business concentration to obtain all prerequisites for entrance into the M.B.A. program. Careful planning of undergraduate and graduate course selection is required. For details on this plan of study, consult Tom Hutchison, COMM 211. For M.B.A. admission requirements, consult the Graduate Catalog or Troy Festervand, M.B.A. advisor, BAS N222A.

## Concentration: Audio Production

## All majors are required to take:

EMC/JOUR/RIM
1020 American Media and Social Institutions
RIM 3000 History of the Recording Industry
RIM 3010 Audio Fundamentals
RIM 3600 Survey of the Recording Industry
RIM 3700 Copyright Law
RIM 4700 Contracts and Legal Issues

## Sub-core:

RIM 1230 Musicianship for Engineers*
RIM 4190 Introduction to MIDI and Sound Synthesis
RIM 4200 Digital Audio Technology
RIM 4400 Recording Studio Techniques
RIM 4440 Critical Listening
Electives - students must choose $\mathbf{1 5}$ hours from the following:
PHYS 1600 Physics of Music
RIM 3020 Commercial Songwriting
RIM 3450 Advanced Musicianship for Engineers
RIM 3500 Lecture Series
RIM 3580 RIM Practicum*
RIM 4010 Recording Industry Internship: Technology*
RIM 4290 MIDI Sequencing and Virtual Instruments
RIM 4300 Advanced Pro Tools Techniques
RIM 4330 Sound Reinforcement
RIM 4480 Mastering
RIM 4510 Study Abroad
RIM 4570 The Art of Soundtrack Design
RIM 4580 Sound for Picture
RIM 4590 Computer-based Scoring for Visual Media
RIM 4650 Multitrack Music Recording: Studio A
RIM 4651 Multitrack Music Recording: Studio B
RIM 4660 Advanced Music Engineering
RIM 4670 Studio Production
RIM 4740 Studio Business Operations
RIM 4810 Topics in Recording Industry
RIM 4830 Recording Studio Maintenance
RIM 4900 Individual Problems in the Recording Industry
RIM 4910 Advanced Production Seminar
*No more than 6 hours total are allowed toward the major from any combination of RIM 3580, 4000, or 4010.
NOTE: Students electing the Audio Production concentration may select up to 9 semester hours of their electives from the other concentrations.
NOTE: Audio Production concentration students should complete RIM 1230 Musicianship for Engineers for MUTH 1110 Theory and Aural Skills I during their freshman year.
*NOTE: See note under Transfer Credit Policy for RIM 1230/MUTH 1110 substitution.

Summary of Requirements for Audio Production Concentration:
Recording Industry core: 18
Production and Technology sub-core: 15
Production and Technology electives: 15
Total hours in the Major: 48

## Concentration: Commercial Songwriting

All majors are required to take:
EMC/JOUR/RIM
1020 American Media and Social Institutions
RIM 3000 History of the Recording Industry
RIM 3010 Audio Fundamentals
RIM 3600 Survey of the Recording Industry
RIM 3700 Copyright Law
RIM 4700 Contracts and Legal Issues
Sub-core:

| RIM | 1230 | Musicianship for Engineers |
| :--- | :--- | :--- |
| RIM | 3020 | Commercial Songwriting |
| RIM | 3900 | Music Publishing |
| RIM | 4020 | Advanced Songwriting |
| Choose one: |  |  |
| RIM | 4190 | Introduction to MIDI and Sound Synthesis |
| RIM | 4200 | Digital Audio Technology |
| RIM | 4210 | Personal Desktop Music Production |
| RIM | 4400 | Recording Studio Techniques |

Electives - students must choose $\mathbf{1 5}$ hours from the following:
RIM 3100 Music as Popular Culture
RIM 3200 History of Country Music
RIM 3450 Advanced Musicianship for Engineers
RIM 3500 Lecture Series
RIM 3580 RIM Practicum*
RIM 3720 Artist Management
RIM 4000 Recording Industry Internship: Business*
RIM 4010 Recording Industry Internship: Technology*
RIM 4190 Introduction to MIDI and Sound Synthesis
RIM 4200 Digital Audio Technology
RIM 4210 Personal Desktop Music Production
RIM 4320 Concert Promotion and Touring
RIM 4400 Recording Studio Techniques
RIM 4440 Critical Listening
RIM 4510 Study Abroad
RIM 4800 Understanding the Nashville Music BusinessPast and Future
RIM 4810 Topics in Recording Industry
RIM 4840 Music Publishing Administration
RIM 4900 Individual Problems in the Recording Industry

[^11]
## Summary of Requirements for Commercial Songwriting

## Concentration:

Recording Industry core: 18
Commercial Songwriting sub-core: 15
Commercial Songwriting electives: 15
Total hours in the Major: 48

Following is a suggested pattern of study for the first two years; however, consultation with the assigned advisor is necessary before registration.
Recommended Curriculum

## FRESHMAN

ENGL 1010, 1020 (Comm)

## COMM 2200

Humanities and/or Fine Arts
MATH 1710 (Math)
CSCI 1150 or INFS 2200
EMC/JOUR/RIM 1020
(Soc/Beh Sci)
RIM 3000
RIM 3600

## SOPHOMORE

| ENGL 2020 or 2030 or |  |
| :--- | ---: |
| HUM 2610 (Hum/FA) | 3 |
| HIST 2010, 2020 | 6 |
| Natural Sciences (2 prefixes) | 8 |
| RIM 3010 | 3 |
| RIM 1230 (if required) | 3 |
| Social/Behavioral Sciences | 3 |
| Minor courses or RIM | 6 |
| $\quad$ Major courses | $\mathbf{2 9 - 3 2}$ |

NOTE: Students should see their advisors to develop their individual schedules. Certain prerequisites and sequences in particular major concentrations and minors require special attention.

## Minors for Recording Industry Majors

All Recording Industry majors are required to complete one minor.

Production and Technology concentration students may pick any minor available at MTSU. Recommended minors are Computer Science, Electronics, Electro-Acoustics, Entrepreneurship, Entertainment Technology, Film Studies, Mass Communication, Music Industry, and Entertainment Arts Design.
Music Business concentration students must pick one minor from four offered in the Jennings A. Jones College of Business or one (with three specialty areas) offered in the College of Mass Communication. From the Jennings A. Jones College of Business are the following: Business Administration, Entrepreneurship, Management, and Marketing. From the College of Mass Communication, students may select Mass Communication with specialty areas in journalism, public relations, or media management. ACTG 2110 or 3000 must be taken by all Music Business concentration students.

Commercial Songwriting concentration students must pick one minor from among Entrepreneurship, Creative Writing, or Music.

Students should consult minor requirements below.

## Minor Information

For information on the Business Administration, Entrepreneurship, and Film Studies minors, see the Interdisciplinary Minors section on page 80.

For information on the Management and Marketing minors, see the Department of Management and Marketing on page 153.

For information on the Creative Writing minor, see Interdisciplinary Minors on page 80.
For information on the Electro-Acoustics minor, see the Department of Physics and Astronomy on page 139.
For information on the Electronics minor, see the Department of Engineering Technology on page 125.
For information on the Computer Science minor, see the Department of Computer Science on page 123.

For information on the Music and Music Industry minors, see the School of Music on page 198.
For information on the Entertainment Arts Design minor, see the Department of Speech and Theatre on page 211.
For information on the Mass Communication and Entertainment Technology minors, see below.
Courses may not be used to satisfy requirements for more than one minor or for a minor and the major.

All minors require a minimum 2.00 GPA in the minor coursework to graduate.

## Mass Communication Minor

The minor in Mass Communication requires 18 hours of elective coursework in the College of Mass Communication not including EMC/JOUR/RIM 1020, JOUR/EMC 3580, JOUR/EMC 4000, or any RIM courses. Nine (9) hours must be upper-division elective courses.

The journalism, public relations, or media management specialty areas require an additional three (3) hours from ACTG 2110 or 3000.

## Journalism Specialty

Required courses ( $\mathbf{1 5}$ hours):
ACTG 2110 Principles of Accounting I OR
ACTG 3000 Survey of Accounting for General Business
JOUR 2710 Media Writing
JOUR 3090 Reporting
JOUR 3530 Feature Writing
JOUR 4250 Mass Media Law
Elective courses in minor, choose two:
EMC 2220 Television Newswriting
EMC 3020 Writing for the Electronic Media
EMC 3060 Writing for Digital Media
EMC 3410 Electronic Media News Writing
EMC 3500 Electronic Media News Reporting and Producing
EMC 3570 Broadcast Announcing/Performance
EMC 3740 Advanced Electronic Media News Reporting and Producing
EMC 4020 Advanced Scriptwriting
JOUR/EMC
3000 Introduction to Motion Pictures
JOUR 3450 Editing

## JOUR/EMC

3510 Media History and American Culture
JOUR 3520 Specialized Journalism
JOUR 3590 Magazine Writing and Editing
JOUR/EMC/RIM
3650 Free Expression, Mass Media, and the American Public
JOUR/EMC
4210 Mass Communication and Society
JOUR 4300 Reviewing and Criticism
JOUR 4440 Advanced Reporting
JOUR/EMC
4660 Mass Media Research
JOUR 4780 Media and Markets
JOUR/EMC 4790 Global News and World Media Cultures
JOUR/EMC
4850 Ethics and Mass Communication
PHOT 2050 Basic Black and White Photography
Total hours: 21

Public Relations Specialty
Required courses ( $\mathbf{1 5}$ hours):
ACTG 2110 Principles of Accounting I OR
ACTG 3000 Survey of Accounting for General Business
JOUR 2710 Media Writing
JOUR 4250 Mass Media Law
PR 3040 Public Relations Principles
PR 3360 Public Relations Communication

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Elective courses in minor, choose two:
ADV 3020 Survey of Advertising
ADV 3480 Advertising Media Planning
ADV 4160 Advertising Copywriting
EMC 2220 Television News Writing
EMC 3020 Writing for the Electronic Media
EMC 3060 Writing for Digital Media
EMC 3410 Electronic Media News Writing
EMC 3500 Electronic Media News Reporting and Producing
EMC 3570 Broadcast Announcing/Performance
EMC 3740 Advanced Electronic Media News
                Reporting and Producing
EMC 4020 Advanced Scriptwriting
GRAF 2950 Media Design Applications
GRAF 3010 Media Design and Visual Language
GRAF 3910 Basic Media Design
JOUR 3510 Media History and American Culture
JOUR 3530 Feature Writing
JOUR 3590 Magazine Writing and Editing
JOUR/EMC/RIM
        3650 Free Expression, Mass Media, and the
                American Public
JOUR/EMC
        4210 Mass Communication and Society
JOUR/EMC
        4660 Mass Media Research
JOUR 4780 Media and Markets
JOUR/EMC
        4790 Global News and World Media Cultures
JOUR/EMC
        4850 Ethics and Mass Communication
PHOT 2050 Basic Black and White Photography
PR 3380 Public Relations Publications
PR 3400 Case Studies in Public Relations
PR 4740 Public Relations Campaigns
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Total hours: 21

## Media Management Specialty

## Required courses ( 9 hours):

ACTG 2110 Principles of Accounting I OR
ACTG 3000 Survey of Accounting for General Business
JOUR 4250 Mass Media Law
ADV 3020 Survey of Advertising OR
PR 3040 Public Relations Principles OR
EMC 2410 Introduction to Electronic Media
Elective courses in minor, choose four:
One must be from
EMC 3030 Electronic Media Advertising
EMC 3110 Radio Station Operations
EMC 4010 Electronic Media Sales
EMC 4140 Electronic Media Programming
EMC 4430 Electronic Media Management
An additional three courses may be taken from those above or from the following:
JOUR 4780 Media and Markets
JOUR/EMC 4660 Mass Media Research
JOUR/EMC 4800 Seminar in Media Issues
JOUR/EMC 4850 Ethics and Mass Communication

## Entertainment Technology Minor

This minor consists of 18 hours of coursework. Recording Industry majors are limited to 6 hours of RIM courses from the list below and may not use RIM courses required in the RI major.

## Select 18 hours from the list below:

ET 3610 Introduction to Electricity and Electronics, 4 hrs.
ET 4640 Industrial Electricity, 3 hrs.
THEA 2110 Stagecraft, 3 hrs.
THEA 3000 Sound Design for Arts and Entertainment, 3 hrs.
THEA 3100 Make-Up Techniques for Performers, 3 hrs.
THEA 3200 Introduction to Costume for Arts and Entertainment, 3 hrs.
THEA 3300 Scene Design, 3 hrs.
THEA 3400 Introduction to Lighting for Arts and Entertainment, 3 hrs.
THEA 4000 Advanced Sound Design for Arts and Entertainment, 3 hrs.
THEA 4100 Special Effects Make-Up, 3 hrs.
THEA 4110 Make-Up Design and Creation, 3 hrs.
THEA 4200 Costume Technology and Production, 3 hrs.
THEA 4210 Advanced Costume Technology and Production, 3 hrs.
THEA 4220 Costume Design for Arts and Entertainment, 3 hrs.
THEA 4230 Advanced Costume Design for Arts and Entertainment, 3 hrs.
THEA 4290 Problems in Theatre, 1-3 hrs.
THEA 4300 Advanced Scenic Design, 3 hrs.
THEA 4390 Topics in Scenography, 1-3 hrs.
THEA 4400 Intermediate Lighting for Arts and Entertainment, 3 hrs .
EMC 3040 Electronic Graphics for Television, 3 hrs.
EMC 3120 Sight, Sound, and Motion, 3 hrs.
EMC 3130 Television Production, 3 hrs.
EMC 3140 Multi-Camera Directing and Producing, 3 hrs.
EMC 3150 Single-Camera Directing and Producing, 3 hrs.
EMC 3200 Still Digital Imaging, 3 hrs.
EMC 3300 Introduction to Digital Animation, 3 hrs.
EMC 3310 Intermediate Digital Animation, 3 hrs.
EMC 3420 Corporate Video, 3 hrs.
EMC 4940 Advanced Seminar-Electronic Media Production, 3 hrs.
PHOT 2050 Basic Black and White Photography, 3 hrs.
PHYS 1600 Physics of Music, 3 hrs.
RIM 3450 Advanced Musicianship for Engineers, 3 hrs.
RIM 3580 RIM Practicum, 1 to 3 hrs.
RIM 4290 MIDI Sequencing and Virtual Instruments, 3 hrs.
RIM 4300 Advanced Pro Tools Techniques, 3 hrs.
RIM 4320 Concert Promotion and Touring, 3 hrs.
RIM 4330 Sound Reinforcement, 3 hrs.
RIM 4570 The Art of Soundtrack Design, 3 hrs.
RIM 4590 Computer-based Scoring for Visual Media, 3 hrs.
RIM 4650 Multitrack Music Recording: Studio B, 3 hrs.
RIM 4651 Multitrack Music Recording: Studio A, 3 hrs.
RIM 4660 Advanced Music Engineering, 3 hrs.
RIM 4670 Studio Production, 3 hrs.
RIM 4740 Studio Business Operations, 3 hrs.
RIM 4910 Advanced Production Seminar, 3 hrs.
RIM/EMC 4580 Sound for Picture, 3 hrs.
These courses cannot be used by RI Audio Production majors since they are already required in the major.
RIM 1230 Musicianship for Engineers, 3 hrs.
RIM 3010 Audio Fundamentals, 3 hrs.
RIM 4190 Introduction to MIDI and Sound Synthesis, 3 hrs.
RIM 4200 Digital Audio Technology, 3 hrs.
RIM 4400 Recording Studio Techniques, 3 hrs.
RIM 4440 Critical Listening, 3 hrs.
Total hours in Entertainment Technology minor: 18

Information about the Entertainment Technology minor for nonmajors can be found on page 84 .

## Minor in Recording Industry for Nonmajors

The minor in Recording Industry consists of 18 semester hours including RIM 3000 and 3600 and 12 hours of Recording Industry electives as approved by the minor advisor. MUHL 3670 may not be used to meet both major and minor requirements. Students must maintain a 2.00 average in the Recording Industry minor.

## Courses in Recording Industry [RIM]

See back of catalog for course descriptions.

## Graduate Study

The department offers the Master of Arts degree in Recording Arts and Technology. Requirements for this degree and a list of the courses offered for graduate credit are published in the Graduate Catalog.


## ACADEMIC ABBREVIATIONS-COURSES

| AAS | African American Studies |
| :---: | :---: |
| ABAS | Agribusiness and Agriscience |
| ACA | Academic Success Program |
| ACSI | Actuarial Science |
| ACTG | Accounting |
| ADV | Advertising |
| AERO | Aerospace |
| ANTH | Anthropology |
| ARAB | Arabic |
| ART | Art |
| ASTL | Advanced Studies in Teaching and Learning |
| ASTR | Astronomy |
| ATHC | Athletic Coaching |
| ATHT | Athletic Training |
| BCEN | Business Communication and Entrepreneurship |
| BIOL | Biology |
| BLAW | Business Law |
| BUAD | Business Administration |
| CDFS | Child Development and Family Studies |
| CDIS | Communication Disorders |
| CHEM | Chemistry |
| CHIN | Chinese |
| CIM | Concrete Industry Management |
| CJA | Criminal Justice Administration |
| CMT | Construction Management Technology |
| COED | Cooperative Education |
| COMM | Communication (Speech) |
| CSCI | Computer Science |
| DANC | Dance |
| DYST | Dyslexic Studies |
| ECON | Economics |
| ELED | Elementary Education |
| EMC | Electronic Media Communication |
| ENGL | English |
| EST | Environmental Science and Technology |
| ET | Engineering Technology |
| EXL | Experiential and Service Learning |
| EXSC | Exercise Science |
| FCSE | Family and Consumer Sciences Education |
| FIN | Finance |
| FL | Foreign Languages |
| FOED | Foundations of Education |
| FREN | French |
| GEOG | Geography |
| GEOL | Geology |
| GERM | German |
| GERO | Gerontology |
| GRAF | Media Design/Graphics |
| GS | Global Studies |
| HEBR | Hebrew |
| HHP | Health and Human Performance |
| HIST | History |
| HLTH | Health |
| HSC | Human Sciences |
| HUM | Humanities |
| IDES | Interior Design |
| IED | Industrial Education |
| IMIC | Interdisciplinary Microanalysis and Imaging Center |
| INFS | Computer Information Systems |
| ITAL | Italian |

## Course Descriptions

## Academic Success Program [ACA]

3000 Theory and Practice of College Peer Tutoring. One credit. Prerequisite: Consent of department. Provides training in the knowledge and fundamental skills useful to tutors in various academic disciplines. Pass/Fail.

## Accounting [ACTG]

1110 Introduction to Accounting. Three credits. A one-semester general course for students desiring a knowledge of accounting terms, financial statements, and the capital structures of sole proprietorships, partnerships, and corporations. (Credit not allowed in a business major or minor.)

2110 Principles of Accounting I. Three credits. Prerequisites: A collegelevel math course; ENGL 1010; sophomore standing. Financial accounting for proprietorships and partnerships with emphasis on the accounting cycle for service and merchandising organizations. Additional topics include accounting for receivables; inventories; property, plant, and equipment; and current liabilities. (Not open to students with credit in ACTG 3000.)

2120 Principles of Accounting II. Three credits. Prerequisite: ACTG 2110. A continuation of financial accounting concepts with emphasis on debt and equity structures, the statement of cash flows, and ratio analysis. Managerial accounting topics include job, standard- and activity-based costing, cost/volume/profit (CVP) analysis, and budgeting. (Not open to students with credit in ACTG 2125 or 3000 .)

2125 Principles of Accounting II for Accounting Majors. Three credits. Prerequisite: ACTG 2110 with a minimum grade of C. Reporting for corporations with emphasis on issues relating to debt and equity, the Statement of Cash Flows, reporting for manufacturing companies, and other issues related to the profession of accounting. (Not open to students with credit in ACTG 2120.)

3000 Survey of Accounting for General Business. Three credits. Accounting cycle given minor emphasis; financial statement analysis and managerial uses of accounting given major emphasis. May be used for general business minors or M.B.A. candidates who have had no previous accounting courses. (Not open to Accounting majors and students with credit in ACTG 2110 and 2120.)

3020 Managerial Accounting. Three credits. Prerequisites: ACTG 2120 or 3000; junior standing. Analysis of costs of products and services, recognition of quantitative techniques relating to management objectives, overview of master budgeting, and planning and control techniques. Designed for nonaccounting majors. (Not open to students with credit in ACTG 3310 or Accounting majors.)

3110 Intermediate Accounting I. Three credits. Prerequisites: ACTG 2125 or ACTG 3000 with minimum grade of C; MATH 1630; GPA of at least 2.00; junior standing; passing grade on departmental admission exam. Introduction to professional accounting standards and financial statement preparation. Review of the accounting cycle. Extensive coverage of time value of money concepts and accounting for and reporting of current assets; current liabilities; and property, plant, and equipment.

3120 Intermediate Accounting II. Three credits. Prerequisite: ACTG 3110 with minimum grade of C. Continuation of Intermediate Accounting I with professional accounting standards and financial statement preparation. Extensive coverage of accounting for and reporting of investments, long-term liabilities, owners' equity and related issues, revenue recognition, accounting changes and errors, and cash flows.

3310 Cost Accounting. Three credits. Prerequisites: ACTG 2125 or 3000 with minimum grade of C; MATH 1630; INFS 2200; junior standing. Determine costs of products or services, apply quantitative concepts relating to management objectives, prepare master budgets, and perform various techniques for planning and controlling in a business environment.

4310 Advanced Cost Accounting. Three credits. Prerequisites: ACTG 3310 with minimum grade of C; QM 3620. In-depth analysis of costs; quantitative concepts relating to management objectives, control, and planning. Cost analysis and management accounting practices and problems using a variety of problem sets, statistical techniques, case studies, computer applications, and other materials.

4420 Accounting Internship. Three credits. Prerequisites: Senior standing or consent of advisor; a plan of activities with the associated firm prior to registration. Active employment with an accounting firm, governmental agency, or business firm for accounting field work; credit given for experience and research upon completion of acceptable work and formal report. (Not counted as part of 24-hour Accounting major requirements.) Pass/Fail.

4510 Accounting Systems. Three credits. Prerequisites: ACTG 2125 or 3000 with minimum grade of C; INFS 2200; junior standing. An introduction to accounting information systems in a variety of technological environments. Emphasis on business process modeling, accounting cycle controls, and database design and implementation.

4530 Individual Income Taxes. Three credits. Prerequisites: ACTG 2125 or 3000 with minimum grade of C ; junior standing. Addressed to a determination of taxable income for individuals; federal income tax returns and research methods.

4550 Introduction to Federal Income Tax. Three credits. Prerequisites: ACTG 2125 with minimum grade of C. Federal income tax concepts applicable to business entities (C corporations, S corporations, partnerships, limited liability companies, and sole proprietorships) and individuals. Emphasizes the role taxes play in business and investment decisions.

4610 Governmental Accounting and Reporting. Three credits. Prerequisites: ACTG 3120 with minimum grade of C. State and local government accounting principles and procedures; classifications of accounts for budgetary and financial reporting; accounting for revenues and expenditures or expenses; reporting for funds and the governmental entity; and auditing the governmental entity.

4620 External Auditing I. Three credits. Prerequisites: ACTG 3120 and 4510 with minimum grade of C; QM 3620. Applications of theory and principles of external auditing. Includes gathering and evaluating evidence on accounting data, preparation of reports by public accountants, evaluation of internal controls, use of sta-
tistical sampling, legal liability and ethical requirements of public accountants. (Recommended for CPA exam candidates.)

4640 Internal Auditing. Three credits. Prerequisites: ACTG 3120 and 4510 with a minimum grade of C; QM 3620 . Application of internal auditing concepts. Includes gathering and analyzing company data, assessing risk, applying professional and ethical standards, performing statistical sampling, and preparing internal audit reports. (Recommended for CIA exam candidates.)

4650 Financial Accounting Standards. Three credits. Prerequisite: ACTG 3120 with minimum grade of C. Analysis of propositions, axioms, theorems, controversial accounting concepts, and authoritative statements and research on accounting principles.

4680 Forensic Accountancy and Fraud Auditing. Three credits. Prerequisite: ACTG 4620 or 4640 with minimum grade of $C$ or approval of department chair. The practice of forensic accounting, i.e., nontraditional investigative aspects of accountancy (e.g., litigation support, business interruptions, etc.); emphasis on fraud prevention and the detection of fraudulent intent to obtain improper individual or group gains.

4980 Independent Study in Accounting. One to three credits. Prerequisites: Senior standing, 3.00 overall GPA, and consent of department chair. Accounting research or project in contemporary problem areas under direct faculty supervision. Aggregate credits allowable toward a degree may not exceed 3 hours under 4980 courses.

## Actuarial Science [ACSI]

4140 Mathematical Foundations of Actuarial Science. Three credits. Prerequisites: MATH 3020 (or MATH 3110) and STAT 3150; or consent of instructor. Integrates calculus, probability, and risk management topics into fundamental tools for assessing risk in an actuarial environment. Calculus and probability topics include derivatives, integrals, partials, random variables, distributions, and conditional probability. Risk topics include frequency and severity. Insurance concepts such as retention, deductible, coinsurance, and risk premiums. For students in Actuarial Science, a preparatory course for the Society of Actuaries/Casualty Actuarial Society Course/Exam 1.

4200 Introduction to Mathematics of Investment. Three credits. (Same as MATH 4200.) Prerequisites: MATH 1910 and one semester of probability/statistics; or consent of instructor. Calculus and probability/statistics used to model and analyze investments in bonds, treasury bills, stocks, and other derivatives. Topics include obtaining the price of a bond as a function of interest rate, developing formulas for duration and convexity to study the sensitivity of price to interest rate, and mathematical modeling of investor preference and attitude toward risk.

4220 Mathematics of Pricing Theory. Three credits. Prerequisites: ACSI/MATH 4200 and ECON 2410, 2420; or consent of instructor. Applies calculus and theory of interest tools to intermediate topics in microeconomics. Topics include mathematics of supply, demand, and equilibrium; prices, costs, and the gains from trade; consumer behavior; elasticities; competition; monopoly; market power, collusion, and oligopoly; the mathematics of risk and uncertainty; and surplus economics. For students in Actuarial Science, a preparatory course for the Society of Actuaries/Casualty Actuarial Society Course/Exam 2.

4230 Mathematics of Compound Interest. Three credits. Prerequisite: ACSI 4200 or consent of instructor. For students in Actuarial Science, offers preparation for the Society of Actuaries/Casualty

Actuarial Society Exam 2. Topics include measurement of interest (including accumulated and present value factors), annuities certain, yield rates, amortization schedules, sinking funds, and bonds and related securities.

4240 Mathematics of Interest Theory, Economics and Finance. Three credits. Prerequisite: ACSI 4230 or consent of instructor. Applies calculus and theory of interest tools to intermediate topics in microeconomics and macroeconomics and topics in finance. Topics include pricing activities, the simplified Keynesian model, interest and discount rates, valuation of payment streams, yield rates, amortization, cash flows and internal rate of return, stock and bond valuation, portfolio risks, the Capital Asset Pricing Model (CAPM), efficient markets, capital structure, leverage, financial performance measurement, and basic option pricing and the Black-Scholes model. For students in Actuarial Science, a preparatory course for the Society of Actuaries/Casualty Actuarial Society Course/Exam 2.

4280 Undergraduate Research. One to four credits. Prerequisite: Permission of department. Independent investigation of a selected research problem under the guidance of a faculty member resulting in an oral and written report of results. May be repeated for a maximum of four credits.

4330 Actuarial Mathematics I. Three credits. Prerequisites: ACSI 4230 and STAT 4190; or consent of instructor. First of a two-semester sequence; offers preparation for the Society of Actuaries/Casualty Actuarial Society Course/Exam 3. Topics include survival distributions and life tables, life insurance, life annuities, and net premiums.

4340 Actuarial Mathematics II. Three credits. Prerequisite: ACSI 4330. Second of a two-semester sequence; offers preparation for the Society of Actuaries/Casualty Actuarial Society Course/Exam 3. Topics chosen from net premium reserves, multiple life functions, multiple decrement models, valuation theory and pension plans, and insurance models (including expenses and nonforfeiture benefits and dividends).

4600 Problems in Actuarial Science. One to six credits. Prerequisites: Senior standing and consent of instructor. Students wishing to enroll must submit a written course/topic proposal to the department prior to the semester in which ACSI 4600 is taken. Proposal must be approved prior to taking the course. At the conclusion, each enrollee must submit a written report to the department.

4630 Mathematics of Risk Management. Three credits. (Same as MATH 4630.) Prerequisite: ACSI/MATH 4200. For students in Actuarial Science, offers preparation for the Society of Actuaries/Casualty Actuarial Society Course 6. Topics include mathematical modeling of volatility; pricing of bonds, stocks, and other derivatives with uncertainty; benchmark portfolios; asset/liability management for property/casualty insurers; liability associated with a financially distressed company. Heath-Jarrow-Morton and Cox-Ingersoll-Ross models.

4640 Mathematics of Options, Futures, and Other Derivatives. Three credits. (Same as MATH 4640.) Prerequisites: ACSI/MATH 4630 and 4200. For students in Actuarial Science, offers preparation for the Society of Actuaries/Casualty Actuarial Society Course 6. Topics include risk management using options, interest rate swaps, interest rate caps, Black-Scholes analysis, Taylor series expansion to obtain hedge parameters, portfolio insurance, numerical procedures, interest rate derivatives, and use of Black's model.

## Advertising [ADV]

3020 Survey of Advertising. Three credits. Overview of advertising principles and practices including the role of advertising in society and the marketplace, consumer behavior, advertising media, budgeting and planning, and the creation and production of advertising messages.

3480 Advertising Media Planning. Three credits. Prerequisite: Admission to candidacy. Planning, implementation, and evaluation of media objectives and strategy in advertising, including media characteristics, limitations, and budgeting.

4160 Advertising Copywriting. Three credits. Prerequisite: Admission to candidacy. Advanced techniques and skills in the writing and design of advertising messages, emphasizing print and electronic media.

4170 Advertising Campaigns. Three credits. Prerequisites: Admission to candidacy; ADV 3480 and 4160 or permission of instructor. Planning, designing, and executing all phases of a complete advertising campaign. An opportunity for advanced students to synthesize and apply skills from previous courses.

4230 Advertising Management. Three credits. Prerequisites: Admission to candidacy; junior standing; ADV 3480; ADV 4160 or permission of instructor. Problems, decisions, and decision-making processes of advertising managers. Emphasis on decision making across functional areas of advertising process.

## Aerospace [AERO]

1010 Introduction to Aerospace. Three credits. History of aerospace, opportunities in the field, fundamentals of flight, navigation, meteorology, and Federal Aviation Regulations. Open to all students desiring a general and practical knowledge of aviation.

1020 Theory of Flight. Three credits. Basic aerodynamics with emphasis on lift, weight, thrust, and drag forces acting upon an airplane in flight. Five-hour flight demonstration required at student expense. Fee required.

1230 Aviation Laws and Regulations. Three credits. Those portions of Titles 14 and 49 of the U.S. Code of Federal Regulations concerning airman certification and aircraft operations.

1340 Introduction to Aerospace Maintenance. Three credits. Organization and operation of aircraft maintenance activities. Federal regulations and aviation maintenance law. Maintenance management function in practical settings.

1380 Aerospace Maintenance Shop Practices. Three credits. Use of common tools, measuring devices, and special aircraft tools. Shop layout for aircraft maintenance management.

2010 Aviation Weather. Three credits. Atmosphere, measurement of meteorological elements, and effects of these on air operations.

2140 Civil Aviation. Three credits. Historical development and present status of air transportation facilities; state and federal regulations; legal characteristics of aerospace industry; problems and services of commercial air transportation.

2201 Professional Pilot Flight Lab I. One credit. Prerequisite: AERO 2230 or simultaneous completion of AERO 2230. Flight instruction leading to the FAA Private Pilot Certificate; the first of four flight labs in the Professional Pilot concentration sequence. Private Pilot certificate must be completed during this course. Fee required.

2220 Navigation. Three credits. The principles of pilotage, dead reckoning, and radio/electronic methods of navigation as applied to cross-country flight planning.

2230 Professional Pilot I. Three credits. First of four classes in the Professional Pilot concentration sequence. Provides students with aeronautical knowledge required for certification as a Private Pilot. Emphasis placed on acquisition of basic knowledge in the areas of aerodynamics, performance, systems, weather, Federal Aviation Regulations, and flight planning.

2331 Airframe Inspection. Three credits. Requirements, techniques, and procedures.

2342 Powerplant Inspection. Three credits. Requirements, techniques, and procedures.

2371 Aircraft Welding. Three credits. Various types of aircraft welding techniques and procedures.

2381 Non-Metallic Structures: Dope, Fabric, and Finishing. Three credits. Aircraft fabric covering and finishing.

2930 Cooperative Education. Three credits. Provides students with opportunities for on-the-job experiences related to academic major. Consult department. Pass/Fail.

2940 Cooperative Education. Three credits. Provides students with opportunities for on-the-job experiences related to academic major. Consult department. Pass/Fail.

3020 Aerospace Materials. Three credits. Explores materials used in aerospace applications throughout their development from the standpoint of their properties, economic impact, and future possibilities. The need for new materials to fill current requirements included.

3030 Propulsion Fundamentals. Three credits. Principles of operations, major components, and important features of typical propulsion systems used in aircraft and missiles, from reciprocating to reaction.

3050 Women in Aviation. Three credits. Explores the many roles of women in this nontraditional field. Research on the history of women in aviation and their political and social impact on aviation, industry, and the country.

3080 Aviation Weather II. Three credits. Prerequisite: AERO 2010. Advanced weather concepts, forecasting, and applications to flight dispatch problems. Spring only.

3100 Aerospace in Our Lives. Three credits. Open course for nonmajors which allows exploration of the aerospace world in which we live. Credit not applicable to Aerospace major.

3170 Flight Safety. Three credits. Prerequisite: AERO 1020. Addresses safety issues inherent in flight operations, including human factors, maintenance and design factors, and weather implications. Examines numerous case studies involving aircraft accidents or incidents to assist students in identifying potential risks and hazards in flight environment.

3202 Cross-Country Flight Lab. One credit. Prerequisites: Private Pilot Certificate and AERO 2230 or simultaneous completion of AERO 2230. Flight instruction leading to completion of the cross county requirement for the FAA Instrument Rating-Airplane.Fee required.

3203 Professional Pilot Flight Lab II. One credit. Prerequisites: Private Pilot Certificate; AERO 3210 or simultaneous completion of AERO
3210. Flight instruction leading to the FAA Instrument Rating; second of four flight labs in the Professional Pilot concentration sequence. Instrument Rating must be completed during this course. Fee required.

3204 Professional Pilot Flight Lab III. One credit. Prerequisites: AERO 3203 and 3215 or simultaneous completion of AERO 3215. Flight instruction leading to the FAA Commercial Pilot Certificate-Airplane Single-Engine Land; third of four flight labs in the Professional Pilot concentration sequence. Commercial Pilot Single-Engine Land Certificate must be completed during this course. Fee required.

3205 Conventional Landing Gear Airplane Laboratory. One credit. Prerequisite: Private Pilot Certificate. Flight and ground instruction leading to conventional landing gear operation endorsement. Course includes flight and ground instruction. Fee required.

3206 Advanced Conventional Landing Gear Flight Laboratory. One credit. Prerequisite: AERO 3205. Flight and ground instruction in a high-performance conventional landing gear aircraft leading to a log book endorsement in this type of aircraft. Fees required. NOTE: This is not an FAA Part 141 course.

3210 Professional Pilot II. Three credits. Prerequisites: Private Pilot Certificate; AERO 2230 and 2010. Second of four classes in the Professional Pilot concentration sequence. Provides students with aeronautical knowledge required for completion of the Instrument Rating. Emphasis on acquisition of basic knowledge in the area of instrument flight.

3215 Professional Pilot III. Three credits. Prerequisites: AERO 3210 and 3203. Third of four classes in the Professional Pilot concentration sequence. Provides students with aeronautical knowledge required for certification as a Commercial Single-Engine and Multi-Engine Pilot. Emphasis placed on the acquisition of advanced knowledge of aerodynamics, performance, systems for single-engine and multi-engine aircraft, and Federal Aviation Regulations.

3222 High-Altitude Aircraft Operations Laboratory. One credit. Prerequisite: AERO 3240. Simulator and ground instruction in an aircraft simulator leading to a high-altitude log book endorsement. Fees required: NOTE: This is not an FAA-approved Part 141 course.

3223 High-Performance Aircraft Flight Laboratory. One credit. Prerequisite: AERO 3204. Flight and ground instruction in a highperformance aircraft leading to a log book endorsement in this type of aircraft. Fees required. NOTE: This is not an FAA-approved Part 141 course.

3225 High-Altitude Aircraft Operations. One credit. Prerequisite: Department head or chief pilot approval. A specialized flight-related course for certifying pilots for the ground portion of high-altitude flight in accordance with Federal Aviation Administration regulations.

3230 Crew Resource Management. Three credits. Augments the student's ability to understand the emotional and logical gaps in communication in the present-day aviation crew environment by developing a better understanding of the student's relational style and personality traits in himself/herself and others. Personality profile is optional and confidential.

3240 Professional Pilot IV. Three credits. Prerequisites: AERO 3204 and 3261 or simultaneous completion of AERO 3261. Last class in the Professional Pilot concentration sequence; capstone experience for students in their senior year. Provides students with an experiential view of the workings of a professional pilot career. Topics
include advanced aircraft systems, flight management systems, crew resource management, aeronautical decision making, and aviation safety. Reviews Part 91, 121, and 135 FARs. Examines an aircraft system (B1900 or CRJ-200) using the training format employed by the airline industry. Includes LOFT assessments with students working as crew and learning typical air carrier procedures in one of the department's flight training devices. Fee required.

3241 Air Charter Flight Laboratory. One credit. Prerequisites: AERO 3203, 3204, 3223, 3240, and 3260; consent of instructor. Air charter operation. Students will be utilized as co-pilots during transportation of university personnel. NOTE: This is not an FAAapproved Part 141 course.

3250 Flight Simulator. Three credits. Instruction in the use of the flight simulator and development of proficiency to fly under instrument conditions.

3261 Professional Pilot Flight Lab IV. One credit. Prerequisites: AERO 3204 and 3215. Flight instruction leading to the FAA Commercial Pilot Airplane Multi-engine Land Certificate; last of four flight labs in the Professional Pilot concentration sequence. Commercial Pilot Multi-engine Land Certificate must be completed during this course. Fee required.

3301 Sheet Metal Structures. Three credits. Provides practical experience in the repair of sheet metal structures, including major repairs and alterations.

3322 Aerospace Reciprocating Engine Overhaul. Three credits. Completion of a major overhaul on an aircraft engine, including procedures and acceptable techniques used in engine disassembly, inspection, repair, reassembly, and operational testing.

3362 Advanced Aerospace Engine Systems Maintenance and Repair. Three credits. The operation of powerplant component systems; induction, exhaust, instrumentation, engine electrical, and propeller systems.

3371 Aircraft Finishing and Non-Destructive Inspection. Three credits. Fundamentals of non-destructive inspection techniques including dye penetrant, magnetic particle, eddy current, and ultrasonic inspection.

3392 Reciprocating Engine Maintenance Repair. Three credits. Reciprocating engines including theory, construction, fuel metering, ignition, and operational maintenance procedures. Inspection and repair processes are applied to operating engine systems.

3440 Fundamentals of Aerodynamics. Three credits. Prerequisites: MATH 1810 or 1910, PHYS 2010/2011 or 2110/2111. Aerodynamics of powered flight. Includes theories of lift and drag and fundamentals of stability and control.

3510 Instrument Flight Fundamentals for Non-Pilots. Three credits. Prerequisite: AERO 2230 or 2220. (Not open to Professional Pilot majors or students who have completed AERO 3210.) Offers preparation for certification as a Flight Dispatcher and Scheduler and the Air Traffic Control Candidates. Classroom and flight simulator instruction emphasizes advanced knowledge in the areas of aerodynamics, performance, systems, Federal Aviation Regulations. No fee required.

3970 Cooperative Education. Three credits. Provides students with opportunities for on-the-job experiences related to academic major. Consult department. Pass/Fail.

3980 Cooperative Education. Three credits. Provides students with opportunities for on-the-job experiences related to academic major. Consult department. Pass/Fail.

4040 Aerospace Seminar. One or three credits. Prerequisite: Senior status or final semester of aerospace program. A capstone course involving analysis, synthesis, and integration of relevant academic experiences. Required of all aerospace students prior to graduation

4050 Aerospace Internship I. Three credits. Prerequisites: Junior standing and consent of department chair. Student is employed by an acceptable airline, airport director, or aerospace industry for 300 hours of field work. Pass/Fail.

4060 Aerospace Internship II. Three credits. Prerequisites: Junior standing and consent of department chair. A continuation of the internship program with a different employer and place of work or a significant job category change. Pass/Fail.

4071 Problems in Aerospace. One to three credits. Individual directed study in the field of aerospace.

4100 Airline Management. Three credits. Airline operation and implementation of sound management practice.

4110 Airport Management. Three credits. Airport operations and development of airport master plan. Fall only.

4130 Aerospace Physiology. Three credits. Instruction, readings, and structured experiences to insure familiarity with the various physiological and health-related factors affecting a flyer's safety and performance.

4140 Seminar in Airline Administration. Three credits. Prerequisites: AERO 4100 and senior standing. Capstone course for students selecting the airline management focus within Aerospace Administration. Individually directed course on a selected topic within the airline industry. Addresses specific airline industry issues and develops solutions to these issues in the global context within which airlines operate.

4150 Fixed Base Operations Management. Three credits. The FBO operator and the essential role played in general aviation.

4160 Aviation Law. Three credits. Legal responsibility in the aviation industry.

4170 Airport Planning and Design. Three credits. Prerequisite: Senior standing or permission of department. Capstone course for students selecting the airport management focus within Aerospace Administration. Methods utilized in airport planning and design, including the consideration of the needs of stakeholders in the design process. Students will have opportunity to apply knowledge of airport management with the planning and design of a new airport in a major project.

4201 Flight Instructor - Airplane Lab. One credit. Prerequisites: AERO 4210, current FAA Commercial Pilot Certificate, and consent of instructor. Flight and ground instruction leading to the FAA Flight Instructor - Airplane Certificate. Covers all topics of the Flight Instructor - Airplane Practical Test Standards. Flight fees required. NOTE: This is not an FAA Part 141 course.

4202 Flight Instructor - Instrument Lab. One credit. Prerequisites: Current FAA Commercial Pilot Certificate with an instrument rating, AERO 3210, and consent of the instructor. Flight and ground instruction leading to the FAA Flight Instructor - Instrument Certificate. Covers all topics of the Flight Instructor - Instrument Practical Test Standards. Flight fees required. NOTE: This is not an FAA Part 141 course.

4203 Flight Instructor - Multiengine Lab. One credit. Prerequisites: Current FAA Commercial Pilot Certificate with an Instrument rating, AERO 3260, and consent of the instructor. Flight and ground instruction leading to the FAA Flight Instructor - Multiengine Certificate. Covers all topics of the Flight Instructor - Multiengine Practical Test Standards. Flight fees required. NOTE: This is not an FAA Part 141 course.

4210 Flight Instructor Fundamentals. Three credits. Prerequisites: Commercial Pilot Certificate, Instrument Rating-Airplane. Ground instruction leading to the Certificated Flight Instructor - Airplane, Single Engine Land. At least one FAA Ground Instructor Certificate must be completed during the course. Fee required for ground instructor exams.

4220 Advanced Certified Flight Instructor Fundamentals. Three credits. Prerequisite: Certified Flight Instructor Certificate. Ground and flight instruction leading to the instrument and multiengine instructor ratings. Flight training for this course is to be taken at the MTSU Flight School. The ratings must be completed during the course. Students should consult with the chief flight instructor for a scheduled flight slot. Fee required.

4230 Advanced Air Navigation. Three credits. Advanced navigation equipment and operation procedures, including international, transoceanic, and polar routes, inertial navigation, GPS, and flight dispatch communications.

4240 Aircraft Systems Management. Three credits. Instruction and requirements pertaining to the activities of a flight engineer.

4301 Advanced Aerospace Vehicle Structural Repair. Three credits. Nontypical structures including bonded and plastic structures. Includes planning and organizing of major structural repair projects and rebuilding of severely damaged aircraft.

4310 Aerospace Vehicle Systems. Three credits. Design, use, and function of typical hydraulic, mechanical, and electrical systems used on transport category aircraft. Designed for potential pilots, flight engineers, and managers.

4311 Aerospace Accessory Systems Maintenance and Repair. Three credits. A laboratory course providing experience in the maintenance, inspection, and repair of aircraft system components.

4312 Turbine Engine System. Three credits. Advanced course in the maintenance of complex systems.

4332 Reciprocating Engine Troubleshooting. Three credits. A laboratory course providing practical experience in inspecting and troubleshooting problems with reciprocating engines and powerplant systems.

4340 Maintenance Management Capstone. Three credits. Prerequisite: Students must be in the last 18 hours of coursework before graduation. Students assigned a specific task directly related to the knowledge and skills gained during their progress through the Maintenance Management concentration. Students expected to complete assigned project with minimum guidance from the instructor. Pass/fail; passing grade required for graduation from the Maintenance Management program.

4342 Turbine Engine Inspection and Troubleshooting. Three credits. A laboratory course providing practical experience in turbine engine inspection to include hot section inspection, engine operation, and troubleshooting.

4371 Advanced Aerospace Vehicle Systems Overhaul. Three credits. Complete repair and overhaul of complex aerospace vehicle
systems including hydraulics, electric, pneumatics, fuel, and oil. Shop layout and quality control procedures stressed.

4381 Advanced Aerospace Accessory Systems Maintenance and Repair. Three credits. Repair and overhaul of complex accessory systems and subsystems. Practical experience in overhaul of air conditioning, pressurization, power brakes, constant speed drives, and jet fuel controls.

4392 Aerospace Turbine Engine Maintenance and Overhaul. Three credits. A laboratory course in field maintenance and repair of turbine engines and components. Includes limited overhaul procedures and techniques. Management procedures stressed.

4400 Space. Three credits. History of global space exploration and the successes and failures of manned and unmanned efforts in the race to the moon.

4440 Aircraft Performance. Three credits. Prerequisites: AERO 3440. Determination of performance from basic lift, drag, power, and structural characteristics of the airplane. Use of flight charts. Effects of loading on performance.

4490 Aerospace Science for Teachers. Three credits. An introduction to the total aviation and space effort.

4530 Air Traffic Control. Three credits. FAA Air Traffic Control system used to regulate air traffic during enroute and terminal phases of flight, with emphasis on communication, navigation, control equipment, and procedures. Fee required. Fall only.

4560 Advanced Air Traffic Control. Four credits. Prerequisites: AERO 2220, 3510, and 4530. Capstone course for FAA Collegiate Training Initiative. Focuses on mastery of concepts acquired in AERO 4530. Includes computer simulations conducted in high-density, high-workload conditions. Emphasizes situational analysis, decisive action, and problem-solving ingenuity in terminal and enroute ATC environments. One three-hour lecture and one one-hour laboratory. Fee required. Spring only.

4580 Flight Dispatch and ATP Written Preparation. Three credits. Prerequisites: AERO 1230, 3080, and 3510 . First of two classes providing students with the knowledge required for certification as an aircraft dispatcher. Topics include human factors, dispatch resource management, aircraft systems, weight and balance, and aircraft performance. The FAA computerized aircraft dispatcher (ADX) exam must be passed during this course. Fall only.

4590 Flight Dispatch. Three credits. Prerequisite: AERO 4580. Second of two classes providing students with the knowledge required for certification as an aircraft dispatcher. Explores factors necessary to prepare a flight plan such as weather analysis, enroute charts, dispatch release, and emergency/abnormal procedures. Capstone course for Flight Dispatch and Scheduling concentration. Fee for required certification examination. Spring only.

4730 Honors Seminar in Aviation Psychology. Three credits. Application and physiological testing and research techniques in aviation education, management, and technology.

## African American Studies [AAS]

2100 Introduction to African American Studies. Three credits. Introductory interdisciplinary survey course which examines the African American experience from enslavement through the present; social, religious, political, and cultural interactions evolving from that experience.

4600 Interdisciplinary Seminar in African American Studies. Three credits. Selected topics, issues, and problems in the African and African American experience. Course emphasis on primary source materials, critical reading, and critical analysis. Topics will vary. This course may not be repeated for additional credit hours in the minor.

4990 Independent Study in African American Studies. Three credits. Allows the examination of a specific topic within the study of Africa, the Caribbean, or America. Student conducts research and confers regularly with the instructor. Work must draw upon theories and methods applicable to African American Studies. See the program director for guidelines. This course may not be repeated for additional credit hours in the minor.

## Agribusiness and Agriscience [ABAS]

## Agribusiness and Agriscience (Agribusiness)

2130 Introduction to Agribusiness. Three credits. Nature, scope, importance, and relationship to the general economy.

2500 Wine Appreciation. Three credits. (Also listed under Plant and Soil Science.) The fundamentals of wine appreciation, wine label interpretation, and wine judging. Students will evaluate wine products and must be 21 years of age to enroll.

3130 Principles of Agricultural Economics. Three credits. Applying the principles of economics to agricultural problems.

3490 Poultry Production and Marketing. Three credits. (Also listed under Agribusiness.) Prerequisites: ABAS 1410; junior-level classification or higher. A comprehensive study of commercial chicken production. Topics include the structure of the U.S. commercial chicken industries; poultry housing and equipment; broiler, broiler breeder, hatchery, and commercial layer management; and poultry/egg processing. Field trips used to supplement course materials. Two lectures and one laboratory. Offered spring only.

3810 Milk Processing and Marketing. Three credits. (Also listed under Animal Science.) Prerequisite: PSCI 1030/1031 or CHEM 1010/1011, 1020/1021. Biological, chemical, and physical properties of cow's milk and its value as an animal food source; techniques of processing and marketing; governmental regulations; dairy arithmetic and laboratory testing.

3850 Wine Science and Industry. Three credits. (Also listed under Plant and Soil Science.) Prerequisites: CHEM 1020/1021, 1120/1121, or 1030/1031 or PSCI 1030/1031; ABAS 1610. The science and marketing of wine, including grape production, fruit processing, and fermentation technologies. Explores wine marketing in Tennessee, the U.S., and the world. Student must be 21 years of age to enroll.

4120 Alternative Fuels. Three credits. (Also listed under Agricultural Education.) Nature, scope, and importance of alternative fuel vehicles in light, medium, and heavy applications. Topics include theory of operation and safety with an emphasis on gaseous and liquid fuels (ethanol, methanol, biodiesel, hydrogen, solar, wind, and other alternative fuels).

4130 Agricultural Marketing and Price Analysis. Three credits. Prerequisite: ABAS 3130 or approval of instructor. Agricultural prices and their relationship to production and marketing. Agricultural marketing systems, functions, institutions, and structural changes.

4140 Economics of Agribusiness Management. Three credits. Prerequisite: ABAS 3130 or approval of instructor. Application of economic concepts to agribusiness firms.

4150 Agricultural Policy. Three credits. Prerequisite: ABAS 3130. Agricultural policy in a democratic society; relationship of farm groups to public policy; types of agricultural programs and appraisal of their results.

4160 Agricultural Cooperatives. Three credits. Prerequisite: ABAS 3130. Role of agricultural cooperatives in collective bargaining for farmers; historical development, economic organization, and structural aspects.

4170 Equine Industry. Three credits. Prerequisites: ABAS 2130 or 3130 and 3040 or approval of instructor. Operational strategies and management issues facing the equine enterprises. Financial, legal, and taxation issues pertaining to the U.S. and international equine industry.

4180 Internship in Agribusiness. Six credits. Prerequisite: Approval of instructor. In-depth practical experience in a specific area of agribusiness. NOT OPEN TO STUDENTS WHO HAVE RECEIVED CREDIT FROM ANOTHER SCHOOL INTERNSHIP COURSE.

4190 International Agriculture. Three credits. Prerequisite: ABAS 3130. The effect of international trade on the U.S. agricultural industry.

4200 Fruit and Vegetable Marketing. Three credits. (Also listed under Plant and Soil Science.) Prerequisites: PSCI 1030/1031 and BIOL 1030/1031 or approval of instructor. Basic biochemistry of respiration, handling techniques and practices, quality assessment and marketing of fruit and vegetable crops. Both domestic and international marketing of fruit and vegetable products discussed. Examines the economic impact of improper handling on both the local producer and the end user.

4810 The Food Industry. Three credits. An overview from production to processing to marketing. Covers the current status of the world's largest employer, including where and how foods are produced, distributed, and marketed and where the industry is heading in the future.

4820 Principles of Food Processing. Three credits. Prerequisite: PSCl 1030/1031 or CHEM 1010/1011, 1020/1021. Principles used in the modern food industry, including thermal, refrigerated, frozen, and irradiation methods. Includes coverage of the techniques used to process major food commodities such as meats, cereal grains, and fats and oils.

4830 Food Quality Control. Three credits. Prerequisites: PSCI 1030/1031 and BIOL 1030/1031 or approval of instructor. Quality control and sensory evaluation techniques utilized in food processing. Instrumental and physical methods of quality determination of raw and processed food products, hazard analysis and critical control point (HACCP), and quality philosophies employed in the industry. Sensory evaluation techniques and statistical analysis of evaluation results covered.

## Agribusiness and Agriscience (Animal Science)

1410 Elements of Animal Science. Three credits. Overview of domestic animal species, including reproduction, genetics, feeding, management, and product marketing. Species include beef, dairy, horses, swine, sheep, goats, and companion animals.

2110 Basic Horsemanship. One credit. Preparation and orientation for students interested in taking horse science courses with an animal handling component. Topics include facility safety, horse control and handling, grooming, saddling, daily care considerations, and facility maintenance. Class consists of one two-hour laboratory each week.

2400 Fundamentals of Horsemanship. Three credits. Concepts of applications of horse handling, particularly the riding horse. Understanding, communicating with, and influencing the equine athlete; development of basic control skills; development of balance and coordination; use of equipment. (First course in a three-part series.)

3040 Stable Management. Three credits. Prerequisite: ABAS 2400 or approval of instructor. Business aspects of horse facility management and ownership emphasized. Practical approaches to management of horses and responsible horse ownership also covered.

3300 Equine Health. Three credits. Familiarizes students with normal physiologic parameters and how to recognize and deal with health issues of horses. Topics include care of the pregnant broodmare, foal care, routine health maintenance, infectious diseases, commonly used medications, dentistry, lameness, neurological diseases, colic, parasites, ophthalmology, dermatology, reproduction, geriatrics, and alternative therapies.

3400 Horsemanship-Equitation. Three credits. Prerequisite: ABAS 2400 and approval of instructor. Proper horseback riding, handling, mounting, and dismounting. Various gaits and proper equitation stressed. One lecture and two two-hour laboratory periods.

3410 Horse Breeds and Genetics. Three credits. A review of the history of the horse from the prehistoric era to present day with a focus on the development and contributions of horse breeds in the U.S. and state horse industry. Roles of breed associations, principles of genetics, selection of desired traits, genetic abnormalities associated with specific breeds, and matching breeds to disciplines discussed.

3420 Genetics of Domestic Livestock. Three credits. Prerequisites: ABAS 1410; BIOL 1110/1111, 1120/1121; junior-level classification or higher. Basic principles of genetics, crossbreeding, inbreeding, and molecular genetics. Animal breeding topics include use of quantitative traits, prediction of breeding value, methods of selection, and genetic evaluations. Offered fall only.

3430 Horse Production. Three credits. Prerequisite: ABAS 2110 or 2400 or approval of instructor. Scientific principles relevant to production requirements of horses as related to exercise physiology and performance, growth, reproductive physiology and state, age, and clinical support. Facilities management, marketing, legal aspects of horse ownership, and career opportunities covered.

3440 Livestock Management. Three credits. Prerequisite: ABAS 1410. Management practices for farm animal species. Practices include animal handling, restraint techniques, feeding, milking, castrations, identification methods, and herd health problems.

3450 Anatomy and Physiology of Domestic Animals. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121; ABAS 1410. The parts, functions, and anatomical relationships of various organs and systems of domestic animals.

3460 Farrier Science. Three credits. Basic techniques in the science and art of making, fitting, and actual shoeing of horses according to proper methods. One lecture and two two-hour laboratory periods. (Offered at irregular times in conjunction with the College of Continuing Education and Distance Learning.)

3470 Beef Cattle Production. Three credits. Prerequisites: ABAS 1410; junior-level classification or higher. Management practices essential for economic beef production including breeding, feeding, and herd health. Purebred, commercial, stocker, feedlot, and processing segments evaluated. Offered fall only.

3480 Swine Production. Three credits. Prerequisites: ABAS 1410; junior-level classification or higher. Understanding management of the pig's environment and genetics to maximize profits. Includes nutrition, reproduction, genetics, housing, herd health, and management practices. Offered spring only.

3490 Poultry Production and Marketing. Three credits. (Also listed under Agribusiness.) Prerequisites: ABAS 1410; junior-level classification or higher. A comprehensive study of commercial chicken production. Topics include the structure of the U.S. commercial chicken industries; poultry housing and equipment; broiler, broiler breeder, hatchery, and commercial layer management; and poultry/egg processing. Field trips used to supplement course materials. Offered spring only.

3500 Small Ruminant Production. Three credits. Prerequisite: ABAS 1410. The study of efficient sheep and goat production and management in the U.S. Topics include genetics and selection, reproduction, health and parasite control, nutrition, forages and grazing management, and product quality and marketing.

3540 Dairy Production. Three credits. Prerequisite: ABAS 1410; juniors and seniors only. Feeding and management, ruminant digestion, physiology of milk secretion, production testing and official records, sanitary regulations, handling and marketing of raw milk.

3810 Milk Processing and Marketing. Three credits. (Also listed under Agribusiness.) Prerequisite: PSCI 1030 or CHEM 1010/1011, 1020/1021. Biological, chemical, and physical properties of cow's milk and its value as an animal food source; techniques of processing and marketing; governmental regulations; laboratory testing.

3900 Horses and Horsemanship. Three credits. Basic requirements of horse ownership, care and associated expenses, inherent risks and safety around horses, and resources available in the horse industry. For non-horse-science majors.

4040 Equine Event and Facility Management. Three credits. Prerequisite: ABAS 3040 or 3440 or approval of instructor. Fundamentals of managing equine and other livestock events and facilities covered. Involves active participation in preparing for and conducting equine events held on campus.

4090 Equine Reproduction and Breeding. Three credits. Prerequisites: ABAS 2110 or 2400 and 3040 or 3430 or approval of instructor. Reproductive anatomy and physiology of the stallion and mare as they relate to modern breeding practices. Vocational training in semen handling, artificial insemination, and neonatal care. Two hours lecture and two hours laboratory.

4170 Equine Industry. Three credits. Prerequisites: ABAS 2130 or 3130 and 3040 or approval of instructor. Operational strategies and management issues facing the equine enterprises. Financial, legal, and taxation issues pertaining to the U.S. and international equine industry.

4260 Behavior of Domestic Animals. Three credits. Behavior aspects of raising and managing domestic animals to include equine, swine, goats, cattle, sheep, dogs, and cats. Communication, ingestive, sexual, social, aggressive, and abnormal behaviors emphasized.

4400 Advanced Horsemanship-Equitation. Three credits. Prerequisites: ABAS 2400 and 3400 and approval of instructor. Advanced techniques of horseback riding at all position seats stressing proper equitation and coordination and refinement of techniques learned in previous courses.

4410 Animal Nutrition and Feeding. Three credits. Prerequisites: ABAS 1410; CHEM 1020/1021 or 1120/1121; junior-level classification or higher. Advanced study of the processes of digestion
and nutrient utilization in domestic animal species. Topics include monogastric and ruminant digestive anatomy and physiology; carbohydrate, lipid, protein, vitamin, and mineral utilization; feedstuff identification; practical computer-assisted feed formulation; and feeding management for agricultural animal species. Offered fall only.

4430 Internship in Animal Science. Six credits. Prerequisite: Approval of instructor. In-depth practical experience in a specific area of animal science pertinent to the individual's interest. Students work with producers and agencies that have agreed to cooperate in the program and to provide adequate salary and guidance. NOT OPEN TO STUDENTS WHO HAVE RECEIVED CREDIT FROM ANOTHER SCHOOL INTERNSHIP COURSE.

4440 Equine Nutrition and Feeding. Three credits. ABAS 1410 and CHEM 1010/1011 and 1020/1021 or approval of instructor. Equine digestion and utilization of nutrients, appropriate feeds and feeding management, and diseases with a nutritional component. Nutrient requirements for the horse at various stages, including maintenance, reproduction, growth, performance, age, and clinical support discussed.

4450 Techniques of Teaching Horsemanship. Three credits. Prerequisites: ABAS 2400, 3400, and 4400 or approval of instructor. Basic techniques and methods used in teaching riding discussed and applied. Two-hour lecture and one two-hour laboratory.

4460 Behavior and Training of Horses. Four credits. Prerequisites: ABAS 2400, 3400, 4400, and approval of instructor. The psychology, theory, and practice of training and behavior modification in horses. Students assigned a project horse for the semester. Two hours lecture and four hours laboratory.

4470 Advanced Beef Production. Three credits. Prerequisite: ABAS 3470 or approval of instructor. In-depth analysis of various systems of beef production. Extensive field trips to cow-calf, feedlot, stocker, and purebred operations. Offered spring only.

4480 Equine Evaluation and Selection. Three credits. Individual parts, conformation, and gaits of the horse as they relate to selecting and judging horses for production, recreation, and sport.

4490 Livestock Evaluation. Three credits. Prerequisite: Approval of instructor. Comparative evaluation of beef cattle, swine, sheep, and horses. Develops defense of placing through an organized set of reasons involving terms describing the animal's characteristics. Importance of these characteristics to the animal function stressed.

4510 Domestic Animal Reproductive Physiology. Three credits. Prerequisites: ABAS 1410; BIOL 1110/1111, 1120/1121; junior-level classification or higher. Advanced study of the anatomy, physiology, and endocrinology of reproduction in domestic animal species. Topics include male and female reproductive anatomy, hormonal control of reproductive processes, reproductive development, the estrus cycle, male physiology, and lactation. Current techniques to control animal reproduction described. Offered spring only.

4520 Companion Animal Management. Three credits. A comprehensive study of dog and cat management. Topics include canine and feline history; selective breeding; functional anatomy; reproductive physiology and management; nutrition and feeding management; diseases and health management; behavior, communication, and training. Service role of the dog and cat highlighted. Offered fall only.

4540 Equine-Assisted Therapy. Three credits. Focuses on the effective modality of the horse/human bond as it relates to various forms of equine-assisted therapy with an emphasis on therapeutic riding for people with disabilities. Management of a NARHA-approved
therapeutic program and instructor certification also covered. One hour classroom lecture, online, and experiential learning components.

4580 Advanced Judging of Horses. Three credits. Prerequisite: ABAS 4480. Systems of judging for current horse show disciplines and exercises for students who aspire to become professional judges. Ethics, contracts with management, and procedures for becoming a judge are part of focus.

4590 Dairy Cattle Judging. Three credits. Ideal dairy cattle type and relationship to performance and longevity. Classification and evaluation according to type of the various breeds and comparative judging within the breed. Selection for genetic improvement.

4860 Meat Science and Technology. Three credits. Prerequisites: ABAS 1410 and sophomore-level classification or higher. Selecting, inspecting, grading, fabricating, packaging, preserving, and cooking red meat products. Other topics include anatomy, structure, and composition of muscle, food safety, and microbiology. Offered spring only.

4980 Seminar in Horse Science. Three credits. Familiarizes horse science majors with important current scientific investigation.

## Agribusiness and Agriscience (Plant and Soil Science)

1101 Introduction to Ornamental Horticulture. Three credits. Ornamental horticulture from the scientific basis to commercial operations and management systems. Emphasis on the role of horticulture in everyday living through the introductory study of growing, maintenance, and utilization of plants to benefit people and the environment. Topics include basis of plant science and history, scope, and nature of ornamental horticulture including coverage of such diverse topics as production, craftsmanship, and business management skills.

1610 Elements of Plant Science. Three credits. Fundamental plant processes; plant tissues, structures, environment, growth, development, reproduction, and propagation.

2500 Wine Appreciation. Three credits. (Also listed under Agribusiness.) The fundamentals of wine appreciation, wine label interpretation, and wine judging. Students will evaluate wine products and must be 21 years of age to enroll.

3330 Field Crop Production. Three credits. Economic importance, adaptation, origin, and history; botanical characteristics; cultural methods, uses, breeding, and pests of field crops.

3340 Soil. Three credits. Physical, chemical, and biological properties.
3350 Soil Fertility and Fertilizer. Three credits. Prerequisite: ABAS 3340. Use of fertilizer and liming materials in soil-plant relationships. Lecture/lab.

3360 Irrigation and Drainage. Three credits. Prerequisite: ABAS 3340. Comparative evaluation and interpretation of irrigation and drainage systems; water supply development; interrelationships of the environment and plants; scheduling irrigation; examination of economic and legal factors. Lecture/lab.

3370 Soil Analysis. Three credits. Prerequisite: ABAS 3340. Analysis of soils in laboratory. Lecture/lab.

3630 Forestry. Three credits. Culture, conservation, management, and utilization of forest stands.

3640 Woody Landscape Plants. Three credits. Distribution, characteristics, relationships, and adaptation of native and exotic trees
shrubs, and vines for landscape use. One-hour lecture and fourhour lab.

3660 Vegetable Gardening. Three credits. Principles of home and commercial vegetable production; adaptation, culture, fertility, diseases, and insects of vegetables.

3700 Agricultural Chemicals in Soil Environments. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121, and CHEM 1010/1011, 1020/1021 or approval of instructor. Characteristics, use, mode of action, degradation, and environmental impact of fertilizers and pesticides used in agriculture; environmental safeguards imposed by federal and state regulations on chemical use.

3850 Wine Science and Industry. Three credits. (Also listed under Agribusiness.) Prerequisites: CHEM 1020/1021, 1120/1121, or 1030/1031 or PSCI 1030/1031; ABAS 1610. The science and marketing of wine, including grape production, fruit processing, and fermentation technologies. Explores wine marketing in Tennessee, the U.S., and the world. Student must be 21 years of age to enroll.

4200 Fruit and Vegetable Marketing. Three credits. (Also listed under Agribusiness.) Prerequisites: PSCI 1030/1031 and BIOL 1030/1031 or approval of instructor. Basic biochemistry of respiration, handling techniques and practices, quality assessment and marketing of fruit and vegetable crops. Both domestic and international marketing of fruit and vegetable products discussed. Examines the economic impact of improper handling on both the local producer and the end user.

4300 Plant Protection. Three credits. Prerequisite: ABAS 1610 or 4 hours of biology. Principles of protecting crop plants from damage by weeds, insects, diseases, and other biotic factors. Pest control by chemical, cultural, and biological methods with an emphasis on integrated pest management.

4310 Forage Crops. Three credits. Adaptation, distribution, establishment, management, culture, and utilization of forage legumes and grasses.

4330 Turf Management. Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Establishment and management of turf grasses for lawns, golf courses, and parks.

4340 Soil Formation and Remediation. Three credits. Prerequisite: ABAS 3340. The relation of climate, plant and animal life, geological formations, and land forms to soil genesis and remediation. Lecture/lab.

4350 Soil Survey and Land Use. Three credits. Prerequisite: ABAS 3340 or approval of instructor. Soil properties used to determine suitability for land use. Lecture/lab.

4370 Soil and Water Conservation. Three credits. Principles and practices of soil and water conservation in rural and urban environments. Lecture/lab.

4380 Interior Landscaping. Three credits. Principles and practices of designing, installing, and maintaining landscapes in malls, public buildings, and other indoor environments.

4390 Urban and Sports Turf Soils. Three credits. Prerequisites: ABAS 3340 and 4330. Describe, design, manage, and evaluate urban and sports turf soils. Lecture/lab.

4500 Sustainability in Agricultural Ecosystems. Three credits. Prerequisites: ABAS 1610 or 4 hours of biology. Theories of agroecology; focuses on sustainable agricultural practices and concepts. The impact of specific agricultural technologies and land use practices
on the productivity of agricultural ecosystems, environmental quality, and human health. Examines the environmental science and agronomy of both conventional and alternative sustainable practices including benefits and limitations.

4610 Arboriculture. Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. The culture of trees, shrubs, and vines in the landscape. Planting, transplanting, fertilizing, irrigation, pruning, problem diagnosis, and damage repair included.

4620 Greenhouse Management. Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Analysis of soils, fertilizers, irrigation techniques, container preparation, ventilation, growth regulation, and carbon dioxide enrichment for greenhouse operation. Twohour lecture and two-hour lab.

4630 Floriculture. Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Propagation and other cultural practices for the production and maintenance of plants and flowers in the home. Two-hour lecture and two-hour lab.

4640 Landscaping. Three credits. Application of the principles of design, the use of proportionate-sized woody landscape plants, and other practices to produce low-maintenance-cost landscapes. One-hour lecture and four-hour lab.

4660 Nursery Management. Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Principles and practices of nursery management as a business. Nursery administration, financial management, and marketing. Cultural management of field- and container-grown nursery plants.

4670 Plant Propagation. Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Anatomical features and physiological principles involved in propagating plants from seed and by division, cutting, budding, and grafting. Use of growth regulators and environmental factors. Two-hour lecture and two-hour lab.

4680 Internship in Plant and Soil Science. Six credits. Prerequisite: Approval of instructor. Practical experience in a specific area of agronomy, horticulture, or soils. Classroom material related to practical application. NOT OPEN TO STUDENTS WHO HAVE RECEIVED CREDIT FROM ANOTHER SCHOOL INTERNSHIP.

4690 Japanese Landscaping. Three credits. The elements of Japanese garden design.

## Agribusiness and Agriscience (Agricultural Education)

2230 Introduction to Vocational Agricultural Education. Three credits. Duties of the vocational agriculture teacher with special emphasis on the Future Farmers of America and Supervised Agricultural Experience Programs.

4120 Alternative Fuels. Three credits. (Also listed under Agribusiness.) Nature, scope, and importance of alternative fuel vehicles in light, medium, and heavy applications. Topics include theory of operation and safety with an emphasis on gaseous and liquid fuels (ethanol, methanol, biodiesel, hydrogen, solar, wind, and other alternative fuels).

4210 Farm Power and Equipment. Three credits. Gasoline engines with actual work experience in overhaul. Work also with transmissions, hydraulics, braking systems, and other farm equipment including use of shop manuals, operation manuals, and parts books.

4220 Methods of Teaching Agriscience and Agriculture Mechanics. Three credits. Integrating science into agriculture emphasizing biology, chemistry, and physics. Emphasis on mechanical skills such as small gas engines, gas welding, and electricity.

4230 Adult Education in Vocational-Technical Education and Program Development. Three credits. How to teach adults and administer adult programs. Emphasis on planning, organizing, and arranging courses for adults in agriculture.

4240 Workshops in Agricultural Education. One to six credits. Prerequisite: Teaching experience or approval of instructor. Designed to provide vocational agriculture teachers with intensive training in selected areas of agriculture. Check with your academic advisor.
4241 Production Agriculture. One to three credits. (also Animal Science and Plant Science elective)
4242 Ornamental Horticulture. One to three credits. (also Plant Science elective)
4243 Agricultural Mechanics. One to three credits.
4244 Farm Energy Alternatives. One to three credits. (also Animal Science and Plant Science elective)
4245 Problems of New and Established Teachers. One to three credits.

## Agribusiness and Agriscience (General)

1000 Orientation in Agriculture. One credit. Job opportunities in agriculture, departmental facilities, extracurricular activities at MTSU associated with specific phases of agriculture. Pass/Fail.

2210 Introduction to Agricultural Engineering. Three credits. Prerequisite: MATH 1710 or 1010 or approval of instructor. Basic principles, mechanics, combustion engines, electricity, building construction, and machinery with applications of problem solving techniques.

3010 Agri-Media Skills. Three credits. Applications of oral and written skills in communicating about agricultural research, shows, and sales.

3600 Horticulture in Our Lives. Three credits. Emphasis on the role of horticulture in everyday living, through principles of growing plants in the home, floral design, home landscaping, and gardening.

4100 Microcomputer Applications in Agriculture. Three credits. Includes use of agricultural software, agricultural communications networks, computer dairy feeding systems, and farm records.

4250 Leadership in Agricultural Industries. Three credits: Prerequisite: Junior or senior standing or consent of instructor. A capstone course to enhance students' leadership and human relation skills in the workplace. Topics include leadership styles, theories, characteristics of leaders (conceptual, technical, human relations), communication styles, group dynamics, conducting successful meetings, problem solving, goal setting, attitudes, motivation, self-concept, learning styles, time management, and employability skills.

4700 Agriculture in Our Lives. Three credits. National and international importance of U.S. agriculture. Emphasis on food production and marketing, land conservation, and agriculture-related recreation. Accepted as a natural science elective for education majors. NO CREDIT GIVEN TOWARD A MAJOR IN THE SCHOOL OF AGRIBUSINESS AND AGRISCIENCE.

4910 Problems in Agriculture. One to six credits. Problem or problems selected from one of the major disciplines. May involve conferences with instructor, library work, field study and/or laboratory activity. Students can take from one to three credits with a maximum of three per semester.

4990 Seminar. One credit. Students required to research and give an oral report on a current agricultural topic.

## Anthropology [ANTH]

2010 Cultural Anthropology. Three credits. Counts toward General Education Social/Behavioral Sciences requirement. A comparative examination of the cultural organization of human behavior in societies around the world. Practical applications and the importance of intercultural understanding stressed.

2105 Introduction to Latin American Studies. Three credits. (Same as SPAN 2105, PS 2105, SOC 2105, ART 2105, GEOG 2105.) A multidisciplinary, team-taught introduction to Latin America. Covers the cultures and societies of the region: pre-history, history, geography, politics, art, languages, and literatures. Required course for all Latin American Studies minors.

2210 Introduction to World Prehistory. Three credits. Counts toward General Education Humanities/Fine Arts requirement. Cultural change over the past four million years as interpreted through archaeology. The development of hunting and gathering through the origins of agriculture and the appearance of the world's first civilizations.

2230 Tennessee Archaeology. Three credits. Archaeology of prehistoric and historic Tennessee. Based on archaeological research; presents an overview of human occupation in Tennessee with emphasis on local sites.

2240 Sunken Continents, Lost Tribes, and Ancient Astronauts. Three credits. Critical examination of popular theories of prehistory including Atlantis, Bigfoot, extraterrestrial visitors, and others with a focus on the nature of the scientific method.

2517 Introduction to the Portuguese World. Three credits. The diverse peoples and cultures of Portugal and its former colonies in Latin America, Africa, and Asia. History, sociocultural systems, and contemporary issues and impacts resulting from globalization from an anthropological perspective.

2740 Magic, Witchcraft, and Religion. Three credits. Symbolic and ritual expression in indigenous and urban societies from an anthropological perspective including interpretations of myth, religious healing, cults, taboo, witchcraft, sorcery, and religious specialists and non-specialists.

3010 Ethnology. Three credits. Examines different approaches in anthropology to the study of contemporary world cultures. For upper-division anthropology majors and minors. Addresses various theoretical approaches in the study of culture, use of ethnographic methods, ethical role of the anthropologist in research, and current issues in ethnology. Readings will focus on ethnographies from around the world.

3040 Research Methods. Three credits. (Same as SOC 3040.) Issues and strategies in the scientific study of social phenomena.

3050 Data Analysis. Four credits. (Same as SOC 3050.) Data analysis and interpretation. Laboratory required.

3210 Archaeology. Three credits. Introduces methods used to study the nature and development of prehistoric societies. Approaches to survey, excavation, analysis, and interpretation explored through lectures, case studies, and problem assignments.

3240 Ancient Civilizations. Three credits. Prerequisite: 3 hours of anthropology. Comparative study of archaeological evidence on the origins, development, and collapse of the early civilizations of the world. The transformation of human societies from the first settled villages to urban states in Mesopotamia, Egypt, India, Central Asia, Mesoamerica, and Peru.

3310 Human Origins. Three credits. The origin and development of human life, its primate roots, ecology, and diversity.

3410 Linguistic Anthropology. Three credits. Language in its anthropological contexts with a focus on language as one element of culture, including how a language fits into the cultural system, how language is distinguished from other components of culture, how culture and language interrelate, and what techniques and methods can be used to infer nonlinguistic facts from linguistic material.

3509 Peoples and Cultures of China and Japan. Three credits. Prerequisite: Junior standing; ANTH 2010 recommended. The diverse peoples and culture of China and Japan. Overview of East Asia as a region and contemporary issues and impacts resulting from globalization from an anthropological perspective.

3510 Peoples and Cultures of Southeast Asia. Three credits. The diverse peoples and cultures of Southeast Asia (Indonesia, Phillipines, Brunei, Singapore, Malaysia, Thailand, Myanmar, East Timor, Laos, Cambodia, Vietnam). History, sociocultural system, and contemporary issues and impacts resulting from globalization from an anthropological perspective.

3511 Peoples and Cultures of Oceania. Three credits. The diverse peoples and cultures of Oceania. History, sociocultural system, and contemporary issues and impacts resulting from globalization from an anthropological perspective.

3514 Peoples and Cultures of Africa. Three credits. (Same as AAS 3514.) The diverse peoples and cultures of Africa. History, sociocultural system, and contemporary issues and impacts resulting from globalization from an anthropological perspective.

3515 Peoples and Cultures of Native North America. Three credits. The diverse peoples and cultures of Native North America (often called American Indians or Native Americans). History, sociocultural system, and contemporary issues and impacts resulting from globalization from an anthropological perspective.

3516 Peoples and Cultures of Europe. Three credits. The diverse peoples and cultures of Europe. History, sociocultural system, and contemporary issues and impacts resulting from globalization from an anthropological perspective.

3517 Peoples and Cultures of Brazil. Three credits. The diverse peoples and cultures of Brazil. History, sociocultural systems, and contemporary issues and impacts resulting from globalization from an anthropological perspective.

3518 Peoples and Cultures of Latin America. Three credits. The diverse peoples and cultures of Latin America. History, sociocultural systems, and contemporary issues and impacts resulting from globalization from an anthropological perspective.

3520 North American Prehistoric Archaeology. Three credits. A comprehensive presentation including archaeological findings concerning the initial settlement of North America some 14,000 years ago; the origins, adaptations, and development of major North American cultural traditions through European contact and colonization; and the major theoretical contributions of North American archaeology.

3521 Mesoamerican Archaeology. Three credits. Prerequisite: 3 hours anthropology. Archaeology of Mesoamerica to include the findings of archaeology of the initial settlement of Mesoamerica; the origins, adaptations, and development of major prehistoric Mesoamerican cultural traditions such as the Olmec, Maya, and Aztec; and the major theoretical contributions of Mesoamerican archaeology.

3610 Archaeological Methods. Three credits. Prerequisite: ANTH 3210 or permission of instructor. Methods of identifying, excavating, recording, analyzing, reporting, and interpreting archaeological sites. Focus on technical aspects of archaeological research, including a substantial component of classroom simulations of the practical applications of these methodologies.

3640 Visual Anthropology. Three credits. Prerequisites: 3 hours anthropology or permission of instructor. Photography and film as tools and products of ethnography. Researching, analyzing, and presenting behavioral and cultural ideas through visual means. Cultural and political biases presented through photography and film.

3650 Forensic Anthropology. Three credits. Prerequisite: Junior standing. An intensive overview of forensic anthropology-an applied field of physical anthropology that seeks to recover, identify, and evaluate human skeletal remains within a medicolegal context.

3710 Topics in Anthropology. Three or six credits. An in-depth study of a special topic which is significant in current anthropological literature.

3720 Environmental Anthropology. Three credits. Prerequisite: 3 hours anthropology or geography. Comparative study of ecological systems utilized by tribal, peasant, and industrialized peoples of the world. Special attention on theoretical approaches examining the interface of the environment and culture, the evolution of modes of subsistence, and contemporary development and indigenous people.

3730 Medical Anthropology. Three credits. A cross-cultural survey of health-related beliefs and behavior. Includes etiologies, treatments, patients, and practitioners as they interact in an environmental, biological, and cultural context.

3750 Race, Class, and Gender. Three credits. Prerequisites: 3 hours anthropology or women's studies; ANTH 2010 recommended. An anthropological examination of the biological and cultural aspects of human identity as expressed through the concepts of race, ethnicity, gender, and sexuality. Focus on ways in which regional, ethnic, and gender identities are celebrated, contested, and regulated cross-culturally.

3752 Cultural Images of Gender. Three credits. Prerequisites: ANTH 2010 or SOC 1010 or WMST 2100; or permission of instructor. Global perspectives of gender through exploration of the experiences of men and women of various backgrounds worldwide. Special attention to mediums and writing styles presented; critical examination of creation and perpetuation of cultural images.

3990 Field Experience and Study Abroad. Three to twelve credits. For students participating in Study Abroad courses for the existing consortium agreements. Credits depend on the number of hours of study in the foreign country (e.g., a four-week, six-week, or semester program).

4120 Practicing Anthropology. Three credits. Culture change theory and the practical dimensions of anthropology in research and planned change implementation.

4130 Anthropology of Globalization. Three credits. Prerequisites: Junior standing; ANTH 2010, 3010, or GS 2010, or permission of instructor. Explores the phenomenon of globalization anthropologically including competing understanding of transnational flow of capital, goods, people, images, and ideas around the world.

4140 Immigrants and Globalization in the American South. Three credits. Prerequisites: Junior standing; ANTH 2010 or 3010 or permission of instructor. ANTH 4130 recommended. Explores
anthropologically the specific effects of globalizing forces in the southern United States. Relations between global and local communities explored taking into account immigration, particularly of Latinos and Asians; local industry in a time of globalization; power and confrontation between rural and urban worlds; issues of race and ethnicity; and the assimilation of foreign-born professionals into Southern social and cultural systems.

4300 Human Osteology. Three credits. Prerequisites: BIOL 1030/1031 or 1110/1111; ANTH 2210 or 3210 or 3310 ; or permission of instructor. Lab-intensive. Explores methods used in physical anthropology to study individual skeletal remains including human skeletal anatomy and bone physiology. Emphasis on identification of fragmentary remains from archaeological sites.

4310 Bioarchaeology. Three credits. Prerequisites: BIOL 1030/1031 or 1110/1111; ANTH 2210 or 3210, or 3310; or permission of instructor. ANTH 4300 recommended. Human skeletal remains interpretation from an archaeological perspective to understand past human culture through the lens of health, nutrition, and activity patterns. Emphasis on technical aspects of bioarchaeological research including a substantial component of case studies, issues, and ethics.

4360 Zooarchaeology. Three credits. Prerequisites: BIOL 1030/1031 or 1110/1111; ANTH 3210; or permission of instructor. Labintensive. Explores methods used by zooarchaeologists to identify, quantify, and summarize nonhuman animal remains from archaeological contexts using comparative collections. Emphasis on implications for human subsistence, environmental reconstruction, and human behavior.

4520 Archaeology of the Southeastern United States. Three credits. Prerequisites: ANTH 2230 or 3210 or 3520 , or permission of instructor. A comprehensive presentation of the archaeology of the southeastern United States, to include historical overviews of southeastern archaeology; a consideration of geography, geomorphology, and environment; theoretical contributions of southeastern archaeology; the finds of southeastern archaeology concerning the initial settlement of the region; the origins, adaptations, and development of major prehistoric southeastern cultural traditions through historic contact and colonization.

4620 Environmental Archaeology. Three credits. Prerequisite: 3 hours from the following: ANTH 2210, 3210, 3310, 3520, or 4950. The interdisciplinary reconstruction of prehistoric environments using archaeological methods with a focus on geoarchaeology, zooarchaeology, and archaeobotany. How past environments affect human adaptation and how humans impact the environment.

4730 Economic Anthropology. Three credits. The ways people produce, distribute, and consume goods, how such systems are organized, how they operate, how they develop, and how they relate to other systems, especially the family, political, and ideological. Draws on case material for household economies, the transition to capitalist economies, and the world economic system.

4740 Law and Politics in Traditional Societies. Three credits. A crosscultural perspective on concepts of politics and law in non-Western societies and the application of anthropological concepts in the study of legal and political systems in the contemporary global community.

4750 Anthropology of Religion. Three credits. Prerequisite: ANTH 2010 or 2740 or 3010 or permission of instructor. Cross-cultural exploration of religion, including beliefs in the supernatural, the use of ritual in secular and sacred context, and the roles of ceremonial practitioners. Focus on how people interpret and control their worldviews through religion and ritual.

4860 Historical Archaeology. Three credits. (Same as HIST 4860.) Disciplines of historical archaeology, including examination of archaeological evidence, historical documentation, and interpretation of evidence.

4890 Seminar in Anthropological Theory. Three credits. Prerequisites: 18 hours of anthropology, including ANTH 3010, 3210, 3310, and 3410. The major anthropological theories within their historical, cultural, and political context.

4910 Anthropology Undergraduate Research. One to six credits. Field experience or reading courses through which special interests or needs of the student may be pursued under individual supervision. No more than three hours may be used in the major. Arrangements must be made with an instructor prior to registration.

4920 Anthropology Senior Thesis. Three credits. Prerequisite: Permission of Anthropology Thesis Committee. Focuses on a specific research topic chosen with the consent of the thesis committee and with the potential for original discovery or creative development. Independent pursuit of research objectives outlined in a research proposal results in a written thesis, the approval of which will include an oral defense.

4940 Ethnographic Field School. Three to six credits. Field experience in a cross-cultural setting. Training in ethnographic research techniques.

4950 Archaeological Field School. Three to six credits. Course may be taken for three to six credits after consultation with instructor. The basic techniques of archaeology and paleoecology through participation in actual excavation and laboratory work.

4960 Anthropology Internship. One to six credits. Supervised independent study in which student is placed in an organization on a contractual basis as a means of applying the principles of his/her training in preparation for eventual employment. Arrangements must be made with the intern supervisor prior to registration. No more than six hours may be used in the major.

## Arabic [ARAB]

1010 Elementary Arabic I. Three credits. Foundation course in reading, writing, speaking, and aural comprehension.

1020 Elementary Arabic II. Second semester. Three credits. Prerequisite: ARAB 1010 or permission of instructor.

2010 Intermediate Arabic I. Three credits. Prerequisite: ARAB 1020 or permission of instructor. An intermediate course designed to improve language skills in Arabic, including reading, writing, speaking, and aural comprehensive.

2020 Intermediate Arabic II. Second semester. Three credits. Prerequisite: ARAB 2010 or permission of instructor. Continuation of ARAB 2010.

## Art [ART]

1030 Orientation to Art. Three credits. An introduction to art structure and styles of art; relationships between past ideas and current trends.

1610 Two-Dimensional Design. Three credits. The principles and techniques of design and their application to two-dimensional art forms. Six-hour studio course.

1620 Drawing I. Three credits. Develops observational drawing skills and a formal drawing vocabulary; introduces various drawing materials. Six-hour studio course.

1630 Three-Dimensional Design. Three credits. Prerequisite: ART 1610. Emphasis on elements of design as they operate in the three-dimensional environment.

1640 Drawing II. Three credits. Prerequisites: ART 1610 and 1620. A continuation of ART 1620 with specific emphasis placed on drawing processes and expression. Six-hour studio course.

1910 Art History Survey I. Three credits. Survey of the non-Western arts of Africa, the Americas, Asia, and Oceania from ancient to modern times.

1920 Art History Survey II. Three credits. Survey of the arts of the Western tradition from the Paleolithic era through the Gothic period.

1930 Art History Survey III. Three credits. Prerequisite: ART 1920. Survey of the arts of the Western tradition from the late Gothic period to the present. Six-hour studio course.

2105 Introduction to Latin American Studies. Three credits. (Same as SPAN 2105, PS 2105, SOC 2105, ANTH 2105, GEOG 2105.) A multidisciplinary, team-taught introduction to Latin America. Covers the cultures and societies of the region in terms of prehistory, history, geography, politics, art, languages, and literatures. Required course for all Latin American Studies minors.

2130 Silkscreen. Three credits. Prerequisites: ART 1610, 1620, 1630, and 1640 or permission of instructor. An introduction to printmaking, including photo-silkscreen using water-based inks. Handmade stencils used as well as those generated by computer and copy machine. Six-hour studio course.

2200 Introduction to Art Education. Three credits. Examines the recent history and contemporary theories of art education, with special emphasis on the essential content of discipline-based art education (aesthetics, criticism, history, and production); introduces general curricular concerns, assessment, and advocacy issues.

2310 Graphic Design Technologies. Three credits. Prerequisites: ART 1610 and 1620. Procedures involved in the production of graphic design materials by means of computer. Basics of word processing, drawing, and page layout programs for graphic design. Six-hour studio course.

2325 Typographic Design. Three credits. Prerequisites: ART 1610, 1620, 2310, and permission of instructor. An introduction to typography including the history, usage, and anatomy of letterforms. Projects focus on creative problem-solving using type as image as well as a means of communication. Projects range from word interpretation to page layout using industry-standard applications. Six-hour studio course.

2510 Sculpture I. Three credits. Prerequisites: ART 1610, 1620, 1630, and 1640 or permission of instructor. Processes and techniques used in sculpture including modeling, welding, and wood construction. Six-hour studio course.

2620 Color Drawing. Three credits. Prerequisites: ART 1610, 1620, and 1640. A culmination of the foundation sequence with emphasis on formal and expressive solutions to color and compositional drawing problems. Six-hour studio course.

2710 Painting I. Three credits. Prerequisites: ART 1610, 1620, 1630, and 1640 or permission of instructor. Introduction to painting techniques in particular media with emphasis on basic representational skills, awareness of formal issues, and vocabulary specific to particular media. Six-hour studio course.

2810 Throwing. Three credits. Prerequisites: ART 1610, 1620, 1630, and 1640. Basic processes and techniques of creating threedimensional clay forms on the wheel (cylinders, bowls, and mugs). Some basic hand-building methods introduced. Six-hour studio course.

3140 Etching and Intaglio. Three credits. Prerequisites: ART 1610, 1620,1630 , and 1640 or permission of instructor. A printmaking course introducing etching, aquatint, soft-ground, drypoint, photoetching (intaglio-type). A non-toxic approach is stressed, substituting high-quality acrylic resists, vegetable oils, salts, and film for traditional toxic grounds, solvents, acids, and chemicals. Six-hour studio course.

3200 Art Education for Teachers. Three credits. Lecture class with hands-on component designed to inform about the role of art in the life of the child; exposure to art history and appreciation; children as image makers; the importance of curiosity, observation, and imagination to the child and classroom; and methodology related to the integration of visual art into the classroom.

3210 Elementary Art Education Methods. Three credits with lab. Prerequisite: ART 2200. Investigates child development theories and concerns related to children, the elementary school culture, curriculum development and implementation, and teaching and management strategies. Materials and processes appropriate to K-6 art education explored in studio lab.

3220 Secondary Art Education Methods. Three credits. Prerequisite: ART 2200. Focuses on the nature of middle and high school students, the secondary school culture, curriculum development and implementation, and teaching and management strategies. Materials and processes appropriate to 7-12 art education explored in studio lab. Six-hour studio course.

3230 Art Education Practicum. Three credits. Prerequisites: ART 2200, 3210, and 3220. Participation in the K-12 art classroom setting with class discussions and readings about the teaching experience. Advanced art curriculum development for the K-12 level. Six-hour studio course.

3240 Curriculum Design for Aesthetics and Criticism in Art Education. Three credits. Prerequisite: ART 2200. Effective strategies for teaching aesthetics and art criticism to $\mathrm{K}-12$ students through curriculum development, research-based learning, and classroom teaching opportunities.

3325 Word and Image. Three credits. Prerequisites: ART 2325 and permission of instructor. Explores the relationship between word and image. Projects focus on visual language, concept, formation, and technical skills. Various design methodologies covered using industry-standard applications. Current designers and design trends introduced. Six-hour studio course.

3330 Portfolio I. Three credits. Prerequisites: ART 2325, 3325, and portfolio review after both 2325 and 3325 (or for transfer students, permission of instructor and portfolio review). The beginning of portfolio-based problems, more advanced and complex conceptual skills, production techniques, and an introduction to the offset printing process. Six-hour studio course.

3520 Sculpture II. Three credits. Prerequisites: ART 1620, 1630, 1640, and 2510 or permission of instructor. Introduction to the processes and techniques used in sculpture, including casting techniques; subtractive and constructive experiences with a variety of materials. Six-hour studio course.

3530 Sculpture III. Three credits. Prerequisites: ART 2510 and 3520 or permission of instructor. Development of concepts and techniques with primary emphasis on wood sculpture. Wood construction, carving, laminating, and subordinate use of other sculpture materials. Six-hour studio course.

3550 Book Arts I. Three credits. Prerequisites: ART 1610, 1620, and 1630 or permission of instructor. An introduction to basic processes involved with papermaking, bookbinding, and using paper as a creative medium. Six-hour studio course.

3560 Drawing III. Three credits. Prerequisites: ART 1610, 1620, 1630, 1640, and 2620. An advanced course in drawing with an emphasis on the creation of original imagery and the development of the ability to render images objectively using a variety of methods and media. Six-hour studio course.

3610 Introduction to Computer-Assisted Art. Three credits. Prerequisites: ART 1610, 1620, 1630, and 1640 or permission of instructor. Explores the use of the computer in relation to art and design concepts in two- and three-dimensional media. Six-hour studio course.

3620 Intermediate Computer-Assisted Art. Three credits. Prerequisites: ART 1610, 1620, 1630, 1640, and 3610. Computergenerated or assisted art work. Development of original work in art or design. Six-hour studio course.

3650 Figure Drawing. Three credits. Prerequisite: ART 2620. Introduction to concepts. Specific concepts include gesture and expression, spatial structure and proportion, and the effects of light and drapery on the human form. Six-hour studio course.

3720 Painting II. Three credits. Prerequisite: ART 2710. A continuation of ART 2710 with additional attention paid to individual expression and art historical perspectives. Six-hour studio course.

3730 Painting III. Three credits. Prerequisite: ART 3720 or permission of instructor. The creative process, idea development, and project planning in painting. Six-hour studio course.

3760 The Age of Chivalry. Three credits. Prerequisite: ART 1920 or permission of instructor. Art from the age of the Crusades and Pilgrimages and Romanesque and Gothic periods as viewed from both European and Islamic perspectives.

3770 Letterpress I. Three credits. Prerequisite: ART 3550 or permission of instructor. Introduction to hand papermaking processes and letterpress printing using raised type to form text and relief printing processes to create images. Six-hour studio course.

3820 Handbuilding. Three credits. Prerequisites: ART 1610, 1620, 1630, and 1640. Studio experiences in designing and creating three-dimensional ceramic forms emphasizing techniques of hand construction. Some basic techniques introduced on the wheel. Six-hour studio course.

3830 Intermediate Clay I. Three credits. Prerequisites: ART 2810, 3820, and permission of instructor. Studio experiences in designing, forming, and decorating functional/non-functional forms. Introduction to some basic materials processes (clay and glaze formulation, and firing techniques). Six-hour studio course.

3860 Northern Renaissance. Three credits. Prerequisite: ART 1930 or permission of instructor. Art of Northern Europe from the late fourteenth century through the sixteenth century focusing on architecture, sculpture, and painting from England, France, Germany, and the Low Countries.

3870 Native American Art. Three credits. Prerequisite: ART 1910 or permission of the instructor. Survey of the arts of indigenous cultures of North America.

3871 Mesoamerican Art. Three credits. Prerequisite: ART 1910 or permission of the instructor. Survey of pre-Columbian arts of Mesoamerica from the Olmec to the Mexica.

3872 Andean Art. Three credits. Prerequisite: ART 1910 or permission of the instructor. Survey of the pre-Columbian arts of Peru from the Chavin to the Inca.

3880 Latin American Art. Three credits. Prerequisite: ART 1930 or permission of instructor. A survey of the art of Latin America from the period of Independence (1821) to the present, focusing on architecture, sculpture, and painting from Mexico through South America. Impact of these cultural expressions on Hispanic/Chicano/Latino arts of the United States.

3910 Italian Renaissance Art History. Three credits. Prerequisite: ART 1930 or permission of instructor. Examination of the visual arts of the Italian Renaissance (c. 1300-1600 CE).

3920 Art History Visual Resources Practicum. Three credits. Prerequisites: ART 1910, 1920, 1930, and 3940; Art History majors only. Practical visual resources management course for students in a professional setting. Theory, standards, techniques, and management of digital and analog image collections in academic or not-for-profit settings.

3930 Interactive Design I. Three credits. Prerequisites: ART 1610, good working knowledge of digital imaging, and permission of instructor. Multimedia design, including the design, planning, and creation of web sites. Six-hour studio course.

3940 Art History Methods. Three credits. Prerequisite: ART 1930 or permission of instructor. Considers the historical and philosophical foundations of art history as a modern discipline as well as the various interpretive methods used by art historians.

3960 The Art of Books. Three credits. Prerequisite: ART 1930 or permission of instructor. Interdisciplinary investigation of the forces which have conditioned the composition, production, and consumption of the Western book from antiquity to the present. Emphasis on such transitional phases as the replacement of the roll by the codex in the fourth century and the fifteenth-century advent of printed book which replaced handwritten ones.

3990 Art of the United States. Three credits. Prerequisite: ART 1930 or permission of instructor. Survey of American painting, sculpture, and architecture from the Colonial period to the Armory Show (1913).

4000 Workshop. One to three credits. Subject matter and credit to be determined by the instructor. The workshop may be conducted in the area of art education or any art discipline. (A maximum of 9 credits may be applied toward a degree.) Depending on topic, may be six-hour studio course.

4100 Lithography. Three credits. Prerequisites: ART 1610, 1620, and 2130. An intermediate course in printmaking. The making and printing of lithographic images on stones and plates, including both traditional and contemporary techniques such as photolithography, transfer lithography, and color lithography. Six-hour studio course.

4110 Advanced Book Arts. Three credits. Prerequisite: ART 3550. Further work with papermaking, bookbinding, and the production of artist's books. Six-hour studio course.

4120 Intermediate Printmaking. Three credits. Prerequisites: ART 2130, 3140, and 4100 or permission of instructor. Further work in one or more of the following media: silkscreen, intaglio, lithography, or relief printmaking. Six-hour studio course.

4130 Advanced Printmaking. Three credits. Prerequisite: ART 4120. Advanced work in one of the printmaking media as described in ART 4120. Six-hour studio course.

4140 Advanced Study in Printmaking. Three credits. Prerequisite: ART 4130. Intensive independent research in one of the areas chosen
by the student and planned in consultation with the instructor. Six-hour studio course.

4280 Digital Illustration. Three credits. Prerequisites: ART 1610, 1620, 1640, and 2310; permission of instructor required. Vector software and the conceptualization, technical skills, and professional practices of digital illustration. Six-hour studio course.

4290 Beginning Illustration. Three credits. Prerequisites: ART 1610, 1620, 1630, and 1640; ART 3330 for graphic design majors. Introduces basic methods, materials, and business practices of illustration, with an emphasis on development of rendering skills. Six-hour studio course.

4300 Advanced Illustration. Three credits. Prerequisite: ART 4290 or permission of the instructor. Continued exploration of methods and materials with an emphasis on development of a personal style. Six-hour studio course.

4310 Portfolio II. Three credits. Prerequisite: ART 3330. Continued production of portfolio-based problems with increased emphasis on advanced design skills related to the specific needs of the workplace. Includes basic collateral problems, ad campaigns, corporate identity, signage, plus a self-promotional package. Sixhour studio course.

4320 Senior Project. Three credits. Prerequisite: ART 4310 or permission of instructor. Following a portfolio review, each class member will devise a project that conceptually and visually addresses his or her design/illustration goals. Six-hour studio course.

4330 Internship. Three credits. Prerequisites: Senior standing and permission of the internship coordinator. Advanced students gain practical experience in a professional setting as an intern. Approximately 150 work hours required for the semester.

4390 Interactive Design II. Three credits. Prerequisites: ART 3930 and permission of instructor. An intermediate interactive design class with an emphasis on interface design. Focuses on design, planning, and creation of Web sites using industry-standard Web design applications. Six-hour studio course.

4400 Interactive Design III. Three credits. Prerequisites: ART 3930 or 4390 and permission of instructor. An advanced interactive design class that emphasizes the design and implementation of visually engaging, immersive environments. Students work individually and as teams using industry-standard Web design applications to create stand-alone and Web projects. Six-hour studio course.

4510 Sculpture IV. Three credits. Prerequisites: ART 2510 and 3520 or permission of instructor. Development of concepts and techniques with primary emphasis on metal sculpture. Gas and electric welding, fabricating, grinding, finishing, and subordinate use of other sculpture materials. Six-hour studio course.

4520 Sculpture V. Three credits. Prerequisites: ART 2510 and 3520 or permission of instructor. Development of concepts and techniques with primary emphasis on casting activities in the foundry; covers various metal casting techniques and subordinate use of other materials. Six-hour studio course.

4530 Sculpture VI. Three credits. Prerequisites: ART 3530, 4510, and 4520 or permission of instructor. Problems in sculpture selected by the student after approval by the instructor. Six-hour studio course.

4640 Advanced Art Problems. One to three credits. Structure and content determined by the art faculty on the basis of individual need. The student should be prepared to do independent research and experimentation in the area selected. (A maximum of 9 credits may be applied to a degree.) Depending on topic, may be six-hour studio course.

4710 Painting IV. Three credits. Prerequisite: ART 3730 or permission of instructor. Projects in painting; content of the course is planned by the student under supervision of the instructor. A final paper is required. Six-hour studio course.

4720 Painting V. Three credits. Prerequisite: ART 4710 or permission of instructor. Independent studies course in painting which continues the concerns of Painting IV. A final paper is required. Six-hour studio course.

4730 Painting VI. Three credits. Prerequisite: ART 4720 or permission of instructor. Directed individual study; a continuation of Painting IV at a more advanced level. A final paper is required. Six-hour studio course.

4770 Letterpress II: The Tulip Poplar Press. Three credits. Prerequisite: ART 3770. An advanced course in letterpress printing with an emphasis on the creative process of collaboration and on designing for the marketplace. Students work as apprentices for the Tulip Poplar Press to design and produce limited edition publications for the marketplace. Six-hour studio course.

4810 Intermediate Clay II. Three credits. Prerequisites: ART 3830 and permission of instructor. Directed individual studies of problems mutually agreed upon by the student and course instructor. Sixhour studio course.

4820 Advanced Clay. Three credits. Prerequisites: ART 4810 and permission of instructor. Further work as described in Intermediate Clay II. Six-hour studio course.

4830 Advanced Study of Clay. Three credits. Prerequisites: ART 4820 and permission of instructor. Further work as described in Intermediate Clay II. Written paper and exhibition required. Six-hour studio course.

4870 African Art. Three credits. Prerequisite: ART 1910 or permission of instructor. Survey of visual art from the African continent and an examination of selected artists of the African diaspora. Discussion of ancient through contemporary artistic production, with focus upon nineteenth and twentieth centuries.

4880 African American Art. Three credits. Prerequisite: ART 1930 or permission of instructor. An art historical survey of African American culture and visual arts, beginning with eighteenth century expressions in painting, sculpture, and the decorative arts, but focusing on the twentieth century expressions.

4900 Nineteenth-Century Art. Three credits. Prerequisite: ART 1930 or permission of the instructor. Examines visual arts of the nineteenth century from Europe, the United States, Africa, or the Americas. Topics will vary according to areas of expertise of the professor.

4905 Survey of Women Artists: Renaissance to Modern. Three credits. Prerequisite: ART 1930 or permission of instructor. Painting and sculpture produced by women artists from Europe and the Americas during the period from the Renaissance (1400) to the Modern era (1945).

4910 Women in Art. Three credits. Prerequisite: ART 1930 or permission of in structor. An examination of the contributions of women to the art world from a feminist perspective. Specific course content varies.

4920 Contemporary Art. Three credits. Prerequisite: ART 1930 or permission of instructor. Western visual art movements and issues in American painting and sculpture in the twentieth century.

4940 Special Studies in Art History. Three credits. Prerequisite will vary. Content varies. When offered, particular topics addressed are indicated by the course title in the schedule book. Depending
on the nature of the material to be covered, prerequisites may be imposed by the instructor. Can be repeated for up to 9 hours.

4960 Independent Studies in Art History. One to three credits. Prerequisites: ART 1910, 1920, 1930 and permission of instructor. Senior thesis and other investigations into art history under the direction of one of the art history faculty. The topic(s) of investigation must be agreed upon by both student and instructor prior to registration. Can be repeated for up to 10 hours.

## Astronomy [ASTR]

1030 Exploring the Universe. Three credits. A general introduction to astronomy through an overview of planets, stars, systems of stars, and the overall structure of the universe. Topics will be discussed by answering questions such as "How do you weigh stars?" and "Will the universe die?"

1031 Observing the Universe. One credit. Prerequisite or corequisite: ASTR 1030. Introduction to observational astronomy through laboratory exercises and outdoor observing activities. Topics include telescopes, the analysis of starlight, and observations of stars and planets.

2030 Solar System Astronomy. Three credits. Prerequisite: MATH 1710. Comprehensive study of the solar system including models of solar and planetary formation. Analysis of the chemical makeup and physical nature of the Sun, planets, moons, and comets using mathematics and the scientific method. Focus on planetary interiors, surfaces, atmospheres, solar-planetary interactions, and solar system evolution. Discussion of spacecraft missions, future solar system exploration, and possibilities of extraterrestrial life.

2040 Stars, Galaxies, and Cosmology. Three credits. Prerequisite: MATH 1710. A comprehensive study of stellar, galactic, and cosmological astronomy. Analyzes the basic theories of stellar and galactic formation and evolution using mathematics and the scientific method. Includes the cataclysmic topics of supernovae, neutron stars, pulsars, and black holes as well as the nature of galaxies including the Milky Way galaxy, active galaxies and quasars, and the formation and evolution of our universe, the big bang theory, and the possibility of other life in the universe.

3050 Directed Study in Astronomy. One to four credits. Prerequisite: PHYS 2021 or 2120 and approval of department chair. Individualized intensive study of a specific topic in astronomy or astrophysics not normally covered to the extent desired in the standard curriculum. Arrangements must be made with an approved faculty member prior to registration.

3400 Fundamentals of Astrophysics. Three credits. Prerequisite: PHYS 2021 or 2120 and MATH 1910. Modern astronomical knowledge and techniques using classical and modern physical principles. Possible topics include star formation, black holes and neutron stars, galaxy structure and evolution, formation of planetary systems, and large-scale structure of the universe.

3401 Experimental Astronomy. One credit. Prerequisite: Consent of instructor. Principles and techniques of astronomical data acquisition and reduction. Possible research topics involve photometry, spectroscopy, astronomical applications of electronic detectors, and computer modeling.

4800 Special Topics in Astronomy. Three credits. Prerequisites: PHYS 3150 and approval of department chair. In-depth, organized study of a contemporary topic of interest not normally covered in the undergraduate physics and astronomy curriculum. Possible topics include planetary geology, radio astronomy, stellar atmospheres or interiors, space physics, pulsating stars, dark matter and energy, galactic evolution, and general relativity and cosmology.

4850 Astronomy Research. Two credits. Prerequisite: Consent of instructor. Independent study of a selected research problem in astronomy. Includes experimental and/or theoretical investigation of an important yet unexplored problem or experimental design. Includes literature research and experimental design/problem formulation and execution resulting in oral and written presentation of results suitable for submission/presentation to a suitable journal/conference.

4900 Astronomy Senior Thesis. Two credits. Prerequisites: ASTR 4850 and consent of department chair. Focuses on a specific research/ experimental design problem chosen with the consent of the thesis committee and with the potential for original discovery or for creative development of a tool, technique, or instrumentation applicable to scientific research. Independent pursuit of research objectives outlined in a research proposal results in a written thesis, the approval of which will include an oral defense.

## Athletic Coaching [ATHC]

2710 Coaching and Officiating Fall Intramurals. Two credits. Terminology, rules, strategies, and skills for players, coaches, and officials in flag football, outdoor soccer, volleyball, dodge ball, and 3-on3 basketball. Officiating mechanics, positioning, and signals emphasized. Students will work a minimum of 20 hours officiating flag football or outdoor soccer plus one other sport or game. Practicum hours included.

2720 Coaching and Officiating Spring Intramurals. Two credits. Terminology, rules, strategies, and skills for players, coaches, and officials in basketball, indoor soccer, arena football, softball, and dodge ball. Officiating mechanics, positioning, and signals emphasized. Students will work a minimum of 20 hours officiating basketball or indoor soccer plus one other sport or game. Practicum hours included.

3600 Coaching and Officiating Football. Three credits. Fundamentals of football coaching and officiating. Students will teach and analyze the fundamental skills, especially offensive and defensive, as well as understand, interpret, and apply the rules of football. Practicum hours included.

3610 Coaching and Officiating Basketball. Three credits. Prerequisite: PHED 1210 or permission of instructor. Fundamentals of basketball coaching and officiating. Students will teach and analyze the fundamental skills, especially offensive and defensive, as well as understand, interpret, and apply the rules of basketball. Practicum hours included.

3620 Coaching and Officiating Golf. Three credits. Prerequisite: PHED 2020 or permission of instructor. The fundamental skills of golf coaching and officiating. Students will teach and analyze the fundamental skills, especially the swing, as well as understand, interpret, and apply the rules of golf. Practicum hours included.

3630 Coaching and Officiating Wrestling. Three credits. Prerequisite: PHED 2000 or permission of instructor. The fundamentals of wrestling coaching and officiating. Students will teach and analyze the fundamental skills, especially offensive and defensive moves, as well as understand, interpret, and apply the rules of wrestling. Practicum hours included.

3640 Coaching and Umpiring Softball. Three credits. Prerequisite: PHED 2410 or permission of instructor. The fundamental skills of softball coaching and umpiring. Students will teach and analyze the fundamental skills, especially hitting and fielding, as well as understand, interpret, and apply the rules of softball. Practicum hours included.

3650 Coaching and Officiating Tennis. Three credits. Prerequisite: PHED 1040 or permission of instructor. The fundamental skills of tennis coaching and officiating. Students will teach and analyze the fundamental skills, especially the ground strokes, as well as understand, interpret, and apply the rules of tennis. Practicum hours included.

3660 Coaching and Officiating Volleyball. Three credits. Prerequisite: PHED 2270 or permission of instructor. The fundamental skills of volleyball coaching and officiating. Students will teach and analyze the fundamental skills, especially offensive and defensive, as well as understand, interpret, and apply the rules of volleyball. Practicum hours included.

3670 Coaching and Umpiring Baseball. Three credits. The fundamental skills of baseball coaching and umpiring. Students will teach and analyze the fundamental skills, especially hitting and fielding, as well as understand, interpret, and apply the rules of baseball. Practicum hours included.

3810 Directing Intramurals. Two credits. The organization and administration of intramural programs. Actual participation in developing and supervising intramural activities.

3910 Athletic Coaching and Officiating. Three credits. Pre- or corequisite: ATHC 2710 or 2720. An overview of the professions of athletic coaching and officiating. Numerous roles coaches and officials play in the athletic environment emphasized: philosophy of athletics, ethical behavior of participants, safety, teaching and communicating with all publics, successful organization and administration of competition, and evaluation of performances.

4000 Strength, Conditioning, and Human Performance. Three credits. (Same as ATHT 4000.) Prerequisites: BIOL 2020/2021 or BIOL 2030/2031; PHED 4910; weight training; or by permission of instructor. Theories and principles of strength training and conditioning and techniques used to become a strength and conditioning specialist or personal fitness trainer.

4060 Sport Psychology. Three credits. (Same as PSY 4060.) The application of behavioral principles, motivational research, personality factors, social/psychological findings, cognitive processes, dysfunctional behavior knowledge, and psychometric assessment procedures to the arena of sports. Introduces students to this discipline and provides knowledge to help enhance their own performances and the performances of others.

4180 Coaching Speed/Strength Conditioning for Sports. Three credits. Organizing and developing speed and strength conditioning programs for sports. Setting up and supervising proper methods and techniques in running, weight lifting, and conditioning exercise for athletics today.

4220 Coaching and Officiating Soccer. Three credits. Prerequisite: PHED 1220 or permission of instructor. The fundamental skills of soccer coaching and officiating. Students will teach and analyze the fundamental skills, especially offensive and defensive, as well as understand, interpret, and apply the rules of soccer. Practicum hours included.

4600 Intermediate Coaching and Officiating Football. Three credits. Prerequisite: ATHC 3600. Incorporates multiple drills to refine football skills and fundamentals. Emphasizes offensive, defensive, and special team strategies as well as the application of rules, officiating mechanics, signals, and positioning for coaching and officiating interscholastic and intercollegiate competition in football. Practicum hours included.

4620 Intermediate Coaching and Officiating Basketball. Three credits. Prerequisite: ATHC 3610. Incorporates multiple drills to refine basketball skills and fundamentals. Emphasizes offensive, defensive, and special situations as well as the application of rules, officiating mechanics, signals, and positioning for coaching and officiating interscholastic and intercollegiate competition in basketball. Practicum hours included.

4640 Intermediate Coaching and Umpiring Baseball. Three credits. Prerequisite: ATHC 3670 . Incorporates multiple drills to refine baseball skills and fundamentals. Emphasizes offensive, defensive, and special situations as well as the application of rules, umpiring mechanics, signals, and positioning for coaching and umpiring interscholastic and intercollegiate competition in baseball. Practicum hours included.

4650 Coaching and Officiating Cross Country/Track and Field. Three credits. The fundamental of coaching and officiating cross country and track and field. Students will teach and analyze the fundamental skills, especially distance running, sprints, relays, and field events, as well as understand, interpret, and apply the rules of cross country and track and field. Practicum hours included.

4690 Psychology of Coaching and Officiating. Three credits. Prerequisite: ATHC 3910. The applications of psychological principles to the coaching, officiating, and playing of athletics at various levels. Emphasis will be on the motivation of and communication with and between all participants in athletic competition at a variety of levels.

4800 Administration of High School and College Athletics. Three credits. Deals with administrative concerns of athletic eligibility, contest management, equipment, finances, budgets, safety, layout and maintenance of facilities, public relations, publicity, and current athletic trends.

## Athletic Training [ATHT]

3000 Clinical A in Athletic Training. Three credits. Prerequisites: ATHT 3570, 3580. Psychomotor skills used in the application of protective equipment, emergency procedures, care and treatment of athletic injuries, and use of basic modalities. A minimum of 200 clinical hours under the direct supervision of an approved clinical instructor required.

3001 Clinical B in Athletic Training. Three credits. Prerequisite: ATHT 3000; corequisite: ATHT 3950. Psychomotor skills used in the evaluation and assessment of injuries to the lower extremities. A minimum of 200 clinical hours under the direct supervision of an approved clinical instructor required.

3002 Clinical C in Athletic Training. Three credits. Prerequisite: ATHT 3001; corequisite: ATHT 3960. Psychomotor skills used in the evaluation and assessment of injuries to the upper extremities and thorax. A minimum of 200 clinical hours under the supervision of an approved clinical instructor required.

3003 Clinical D in Athletic Training. Three credits. Prerequisite: ATHT 3002; corequisite: ATHT 4960. Psychomotor skills used in the rehabilitation of musculoskeletal injuries. A minimum of 200 clinical hours under the direct supervision of an approved clinical instructor required.

3570 Psychomotor Skills in Athletic Training. Three credits. Various athletic training topics with emphasis on the application of supportive and protective taping. A minimum of 60 directed clinical hours of observation and experiential learning required.

3580 Prevention and Care of Athletic Injuries. Three credits. Modern principles in the care, prevention, and management of sports injuries.

3590 Athletic Training Medical Documentation and Terminology. Two credits. Athletic training medical terminology and how to utilize appropriately for medical records and documentation, medical insurance and reimbursement, allied/medical health teams, case studies, and medical referrals. Not a substitute class for HUM 2130.

3950 Evaluation and Assessment of Injuries to the Lower Extremities. Three credits. Prerequisites: ATHT 2580; BIOL 2010/2011. Corequisite: ATHT 3001 or permission of instructor. Evaluation and assessment of athletic injuries to the lower extremities and lumbar spine.

3960 Evaluation and Assessment of Injuries to the Upper Extremities and Thorax. Three credits. Prerequisites: ATHT 2580, 3950; BIOL 2010/2011, 2020/2021. Corequisite: ATHT 3002 or permission of instructor. Evaluation and assessment of athletic injuries to the upper extremities and thorax.

4000 Strength, Conditioning, and Human Performance. Three credits. (Same as ATHC 4000.) Prerequisites: BIOL 2020/2021 or BIOL 2030/2031; PHED 4910; and weight training; or by permission of instructor. Theories and principles of strength training and conditioning and techniques used to become a strength and conditioning specialist or personal fitness trainer.

4080 Alternative Therapies in Athletic Training. Three credits. Examines the didactic and psychomotor concepts of various alternative and complementary therapies as they relate to the profession of athletic training.

4200 Acute Trauma and Emergency Care in Athletic Training. Three credits. Prerequisite: ATHT 3580. Competencies and proficiencies used in the identification, management, and prevention of acute traumatic conditions in sports requiring emergency care.

4430 Practicum in Athletic Training. Three credits. Prerequisites: ATHT 3003, 4960, and 4970. Athletic training internship in a nontraditional athletic training setting. A minimum of 150 clinical hours under the direct supervision of a clinical instructor required.

4500 Therapeutic Medications and Ergogenic Aids in Sports. Three credits. Principles, theories, and issues of the physiological and psychological response to pharmacological use and abuse of therapeutic medications and ergogenic aids in sports. Taught Fall semester, odd years.

4820 Organization and Administration of Athletic Training. Three credits. Provides the basic knowledge necessary to organize and manage an allied health care professional setting, specifically in athletic training. Information on current laws, professional standards, ethics, and issues of confidentiality addressed. Taught Fall semester, even years.

4920 Independent Study. One, two, or three credits. (Same as EXSC/ HLTH/PHED/REC 4920.) Independent study topics based on a study plan prepared in cooperation with a faculty supervisor. Culminates in a formal paper and/or comprehensive examination. Application forms must be completed and approved prior to enrollment. A maximum of three credit hours may be applied toward degree.

4950 Pathology of Sport Illness and Consideration of Special Populations. Three credits. Pathology of special problems and general medical conditions of athletes and others involved in physical activity. Includes an athletic training field experience.

4960 Rehabilitation Techniques. Three credits. Prerequisites: BIOL 2010/2011, 2020/2021; ATHT 3950, 3960. Corequisite: ATHT 3003 or permission of instructor. Methods and techniques in the selection and application of rehabilitation techniques.

4965 Aquatic Exercise and Therapeutic Rehabilitation Techniques. Three credits. (Same as EXSC/REC 4965.) Examines the various uses of the aquatic environment to develop, maintain, and improve physical performance with practical development of skills and techniques and aquatic exercise programming. Combines both didactic and laboratory activities in an experiential learning environment.

4970 Therapeutic Modalities. Three credits. Prerequisites: BIOL 2010/2011, 2020/2021; ATHT 3950, 3960. Principles, theories, methods, and techniques in the application of selected therapeutic modalities. Includes a laboratory experience of psychomotor skills used in the application of therapeutic modalities.

4990 Senior Seminar in Athletic Training. Three credits. Prerequisites: ATHT 4960, 4970. Offers preparation for the BOC examination and discussion of current research in athletic training and sports medicine. Engages students in the process of reviewing, analyzing, discussing, and synthesizing research. Includes an athletic training field experience.

## Biology [BIOL]

1030 Exploring Life. Four credits. Corequisite: BIOL 1031. Designed for non-majors. Offers understanding, experiences, and skills related to common biological issues. Includes class discussions, small group activities, lectures, selected readings, and laboratory investigations. Three hours lecture and one two-hour laboratory.

1031 Exploring Life Lab. Zero credits. Corequisite: BIOL 1030.
1110 General Biology. Four credits. Corequisite: BIOL 1111. Primarily for Biology majors and minors and other science-oriented students. Biological principles and processes, including introduction to the nature of science, cells (structure, function, metabolism, division), genetics, evolution, viruses, bacteria, protists, and fungi. Three hours lecture and one three-hour laboratory. While BIOL 1110 can be used to fulfill half the $\mathbf{8}$-hour General Education requirement for Natural Sciences, it is the first semester of a two-semester sequence primarily designed for science majors.

1111 General Biology Lab. Zero credits. Corequisite: BIOL 1110.
1120 General Biology. Four credits. Prerequisite: BIOL 1110/1111. Corequisite: BIOL 1121. Primarily for Biology majors and minors and other science-oriented students. Survey of plants and animals emphasizing evolution, structure, function, reproduction, growth, and ecology. Three hours lecture and one three-hour laboratory.

1121 General Biology Lab. Zero credits. Corequisite: BIOL 1120.
2000 Orientation to the Medical Lab. Two credits. Corequisite: BIOL 2001. Open to anyone in medical and allied medical careers, but may not be taken as part of Biology major. Survey of medical lab careers, curricula, and affiliated laboratory programs; experience in medical laboratory testing procedures. One hour lecture and one two-hour laboratory.

2001 Orientation to the Medical Lab Field Experience Lab. Zero credits. Corequisite: BIOL 2000.

2010, 2020 Human Anatomy and Physiology I and II. Four credits each. Prerequisites: BIOL 2010/2011 - C or better in high school
chemistry and biology within the last five years or consent of instructor; BIOL 2020/2021 - C or better in 2010. Strongly recommend BIOL 1030/1031 prior to BIOL 2010/2011. Corequisite: BIOL 2011 or 2021. Meets requirements for many pre-health professional programs including nursing. Structure and function of humans covered. Three hours lecture and one three-hour laboratory.

2011, 2021 Human Anatomy and Physiology I and II Lab. Zero credits. Corequisite: BIOL 2010 or 2020.

2030 Anatomy and Physiology. Three credits. Prerequisite: BIOL 1030/1031 or 1110/1111. Corequisite: BIOL 2031. General structure and physiological activities of human systems. Two hours lecture and one two-hour laboratory.

2031 Anatomy and Physiology Lab. Zero credits. Corequisite: BIOL 2030.

2230 Microbiology. Four credits. Prerequisites: BIOL 1110/1111, $1120 / 1121$ or 2010/2011, 2020/2021; background in general chemistry strongly recommended. Corequisite: BIOL 2231. Morphology, physiology, isolation, and cultivation of bacteria, fungi, and viruses. Three hours lecture and one two-hour laboratory.

2231 Microbiology Lab. Zero credits. Corequisite: BIOL 2230.
3000 Life Science for Elementary Teachers. Four credits. Prerequisites: 8 hours of science including BIOL 1030/1031 or equivalent. A process-oriented approach to the study of life with emphasis on execution and analysis of activities and experiments suited to the elementary school classroom. Six hours lecture and laboratory. (May not be used for Biology majors or minors.)

3010 Embryology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121. Corequisite: BIOL 3011. Early development of the frog, chick, pig, and human. Living material, whole mounts, and serial sections are used for studying cleavage, germ layer formation, histogenesis, and organogenesis. Three hours lecture and one three-hour laboratory.

3011 Embryology Lab. Zero credits. Corequisite: BIOL 3010.
3020 Comparative Anatomy of the Vertebrates. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121. Corequisite: BIOL 3021. Vertebrate morphology and the development and function of systems and organs. Three hours lecture and one three-hour laboratory.

3021 Comparative Anatomy of the Vertebrates Lab. Zero credits. Corequisite: BIOL 3020.

3030 Non-Flowering Plants. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121. Structure, physiology, methods of reproduction, and classification of the algae, fungi, liverworts, mosses, and ferns. Six hours lecture/laboratory.

3040 Entomology. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121. Morphology, classification, evolution, life histories, and economic importance of insects. Five hours of lecture and laboratory.

3050 Parasitology. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121. Corequisite: BIOL 3051. Life histories, host-parasite relationships, and control measures of the more common parasites of humans and domesticated animals. Two hours lecture and one three-hour laboratory.

3051 Parasitology Lab. Zero credits. Corequisite: BIOL 3050.

3070 Biology Seminar on Environmental Problems. Three credits. Causes, effects, and solutions of environmental problems. Three hours per week.

3100 History and Philosophy of Biology. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121. Historical development of biology; the philosophy, ideas, and contributions of outstanding biologists. Three hours lecture.

3160 Social Issues and Genetic Technology. Three credits. Prerequisite: BIOL 1030/1031 or 1110/1111 or 1120/1121. Exploration of genetic principles related to contemporary issues. Provides students with the background needed to evaluate topics such as the release of genetically engineered plants and animals, the use of DNA fingerprinting techniques, the relationship between race and IQ, and others which impact their lives. Impact of genetics on society as well as society's influence on the science will be explored. Role of genetics in medicine and agriculture also emphasized. Three hours lecture.

3200 Internship in Biology. Two to four credits. Prerequisite: Permission of department. Practical experience for students in a professional setting.

3210 Environmental Microbiology. Three credits. Prerequisite: BIOL 2230/2231. Corequisite: BIOL 3211. Deals with microorganisms commonly found in air, water, and soil. Two hours lecture and one three-hour laboratory.

3211 Environmental Microbiology Lab. Zero credits. Corequisite: BIOL 3210.

3220 Environmental Regulations and Compliance. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121. An in-depth review and application of governmentally established regulations concerning environmental quality. Emphasis on major federal acts. Three hours lecture.

3230 Introduction to Biological Literature. Two credits. Prerequisites: BIOL 1110/1111, 1120/1121. Application of methods of literature research in the biological sciences and techniques of scientific presentation and writing. Two hours lecture.

3240 Introduction to Evolution. Three credits. Prerequisites: BIOL $1110 / 1111$ and $1120 / 1121$ or 1030/1031. Scientific principles and concepts formulating the biological theory of evolution. Includes historical development of modern theory; Darwin's natural selection theory; and problems in speciation, systematics, and geographical distribution of species. Three hours lecture.

3250 Genetics. Four credits. Prerequisites: BIOL 1110/1111, $1120 / 1121$. Corequisite: BIOL 3251. An introductory course in genetics. Surveys and explores the sub-disciplines of genetics, including classical, molecular, and evolutionary genetics. Emphasis on the experiments, techniques, and theories forming the foundation of modern genetic research and its applications. Three hours lecture and one two-hour laboratory.

3251 Genetics Lab. Zero credits. Corequisite: BIOL 3250.
3340 Pathophysiology. Three credits. (Same as NURS 3010.) Prerequisites: BIOL 2230/2231, 2010/2011, 2020/2021. Basic mechanisms of disease processes and their role in disrupting normal physiology. Three hours lecture.

3350 Principles of Radiation in Medicine. Three credits. Prerequisites: PHYS 2010/2011 and 2020/2021. Basic concepts and theories of radiation physics. Detailed analysis of the structure of matter, properties of radiation, nuclear transformations, x-ray production, and interactions of ionizing radiation emphasized. Treatment units
used in external radiation therapy, measurement and quality of ionizing radiation produced, absorbed dose measurement, dose distribution, and scatter analysis presented.

3400 General Ecology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121; CHEM 1110/1111. Corequisite: BIOL 4241. Basic concepts of the ecosystem and community aquatic and terrestrial habitats, and population ecology; complemented by field and laboratory activities. Three hours lecture and one three-hour laboratory.

3401 General Ecology Lab. Zero credits. Corequisite: BIOL 4240.
3500 Evolution. Three credits. Prerequisite: BIOL 3250/3251. Evolutionary biology for majors. Topics include history of evolutionary thinking, mechanisms of evolution, basic quantitative and population genetics, life-history theory, evolution of sex, correlated responses to selection, speciation, macroevolution, molecular evolution, fossil record and geologic time scale, phylogenetic inference, and the emergence of life. Three lectures.

3890 Biology Instruction Internship. One credit. Prerequisites: Successful completion of target courses and permission of instructor. A course to refine thinking, communication, and interpersonal skills through exposure to on-the-spot technical questions and a laboratory teaching experience as an assistant in a biology laboratory. Credits will not count toward a major or minor in Biology. May be repeated for up to three credits.

4060 Dendrology. Three credits. Prerequisite: BIOL 1120/1121. Woody plants with emphasis on important timber trees of North America. Five hours lecture/laboratory.

4070 Economic Botany. Three credits. Prerequisite: BIOL 1120/1121. Useful plants which have shaped civilization. Topics include origin of agriculture, fruits and nuts, grains and legumes, vegetables, spices and herbs, oils and waxes, medicinal plants, psychoactive plants. Three hours lecture.

4080 Mycology. Four credits. Prerequisite: BIOL 1120/1121. Corequisite: BIOL 4081. Emphasizes taxonomy, morphology, and culture of fungi and their importance to humans. Three hours lecture and one three-hour laboratory.

4081 Mycology Lab. Zero credits. Corequisite: BIOL 4080.
4110 General Physiology. Four credits. Prerequisites: BIOL 3250/3251; CHEM 2030/2031 or 3010/3011. Corequisite: BIOL 4111. Physiological and chemical properties of life processes in animals using an organ systems approach. Emphasis on mammalian physiology. Three hours lecture and one three-hour laboratory.

4111 General Physiology Lab. Zero credits. Corequisite: BIOL 4110.
4120 Flowering Plants. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121. Structure and classification of seed plants; a survey of local flora. Six hours lecture/laboratory.

4130 Histology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, 3250/3251; CHEM 1110/1111, 1120/1121. Corequisite: BIOL 4131. Microscopic anatomy of vertebrate cells, tissues, and organs. Three hours lecture and one three-hour laboratory.

4131 Histology Lab. Zero credits. Corequisite: BIOL 4130.
4140 Invertebrate Zoology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121. Corequisite: BIOL 4141. Morphology, classification, evolution, life histories, and economic importance of invertebrate phyla. Three hours lecture and one three-hour laboratory.

4141 Invertebrate Zoology Lab. Zero credits. Corequisite: BIOL 4140.

4150 Radiation Biology. Three credits. Prerequisites: PHYS 2010/2011 and 2020/2021. Types and properties of ionizing radiation, isotopes and tracer study techniques, and the biological effects of ionizing radiations on living things.

4170 Endocrinology. Three credits. Prerequisites: BIOL 3250/3251, 4110/4111 or 2020/2021; CHEM 2030/2031 or 3010/3011. Study of hormones and other chemical messengers including synthesis, secretion, transport, receptors, cellular, and physiological activity. Focus on humans and other vertebrates. Three hours lecture.

4180 Vertebrate Zoology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121. Corequisite: BIOL 4181. Structure, life history, and classification of fish, amphibians, and mammals. Local representatives emphasized. Three hours lecture and one three-hour laboratory.

4181 Vertebrate Zoology Lab. Zero credits. Corequisite: BIOL 4180.
4200 Biology Senior Seminar. Two credits. Prerequisites: BIOL 2230/2231, 3250/3251, 3400/3401, and 3500. Readings and discussions from scientific literature on a particular theme that will incorporate and integrate cellular biology and energetics; genetics and molecular biology; organismal biology of plants, animals, and microbes; evolution; and ecology. Majors are advised to take this course during the semester of graduation. See schedule for specific topics. Two hours lecture.

4210 Cell and Molecular Biology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, 2230/2231, 3250/3251; CHEM 2030/2031 or 3010/3011. Cellular morphology and function. Three hours lecture and one three-hour laboratory.

4211 Cell and Molecular Biology Lab. Zero credits. Corequisite: BIOL 4210.

4220 Ichthyology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121. Corequisite: BIOL 4221. The morphology, physiology, taxonomy, and ecology of fishes. Three hours lecture and one three-hour laboratory.

4221 Ichthyology Lab. Zero credits. Corequisite: BIOL 4220.
4250 Limnology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121; CHEM 1110/1111. Corequisite: BIOL 4251. Biological, chemical, and physical aspects of lakes and streams. Three hours lecture and one three-hour laboratory.

4251 Limnology Lab. Zero credits. Corequisite: BIOL 4250.
4260 Nature Study. Three credits. Prerequisites: BIOL 1110/1111, $1120 / 1121$. Identification of local plants and animals and a consideration of the ecological principles governing them. Four hours lecture/laboratory.

4270 Transmitting Electron Microscopy. Four credits. Prerequisite: Permission of department. Tissue fixation, dehydration, embedding, and thin sectioning for examination and development of micrographs using a Zeiss electron microscope. Seven hours lecture/laboratory.

4280 Undergraduate Research in Biology. One to four credits. Prerequisite: Permission of department. Selection, design, and conduction of projects typically allied with an instructor's research program. May be repeated for a total of four credits.

4290 Scanning Electron Microscopy. Four credits. Prerequisite: Permission of department. Preparation of biological and non-biological materials for examination and development of micrographs using an ISI electron microscope. Seven hours lecture/laboratory.

4300 Immunology. Four credits. Prerequisite: BIOL 2230/2231. Corequisite: BIOL 4301. Humoral and cellular mechanisms of immunity. Three hours lecture and one three-hour laboratory.

4301 Immunology Lab. Zero credits. Corequisite: BIOL 4300.
4320 Seminar: Advancements in Biology. Two credits. Prerequisite: Senior standing. A broad overview of biological principles and recent research developments. Two hours lecture.

4330- Biome Analysis. One to four credits. Prerequisite: Permission
4333 of department and junior or senior standing. An intensive classroom and on-site study of a specific biome. Special emphasis on data collection and analysis. Consult the department chair for specific credits and costs.
4331 Cedar Glade
4332 Marine
4333 Desert
4350 Biometry. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, 3250/3251. Corequisite: BIOL 4351. Statistical methods utilized in biological research. Three hours lecture and one three-hour laboratory.

4351 Biometry Lab. Zero credits. Corequisite: BIOL 4350.
4360 Energy Dispersive X-Ray Analysis. One credit. Prerequisite: BIOL 4290. Elemental analysis of materials using an energy dispersive x-ray system with scanning electron microscopy. One three-hour laboratory.

4390 Ethology. Four credits. Prerequisite: BIOL 1110/1111. Corequisite: BIOL 4391. Innate and learned animal behavior in primitive and advanced animals including behavior associated with space, reproduction, and food getting. Three hours lecture and one three-hour laboratory.

4391 Ethology Lab. Zero credits. Corequisite: BIOL 4390.
4400 Medical Botany. Three credits. Prerequisite: BIOL 1120/1121. Plants affecting human health. Included are poisonous and psychoactive as well as remedial plants; both ethnobotanical and modern medicinal uses treated. Three hours lecture.

4430 Diagnostic Microbiology. Four credits. Prerequisite: BIOL $2230 / 2231$. Microorganisms that cause disease in humans and other animals, their isolation and identification, mechanisms of disease causation, and methods of control. Six hours lecture/ laboratory.

4440 General Virology. Four credits. Prerequisites: BIOL 2230/2231; CHEM 1110/1111, 1120/1121. Viruses, with emphasis on their clinical importance and impact on biotechnology. Six hours lecture/laboratory.

4450 Molecular Genetics. Four credits. Prerequisites: BIOL 2230/2231, 3250/3251; CHEM 1110/1111, 1120/1121. Basic techniques of microbial genetics and gene manipulation with emphasis on the application of molecular genetics in basic and applied research. Six hours lecture/laboratory.

4460 Human Genetics. Three credits. Prerequisite: BIOL 3250/3251. Corequisite: BIOL 4461. Application of the fundamental laws of inheritance to humans. Two hours lecture and one two-hour laboratory.

4461 Human Genetics Lab. Zero credits. Corequisite: BIOL 4460.

4500 Plant Physiology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, 3250/3251; CHEM 2030/2031 or 3010/3011. Plant growth, development, and metabolism at the cellular and whole plant levels. Three hours lecture and three hours laboratory.

4510 Food/Industrial Microbiology. Four credits. Prerequisite: BIOL 2230/2231. Interaction between microorganisms and food; industrial processes of importance to humans. Six hours lecture/ laboratory.

4520 Plant Anatomy and Development. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, and 3250/3251. Explores plant cells, tissues, and organs from seed to fruit. Covers organization of cells and tissues and the dynamic nature of these structures, and whenever appropriate, molecular mechanisms responsible for their development and nature. Six hours lecture/laboratory.

4540 Topics in Environmental Education. One to four credits. Prerequisite: Junior standing or above. An intensive classroom and field study of natural science and resources in Tennessee. Special emphasis on data collection, analysis, and problem solving. Target groups are upper-division students in biology and education. Consult the department chair for specific credits and costs. THIS COURSE DOES NOT APPLY TO THE BIOLOGY MAJOR OR MINOR.

4550 Biotechnology. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121, 2230/2231. Instruction in both theory and application of current research methodologies in biology and molecular biology. Topics include immunochemistry, polymerase chain reaction, restriction enzyme analysis, and electrophoresis. Five hours lecture/laboratory.

4560 Neurobiology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121. Corequisite: BIOL 4561. Introduces comparative neurobiology. Topics include the basic structure and function of the nerve cell and organization of nervous systems of representative species of invertebrate and vertebrate animals. Two hours lecture and one three-hour laboratory.

4561 Neurobiology Lab. Zero credits. Corequisite: BIOL 4560.
4570 Principles of Toxicology. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121; CHEM 1110/1111, 1120/1121, 3010/3011. Corequisite: BIOL 4571. Study of adverse effects of chemical agents on living organisms; current toxicological techniques used in the laboratory. Two hours lecture and one three-hour laboratory.

4571 Principles of Toxicology Lab. Zero credits. Corequisite: BIOL 4570.

4580 Marine Biology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121; CHEM 1110/1111, 1120/1121. Corequisite: BIOL 4581. Introduction to the biological, chemical, and physical characteristics of major marine environments and their associated flora and fauna. Three hours lecture and one three-hour laboratory.

4581 Marine Biology Lab. Zero credits. Corequisite: BIOL 4580.
4590 Principles of Environmental Toxicology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121; CHEM 1110/1111, 1120/1121, 3010/3011. Ecological effects of chemicals in the environment and techniques currently utilized to assess these effects. Lab includes current environmental assessment techniques, including biomonitoring. Six hours lecture/laboratory.

4700 Principles of Plant-Animal Interactions. Three credits. Prerequisites: BIOL 1110/1111, 1120/1121. Corequisite: BIOL 4701.

Evolutionary and ecological perspectives on how plants attract and repel organisms that influence their ability to survive and leave progeny. Topics include angiosperm evolution; the coevolution of plants with pollinators, herbivores, mycorrhizae, and N -fixing bacteria; how plant secondary metabolites facilitate or mitigate these interactions. Two hours lecture and three-hour laboratory.

4701 Principles of Plant-Animal Interaction Lab. Zero credits. Corequisite: BIOL 4700.

4720 Animal Development. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, and 3250/3251; BIOL 4210 recommended. Corequisite: BIOL 4721. Processes and underlying molecular mechanisms by which a single fertilized egg develops into an adult organism, focusing on vertebrate development, but including insights gained from other model organisms. Three hours lecture and two hours lab.

4721 Animal Development Lab. Zero credits. Corequisite: BIOL 4720.
4730 Microbial Physiology and Biochemistry. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, and 2230/2231; CHEM 1110/1111, 1120/1121, and 2030/2031 or 3010/3011. Survey of the physiology and biochemistry of prokaryotic and eukaryotic microorganisms. Six hours lecture/laboratory.

4750 Plant Biotechnology. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, 3250/3251. Processes and reasoning behind the human manipulation of plant species for agricultural and technological purposes. Topics include traditional breeding techniques, tissue culture, plant cell transformation, and general plant molecular biology techniques as well as current debate over genetically modified organisms. Six hours lecture/laboratory.

4760 Introduction to Bioinformatics. Four credits. Prerequisites: BIOL 1110/1111, 1120/1121, and CSCI 1170 or consent of instructor. Application of computer science to biological questions. Specifically applies to the computational aspects of data gathering, processing, storage, analysis, and visualization methods for use in revising and testing biological hypotheses. Students should have a strong background in either computer science or biology, be willing to learn about the other field in an accelerated fashion, and be willing to work cooperatively as part of an interdisciplinary team. Four hours of lecture/problem-solving per week.

## Business Administration [BUAD]

4000 Senior Seminar. Three credits. Prerequisites: Senior standing; open to Management, Marketing, or Business Administration majors. (Cannot be substituted for MGMT, MKT, or BUAD courses in these majors or minors.) Designed to facilitate the transition from college to career and enhance the student's personal marketing skills in the job search. Two segments focus on management and marketing skills for the professional environment.

4980 Business Policy. Three credits. Prerequisites: Must be taken after completion of the business requirements (see items 3 and 7, introductory section of the Jennings A. Jones College of Business) and in the semester in which the student graduates. Development of top management perspective with emphasis on policy and strategy formulation and evaluation through the demonstration of competence in handling multifunctional business problems. Transfer credit not allowed; must be taken in residence.

## Business Communication and Entrepreneurship [BCEN]

1310 Keyboarding. Three credits. Development of manipulative ability; information essential to effective use of a computer keyboard; rapid and controlled application of ability and information to communication problems involving personal correspondence and simple business materials.

1400 Introduction to Business. Three credits. Survey of business economic units of our society; the problems of business such as ownership, social responsibility, physical factors, personnel, marketing, and managerial controls. Includes exploration and analysis of business careers.

2320 Document Production. Three credits. (BCEN 1310 recommended.) Extension and refinement of fundamental manipulative abilities and keyboarding knowledges; development of production capacity through the completion of increasingly involved problems.

2330 Word Processing Concepts. Three credits. (BCEN 2320 recommended.) Familiarization with word processing equipment, implications, and applications in business operations.

2340 Microcomputer Word Processing Applications. Three credits. Prerequisite: BCEN 2330. Advanced word processing and computer applications, including formatting and preparation of lengthy documents such as company newsletters and databases.

2350 Advanced Document Formatting. Three credits. Prerequisite: A grade of C or higher in BCEN 2320. Development of keyboarding/typewriting skills and decision making as demonstrated in the production of quantities of material in usable form.

2600 Business Applications of Desktop Publishing. Three credits. Prerequisites: Keyboarding skills and knowledge of computer. Topics include terminology, technology, design, use of graphics, and applications for desktop publishing.

2900 Entrepreneurship. Three credits. (BCEN 1400 recommended.) The mechanics and operational skills needed for organizing and operating an enterprise.

3010 Office Management. Three credits. Prerequisite: Junior standing. Office organization and functions; layout and equipment; selection, training, and supervision of personnel; office automation; planning, organizing, and controlling office services; cost reduction; work simplification.

3510 Business Communication. Three credits. Prerequisite: Junior standing. (Keyboarding skills helpful.) A review of the theory and processes in oral and written business communication. Emphasis on the extensive functions of written and electronic communications.

4200 Problems in BE/ME/OM. One, two, or three credits. Prerequisites: Junior standing and consent of department chair. Individual research, reading analysis, or projects in contemporary problems and issues in a concentrated area of study under the direction of a faculty member. This course may be taken only twice.

4240 Materials and Methods in Basic Business. Three credits. Prerequisite: Junior standing. Analysis of objectives, materials, research, and appropriate instructional strategies for developing teaching strategies and delivery systems in basic business courses such as introduction to business, economics, business communication systems, American business/legal systems, business management, and marketing.

4250 Innovations and Problems in Administrative Business Services and Technology. Three credits. Prerequisite: Junior standing. (BCEN 2330 recommended.) Instructional strategies in office technology including objectives, testing, audio-visuals, course content, basic programming, and standards.

4340 Integrated Administrative Technology. Three credits. Prerequisites: BCEN 2330 and 2340; junior standing. Development of necessary skills for administrators of word processing centers. Word processing feasibility, development, and implementation for business using a total information processing concept. Students have the opportunity to develop a thorough knowledge and refine skills using a variety of software applications.

4350 Records Management. Three credits. Prerequisite: Junior standing. Equipment and systems used for information storage, transmission, and retrieval. Filing, microfilming, tape processing and storage system design, form usage, and other information management functions in the office included.

4410 Managerial Media Presentations. Three credits. Prerequisite: Junior standing. (BCEN 2330 recommended.) Skills needed to make business presentations. Emphasis on the communication process, audience analysis, planning, presentation design, delivery, and appropriate hardware and software.

4450 Training Strategies for Business Systems and Technology. Three credits. Prerequisite: Junior standing. (BCEN 4410 recommended.) Corporate learning specialist activities such as design, development, delivery, and evaluation of learning programs for a business environment. Focuses on adult learning theories with emphasis on professional learning activities related to innovative corporate educational programs.

4510 Business Report Writing. Three credits. Prerequisite: Junior standing. (BCEN 3510 recommended.) Nature, general function, and present need of reports in industry. Recognizing, organizing, and investigating problems preparatory to writing reports and construction and writing of distinctive business and technical reports.

4520 Instructional Strategies in Marketing Education. Three credits. Prerequisite: Junior standing. Techniques of teaching with emphasis on problem-solving and demonstration procedures. Emphasizing teaching-learning evaluation.

4600 Organization and Administration of ME Programs. Three credits. Prerequisite: Junior standing. Organizing marketing education programs at secondary and postsecondary levels; emphasizes youth organizations, techniques of coordination, and administrative procedures.

4620 Business Plan Development. Three credits. Prerequisites: BCEN 2900; MGMT 3650; junior standing. Development of a comprehensive business plan detailing all facets of a proposed venture with an emphasis on using the plan for loan acquisition and venture implementation.

4640 Issues and Trends in Office Management. Three credits. Prerequisite: Junior standing. (BCEN 3010 recommended.) Significant research of emerging problems in office management: group dynamics, workplace issues, ethics and diversity information processing, and problem solving.

4660 Organizational Communication. Three credits. Prerequisite: Junior standing. (BCEN 3510 recommended.) Research and analysis of case studies of significant research; case studies in business communication; communication policies, principles, and procedures from the executive's viewpoint.

4670 International Business Communication. Three credits. Prerequisite: Junior standing. Provides students with a theoretical and practical framework for understanding and conducting effective international business communication. Emphasis on the analysis and development of international business communication processes.

4680 Diversity in the Workplace. Three credits. Prerequisite: Junior standing. Emphasis on developing skills essential for working effectively with a diverse work force in global and domestic settings, incorporating the value of diversity into organizations, and building multicultural work teams.

4710 History and Foundations of BE and ME. Three credits. Prerequisite: Junior standing. Developments, aims, principles, and present status of business education; organization and evaluation of the business education curriculum; administration and supervision of business education.

4810 Internship Program. Three credits. Prerequisite: Junior standing. A supervised program of related work experience. Provides experiential opportunities for the application of the theoretical concepts learned.

4900 Dimensions in Professional Development. Three credits. Prerequisite: Junior standing. Emphasis on job acquisition process, time management, effective listening skills, oral and nonverbal communication competencies, dictation management, and assumption of professional responsibility for participative management activities.

## Business Law [BLAW]

3400 Legal Environment of Business. Three credits. Prerequisite: Junior standing. Legal rights and potential liabilities of business persons. Presentation of the dynamic nature of law in responding to the changing social, ethical, political, regulatory, and international environment. Includes the development and nature of the legal system; business crimes; the law of torts and product liability; constitutional limitations on regulatory powers; legislative, judicial, and administrative control of business activity through the laws of business organizations, securities regulations, antitrust laws, employment laws, labor and safety laws, and consumer protection.

3430 Commercial Law. Three credits. Prerequisite: Junior standing. Legal rights and potential liabilities of business persons. Includes basic law of contracts; UCC; sales; commercial paper; secured transactions and credit; bankruptcy; personal property and bailments; real property; and wills, trusts, and estates.

3460 Insurance Law. Three credits. Prerequisite: Junior standing. Risks covered by the insurance contract, their selection and control; making, constructing, and enforcing the contract; negotiation and settlement of claims; misconduct of agents. Government regulation of the insurance industry. Emphasis on current principles, policies, procedures, and practices in insurance.

4420 Estate Administration. Three credits. Prerequisite: Junior standing. Legal principles applicable to accumulation, conservation, and distribution of estates. Includes gifts, trusts, insurance, powers of attorney, intestate succession, wills, the probate process, wealth transfer taxation, and health care directives.

4450 Unfair Trade Practices and Consumer Protection. Three credits. Prerequisite: Junior standing. Examines and evaluates the law and ethics of unfair and deceptive trade practices, consumer protection, and intellectual property, including antitrust law, misleading advertising, and other marketing practices.

4470 Real Estate Law. Three credits. (Same as FIN 4470.) Prerequisite: Junior standing. Legal rights and limitations of ownership of property, estates, titles, methods of transferring titles, abstract of titles, mortgages, leases, easements, restrictions on the use of property, real estate development and planning, application of contract law to real property, and the administration of wills.

4490 Industrial Relations Legislation. Three credits. (Same as MGMT 4490 and ECON 4490.) Prerequisite: Junior standing. Economic background and effects of government regulation of labor relations; emphasis on a detailed examination of the National Labor Relations Act as amended or expanded by the Labor Management Relations Act, the Labor Management Reporting and Disclosures Act, and Title 7 of the Civil Rights Act.

4500 Employment Discrimination Law. Three credits. (Same as MGMT 4500.) Prerequisite: Junior standing. A detailed examination of the legal rights and responsibilities of employers and employees with respect to fair employment practices; emphasis on significant statutes, administrative regulations, and judicial decisions forming the body of antidiscrimination law.

4990 Independent Study. One to three credits. Prerequisites: Senior standing and approval of department chair. Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of an approved faculty member.

## Chemistry [CHEM]

1010 Introductory General Chemistry I. Four credits. Corequisite: CHEM 1011. For students with no prior courses in chemistry; to be taken before CHEM 1110/1111. Fundamental concepts of chemistry: measurements, matter, chemical bonds, chemical reactions, nuclear chemistry, states of matter, solutions, and electrolytes. Three hours of lecture and one three-hour laboratory. Will not count toward a major or minor in Chemistry.

1011 Introductory General Chemistry I Lab. Zero credits. Corequisite: CHEM 1010.

1020 Introductory General Chemistry II. Four credits. Prerequisite: CHEM 1010/1011. Corequisite: CHEM 1021. Topics include hydrocarbons, organic functional groups, isomerism, carbohydrates, lipids, nucleic acids and proteins, enzymes, and metabolism. Three hours of lecture and one three-hour laboratory. Will not count toward a major or minor in Chemistry.

1021 Introductory General Chemistry II Lab. Zero credits. Corequisite: CHEM 1020.

1030 Chemistry for Consumers. Four credits. Corequisite: CHEM 1031. Language, development, structure, and role of chemistry as it relates to the knowledge and activities of the educated person. Examples will be taken from medicine and human health, environmental pollution, energy and its costs, etc. Understanding of the relationship between chemistry and society will be enhanced using special subtopics: lectures, demonstrations, and inquiry-based laboratory work drawing from the expertise of the individual instructor. For nonscience majors. Three hours lecture and one two-hour laboratory. (Does not count toward any major or minor.)

1031 Chemistry for Consumers Lab. Zero credits. Corequisite: CHEM 1030.

1110 General Chemistry I. Four credits. Prerequisites: High school chemistry; CHEM 1010 or equivalent. Corequisite: CHEM 1111.

Fundamental concepts of atomic structure, molecular structure and bonding, chemical reactions, stoichiometric relationships, periodic properties of the elements, thermochemistry, and properties of gases. Three hours of lecture and one three-hour laboratory.

1111 General Chemistry I Lab. Zero credits. Corequisite: CHEM 1110.
1120 General Chemistry II. Four credits. Prerequisite: CHEM 1110/1111. Corequisite: CHEM 1121. Chemical equilibrium, solid and liquid states of matter, chemistry of acids and bases, principles of chemical kinetics, precipitation reactions, elementary thermodynamics, electrochemistry, and nuclear chemistry. Three hours of lecture and one three-hour laboratory.

1121 General Chemistry II Lab. Zero credits. Corequisite: CHEM 1120.
1121 General Chemistry II Lab. Zero credits. Corequisite: CHEM 1120.
1130 Contemporary Issues in Science. Zero credits. (Same as PHYS 1130.) Corequisite: CHEM 1131. Lecture emphasizing the application of basic concepts in science to topics of contemporary interest to the general citizenry. Covers basic science related to selected topics. Specific topics will vary. For nonscience majors. Does not count toward any major or minor. Two one-hour lectures per week.

1131 Activities for Contemporary Issues in Science. Four credits. (Same as PHYS 1131.) Corequisite: CHEM 1130. Laboratory and activity emphasizing the application of basic concepts in science to topics of contemporary interest to the general citizenry. Includes laboratory activities, group-oriented problem-solving using computers and class discussion of selected contemporary issues in science. Two two-hour laboratory sessions. For nonscience majors. Does not count toward any major or minor.

2030 Elements of Organic Chemistry. Four credits. Prerequisite: CHEM 1020/1021 or 1120/1121. Corequisite: CHEM 2031. Aspects of organic chemistry fundamental to an understanding of reactions in living organisms. Three hours lecture and one three-hour laboratory.

2031 Elements of Organic Chemistry Lab. Zero credits. Corequisite: CHEM 2030.

2230 Quantitative Analysis. Five credits. Prerequisites: CHEM 1120/1121. Corequisite: CHEM 2231. Gravimetric and volumetric determinations, an introduction to optical and electrical methods of analysis, and the stoichiometry of analytical chemistry. Three hours lecture and two three-hour laboratories.

2231 Quantitative Analysis Lab. Zero credits. Corequisite: CHEM 2230.
2880 Undergraduate Research I. One to four credits. Prerequisite: Permission of the instructor. Student research allied with the instructor's research or designed specifically for the particular student. Minimum of three clock-hours work per week required for each credit hour. Up to four hours may count in the General Science major, but does not count for a major or minor in Chemistry. May be repeated for a total of four credits.

2930, 2940 Cooperative Education. Three credits. Provides students with opportunities for on-the-job training in conjunction with on-campus academic experiences. Department chair should be consulted. Pass/Fail.

3010 Organic Chemistry I. Four credits. Prerequisite: CHEM 1120/1121 or equivalent. Corequisite: CHEM 3011. Types of carbon compounds, their nomenclature, reactions, and physical properties. Three hours lecture and one three-hour laboratory.

3011 Organic Chemistry I Lab. Zero credits. Corequisite: CHEM 3010.
3020 Organic Chemistry II. Four credits. Prerequisite: CHEM 3010. Corequisite: CHEM 3021. A continuation of CHEM 3010. Three hours lecture and one three-hour laboratory.

3021 Organic Chemistry II Lab. Zero credits. Corequisite: CHEM 3020.
3530 Principles of Biochemistry. Four credits. Prerequisite: CHEM 2030/2031 or 3020/3021. Corequisite: CHEM 3531. Structure, properties, and functions of carbohydrates, lipids, proteins, and nucleic acids and their reactions in living organisms. Three-hour lecture.

3531 Principles of Biochemistry Lab. Zero credits. Corequisite: CHEM 3530. Lab to accompany CHEM 3530. One three-hour laboratory per week.

3880 Undergraduate Research II. One to four credits. Prerequisites: CHEM 2230 recommended and permission of the instructor. Student research allied with the instructor's research or designed specifically for the particular student. Minimum of three clockhours work per week required for each credit hour. Summary report or some other form of presentation required. A total of no more than four hours of research credits may be counted toward a major in chemistry. May be repeated for a total of four credits.

3890 Chemistry Instruction Internship. One to three credits. Prerequisites: Successful completion of target courses and permission of instructor. A course to refine thinking, communication, and interpersonal skills through exposure to on-the-spot technical questions and a laboratory teaching experience as an assistant in an introductory chemistry laboratory. Course credits will count toward a major in General Science but will not count toward a major in Chemistry. May be repeated for a total of three credits.

3970, 3980 Cooperative Education. Three credits. Provides students with opportunities for on-the-job training in conjunction with on-campus academic experiences. Department chair should be consulted. Pass/Fail.

4000 Medicinal Chemistry. Three credits. Prerequisites: CHEM 3010/3011 and 3020/3021 or CHEM 2030/2031 with permission of instructor. Drug design and development including structural changes involved in making drug analogs. Drug interaction with macromolecular targets including receptors, enzymes, and DNA. Various classes of drugs and their mechanisms for the treatment of specific therapeutic areas.

4100 Organic Spectroscopy. Three credits. Prerequisite: CHEM $3020 / 3021$. Theory of and practice in the interpretation of mass, infrared, Raman, ultraviolet-visible, and nuclear magnetic resonance spectra. Three hours lecture.

4230 Instrumental Analysis. Four credits. Prerequisite: CHEM 2230/2231. Corequisite: CHEM 4231. Potentiometric titration, polarographic, coulometric, gas chromatographic, ultraviolet, visible and infrared absorption, and atomic absorption techniques of analysis. Requirements and limitations of each technique for obtaining quantitative measurements; applications to various chemical systems from both theoretical and experimental standpoints. Three hours lecture and one three-hour laboratory.

4231 Instrumental Analysis Lab. Zero credits. Corequisite: CHEM 4230.

4330 Physical Chemistry Fundamentals I. Four credits. Prerequisites: PHYS 2020/2021; CHEM 2230/2231; MATH 1910. Corequisite:

CHEM 4331. Basic study of physical chemistry including modern theories of atomic and molecular structure, chemical thermodynamics, electrochemistry, chemical kinetics, and related theoretical topics. Three hours lecture and one three-hour laboratory.

4331 Physical Chemistry Fundamentals I Lab. Zero credits. Corequisite: CHEM 4330.

4340 Physical Chemistry Fundamentals II. Four credits. Prerequisite: CHEM 4330/4331. A continuation of CHEM 4330/4331. Corequisite: CHEM 4341. Three hours lecture and one three-hour laboratory.

4341 Physical Chemistry Fundamentals II Lab. Zero credits. Corequisite: CHEM 4340.

4350 Physical Chemistry I. Four credits. Prerequisites: CHEM 2230/2231; MATH 1920; PHYS 2020/2021 or 2120/2121. Corequisite: CHEM 4351. Quantitative principles of chemistry involving extensive use of calculus. Thermodynamics, phase changes, chemical equilibria, electrochemistry, reaction kinetics, quantum chemistry, molecule structure, and statistical mechanics. Three hours lecture and one three-hour laboratory.

4351 Physical Chemistry I Lab. Zero credits. Corequisite: CHEM 4350.
4360 Physical Chemistry II. Four credits. Prerequisite: CHEM 4350/4351. Corequisite: CHEM 4361. A continuation of CHEM $4350 / 4351$. Three hours lecture and one three-hour laboratory.

4361 Physical Chemistry II Lab. Zero credits. Corequisite: CHEM 4360.
4400 Inorganic Chemistry. Three credits. Prerequisites: CHEM 1120 or equivalent; CHEM 2030 or 3010 recommended. The basic concepts and theories of inorganic chemistry and how these are used to predict and understand the physical and chemical properties of compounds of the elements other than carbon. Inorganic compounds in the air, water, earth, and in the laboratory and in biochemistry, geochemistry, and industrial materials and processes.

4410 Advanced Inorganic Chemistry. Three credits. Prerequisites: CHEM 3020 and 4400; prerequisite or corequisite: CHEM 4360. Atomic theory for chemical periodicity; symmetry and group theory; molecular orbital theory; coordination, organometallic, and bioinorganic chemistry of the transition metals.

4430 Advanced Synthetic Laboratory Techniques. Two credits. Prerequisite: CHEM 3020/3021. Corequisite: CHEM 4431. Techniques for synthesis and purification or organic, organometallic, and inorganic compounds. Practice in the measurement of NMR and IR spectra. Skills in library use for research. Four hours laboratory and one-hour lecture.

4431 Advanced Synthetic Laboratory Techniques Lab. Zero credits. Corequisite: CHEM 4430.

4500 Biochemistry I. Three credits. Prerequisite/corequisite: CHEM 3020/3021; not open to those who have had CHEM 3530/3531. Chemical properties of biological molecules such as amino acids, proteins, enzymes, and carbohydrates. Chemical basis of enzyme catalysis and reactions of carbohydrate metabolism. Three hours lecture per week.

4510 Biochemistry II. Three credits. Prerequisite: CHEM 4500. Structure and metabolism of lipids, amino acids, nucleotides, and nucleic acids at the molecular level. Emphasis on chemistry of metabolic reactions. Three hours lecture per week.

4530 Biochemical Techniques. Two credits. Prerequisite/corequisite: CHEM 4500 or consent of instructor. Laboratory in biochemical
techniques with emphasis on protein purification, enzyme kinetics, carbohydrate and lipid analysis, and manipulation of DNA. Six hours of laboratory per week.

4550 Bioanalytical Chemistry. Four credits. Prerequisite: CHEM 2030/2031 or 3020/3021; corequisite: CHEM 4551. Survey of basic quantitative, qualitative, and purifying methods with specific emphasis on molecules of interest to biochemistry. Three hours lecture and one three-hour laboratory per week.

4551 Bioanalytical Chemistry Laboratory. Zero credits. Corequisite: CHEM 4550. Laboratory to accompany CHEM 4550. One threehour laboratory per week.

4580 Medical Technology Clinical Practicum. Six credits. Intensive classroom and laboratory studies covering principles and techniques in the areas of clinical chemistry, microbiology, immunohematology, bloodbanking, and related areas. Pass/Fail.

4600 Introduction to Environmental Chemistry. Three credits. Prerequisites: CHEM 1120/1121; CHEM 2030/2031 or 3010/3011; CHEM 2230/2231 strongly recommended. Quality of environment and of chemical changes in the environment through contaminations or modification of the air, water, and soil as they are affected by agricultural, industrial, and social activities. Three hours lecture.

4610 Environmental Chemistry. Three credits. Prerequisites: CHEM $2230 / 2231$ and $3020 / 3021$. Fundamental chemical principles applied to the fate and behavior of organic and inorganic contaminants in the soil-water environment. An overview of the soil-water chemistry will be presented, followed by contaminant reactions, including adsorption.

4630 Detection of Chemical Pollutants. Four credits. Prerequisites: CHEM 2230/2231 and one semester of organic chemistry or consent of instructor. Corequisite: CHEM 4631. Theory and practice of analytical chemistry methods used in pollution measurement. Three hours lecture and one three-hour laboratory.

4631 Detection of Chemical Pollutants Lab. Zero credits. Corequisite: CHEM 4630.

4700 Polymers, an Introduction. Three credits. Prerequisite: CHEM 3020/3021; physical chemistry strongly recommended. Chemistry of polymers; their structure, properties, and applications. Three hours lecture.

4730 Advanced Physical Chemistry. Four credits. Prerequisite: CHEM 4360/4361 or permission of instructor. Corequisite: CHEM 4731. Modern chemical concepts as applied to the areas of thermodynamics, electrochemistry, and chemical kinetics. Three hours lecture and one three-hour calculation laboratory.

4731 Advanced Physical Chemistry Lab. Zero credits. Corequisite: CHEM 4730.

4780 Polymer and Materials Chemistry Laboratory. One credit. Prerequisite: Organic chemistry; physical chemistry strongly recommended. Laboratory introduction to synthesis, kinetics, characterization, engineering, and applications of polymers and other modern materials. To be taken concurrently with CHEM 4700.

4800 Technical Writing for Chemists. One credit. Prerequisite: Completion of undergraduate English requirements. Emphasis on improving communication skills using writing exercises. Students will develop writing skills necessary to transmit technical information effectively, construct persuasive proposals and resumes, and produce clearly written reports of laboratory results.

4880 Research. Four credits. Prerequisites: 24 hours of ACS-approved chemistry courses. Student research allied with the instructor's research or designed specifically for the particular student. Minimum of twelve (12) hours a week. Student must write a formal report which is approved by the instructor to receive credit for this course.

## Chemistry (Chemical Instrumentation Techniques)

4190 Mass Spectrometry. One credit. Prerequisite: CHEM 2230/2231 or consent of instructor. Mass spectrographic analysis emphasizing the use of the instrument in obtaining mass spectral data. Technique of obtaining spectra using gas chromatographic effluents as well as normal sampling procedures. Routine maintenance and an introduction to the interpretation of simple spectra.

4380 Nuclear Magnetic Resonance Experimental Methods. One credit. Prerequisite: CHEM 3020/3021 or 2030/2031. NMR measurements, operation of the spectrometer, and evaluation of the quality of spectra produced.

## Child Development and Family Studies [CDFS]

2350 Human Development I. Three credits. Child development theories. Physical, cognitive, psychosocial development of the child, conception to three years of age. Diversity issues affecting development addressed. One hour observation per week required.

3300 Caring Across Generations. Four credits. Prerequisite: Permission of instructor. A service learning course in which students are trained as certified nurses' assistants (CNAs) including basic care skills as well as interaction with the elderly and their families. Designed to help students assess their level of interest in pursuing careers in working with children and/or the elderly in a medical setting.

3310 Human Development II. Three credits. Prerequisite: CDFS 2350 or permission of instructor. Physical, cognitive, psychosocial development of the child, from three years of age through middle childhood. Diversity issues affecting development addressed. One hour observation per week required.

3320 Family Relations. Three credits. Family systems, giving consideration to interpersonal relationships. The structure, function, and development of families in a changing society and in relation to other social institutions.

3330 Dynamics of Interpersonal Relationships. Three credits. Skills and knowledge essential to the development and maintenance of interpersonal and work relationships analyzed. Topics focus on self-awareness, communication in various types of relationships, and managing feelings and conflict.

3340 Life Span Human Development. Three credits. Emotional, social, physical, and intellectual growth and development of the individual over the life span with a family-oriented emphasis. Not available to Early Childhood Education and/or Family and Consumer Studies: Child Development and Family Studies majors.

3390 Child Development and Family Studies Professional Seminar. Three credits. Prerequisites: Junior standing in the CDFS program and approval of the instructor. A prerequisite to HSC 4101 Internship in CDFS. Professional issues of ethics, networking, social
change and public policy relating to children and families to be covered in 50-hour seminar format. Also, a site-approved, 100hour field placement to be completed. Offered fall only.

4110 Directed Teaching, Grades K-3. Twelve credits. Prerequisites: Successful completion of professional education requirements of FOED 1110, 2110; ELED 3050, 3150; CDFS 4375; SPED 3010; major requirements in Human Sciences; senior or graduate standing; minimum grade point average of 2.5 overall; admission to teacher education; passing score on the NTE-PRAXIS I-PPST. Full-time semester of supervised teaching experience in two placements in the public schools. Pass/Fail.

4140 Violence in the Family. Three credits. (Same as SOC 4140.) The causes, dynamics, and consequences of violence in the family. Includes the discussion of violence toward children, spouses, dating partners, siblings, and elders. Emphasizes the social conditions which lead to these types of violence.

4300 Preschool Practicum. Three credits. Prerequisites: CDFS 2350, 3310, 4370; admission to teacher education program. Corequisite: CDFS 4301. Advanced information and skills working with three- and four-year olds. Lab interaction with children; planning and implementation of curriculum. Three hours laboratory plus two-hour seminar per week. May not be taken concurrently with CDFS 4380.

4301 Preschool Practicum Lab. Zero credits. Corequisite: CDFS 4300.
4310 Human Development III. Three credits. In-depth study of physical, intellectual, social, and emotional factors influencing development during adolescence and the reciprocal influences between adolescent development and the family system. Emphasis on the ecological perspective to include the relation between adolescent development, families, and society. Offered fall only.

4320 Evaluation Strategies and Multicultural Education. Three credits. Prerequisites: CDFS 2350 and 3310 or permission of instructor. A comprehensive examination of assessment and cultural, linguistic, and developmental diversity in young children for the purpose of meeting individual and group needs. Observation and interaction with young children with diverse needs and their families included.

4330 Primary Practicum. Three credits. Prerequisites: CDFS 4300; ELED 3050; admission to teacher education program. Corequisite: CDFS 4331. Advanced knowledge and skills in working with kindergarten and primary children. Practicum students will implement developmentally appropriate curriculum in kindergarten and one other primary grade. Three hours laboratory and two hours seminar per week.

4331 Primary Practicum Lab. Zero credits. Corequisite: CDFS 4300.
4340 The Contemporary Family. Three credits. Prerequisite: CDFS 3320 or permission of instructor. An ecological approach to the study of contemporary issues, problems, questions, and life styles as they relate to families and individuals. Offered fall only.

4350 Parenting. Three credits. Knowledge of parenting, parent/child interaction, and home/school/community relationships. Theoretical and applied perspectives.

4360 Day Care Perspectives. Three credits. Prerequisite: CDFS 2350 and 3310. Examination of diverse day care settings and their influence on human development. Emphasis on the organization/ administration of day care programs. Participation in day care center experiences required. One hour observation per week required.

4370 Effective Instruction (Birth-5). Three credits. Prerequisites: CDFS 2350 and 3310. Must be taken concurrently with CDFS 4320 (Early Childhood Education majors only). Knowledge and skills necessary for implementing developmentally appropriate practices in programs serving children birth to age five.

4375 Literacy in Early Childhood. Four credits. Prerequisites: CDFS 4320, 4370; SPED 3010; admission to teacher education program. Study of emergent literacy and literacy concepts, birth through grade three. Includes methods of teaching and assessing literacy in a diverse environment. Use of children's media and literature addressed. Three hours lecture plus two-hour morning experiential field placement weekly.

4380 Infant/Toddler Practicum. Three credits. Prerequisites: CDFS 2350, 3310, 4370; admission to teacher education program. Corequisite: CDFS 4381. Advanced knowledge and skills for working with infants and toddlers (birth-3). Lab participation involving interactions with children as well as planning and implementing curriculum required. A three-hour laboratory and a two-hour seminar per week. May not be taken concurrently with CDFS 4300.

4381 Infant/Toddler Practicum Lab. Zero credits. Corequisite: CDFS 4380.

4390 Families in Later Life. Three credits. Prerequisites: Human Science majors - CDFS 3320; Sociology majors - SOC 2600 or permission of instructor. Examination of families in later life from an ecological approach with emphasis on family forms and relationships. Offered spring only.

4391 Aging Health and Development. Three credits. Prerequisite: CDFS 4390 or SOC 2600 or permission of the instructor. A service learning opportunity that provides students with understanding of the concepts and application of aging, families in later life, assessment, and gerontological program planning and implementation. May be repeated with permission of instructor.

4710 Family-Centered Community Building I. Three credits. An online survey course on family-centered community building (FCCB). Introduces advanced undergraduate and graduate students as well as community practitioners to a range of topics, issues, and frameworks to help build stronger, more cohesive, and familycentered communities. Offered fall only.

4720 Family-Centered Community Building II. Three credits. A ser-vice-learning course based on the application of family-centered community building. Introduces undergraduate and graduate students as well as community practitioners to a range of issues and activities intended to help build stronger, more cohesive, and family-centered communities. Offered spring only.

4790 Family Life Program Development and Evaluation. Three credits. Prerequisites: CDFS 2350, 3310, 3320, 3390, 4140, 4310, 4340,4350 , and 4390 or 4391. Addresses concepts of family life education as they apply to the development, implementation, and evaluation of programs. Incorporates developmentally appropriate criteria for individuals and families over the life span. Offered spring only.

## Chinese [CHIN]

1010 Elementary Chinese I. Three credits. Foundation course in reading, writing, speaking, and aural comprehension.

1020 Elementary Chinese II. Second semester. Three credits. Prerequisite: CHIN 1010 or advanced placement. Continuation of 1010.

2010 Intermediate Chinese I. Three credits. Prerequisite: CHIN 1020 or advanced placement. Continued study of the Chinese writing system, basic vocabulary and daily expressions, culture and society; and most importantly, the ability to use the language in communication.

2020 Intermediate Chinese II. Three credits. Prerequisite: CHIN 2010 or advanced placement. Increased emphasis on using the language appropriately. Introduction of reading strategies and communication strategies.

## Communication [COMM]

2150 Voice and Diction. Three credits. Development of self-confidence, more articulate speech, and effective voice quality through knowledge of the vocal mechanism; classroom drills and individualized instruction.

2200 Fundamentals of Communication. Three credits. Principles and processes underlying human communication. Communication models; communication purposes and breakdowns; variables related to interpersonal, small group, intercultural, and public communication. Emphasis on public oral communication including research, critical thinking, organization, presentation, and listening. Counts as part of the General Education Communication requirement.

2300 Interpersonal Communication. Three credits. Overview and application of fundamental principles and theories. Highly participatory class in which analysis of students' skills and further development is stressed. Foundation preparation for studying other forms of human communication.

3020 American Religious Communication. Three credits. A rhetorical study of the religious communication in America from colonial times to the present.

3210 Argumentation. Three credits. Prerequisite: COMM 2200 or permission of instructor. Theory and practice of advocacy with emphasis on organization, refutation, reasoning, and rebuttal. In-class debating on questions of fact value and policy.

3220 Small Group Communication. Three credits. Prerequisite: COMM 2200 or 2300 or permission of instructor. Theories of group dynamics and practical application. Study and practices of leadership in groups as decision-making organizations.

3225 Gender Communication. Three credits. Prerequisite: COMM 2200 or 2300 or permission of instructor. Highly participatory class in which critical thinking of values, issues, decision-making paradigms, and traditions in the field of gender communication is expected. Emphasis on individual practical application in personal and professional environments.

3230 Advanced Public Speaking. Three credits. Prerequisite: COMM 2200 or permission of instructor. Application of principles of public speaking through the analysis and criticism of speech structure and delivery of classroom speeches.

3300 Communication Theory, Culture, and Films. Three credits. Selected communication theories and implications for culture and communication as revealed in films as cultural texts.

3325 Great American Speakers. Three credits. A rhetorical study of the great American speakers from colonial times to the present. Successful students will gain an understanding of the principles of rhetorical criticism and apply these principles to selected speakers. Students will also gain an appreciation of the impact of public communication upon our society.

3340 Interview Communication. Three credits. Prerequisites: Junior standing or permission of instructor. A critical study of interviewing and effective communication techniques for employment selection and informative, persuasive, exit, and appraisal interviews.

3350 Multicultural Communication. Three credits. Communication and intergroup relationships between people of different ethnic/ racial backgrounds in the United States.

3560 Intercultural Communication. Three credits. The dynamics of the communication process as it functions in intercultural contexts; training for successful cross-cultural communication interactions.

3570 Communication in the Middle East. Three credits. Prerequisite: Junior standing or permission of instructor. Examines communication in the Middle East through films, narratives, and cultural studies. Focuses on the roles and views of Middle Eastern women.

3580 Political Communication. Three credits. Nature and functions of communication with political institutions and groups, including campaign communication, decision-making strategies, deliberative discourse, advocates, and interest groups.

3620, 3630, 4620, 4630 Applied Communication. One credit each. Prerequisite: Recommendation by a departmental faculty member. Field and laboratory experiences for the study of communication.

4260 Readings in Communication. Three credits. Prerequisites: Permission of instructor and completion of 21 semester hours in communication studies courses. Intensive study of a specific area of communication; topic is chosen in instructor-student conference.

4320 Theories of Persuasive Communication. Three credits. Recent writings and research on theories of persuasion and on current practices of persuasion. Emphasis on ethical critical, cultural, and functional implications in contemporary persuasion theory and practice.

4650 History, Theory, and Criticism of Rhetoric. Three credits. Prerequisite: COMM 2200 or 3230. Explores history, theory, and criticism of rhetoric from ancient times to the present.

4700 Senior Seminar in Communication. Three credits. Intensive investigation of the major research methodologies in communication studies; presentation of senior projects and a synthesis of the communication discipline.

4800 Special Topics in Communication. One to three credits. Meets individual and group needs for advanced study in speech communication. Topic determined at the time of scheduling. A maximum of six semester hours may be applied toward a degree.

4900 Internship in Communication. One to three credits. Practical experience in a professional work setting in a field requiring communication skills. May be repeated up to a maximum of four credit hours with no more than three credit hours earned in one semester.

## Communication Disorders [CDIS]

3050 Introduction to Communication Disorders. Three credits. Overview of the professions of speech-language pathology and audiology, with emphasis on the common disorders of speech, language, and hearing and their treatment.

3150 Phonetics. Three credits. Training in the recognition and production of the sounds of speech with an analysis of their formation; extensive practice in phonetic transcription.

3200 Phonological Disorders. Three credits. Prerequisites: CDIS 3050 and 3150. Speech development, etiologies of phonological/articulatory problems, and approaches for assessing and remediating speech-sound errors.

3250 Speech and Language Development. Three credits. Child speech and language acquisition from birth through the early school years. Emphasizes normal linguistic development.

3260 Language Acquisition and Analysis. Three credits. Language development and procedures for analyzing child language. Semantic, syntactic, and pragmatic development explored through examining child language transcripts.

3300 Clinical Methods in Communication Disorders. Three credits. Prerequisites: CDIS 3050, 3150, 3200, 3260, and academic criteria established by the faculty. Planning and implementing treatment programs for individuals with speech-language disorders. A foundation for clinical practicum.

3350 Hearing Problems and Testing. Three credits. The etiologies and diagnoses of hearing problems; practical experience in administering audiometric examinations.

3400 Anatomy and Function of the Speech Mechanism. Three credits. Prerequisite: CDIS 3050 or permission of instructor. The structures and function of the speech mechanism.

3450 Fluency Disorders. Three credits. Prerequisite: CDIS 3050. Etiologies, assessment, and treatment of fluency disorders.

4400 Introduction to Neurogenic Communication Disorders. Three credits. Prerequisites: CDIS 3050, 3300, 3400, and senior standing. Structures and function of the central nervous system, the peripheral nervous system, and their constituent parts. Focus on function as it impacts human communication. Includes historical perspectives in the study of the brain and development of imaging techniques.

4500 Intervention for Individuals with Hearing Loss. Three credits. Prerequisites: CDIS 3050, 3260, and 3350. Materials and methods employed in programs for persons with hearing loss.

4550- Practicum in Speech-Language Pathology I. Three credits each.
4580 Prerequisites for 4550: CDIS 3300, prior semester application, and completion of academic and professional criteria established by the faculty. Prerequisites for 4560,4570 , and 4580 : CDIS 4550, 4560 , and 4570 respectively. Supervised clinical practice in the University clinic.

4600 Practicum in Speech-Language Pathology II. Three credits. Prerequisites: CDIS 4550 and 4560, prior semester application, and approval by faculty. Advanced supervised clinical practice in an off-campus clinical facility.

4620, 4630 Applied Speech. One credit each. Prerequisite: Recommendation by a departmental faculty member. Study of a specific area of communication disorders to be completed through instructor-student conferences.

4650 Practicum in Speech-Language Pathology III. Six credits. Prerequisites: CDIS 4550 and 4560; prior semester application; and approval by faculty. Organization, management, and implementation of public school speech-language and hearing programs. Advanced supervised clinical practice in a public school setting. The School Speech-Language Teacher license requires completion of this course.

4700- Practicum in Audiology. One credit each. Prerequisites for 4700:
4730 CDIS 3350 and 4550 or permission of instructor. Prerequisites for 4710, 4720, and 4730: 4700, 4710, 4720 respectively. Laboratory course in applying principles of audiology.

4750 Advanced Audiology. Three credits. Prerequisites: CDIS 3300 and 3350 or permission of instructor. The development of advanced skills in the evaluation and remediation of hearing problems.

4800 Speech and Language Disorders in the Adult Population. Three credits. Overview of the impact of age on communication. Identification and remediation of communication problems associated with the aging process.

4850 Speech and Language Disorders in Childhood. Three credits. Prerequisites: CDIS 3400 and 4550 or permission of instructor. A comprehensive study of the speech, language, and voice difficulties experienced by children.

4900 Diagnostic Procedures in Speech Pathology. Three credits. Prerequisite: CDIS 4550 or permission of instructor. Basic concepts of measurement and application of diagnostic procedures used in speech-language pathology.

4950 Special Topics in Communication Disorders. Three credits. Prerequisite: CDIS 3300 or permission of instructor. Advanced reading and discussion about selected topics in speech-language pathology or audiology. Content varies from semester to semester. A maximum of six semester hours may be applied toward a degree.

## Computer Science [CSCI]

1000 Computer Literacy. One credit. An introduction to computers at the non-professional level. Major topics include historical development; impact on society; ethics, applications, languages, and terminology with emphasis on personal computers; productivity tools: word processor, spreadsheet, and Internet. Does not count for Computer Science major or minor.

1150 Computer Orientation. Three credits. A general introduction to computers with an emphasis on personal computing, database, word processing, presentation graphics, spreadsheets, and Internet tools. Does not count for Computer Science major or minor.

1160 Multimedia Computation. Three credits. Prerequisite: Sufficient background in algebra. Computer science concepts and computer software development using a multimedia approach to program development. Algorithms, programming, and documentation of media computation problems including modifying, editing, and creating picture and sound files. Computer science hardware and software terminology. Counts toward a Computer Science major or minor upon successful completion with a grade of $A$ or $B$ and approval by Computer Science chair.

1170 Computer Science I. Four credits. Prerequisite: Sufficient background in algebra and trigonometry. The first of a two-semester sequence using a high-level language; language constructs and simple data structures such as arrays and strings. Emphasis on problem solving using the language and principles of structured software development. Three lectures and one two-hour laboratory.

2170 Computer Science II. Four credits. Prerequisite: CSCI 1170 or equivalent. A continuation of CSCl 1170 . Topics include introductory object-oriented programming techniques, software engineering principles, records, recursion, pointers, stacks and queues, linked lists, trees, and sorting and searching. Three lectures and one two-hour laboratory.

3031- Computer Languages. One to three credits. Prerequisite: CSCI
30382170 or consent of instructor. An opportunity for a Computer Science major or minor to gain experience and training in a secondary language. Covers the syntax, advantages, disadvantages, limitations, and selected applications of a language. Credit will not be given toward a Computer Science major or minor if credit has been received for the same language in another course. May be repeated for up to three hours credit in the major or minor.
3031 C-Language. Two credits.
3032 FORTRAN. Two credits.
3033 Java. Three credits.
3034 Pascal. Three credits.
3035 Smalltalk. Two credits.
3036 UNIX C-Shell Programming. One credit. 3037 Visual Programming. Three credits.
3038 Python. Three credits.
3080 Discrete Structures. Three credits. Prerequisites: CSCI 1170 and MATH 1910 or consent of instructor. Topics include formal logic, proof techniques, matrices, graphs, formal grammars, finite state machines, Turing machines, and binary coding schemes.

3110 Advanced Data Structures. Three credits. Prerequisite: CSCI 2170; corequisite: CSCI 3080. Topics include additional objectoriented programming techniques, algorithm design, analysis of algorithms, advanced tree structures, indexing techniques, internal and external sorting, graphs, and file organizations.

3130 Introduction to Computer Architecture. Four credits. Prerequisite: CSCI 3160. Organization and basic architecture of computer systems. Topics include hardware components of digital computers, microprogramming, and memory management. Laboratory exercises involve logical, functional properties of components from gates to microprocessors. Three lectures and one two-hour laboratory.

3150 Technology Tools. One to three credits. Prerequisite: CSCI 1000 or equivalent or permission of instructor. The use, history, and impact of technology tools. Hands-on laboratory exercises. Does not count for Computer Science major or minor.

3160 Introduction to Assembly Language. Three credits. Prerequisite: CSCI 1170 or equivalent. Computer architecture and assembly language. Major emphasis on addressing techniques, macros, and program segmentation and linkage.

3180 Introduction to Numerical Analysis. Three credits. (Same as MATH 3180.) Prerequisites: MATH 1920 and CSCI 1170. Topics include series approximation, finite differences interpolation, summation, numerical differentiation and integration, iteration, curve fitting, systems of equations and matrices, and error analysis.

3210 Theory of Programming Languages. Three credits. Prerequisite: CSCl 2170; corequisite: CSCl 3080. Syntax and theory of multiple languages covered with emphasis on binding times, parsers, grammars, finite automata, regular expressions, type checking and equivalence, scope of variables, exception handling, parameter passing, and storage management.

3250 Operating Systems. Three credits. Prerequisites: CSCI 2170 and 3160. Concepts and facilities of an operating system. Major concepts in memory, processor, device, and information management are covered as well as interrelationships between the operating system and the architecture of the computer system.

3420 Social, Ethical, and Legal Implications of Computing. Two credits. Prerequisites: A three-hour course in computing, COMM 2200, and junior standing. Introduction to the impact of computers on
society and the ethical and legal issues confronting computer users and professionals. Does not count toward a minor in Computer Science.

4110 Advanced Commercial EDP. Three credits. Prerequisite: CSCI 2170 or equivalent. File management in business applications. Structuring and identification of files stressed along with software engineering principles. COBOL language used as the implementation tool.

4130 Microprocessor Operation and Control. Three credits. Prerequisite: CSCI 3160 . Digital systems based around microcomputers, microcomputer architecture, logic replacement, memory design, timing considerations, input/output design, interfacing, robotics, and total system design.

4160 Compiler Design and Software Development. Three credits. Prerequisites: CSCI 3080, 3110, and 3160. The various phases of a compiler along with grammars, finite automata, regular expressions, LR parsing, error recovery, backward and forward flow analysis, and code optimization. A term project consisting of the design and construction of a functional complier required.

4250 Computer Graphics. Three credits. Prerequisites: CSCI 2170 and 3080 or consent of instructor. Topics include vector drawing displays, raster scan displays, input devices and techniques, graphics software, transformations, projections, interpolation, and approximation.

4280 Undergraduate Research. One to four credits. Prerequisite: Permission of instructor and department. Independent investigation of a selected research problem under the guidance of a faculty member resulting in an oral and written report of results. Does not count toward a minor in Computer Science. May be repeated for a maximum of four credits. A maximum of three credits in the major may come from CSCI 3970, 4280, 4600, and 4910.

4300 Data Communication and Networks. Three credits. Prerequisite: CSCI 3250. Computer network architectures, protocol hierarchies, and the open systems interconnection model. Modeling, analysis, design, and management of hardware and software on a computer network.

4330 Parallel Processing Concepts. Three credits. Prerequisites: CSCI 3130, 3250, and a working knowledge of either C or C++. Basic concepts in parallel processing and programming in a parallel environment. Topics include classification of parallel architectures, study of actual parallel architectures, design and implementation of parallel programs, parallel software engineering.

4350 Introduction to Artificial Intelligence. Three credits. Prerequisites: CSCI 2170 and 3080 or equivalent. Principles include search strategies, knowledge representation, reasoning, and machine learning. Applications include expert systems and natural language understanding.

4360 Intelligent Robot System. Three credits. Prerequisites: CSCI 2170 and 3080. Principles and applications of intelligent mobile robotics. Various architectures used in the basic AI robotics development paradigms and basic techniques used for robot navigation. Strong emphasis on hands-on mobile robot design, construction, programming, and experimentation using a variety of robot building platforms.

4410 Web Technologies. Three credits. Prerequisites: CSCI 3080 and 3110. An intensive introduction into current Web technologies including basic HTML, tools for Web page design, XML, client-side methods, and server-side methods. Students will be required to implement several Web-based projects.

4560 Database Management Systems. Three credits. Prerequisites: CSCI 3080 and 3110. The relational and object models of database design along with relational algebras, data independence, functional dependencies, inference rules, normal forms, schema design, modeling languages, query languages, and current literature.

4600 Independent Study in Computer Science. One to six credits. Prerequisites: Senior standing and consent of instructor. Students wishing to enroll must submit a written course/topic proposal to the department prior to the semester in which CSCI 4600 is taken. Proposal must be approved prior to taking the course. At the course conclusion, each enrollee must submit a written report to the department. May count up to 3 hours toward Computer Science major. May not be used in conjunction with CSCI 3970.

4700 Software Engineering. Three credits. Prerequisites: CSCI 3080 and 3110. Consists of a theoretical component and a practical component. Topics include the history of software engineering, software development paradigms and life cycles, and computeraided software engineering (CASE). Team project developed in parallel with the theory.

4800 Software Testing. Three credits. Prerequisites: CSCI 2170 and 3080. Integrates theory and applications of software testing techniques. Provides actual hands-on testing experience. Considers multiple testing paradigms.

4850 Neural Nets. Three credits. Prerequisite: CSCI 3080. Various neural net architectures, theory, and applications including models such as Perceptron, back propagation, Kohonen, ART, and associative memory. Learning and conditioning methods also studied.

4900 Selected Topics in Computer Science. Three credits. Prerequisite: CSCI 2170. Advanced topics in computer science to be selected and announced at time of class scheduling. May be repeated for up to six credits total.

4910 Internship. One to six credits. Prerequisites: CSCI 2170 and 3160. Must be at least a junior with a minimum overall average of 2.75 and 3.00 in computer science. Employment experience in a computer-related function in a firm, governmental agency, etc. Must be approved by the department.

## Concrete Industry Management [CIM]

1010 Introduction to Concrete Industry. One credit. Overview of the history, career opportunities, job functions, and professional organizations in the concrete industry. Introduction to the concrete industry management curriculum, instructional exceptions, and methodologies.

1050 Blueprint Reading. One credit. Provides a broad-based background in interpreting blueprints. Typical plans for both residential and commercial building reviewed.

3000 Fundamentals of Concrete: Properties and Testing. Four credits. Prerequisites: CHEM 1010/1011 or 1110/1111; CIM 1010 or CMT 1000; must be a declared CIM or CMT major. Concrete testing, admixtures, placing, and finishing. Effects of concrete-making materials on properties of fresh and hardened concrete materials. Three hours lecture and three hours laboratory.

3050 Concrete Construction Methods. Three credits. Prerequisites: CIM 1010, 3000. Forming and shoring, placing and reinforcing; transporting, placing, consolidating, finishing, jointing, and curing concrete for cast-in-place foundations, pavements, slabs on ground, structural frames, and other structural members; erecting precast concrete members; waterproofing concrete foundations.

3060 Understanding the Concrete Construction System. Three credits. Prerequisites: CIM 1010, 3000. Detailed look at how the concrete construction industry works. Includes review of model building codes, building officials and their function, concrete industry codes and standards, concrete construction processes, quality assurance systems, contract documents, and concrete construction markets.

3070 Site Planning, Layout, and Preparation. Three credits. Prerequisites: CIM 1010, 3050. Activities required to successfully prepare a site for concrete work. Includes initial site investigation, surveying, groundwork, subbase preparation, and elevations. Exposes students to modern technological tools and methods such the use of GPS, EDM, and lasers. Two hours lecture and three hours laboratory.

3080 Formwork Design and Computerized Drafting. Three credits. Prerequisites: CIM 1010, 3050, and declared CIM major. Overview of costs and safety with regard to formwork selection, design, and construction. Reviews the various forming systems available and how they may be integrated for use in specific project circumstances. Includes a basic review of CAD drafting techniques and their applications.

3100 Applications of Concrete Construction. Three credits. Prerequisites: CIM 1010, 3000, 3050, and declared CIM major. Details many uses of concrete in the construction of buildings, pavements, and other facilities. Emphasis on the advantages, disadvantages, and unique problems faced by materials suppliers, contractors, and design professionals when concrete is chosen for specific applications.

3200 Concrete Project Estimating. Three credits. Prerequisites: CIM 1010, 3100. Project drawings to prepare both basic and detailed estimates. Activities include practice implementing the printreading, estimating, and other skills acquired using actual sets of finished drawings. Projects will become more complicated as the semester progresses and will include below-grade, flatwork, and above-grade examples.

3300 Concrete Industry Internship. Two credits. Prerequisite: CIM 1010. Opportunity for students to gain supervised, practical work experience in their particular field of interest within the concrete industry. The student will be evaluated by his/her supervisor, and a final report will be submitted by the student detailing the internship experience.

3600 Advanced Concrete Project Management. Three credits. Prerequisites: CIM 1010, 3060. A continuation of the construction management concepts taught in CIM 3060. Emphasis on application of advanced project management concepts. A group activity involving management of a complex concrete construction project.

4010 Design and Construction Issues. Three credits. Prerequisites: CIM 1010, 3200. A review of concrete construction materials and their physical and mechanical properties. Special emphasis placed on the concepts of mechanics of materials and resolving design/construction mismatches.

4030 Issues in the Concrete and Construction Industry: A Legal and Ethical Perspective. Three credits. Prerequisite: CIM 1010. Involves a case study approach to critically analyzing historical and current events in the concrete and construction industry. Particular emphasis on developing a managerial decision-making process incorporating ethical, legal, financial, and other business perspectives.

4050 Management of Concrete Products: Ordering and Delivering. Three credits. Prerequisites: ET 3910; CIM 1010, 3000, and 3050. Provides student with basic understanding on managing
order and delivery processes common to all concrete products. Emphasis on planning, organizing, and controlling at both the first-line supervisory and managerial levels. Key differences in the order and delivery functions of ready mix concrete, concrete masonry, pre-cast concrete, pre-stress concrete, and concrete pipe supplemented by product-specific guest lectures and plant tours.

4060 Management of Concrete Products Production Facilities. Three credits. Prerequisites: CIM 1010, 3000, and 3050; ET 3910. Provides student with basic understanding of managing the manufacturing process common to all concrete products production facilities. Emphasis on planning, organizing, and controlling at both the first-line supervisory and managerial levels. Review of key differences in manufacturing process of ready mix concrete, concrete masonry, precast concrete, pre-stress concrete, and concrete pipe explained through product-specific guest lectures and plant tours.

4070 Concrete Contracting Personnel Management. Three credits. Prerequisite: Senior standing. Application of personnel management techniques in the contracting business. Emphasis on adapting management styles to various employee personality traits, training techniques, personal management, effective and efficient management of equipment and other resources, and leadership development.

4100 Field Management and Supervision. Three credits. Prerequisite: Senior standing. Offers knowledge and skills to effectively manage concrete construction jobsite activities. Emphasis on safety, equipment identification and use, maintenance, contingency plans, and worksite productivity.

4150 Concrete Problems: Diagnosis, Prevention, and Dispute Resolution. Three credits. Prerequisite: Senior standing and declared CIM major. Diagnosing and preventing problems related to concrete production, testing, construction, and performance. Identifying causes of fresh and hardened concrete problems such as fast and slow setting, air content variations, low strength, cracking, and scaling. Pre-job conferences and dispute resolution methods.

4200 Senior Concrete Lab. Two credits. Prerequisite: Must be a declared CIM major. Opportunity for students to gain in-depth knowledge of the technical aspects of concrete and cement chemistry in a laboratory environment. The student will be evaluated by his/her ability to investigate a concrete situation and resolve the issue with a laboratory project. Graded activities include in-class exercises, written reports, and oral presentations. One hour lecture and three hours laboratory.

4800 Special Problems in Concrete Industry Management. One-three credits. Prerequisite: Permission of department and declared CIM major. Opportunity to pursue projects of individual interest in concrete industry management. Projects may be technical and/or managerial in nature and may require any combination of literature reviews, lab work, field studies, and other research methods. A faculty member will approve a formally submitted proposal for the study, supervise progress, and grade a report and a presentation which are required upon completion of the project. May be repeated for up to 6 hours of undergraduate credit.

4910 Capstone. Three credits. Prerequisite: To be taken semester before graduation; must be declared CIM major. Intensive study of a problem(s) appropriate to the major and the student's career interest. Solution(s) for problem(s) presented to a committee of concrete industry representatives. Presentation must emphasize depth of analysis, completeness and effectiveness of solution, and presentation skills.

## Construction Management Technology [CMT]

1000 Introduction to Commercial Construction. One credit. Details positions found in industry, what to expect in the commercial construction arena, possible visits to job and estimation sites, and information regarding the industry in general. Covers courses needed, requirements for graduation, and outside forces that impact the industry. Guest lecturers, tours, films and presentations arranged in seminar fashion. Required freshman year. Offered fall semester only.

3000 Commercial Construction and Materials. Three credits. Blueprint reading, commercial construction materials and equipment, commercial construction systems, new materials and procedures, and fundamentals essential to knowledge of the commercial construction field. Lecture, field observations, and site/or plant visits required.

3150 Residential Building Construction and Materials I. Three credits. Corequisite: CMT 3160. Blueprint reading, terminology, building materials, methods and techniques, problems, and fundamentals essential for residential construction. Recommended for those desiring general knowledge of construction or work in the construction field. Two hours lecture and three hours laboratory.

3155 Land Development and Residential Building. Three credits. Prerequisite: Junior status or permission of department. Online course for land development and infrastructure layout. House plans, methods, and techniques used in building conventional structure. Recommended for those desiring general knowledge as a consumer of residential construction. (Required for Electrical Construction Management concentration. Land Development/ Residential Building Construction Management major or minor students cannot use this course to replace CMT 3150.)

3160 Residential Cost Estimating I. Three credits. Prerequisite or corequisite: CMT 3150. Principles and practices involved in the preparation of a cost estimate for a residential home. Topics include introduction to cost estimating, materials, and labor costs for residential building.

3180 Construction and Materials II. Three credits. Prerequisites: CMT 3150 and 3190. A continuation of CMT 3150 with emphasis on new building materials and various types of construction. Light commercial construction included.

3190 Construction Land Development Operations. Three credits. Topics include contractor procedures in land development, land development infrastructure, and management methods.

3195 Sustainable Construction. Three credits. Prerequisite: CMT 3190 or permission of department. Current green building technologies with an introduction to LEED (Leadership in Energy and Environmental Design) and NAHB (National Association of Home Builders) Green Building Guidelines and other green build programs. Also covers the impact of the building industry on the environment and how that impact can be minimized by the use of green technology.

3210 Residential Codes, Regulations, Specifications, and Plan Reading. Three credits. Prerequisite: CMT 3150. The residential and subdivision infrastructure construction language for plan reading, codes, regulations, and specifications. Lectures and hands-on activities. Industry will provide guest lecturers and show examples of some of their work in the field. Students will be required to visit architects, city and county codes department representatives, and contractors during the semester.

3320 Architectural Computer-Aided Drafting and Design. Three credits. Prerequisites: ET 2310 and CMT 3190 or consent of instructor. Using computers to draw and design residential architectural plans. Specifically geared toward the construction area of concentration. Two hours lecture and three hours laboratory.

3500 Land Surveying. Three credits. Prerequisites: MATH 1710 and 1720. Open to Construction Management majors only. Basic surveying operations such as chaining, differential leveling, transverse methods and calculations, structural layout, topographic mapping, and slope staking for road and utilities in subdivisions. Basic surveying instruments used include the chain, automatic level, transit, and theodolite. Environmental issues relating to land and land development covered. Two hours lecture and three hours laboratory.

4000 Soils, Foundations, and Earth Moving Equipment. Three credits. Properties and testing of soils on a job site, different kinds of foundations used, and an overview of the different kinds and costs of earth moving equipment used in the commercial construction industry.

4010 Construction Law. Three credits. Prerequisite: Junior standing. Practical approach to the legal system in construction. Topics include licensing requirements, business associations, hiring professionals, employment issues, insurance, worker's comp, tort liability, contracts, financing, sale of property, title issues, liens, land use, bankruptcy, and warranties.

4100 Mechanical and Electrical Systems. Three credits. Prerequisite: CMT 3320. Fundamentals and computer design of mechanical, electrical, and plumbing systems used in the residential and light commercial building construction industry. Two hours lecture and three hours laboratory.

4110 Cost Estimating II. Three credits. Prerequisites: CMT 4100, 4120, and 4130. Use of computer to estimate total cost of land development and housing costs for capstone project.

4120 Scheduling. Three credits. Prerequisites: CMT 3190, 3320, and 4100. Flow of labor and material toward specified goal, weather, trade characteristics, and material availability in work scheduling shown by graphs.

4130 Construction Administration. Three credits. Prerequisite: CMT 3320. Management and administration of construction to include contracts, office, and field work.

4140 Construction Management Principles. Three credits. Detailed look at how the construction industry works. Includes review of model building codes, building officials and their functions, construction industry codes and standards, quality assurance systems, contract documents, and principles of managing construction contracts.

4170 Capstone-LDRB Construction Management. Three credits. Prerequisites: CMT 4100, 4120, and 4130 . Final preparation of development plans, etc., for subdivision. Basic principles of presentations. Presentation of capstone project to Building Construction Technical Committee.

4172 Capstone for Electrical Construction Management. Three credits. Prerequisite: Senior status; permission of department. Taken during the last semester of coursework at MTSU. Student will develop a project(s) that relates to the material covered in concentration courses. Proposed outline(s) required and must be approved by the Electrical Construction Management advisor before starting.

4200 Commercial Cost Estimating and Bidding. Two credits. Commercial estimating including take-offs from blueprints, using preferred computer estimating programs, educational trips to Dodge Room in Nashville, actually seeing a job being estimated and bid.

4280 Commercial Construction Capstone. One credit. Construction portfolio presented to subcommittee of advisory committee. Pictures and/or projects developed in junior- and senior-level commercial construction classes included; all facets of a commercial construction project from inception to completion. Pass/Fail.

## Cooperative Education [COED]

2930, 2940, 3970, 3980 Cooperative Education. Three credits. Experiential learning that occurs in real employment situations. Must be taken in sequence or approved by the director of Cooperative Education. Graded on a pass/fail basis.

## Criminal Justice Administration [CJA]

1100 Introduction to Criminal Justice Administration. Three credits. Survey of the criminal justice system; philosophy and history of criminal justice agencies; analysis of the problems and needs of agencies involved in the criminal justice process; survey of professional career opportunities.

2100 Criminal Theory. Three credits. Introduction to crime theory and criminal justice policies. Topics include biological, psychological, and sociological studies of crime and policies adopted by the criminal justice system in response to crime theory.

2200 Prevention and Control of Crime. Three credits. The police function; an analysis of crime prevention and control; major problems and needs of the law enforcement segment of the criminal justice system.

2400 The Judicial Process. Three credits. The structure and function of the judicial system; the major problems and needs of the judicial segment of the criminal justice system; major emphasis on the basic concepts of criminal law and administration.

2600 Corrections. Three credits. History of the development of corrections in Europe and America; survey of current prison conditions and operations, including pre-release, probation, and parole.

2900 Practicum in Law Enforcement. Six credits. Practicum. (Specialized Instruction, Tennessee Law Enforcement Training Academy, Donelson.) In addition to normal tuition and fees, students will also be required to pay room and board costs at the Academy. Open only to pre-service seniors. Arrangements to take this course should be made with the department chair at least one semester in advance so that the student can be enrolled in the academy.

3200 Research Methods with Computer Technology. Three credits. Prerequisite: CJA 1100 or permission of instructor. Overview of scientific research methods in criminal justice with emphasis on computer technology to conduct research and interpretation and analysis on various statistical data.

3220 Ethics in Criminal Justice. Three credits. Principles of justice and ethics. Covers ethics and law, police and ethical standards, ethics and the courts, and correctional ethics.

3230 Police Organization and Administration. Three credits. Principles of organization and personnel management, line staff and auxiliary functions; the police organization and the individual; planning,
research, and development; political controls on authority and jurisdiction; professionalization of the police.

3250 Criminal Law. Three credits. Prerequisite: CJA 1100. Theories and principles of the body of substantive criminal law. Covers the elements of the range of criminal law offenses.

3400 Constitutional Issues and Criminal Justice. Three credits. Development of Constitutional and procedural controls of the administration of criminal justice. Constitutional limits on law enforcement agencies including the laws of arrest, search and seizure, admissions and confessions, and eavesdropping; on pretrial and trial procedures, on past conviction processes. Emphasis on current U.S. Supreme Court decisions.

3450 Legal Issues in Corrections. Three credits. Prerequisite: CJA 1100 or permission of instructor. Legal issues concerning the constitutional rights of convicted offenders. Topics include impact of court decisions upon correctional personnel and administration; use of force; rights of visitation; use of mail, solitary confinement, religion, legal services; probation and parole regulations; right to treatment; and civil liabilities of correctional officials.

3500 Criminal Courts: Structure, Personnel, and Processes. Three credits. Prerequisites: CJA 1100 and 2400. Role of the criminal courts in our criminal justice system with a focus on structures, personnel, and processes. Various job opportunities and placement qualifications discussed.

3630 Probation and Parole. Three credits. An analysis of the history, theory, philosophy, and function of probation, parole, and pardon; evaluation of the effectiveness of the individual in the community; usage of pre-sentence investigation; selection, supervision, and release of probationers and parolees.

3650 Correctional Management. Three credits. Prerequisites: CJA 1100 and 2600 or permission of instructor. Comprehensive overview of management issues in both institutional and community corrections. Topics include organizational theory; planning, programming, and budgeting; policy analysis, program evaluation, information systems and technology; facilities management; offender classification systems; treatment programs; management of special offender populations; personnel issues.

3700 Women, Crime, and Justice Administration. Three credits. (Same as WMST 3700.) Explores the experience of women in the criminal justice system as victims of violence and as criminal justice employees and prisoners. Focus on gender-based differences in the experience of criminal justice from historical, economic, and professional perspectives.

3750 Terrorism and Criminal Justice. Three credits. Prerequisite: CJA 1100 or permission of instructor. Meaning, history, purposes, and incidents of terrorism. Emphasis on terrorist acts as crimes along with the unique role of law enforcement in the detection, prevention, investigation, and prosecution of the crimes. Legislative, constitutional, and legal issues surrounding law enforcement, courts, and corrections explored.

3900 Organized and White-Collar Crime. Three credits. Prerequisite: CJA 1100. Explores emergent and historical treatments of white collar and organized crime, with an emphasis on theoretical, etiological, and enforcement typologies in both the criminological and criminal justice literatures. Advent of several high-profile connections between traditionally distinct organized and white-collar crimes emphasized.

4220 Community Relations and Minority Problems. Three credits. Analysis of public hostility toward police and current community relations projects, human relations, training and education of law
enforcement officers; responsibilities of police administrators, causes of tension and conflict, dissent and disorder, positive and negative factors in the control of minority group hostilities; minority recruitment in law enforcement.

4260 Special Issues in Law Enforcement. Three credits. A variety of subtopics related to the law enforcement segment of the criminal justice system such as problems in private and public morality with regard to drug use, alcoholism, and sex offenses; analysis of current police training programs; relationship between legislation and political processes which affect law enforcement.

4300 Criminal Justice Internship. Nine credits. Prerequisite: Permission of instructor. (Open only to pre-service seniors, e.g., those preparing for a career in the criminal justice field who are not currently employed by a criminal justice agency and restricted to Criminal Justice Administration majors and minors.) Field placement in a criminal justice agency to provide practical understanding and experience in the field. A minimum of 320 clock hours required.

4330 Criminal Investigations. Three credits. Prerequisite: For Criminal Justice Administration majors or minors or with permission of instructor. General investigative responsibilities and techniques including administration, preparation, investigative jurisdiction and responsibility, and the importance of substantive report writing.

4340 Crime Scene Investigation. Three credits. Prerequisite: CJA 4330. Advanced approach to the various elements of criminal investigations. Provides simulated investigative experiences through the use of mock crime scenes. Emphasis on preparing students for a career in law enforcement.

4500 The Juvenile Justice System. Three credits. The problem of juvenile delinquency and youth crime with emphasis on the history of the juvenile justice system, the court and police role within the system, rehabilitation and correction of the delinquent, and juvenile probation services. Alternatives to traditional procedures, such as community-based programs versus correctional institutions, and non-judicial and judicial adjustment examined.

4530 Criminal Evidence and Procedures. Three credits. Designed to develop an understanding of the types of individuals and problems of admissibility in court proceedings, the proper treatment and disposition of evidence, the legal procedure to be followed, and the actual trial procedure.

4750 Seminar in Corrections. Three credits. Each student required to select a problem area of interest for an intensive research effort. The group will be presented with a contemporary corrections issue or problem and will be required to create practical and workable strategies for coping with the issue.

4800 Crime in America: An Assessment. Three credits. An in-depth survey of the impact of crime on American society; the amount and trends of crime, the economic impact of crime, professional and white collar crime, characteristics of offenders, and victims of crime.

4850 Private and Industrial Security. Three credits. Examines the relationships among the criminal justice system, homeland security, and private and industrial security including historical roots and mutual concerns. Covers terrorist acts, internal theft, white-collar crime, retail security, institutional security, cargo and computer security as well as the role of the criminal justice system in prevention and investigation.

4860 Security Administration. Three credits. The placement of the security function within an organization. The role of the security manager in developing a program to protect assets and reduce illegal losses, to protect against acts of terrorism, and to provide
protection for personnel. The application of management techniques to the operation of the organization's security division, including personnel recruitment and selection. Development of security survey techniques, identification of security risks, and techniques used to eliminate opportunities for theft, other crimes, and terrorist acts.

4870 Security Law. Three credits. An analysis of the legal background of private and proprietary security. Critical current legal issues in the private security field including terrorism issues. Legal and cooperative relationships between private and proprietary security operations and public law enforcement agencies.

4900 Readings in Criminal Justice Administration. Three credits. Prerequisite: Open only to Criminal Justice Administration majors and minors. For the advanced student who is capable of independent study. Readings in a particular area of criminal justice relevant to the individual student's interests. Preparation of an annotated bibliography and report required. Arrangements for this course should be made with the instructor prior to registration.

4930 International Criminal Justice. Three credits. Prerequisite: CJA 1100 or permission of instructor. Compares the American criminal justice system with those in other countries. Examines historical origins, structural differences, and varying degrees of effectiveness and efficiency in law enforcement, courts, and corrections in selected nations. Explores challenges posed by the globalization of crime and terrorism.

## Dance [DANC]

1000 Dance Appreciation. Three credits. Dance as an expressive art form, a symbolic language, and an integral aspect of world cultures. Lecture/discussion course for the general student population. Not a performance or activity course.

1010 Modern Dance Techniques I. Two credits. Modern dance techniques; emphasis on exploration of fundamentals of dance as a form of artistic communication. For students with little or no previous experience in modern dance. May be repeated for a maximum of 4 credits.

1020 Jazz Dance Techniques I. Two credits. Contemporary jazz dance techniques; emphasis on exploration of fundamentals of dance as a form of artistic communication. For students with little or no previous experience in jazz dance. May be repeated for a maximum of 4 credits.

1030 Tap Dance Techniques I. Two credits. Tap dance techniques; emphasis on exploration of the fundamentals of dance as a form of artistic communication. For students with little or no previous experience in tap dance. May be repeated for a maximum of 4 credits.

1040 Ballet Techniques I. Two credits. Classical ballet techniques; emphasis on exploration of ballet as a classical art form. For students with little or no experience in ballet. May be repeated for a maximum of 4 credits.

1050 Dance Performance Workshop for Governor's School for the Arts. Two credits. Prerequisite: Permission of instructor. Dance practicum for students involved with the Tennessee Governor's School for the Arts. Designed to give experience in specific areas of dance study while students prepare for the Finale production.

2000 Introduction to Dance Studies. Three credits. An overview of the contemporary dance scene and its recent history in aesthetics, scholarship, and in the marketplace. Offered spring semester only.

2010 Modern Dance Techniques II. Two credits. Prerequisite: DANC 1010 or permission of instructor. Intermediate modern dance techniques. May be repeated for a maximum of 4 credits with permission of instructor.

2020 Jazz Dance Techniques II. Two credits. Prerequisite: DANC 1020 or permission of instructor. Intermediate jazz dance techniques. May be repeated for a maximum of 4 credits with permission of instructor.

2030 Tap Dance Techniques II. Two credits. Prerequisite: DANC 1030. Intermediate tap dance techniques. May be repeated for a maximum of 4 credits with permission of instructor.

2040 Ballet Techniques II. Two credits. Prerequisite: DANC 1040 or permission of instructor. Intermediate ballet techniques. May be repeated for a maximum of 4 credits with permission of instructor.

3010 Modern Dance Techniques III. Three credits. Prerequisite: DANC 1010, 2010, or permission of instructor. Techniques, choreography, and various aspects of Labanotation for the experienced dancer and choreographer. May be repeated for a maximum of four credits.

3020 Jazz Dance Techniques III. Three credits. Prerequisite: DANC 1020, 2020, or permission of instructor. Advanced jazz dance techniques. May be repeated for a maximum of 4 credits with permission of instructor.

3030 Tap Dance Techniques III. Two credits. Prerequisite: DANC 1030, 2030, or permission of instructor. Advanced tap dance techniques. May be repeated for a maximum of 4 credits with permission of instructor.

3040 Ballet Techniques III. Three credits. Prerequisite: Permission of instructor. Advanced ballet techniques. May be repeated for a maximum credit of 6 credits with permission of instructor.

3600 Teaching Creative Movement for Children. Three credits. Prerequisites: 2000-level dance technique courses in ballet or modern dance and permission of department. Dance as a viable activity that can enhance the learning process. Explores the discipline of dance as basic to an education for all people. Educational and aesthetic theories and practices related to fashioning developmentally appropriate dance experiences for children.

4000- Dance Performance. One credit each. Prerequisites: Permis4030 sion of instructor and co-registration in DANC 1010, 1020, 1030, 1040, 2010, 2020, 2030, 2040, 3010, 3020, 3030, 3040, or 4040. All aspects of concert planning and production as performer and crew member. May be taken for one credit per semester for a total of four credits.
4000 Dance Performance I
4010 Dance Performance II
4020 Dance Performance III
4030 Dance Performance IV
4040 Ballet Techniques IV. Three credits. Prerequisite: Permission of instructor. Performance-level techniques and choreography for solo and ensemble pieces in both classical and contemporary styles. May be repeated for a maximum of 6 credits with permission of instructor.

4100 Choreography I. Three credits. Prerequisite: DANC 3100 or permission of instructor. Exploration of movement, technique sequences, and choreographic forms; basic elements of notation.

4110 Choreography II. Three credits. Prerequisites: DANC 3100 or 4100 or permission of instructor. Directed study of a choreographic
project. Exploration of choreographic techniques to develop an original group dance and the execution of plans for costumes, lighting, make-up, and sound.

4130 Dance for Theatre. Three credits. Prerequisite: Permission of instructor. Techniques of dance for musicals, comedies, operas, television, and stage and choreography for these forms.

4140 Internship in Dance. Three credits. Prerequisite: Approval of chair or dance faculty. Students assigned to work with professional dance companies or arts centers. Pass/Fail.

4200 Women in Twentieth and Twenty-First Century Dance. Three credits. Examines dance as a field whose content shaped the identity of women in the United States. Representation and objectification of women in dance as it evolved and changed throughout the twentieth century and into the twenty-first century.

4600 Theory and Practice I: The Body as the Instrument of Dance. Three credits. Theory and practice of teaching dance as it pertains to the dancer's instrument-the human body. Acquaints the dance student with dance education, nutrition, body therapies, environmental effects on the human body, and the emerging area of dance medicine while training for classical ballet and modern dance.

4610 Theory and Practice II: Pedagogy for Ballet and Modern Dance. Three credits. Prerequisites: 1000- and 2000-level course of ballet or modern dance. Theory and practice of teaching classical ballet and modern dance techniques based on sound anatomical and kinesiological principles.

4800 History of Dance. Three credits. A survey of dance from primitive to the present with an emphasis on the style and techniques of dance as it was performed.

4950 Directed Studies. Three credits. Prerequisites: Available only to students in Speech and Theatre who have completed 50 percent of their coursework in their major and have an overall GPA of 3.2 for their last 30 hours of study; permission of department required. Proposals must be submitted and approved by theatre and dance faculty the semester prior to the beginning of the semester of enrollment. Individualized intensive instruction for students to puruse research and creative activity in a specified area.

4990 Senior Seminar. Three credits. Prerequisite: Successful completion of 75 credit hours and permission of department. A capstone to the dance student's undergraduate career and preparation for transition to the professional world or graduate study. Includes lectures, workshops, professional guest speakers, and discussion sessions. Students will complete various paper-based projects, a capstone research project, resume, and portfolio construction.

## Developmental Studies

Note: All DSP 0700 courses are taught by Motlow State Community College faculty on the MTSU campus.
DSPW 0700 Basic Writing. Three credits. Prerequisite: Placement pretesting. Intensive practice in paragraph and sentence construction; intensive review of basics of spelling, grammar, and punctuation. Skills refined through individualized laboratory work.

DSPM 0700 Basic Mathematics. Three credits. Prerequisite: Placement pretesting. Intensive study of all mathematical operations with whole numbers, decimals and fractions, percent and equivalency, units of measure, word problems, geometry, graphs, elementary probability, and statistics.

DSPR 0700 Basic Reading. Three credits. Prerequisite: Placement pretesting. Intensive practice in identifying main ideas, sequencing, locating facts, using contextual clues, drawing conclusions, and making inferences.

## Economics [ECON]

## Economics (General)

2410 Principles of Economics, Macroeconomics. Three credits. As an aid to understanding modern economic society: economic concepts of national income and its fluctuations, inflation, unemployment, role of the banking system, monetary and fiscal policies, and international topics.

2420 Principles of Economics, Microeconomics. Three credits. As an aid to understanding modern economic society: economic concepts of consumer and firm behavior; the pricing of goods, services, and productive factors; international topics; and an overview of the American economy.

3210 The Financial System and the Economy. Three credits. Prerequisites: ECON 2410; junior standing. Basic introduction to the functions of financial institutions and markets in the conduct of domestic and international economic transactions. Within financial market context, focus on special role that money plays as an asset and a determinant of the price level, the cause of inflation and inflation's effects on interest rates and borrowing costs, and the influence of Federal Reserve actions (monetary policy) on money and interest rates.

3510 Intermediate Macroeconomic Theory. Three credits. Prerequisites: ECON 2410; junior standing. Analysis of national income, employment, and price levels. Monetary and fiscal policies; international economic relations.

3520 Intermediate Microeconomic Theory. Three credits. Prerequisites: ECON 2410 and 2420 . Second semester of microeconomic theory following ECON 2420. Topics include consumer choice, the labor supply model, the life cycle model, choice under uncertainty, production and supply, the cost of production, perfect competition, monopoly, monopolistic competition, oligopoly, game theory, and the human capital model.

3540 Japanese Economy and Business. Three credits. Prerequisites: ECON 2410; junior standing. The Japanese economy and its social, physical, and trade environment in comparison with those in other countries, particularly the United States. May be used for credit toward the Global Studies minor.

3970, 3980 Cooperative Education. Three credits. (Same as FIN 3970 and 3980.) Prerequisite: Junior standing. Cooperative Education experiences provide students with opportunities for on-the-job training in conjunction with on-campus academics. These courses do not satisfy major or minor requirements. Interested students should contact the Career Development Center. Students will be selected for participation, and opportunities may be limited.

4100 Law and Economics. Three credits. Prerequisite: ECON 2420; junior standing preferred. Applies microeconomic theory to the analysis of legal rules and institutions. Examines the economics tools lawyers and experts use in analyzing antitrust issues. Topics include intellectual property rights, measuring compensatory damages in liability cases, current legal issues such as tort reform, the role of economics in bargaining and settlement, and antitrust law topics such as mergers and price-fixing.

4260 Financial Markets and Institutions. Three credits. (Same as FIN 4260.) Prerequisites: ECON 3210 with a minimum grade of C
(2.0); FIN 3010 or 3000 . Examines the structure and functioning of our monetary-financial system. Emphasis on the institutional process of financial intermediation in the financial marketplace and the role that specific institutions and instruments play.

4440 International Economics. Three credits. Prerequisites: ECON 2410, 2420; junior standing. Differences between domestic trade and international trade, foundations of international trade, economic effects of free trade and restricted trade; mechanisms of international payments and structure of balance of payments; history and contemporary issues of trade policies and world monetary systems.

4470 Economic Development of the Third World. Three credits. Prerequisites: ECON 2410, 2420; junior standing. Conditions and problems of the less-developed countries; causes, processes, and consequences of economic development; introduction to basic growth models, development theories, and strategies for development. Economic as well as noneconomic factors studied.

4570 Managerial Economics. Three credits. Prerequisites: ECON 2420; MATH 1630 or 1810 or 1910; junior standing. Familiarity with time value of money, spreadsheet, and regression analysis helpful. Microeconomic theories in depth; emphasizes practical applications in economic decisions. Topics cover fundamental economic concepts, theory of demand, theory of production, theory of cost, optimization, forecasting, game strategy in oligopolistic rivalry, long-term investment, and regression analysis.

4600 Environmental and Natural Resource Economics. Three credits. Prerequisite: Junior standing preferred. Problems of environmental quality and natural resource scarcity from an economic perspective. Topics include interaction between the environment and the economy, benefits and costs of environmental regulation, use of incentives to achieve least-cost pollution control, international environmental issues such as global warming, the role of natural resources in the U.S. economy, problems associated with natural resource scarcity and depletion, and problems related to consumption of renewable resources.

4620 Econometrics and Forecasting. Three credits. Prerequisites: ECON 2410, 2420; MATH 1810 or 1910; junior standing. The application of statistical methods to economic problems; covers statistical inference, regression analysis in economics and finance, and an introduction to econometrics. Emphasis on applications to actual economic data and includes use of econometric software.

4650 Comparative Economic Systems. Three credits. Prerequisite: ECON 2410. Compares economic institutions and performance among nations; presents the historical and cultural context of economic evolution in selected nations; and examines the relationship between institutional arrangements and outcomes such as prosperity, liberty, and equality.

4660 History of Economic Thought. Three credits. Prerequisites: ECON 2410, 2420; junior standing. Background of modern economic thought; ancient economic thought; the main current of developing economic analysis through feudalism, mercantilism, and the physiocrats; Adam Smith and the classical economists; rebels and the neoclassical economists; twentieth-century contributions.

4700 Sports Economics. Three credits. Prerequisite: ECON 2410; junior standing preferred. Economic theories in the areas of public finance, labor markets, game theory, industrial organization, and price theory studied within the context of sports. Examines common misperceptions about sports-related statistical data and relates it to issues in the broader economy. Topics include benefits and costs of financing sports arenas, structure and competitiveness of sports leagues, antitrust exemptions, effects of title IX regulations,
labor bargaining and negotiations, wage and price determination. Explores issues in collegiate sports such as potential for crowding out other college programs (the prisoner's dilemma).

4890 Internship in Economics. One to three credits. Prerequisites: Junior standing and recommendation of advisor. Supervised work experience in cooperating business firms or governmental agencies together with specialized academic study relating to the work experience. Pass/Fail.

4990 Independent Study in Economics. One to three credits. Prerequisite: Junior standing. Problems for intensive study are chosen in joint consultation between student and instructor.

## Economics (Labor Relations)

4390 Employee Benefits. Three credits. (Same as FIN 4390.) Prerequisite: Junior standing. Includes descriptive review and taxation, legislative, and administrative dimensions of the major components of employee benefit plans such as retirement systems, deferred compensation plans, health insurance, death benefits, disability benefits, paid and unpaid time off. Technical analysis and problem solving emphasized to develop applied skills. Social insurance and international benefits integrated.

4420 Labor and Human Resource Economics. Three credits. Prerequisites: ECON 2410 or 2420; junior standing. Current issues and theories, returns to training and education (human capital), earnings differences; union impacts and government regulation of labor relations and labor markets; human resource information system modeling, including applied PC or mainframe data analysis and integration of Internet information sources.

4490 Industrial Relations Legislation. Three credits. (Same as BLAW 4490 and MGMT 4490.) Prerequisite: Junior standing. Economic background and effects of government regulation of labor relations; emphasis on a detailed examination of the National Labor Relations Act as amended or expanded by the Labor Management Relations Act, the Labor Management Reporting and Disclosures Act, and Title 7 of the Civil Rights Act.

4510 Unions and Collective Bargaining. Three credits. (Same as MGMT 4510.) Prerequisite: Junior standing. The collective bargaining process: its evolution in the public and private sectors and its contemporary legal environment; compensation, institutional and administrative issues; strikes and impasse resolution procedures.

## Economics (Public Finance)

3430 Public Finance. Three credits. (Same as FIN 3430.) Prerequisites: ECON 2410, 2420; junior standing. Economic foundations of federal tax and expenditure policies. Current issues in federal budget policy. Policy applications illustrating key concepts such as public goods, externalities, income distribution, tax incidence, tax equity, and allocative efficiency. Intergovernmental fiscal relations.

4310 Problems in Government Finance. Three credits. (Same as FIN 4310). Prerequisites: ECON 2410, 2420. Current issues in taxation, theory of income taxation, consumption taxes, property and wealth taxes. Advanced treatment of tax incidence, tax efficiency, income distribution, fiscal federalism, and state and local budget issues.

4400 Business and Government. Three credits. Prerequisites: ECON 2420; junior standing. The economics of public policy toward private business in the U.S. Many dimensions including economic theory, history, philosophical foundations of government, economic statistics, as well as applications of those disciplines to a wide variety of policy issues.

4500 Urban and Regional Economics. Three credits. Prerequisites: ECON 2410, 2420. Economic problems of urban communities, including problems resulting from population shifts to suburbia; urban planning; land utilization; revenue structures; urban renewal; transportation; problems of minority and poverty groups.

## Elementary Education [ELED]

1000 Pedagogy Seminar. One credit. Introduction to computer technology used in elementary school classrooms. Students practice the skills specified by the State of Tennessee 21st Century Classroom guidelines.

3050 Creating Learning Environments K-6. Three credits. Prerequisites: FOED 1110 and 2110 and SOAR experience. Design, instruction, and evaluation of an integrated reflective curriculum in the elementary grades. Classroom experiences provided.

3070 Creating Learning Environments 5-8. Three credits. Prerequisites: FOED 1110 and 2110 and SOAR experience. The design, instruction, and evaluation of an integrated middle school curriculum with particular attention to the effect of physical, social, and emotional needs of the middle school student as they relate to middle school instruction. Classroom experiences provided.

3150 Mathematics Methodology. Three credits. Prerequisites: Admission to teacher education program; ELED 3050 or 3070; MATH 1010 or 1710, 1410, and 1420. Offers preparation to pre-service elementary and middle school teachers for teaching mathematics.

3300 Instructional Design and Technology in the Elementary School. Three credits. Principles of instructional design with an emphasis on the integration and use of instructional technology to promote effective classroom instruction. Two hours lecture and two-hour lab.

3330 Instructional Design and Technology in the Middle Grades, 5-8. Three credits. Principles of instructional design with an emphasis on the integration and use of instructional technology to promote effective classroom instruction. Two hours lecture and two-hour lab.

4000 Methods and Materials in the Teaching of Writing. Three credits. An in-depth exploration of elementary students' efforts to become writers. Specific strategies, appropriate assignments, and instructional goals as well as basic writing skills, all based on recent research, presented.

4050 Classroom Assessment. Two credits. Prerequisites: Admission to teacher education program; Interdisciplinary Studies majors must also complete ELED 3050 or 3070. Purpose of assessment and the relationship among planning, instruction, and assessment. Interpreting test scores and how those interpretations should be used.

4060 Methods of Teaching Social Studies. Two credits. Prerequisites: Admission to teacher education program; Interdisciplinary Studies majors must also complete ELED 3050 and 3070. Familiarizes students with methods, techniques, and strategies for the teaching of social studies in grades $\mathrm{K}-8$.

4110 Directed Teaching, Grades K-8. Twelve credits. Full-day supervised teaching experience of 15 weeks duration in a public school classroom. Pass/Fail.

4260 Problems in Elementary Education. One to three credits. A prob-lem-oriented course, on or off campus, planned and designed for individuals, a school faculty, school system, or other professional
groups, which will provide opportunities for in-service education related to assessed needs. Credit toward an undergraduate degree will be limited to six semester hours.

4350 Theory to Practice. Three credits. Prerequisites: Admission to teacher education program; Interdisciplinary Studies majors must also complete ELED 3050; must have completed or be presently enrolled in all methods courses. Strategies and techniques for guiding the learning of elementary school children. Development and use of materials in elementary classrooms with emphasis on explanation and experimentation. Laboratory work and weekly seminar.

4400 Middle School Instruction. Three credits. Prerequisites: Admission to teacher education program; ELED 3070. Strategies to teach children in the upper elementary and middle grades. Practicum experiences required.

4510 The Teaching Internship, Grades 1-8. Nine credits. Supervised teaching available only to those with at least one year of paid teaching experience in the major in which endorsement is sought. Applicants must meet all prerequisites for student teaching.

## Electronic Media Communication [EMC]

1020 American Media and Social Institutions. Three credits. (Same as JOUR/RIM 1020.) The power of the mass media and its effect on social institutions and practices. Develops skills of qualitative and quantitative social science research in the area of mass communication processes; examines media as social, cultural, and economic institutions that shape the values of American society, its political dialogues, its social practices, and institutions.

2030 Visual Journalism Production. Three credits. Prerequisites: EMC/ JOUR 1020 and permission of department. Students shown how to gather information with words and pictures for the field of visual journalism by completing photojournalism assignments, producing images with still and video cameras, writing cutlines and voiceovers for images, producing images, using computer software to edit images and sound, and creating presentations for print and online media. Lecture/lab, three-six contact hours per week.

2410 Introduction to Electronic Media. Three credits. Organization, structure and function, historical development, and social aspects. Designed to give the major, as well as the nonmajor, a general working knowledge of electronic media.

2500 Survey of New Media Communication. Three credits. Developing systems and methods of new media message delivery. Explores cultural, social, ethical, historical, and legal challenges of new media.

3000 Introduction to Motion Pictures. Three credits. (Same as JOUR 3000.) Prerequisite: Upper-division standing. The development and role of motion pictures in America, including the history of films and filmmakers, the influence of film on American culture, and film criticism.

3020 Writing for the Electronic Media. Three credits. Prerequisite: Writing competency. Techniques of creating and writing for electronic media, including radio, television, and computer-generated programming for cable systems and studio production. Consideration of program design and technical limitations of media production for specific formats. Emphasis on readability of copy, writing style, time constraints, editing, and the integration of sound with graphic images or visual information.

3030 Electronic Media Advertising. Three credits. Prerequisite: EMC 2410. Principles, techniques, and methods of electronic media advertising including commercial story boards and copywriting.

3040 Electronic Graphics for Television. Three credits. Prerequisites: Admission to candidacy; EMC 3130. Two-dimensional computergenerated graphics for television. Emphasis on the aesthetics and techniques for operating systems for character and graphics generation. Develop skills in the successful compositing of these graphics with live action and videotape sequences. Lecture/lab, three-six contact hours per week.

3060 Writing for Digital Media. Three credits. Prerequisite: JOUR/EMC 1020. Fundamental principles of writing interactively for specific audiences. Encourages students to explore content development; looks at creation of meaning in the new media while providing skills in content.

3110 Radio Station Operations. Three credits. Prerequisites: EMC 2410; instructor approval. Theory and techniques of sound production, recording, microphones, taping, and board equipment. Analysis of creative efforts and responsibilities in writing, production, and direction. Laboratory required.

3120 Sight, Sound, and Motion. Three credits. Prerequisites: EMC 1020; writing competency; EMC 2410, 2500, or admission to RI candidacy. Production elements and technology of the electronic media industry. Creative conceptualizations; elements of composition, the production process included. Basic visual and aural technology demonstrated.

3130 Television Production. Three credits. Prerequisite: Admission to candidacy. Introduction to the techniques. Emphasis on the function and operation of the primary tools including video, audio, and lighting to develop the student's awareness and understanding of proper studio procedure. Laboratory required. Lecture/lab, threesix contact hours per week.

3140 Multi-Camera Directing and Producing. Three credits. Prerequisites: Admission to candidacy; EMC 3130. Focuses on the duties and responsibilities of the television studio director. Emphasis on actual production and directing of video material. Laboratory required. Lecture/lab, three-six contact hours per week.

3150 Single-Camera Directing and Producing. Three credits. Prerequisites: Admission to candidacy; EMC 3130. Techniques of video field production. On-location shooting of features and minidocumentaries; editing techniques, coverage, lighting, sound, and graphics. Lecture/lab, three-six contact hours per week.

3200 Still Digital Imaging. Three credits. (Same as PHOT 3200.) Prerequisites: Admission to candidacy; PHOT 2050 and instructor approval; must have some working knowledge of the Macintosh computer system. Computerization of traditional film images and use of digital cameras allows student to use different software programs to manipulate photographic images. Ethics and law discussed along with techniques and hands-on analysis of this new medium. Lecture/lab, three-six contact hours per week.

3210 New Media Video Production. Three credits. Prerequisite: EMC 2030, 3120, or 3200 . Digital video production for the Web, cell phones, and other new media venues. Explores transformations inherent in the digital domain and the associated social and cultural ramifications. Students will create digital productions that reflect these concepts. Laboratory required. Lecture/lab, three-six contact hours per week.

3300 Introduction to Digital Animation. Three credits. Prerequisites: Admission to candidacy; ART 1610 or 1620; CSCI 1150; or permission of instructor. Two- and three-dimensional computer data and animation. Emphasis on the aesthetics and techniques for building, lighting, assigning surface attributes, and rendering of three-dimensional models to be used in designing and producing three-dimensional computer-generated animations. Includes a broad survey of the process and techniques involved with creat-
ing electronic media quality three-dimensional animations and techniques and aesthetics incorporated into traditional methods of animations for contrast and comparison. Lecture/lab, three-six contact hours per week.

3310 Intermediate Digital Animation. Three credits. Prerequisites: Admission to candidacy; EMC 3300. Continuation of 3300 for the development of two- and three-dimensional computer data and animation. Further understanding of aesthetics and techniques for building, lighting, assigning surface attributes, and rendering of three-dimensional models, to be used in designing and producing three-dimensional computer-generated animations. Introduction to the creation and modification of customized lighting models and the development of customized surface and bump-mapped textures as well as the techniques involved in the compositing of live-action videotape, sound, and computer-generated images Lecture/lab, three-six contact hours per week.

3320 Introduction to Digital Compositing. Three credits. Prerequisites: ART 1610 and CSCl 1150. History, techniques, and applications of compositing in the areas of film, video, and multimedia production. Broad survey of process and techniques involved with creating composites. Techniques and aesthetics incorporated into traditional methods of compositing for contrast and comparison. Frequent review and discussion of current work from industry will occur in the form of videotape and DVD presentations. Lecture/ lab, three-six contact hours per week.

3410 Electronic Media News Writing. Three credits. Prerequisite: Admission to candidacy. Stresses reporting, writing, and presenting radio news. The history, philosophy, and regulation of electronic media news. Laboratory required. Lecture/lab, three-six contact hours per week.

3420 Corporate Video. Three credits. Prerequisite: EMC 3120 or permission of instructor. Focuses on the techniques and applications of television production for business communications and video publishing. Emphasis on writing, program design and objectives, planning and production of television materials. Laboratory required.Lecture/lab, three-six contact hours per week.

3460 Media and Messages. Three credits. Communication situations, communication needs analysis, and the application of media in solving communication problems. Involves theoretical and practical application of mass communication theories.

3499 Electronic Media News Videography and Editing. Three credits. Prerequisite: EMC 3410. Essential production techniques and applied technical skills necessary to arrange, shoot, edit, and produce a television news story in the field. All facets of electronic media news field production covered, including camera work, lighting, audio, and editing. Lecture/lab, three-six contact hours per week.

3500 Electronic Media News Reporting and Producing. Three credits. Prerequisites: Admission to candidacy; EMC 3410. Theory and practice in the gathering, editing, and writing of news for electronic media. Attention given to on-the-air presentation. Laboratory required.Lecture/lab, three-six contact hours per week.

3510 Mass Media and American Culture. Three credits. (Same as JOUR 3510.) Prerequisite: Upper-division standing. Development of American journalism and the mass media from Colonial times to the present, including the role and influence of mass media on American culture, technical advances, and contributions of individual personalities.

3570 Broadcast Announcing/Performance. Three credits. Prerequisite: Admission to candidacy. Responsibilities and skills required of the individual performer in the preparing, announcing, and narrating of various types of materials for television and radio. Lecture/lab, three-six contact hours per week.

3580 Broadcast Practicum. One to three credits. Prerequisites: Admission to candidacy; junior standing; permission of instructor. Practical experience in an on-campus mass communication setting within the College of Mass Communication. A minimum of 75 hours of work will be required for each hour of credit. Note: Total university credit for practicum and internship courses cannot exceed 6 credits.

3650 Free Expression, Mass Media, and the American Public. Three credits. (Same as JOUR/RIM 3650.) A general introduction to the issues surrounding free expression and its relationship to mass media in contemporary America. A comprehensive analysis of the history, philosophies, cases, and controls associated with freedom of expression.

3740 Advanced Electronic Media News Reporting and Producing. Three credits. Prerequisites: Admission to candidacy; EMC 3410 and 3500. Theory and practice of television journalism, including use of electronic news-gathering equipment, evaluating and processing news for broadcast, and delivery of television news. Laboratory required. Lecture/lab, three-six contact hours per week.

4000 Broadcast Internship. One to three credits. Prerequisites: Admission to candidacy; senior standing; permission of sequence internship coordinator or instructor. Practical experience for advanced students in a professional setting. A minimum of 15 hours of work per week plus other assignments will be required. Note: Total university credit for internship and practicum courses cannot exceed $\mathbf{6}$ credits. Pass/Fail. Can be repeated with different employer for one to three credits with permission of instructor.

4010 Electronic Media Sales. Three credits. Prerequisite: EMC 2410. Theories of marketing and selling the intangible products of the electronic media industries. The fundamentals of positioning, theory and use of ratings, and local, regional, and national buying and selling strategies presented.

4020 Advanced Scriptwriting. Three credits. Prerequisites: EMC 1020; writing competency; EMC 3020 or permission of instructor. Scriptwriting guidelines, character development, plot design, and creation of storylines for contemporary television genre programs. Writing of original scripts conforming to the genre taught required. Topics will vary by offering. May be repeated for up to 9 hours credit for different topics.

4060 Photojournalism. Three credits. (Same as PHOT 4060.) Prerequisites: Admission to candidacy; PHOT 3120 and 3810 or consent of instructor. Principles and practices of photography, including documentary, news and feature portraiture, photo stories and essays, and photo layout. Emphasis on newspaper assignments, participation in campus publications, portfolio editing and production, and internship preparation. Laboratory required. Lecture/lab, three-six contact hours per week.

4140 Electronic Media Programming. Three credits. Prerequisite: EMC 2410. Development of techniques, program organization, audience analysis, recording, and directing through projects. Provides practical conceptual knowledge of the problems and procedures followed in planning and producing programming.

4150 Advanced Television Production. Three credits. Prerequisite: EMC 3140. Preparation and development of scripted and unscripted television programming; principles and aesthetics of production and directing. Lecture/lab, three-six contact hours per week.

4210 Mass Communication and Society. Three credits. (Same as JOUR 4210.) Prerequisite: Junior standing. Theories of the process of mass communication, how media affect society, the evolution within a social and cultural context, ethical and social dimensions. Extensive reading in theory, history, and research.

4250 Mass Media Law. Three credits. (Same as JOUR 4250.) Prerequisites: EMC 1020; junior standing. Examination of legal guarantees and restrictions on the flow of information using the case study method. Focus on libel, privacy, obscenity, and the special restrictions placed on advertising, broadcasting, cable television, and the Internet.

4300 Advanced Digital Animation. Three credits. Prerequisites: Admission to candidacy; EMC 3310. Continuation of 3310 for the development of two- and three-dimensional computer data and animation. Further understanding of the aesthetics and techniques for visually communicating information for television journalism, advertising, and entertainment. Serves as a final classroom laboratory in preparation for the required internship and offers greater understanding of complete animation production and more complex methods for the integration of composited computergenerated images with live-action videotape and sound. Lecture/ lab, three-six contact hours per week.

4430 Electronic Media Management. Three credits. Prerequisite: EMC 2410. An analysis of the problems involved in operating an electronic media facility including personnel, internal control systems, business ethics, community relations, sales, and promotion. Involves case study method.

4460 Digital Communication Applications. Three to six credits. Prerequisite: EMC 3060 or permission of instructor. Solving communication problems through digital communication applications. Involves working with outside clients, forming media companies, and the production of mediated materials. May be repeated for a total of 6 credit hours. Lecture/lab, three-six contact hours per week.

4500 International Cinema. Three credits. Explores how culture and the contours of history influence filmmaking. Illustrates how foreign filmmakers both emulate and challenge mainstream U.S. fare.

4610 Visual Communication for the Print Media. Three credits. Increases visual literacy; provides knowledge of our visual heritage, seeks to enrich the judgment of those responsible for making decisions about the use and display of photographs for publication. Also includes photographic processes and handling of pictures for publication among particular audiences.

4660 Mass Media Research. Three credits. (Same as JOUR 4660.) Prerequisites: Admission to candidacy; junior standing. Overview of contemporary research methods, analysis, and evaluation of current research, and design and execution of a study. Emphasis on public opinion and media research.

4790 Global News and World Media Cultures. Three credits. (Same as JOUR 4790.) Prerequisite: Junior standing. Systems and philosophies associated with gathering international news and news coverage in different regions. Looks at global communication systems and ownership; examines how cultures shape news and the role of the individual in reporting news internationally. Includes discussion of development issues and role of global advertising and public relations.

4800 Seminar in Media Issues. Three credits. (Same as JOUR 4800.) Prerequisite: Junior standing. Examination and critical evaluation of issues relevant to the operation and functions of mass media including their relationships to each other and to government, advertisers, consumers, and other "publics." Can repeat for 6 hours with different topic.

4810 Global Comparative Media Systems. Three credits. (Same as JOUR 4810.) Prerequisites: JOUR/EMC 4790 or permission of instructor and junior standing. A close comparative study of chosen media systems in regions of the world. Examines print, broadcast, entertainment, and new media in Western and Eastern Europe,

Asia and the Pacific Rim Region, the Middle East, Africa, and the Americas. Media interactions with an influence on the geographic, demographic, linguistic, cultural, economic, and political structures of countries.

4850 Ethics and Mass Communication. Three credits. (Same as JOUR 4850.) Prerequisite: Junior standing. Examination of ethical concerns of media practitioners, illuminated by study of selected current ethical issues and an overview of the cultural and philosophical bases of a socially responsive mass media.

4900 Individual Problems in Mass Communication. One to three credits. (Same as JOUR 4900.) Prerequisite: Admission to candidacy. Provides opportunities for individually designed problems, work experiences, or research projects related to the development of professional competencies in a major field of study. Requires approval of instructor.

4910 Advanced Seminar - Digital Imaging. Three credits. Prerequisites: Admission to candidacy; permission of department only. Practical experience in the conceptualization, pre-production preparation, and production of digital imaging materials. Integration of theory and skills from other EMC/RIM courses. Advanced compositing techniques, particle generation, and advanced modeling techniques are probable topics. Topics will vary by semester offering. Can be repeated with different topic. Lecture/lab, three-six contact hours per week.

4920 Advanced Seminar - Electronic Media Journalism. Three credits. Prerequisites: Admission to candidacy; permission of department only. Practical experience in the conceptualization, preparation, and production of a specific news program format. Integration of theory and skills from other EMC/RIM courses. Documentary, political analysis, sports, and newscasting are probable topics. Topics will vary by semester offering. Can be repeated with different topic. Lecture/lab, three-six contact hours per week.

4930 Advanced Seminar - Electronic Media Management. Three credits. Prerequisites: Admission to candidacy; permission of department only. Practical experience in the conceptualization, preparation, and management of a specific program format. Integration of theory and skills from other EMC/RIM courses. Programming, station operations, and sales are probable topics. Topics will vary by semester offering. Can be repeated with different topic. Lecture/lab, three-six contact hours per week.

4940 Advanced Seminar - Electronic Media Production. Three credits. Prerequisites: Admission to candidacy; permission of department only. Practical experience in the conceptualization, pre-production preparation, and production of a specific program format. Integration of theory and skills from other EMC/RIM courses. Sports, music, drama, and editing are probable topics. Topics will vary by semester offering. Can be repeated for 6 hours with different topic. Lecture/lab, three-six contact hours per week.

## Engineering Technology [ET]

1210 Introduction to Metals and Metallurgy. Three credits. Origin and behavior of metals. Extractive metallurgy -reduction of metallic ores, production of stock shapes, identification and selection of ferrous and nonferrous metals. Physical metallurgy-mechanical and physical properties, crystalline structure, phase diagrams, hardening and tempering, isothermal diagrams, metallurgy of welds, service problems, casting processes. Exercises in the use of basic welding, foundry, and metallurgical testing equipment. Two hours lecture and three hours laboratory.

1310 Basic Technical Drawing and Sketching. Two credits. Not open to students who take CMT 1300. Technical drawing and sketching theory and practice including orthographic projection, drafting
conventions, lettering, descriptive geometry, sections, auxiliary views, and size descriptions employing mechanical drawing and sketching activities. Recommended for students with less than one unit of high school drawing. DOES NOT SATISFY REQUIREMENTS FOR MAJOR. Two hours lecture and four hours laboratory.

1840 Engineering Fundamentals. Three credits. Broad introduction to basic laws of fluid mechanics, thermodynamics, materials science, and electricity, including topics on power production by conventional and developmental techniques and introduction to computer-aided problem solving. Employment in the engineering fields addressed.

2310 Computer-Assisted Drafting/Design I. Three credits. Prerequisite: ET 1310 or one year of high school drafting. Technical drafting concepts utilizing personal computers, plotters, and appropriate CAD software. Two hours lecture and three hours laboratory.

2920 Industrial Orientation Internship. One to three credits. Prerequisite: Consent of the instructor. Provides industrial exposure for students with little or no industrial work experience. Students will be placed in an acceptable company for introductory industrial experiences. Arrangement for this course must be made in advance. Pass/Fail.

2930 Cooperative Education Experience I. Three credits. Prerequisite: Permission of department. Provides students with opportunity for on-the-job training in conjunction with on-campus academic experiences. Students will participate in professional growth seminars. Pass/Fail.

2940 Cooperative Education Experience II. Three credits. Prerequisite: ET 2930; permission of department. Continuation of ET 2930. Pass/Fail.

3210 Machine Tool Technology. Three credits. Prerequisite: ET 1310 or ET 2310. Metals, their sources, manufacture, and properties; basic metalworking hand tools, measurements; layout; drawing and safety. Exercises in the use of the basic machine tools in machine shop work. Lecture and laboratory. Two hours lecture and three hours laboratory.

3220 Advanced Metalwork. Three credits. Techniques, equipment and procedures, advantages and disadvantages of current metal-casting processes used in industry. Laboratory exercises in sand molding and casting, the full mold process, investment casting, and permanent mold casting including pattern design and construction, mold making, metal melting and handling. Guest lecturer(s). Plant tour(s). Two hours lecture and three hours laboratory.

3260 Manufacturing Processes and Materials. Three credits. An analysis of machines, tools, processes, and materials used in production.

3360 Computer-Assisted Drafting/Design II. Three credits. Prerequisite: CMT 3320 or ET 2310 . Utilizes PC and CAD software to develop skills in the creation and analysis of mechanical solid models for design and production purposes. Includes the use of shading and rendering to enhance three-dimensional model display and the extraction of two-dimensional engineering drawings. Two hours lecture and three hours laboratory.

3601 Electrical Circuit Analysis I. Three credits. Prerequisite: ET 1840. Corequisite: MATH 1910. Fundamentals of electrical circuits. Addresses basic circuit components and quantities. Emphasis on DC circuit calculations and theorems. Uses lab equipment to build and test DC circuits. Two hours lecture and three hours laboratory.

3602 Electrical Circuit Analysis II. Three credits. Prerequisite: ET 3601 and MATH 1910. Addresses basic circuit components and quanti-
ties of AC circuits. Introduces three-phase circuits and transformers. Emphasis on AC circuit calculations and theorems. Uses lab equipment to build and test AC circuits. Two hours lecture and three hours laboratory.

3610 Introduction to Electricity and Electronics. Four credits. Prerequisite: MATH 1710 or 1730 . Orientation to direct current, alternating current, magnetism, filters, and semiconductor devices. Rectifier-filters and basic transistor amplifiers are also examined as representative electronic circuits. Use of meters, oscilloscopes, and other test instruments are stressed in the laboratory. Three hours lecture and three hours laboratory.

3615 Principles of Electricity. Three credits. Prerequisite: MATH 1710 or 1730. An overview of basic electrical circuits and systems, direct current circuits, alternating current circuits, and electrical devices and control schemes. Electrical motors, relays, solenoids, transformers, and power supplies examined. National Electric Code also examined. For students enrolled in Construction Management or Concrete Industry Management. Laboratory exercises stress the use of test instruments and the construction of basic electrical circuits. Two hours lecture and three hours laboratory.

3620 Digital Circuits Fundamentals. Three credits. Prerequisite: ET 3601 or permission of instructor. Provides thorough coverage of basic digital electronic circuits analysis and design. TTL and CMOS families examined. Number systems, mapping, and minimization techniques covered. Digital design using random logic and programmable logic devices (FPGAs and CPLDs). Two hours lecture and three hours laboratory.

3630 Electronics. Three credits. Prerequisite: ET 3602 or permission of instructor. Introduction to analog electronics. Defines basic parameters and theory of operation of discrete semiconductor devices. Introduces fundamentals of electronic circuits analysis and design. Applications illustrate use and laboratory projects provide hands-on experience. Two hours lecture and three hours laboratory.

3640 Digital Circuits Design. Three credits. Prerequisite: ET 3620; corequisite: ET 3630 or permission of instructor. In-depth study of sequential circuit analysis and design that includes sate machine design. Emphasis on the use of available development boards using both FPGAs and CPLDs and their respective CAD tools. PLDs programmed using latest relative CAD systems. Two hours lecture and three hours laboratory.

3650 Introduction to Microprocessors. Three credits. Prerequisites: CSCI 1170 and ET 3620. Covers architecture of microcontrollers and microprocessor-based systems and their related components. Machine language programming extensively used to solve problems and demonstrate the relationship of the microprocessor and its supporting peripherals. Basic microcomputer architecture also emphasized. Two hours lecture and three hours laboratory.

3660 Communication Electronics. Three credits. Prerequisite: ET 3630 or permission of instructor. Theory of electronic circuits as applied to communication; special electronics circuits required in communications systems. Testing theory and procedures. Various methods of electronic communications. Testing and evaluation of electronic circuits. Two hours lecture and three hours laboratory.

3670 Computer-Assisted Printed Circuit Board Design. Two credits. Prerequisites: ET 3620 and 3630 or permission of instructor. Utilizes computer software to develop skills in creating schematic and printed circuit board artwork for use in printed circuit board production. Includes plotting, printing, and generating all necessary documents required for fabrication. One hour lecture and three hours laboratory.

3810 Engineering Thermodynamics. Three credits. Prerequisites: PHYS 2010/2111 or 2110/2111; MATH 1910. Basic concepts of engineering thermodynamics, properties and thermodynamic states, work, heat, first law, second law, entropy, ideal gases, and analysis of conventional power and refrigeration systems.

3830 Statics. Three credits. Corequisites: MATH 1910 and PHYS 2010/2011. Fundamental concepts and conditions of static equilibrium; their application to systems of forces and couples acting on rigid bodies; and the calculation of centers of gravity, centroids, and moments of inertia.

3840 Dynamics. Three credits. Prerequisite: ET 3830. Rectilinear curvilinear, and rotary motion of rigid objects both with and without consideration of the unbalanced force causing the motion. Application of the principles of work, energy, impulse, and momentum to the solution of engineering problems.

3860 Strength of Materials. Three credits. Prerequisite: ET 3830. The mechanics of materials emphasizing the analysis and design of statically determinate beams, columns, and structural members in torsion and application of the three moment equation to statically indeterminate beams.

3910 Introduction to Operations Management. Three credits. Prerequisite: Junior standing or permission of instructor. A foundation course in manufacturing and service operations management. Problem-solving applications emphasized.

3920 Industrial Internship I. Three credits. Prerequisite: Consent of instructor. Student is employed by an acceptable industry for industrial experience. Credit given for actual work with employer. Arrangement for this course must be made in advance. Pass/Fail.

3930 Industrial Internship II. Three credits. Prerequisite: ET 3920. A continuation of Internship I. Same stipulations apply. Pass/Fail.

3950 Metrology. Three credits. Overview of methods and procedures of precision measuring and gauging as used in inspection and quality control by industry. Two hours lecture and three hours laboratory.

3960 Industrial Quality Technology. Three credits. Prerequisite: Junior standing or consent of instructor. Covers breadth and some depth in quality technology. Explores history of quality, present techniques, and future predictions. Covers six-sigma methodology at the "greenbelt" level. Certification after industry project. Lecture.

3970 Cooperative Education Experience III. Three credits. Prerequisite: ET 2940; permission of department. Continuation of ET 2940. Pass/Fail.

3980 Cooperative Education Experience IV. Three credits. Prerequisite: ET 3970; permission of department. Continuation of ET 3970. Pass/Fail.

4230 Advanced Machine Tool Technology. Three credits. Prerequisite: ET 3210. Taper turning, boring and thread chasing, and calculations of screw threads and other operations. Gear terminology and calculations; practice gear cutting on the milling machine; use of index head. Two hours lecture and three hours laboratory.

4280 Computer-Aided Manufacturing: Numerical Control (NC). Three credits. Prerequisites: ET 2310 and 3210 or consent of instructor. The role of NC in today's manufacturing environment; machines and machine control systems of a typical installation. Justifying NC equipment. Emphasis on writing and debugging programs for a three-axis milling machine and a two-axis turning machine utilizing both computer numerical control and computeraided part programming. For those with little experience or seeking to broaden their knowledge. Two hours lecture and three hours laboratory.

4330 Advanced Computer-Aided Drafting. Two credits. Prerequisite: ET 3360 or permission of instructor. Topics include customizing menus, 3 -D concepts and surface modeling, AutoLisp, rendering, and slide shows. Interactive computer drafting and design using advanced AutoCAD software and add-ons. Primarily for students who want to increase their capabilities using CAD. One hour lecture and three hours laboratory.

4340 Design of Machine Elements. Three credits. Prerequisite: ET 3860. Analytical design methods. Stress analysis, working stress, combined stresses, failure theories, fatigue failure. Design techniques for shafts, fasteners, gears, bearings, and belt and chain drives. Includes a design project.

4420 Industrial Safety. Three credits. Safety and health in the manufacturing, construction, and utilities industries, including pertinent laws, codes, regulations, standards, and product liability considerations. Organizational and administrative principles and practices for safety management and safety engineering, accident investigation, safety education, and safety enforcement.

4440 Fire Safety. Three credits. Fundamental methods of fire protection, prevention, and suppression. Includes characteristics and behavior of fire, fire hazards of materials and buildings, codes and standards for fire prevention and protection, fire protection equipment and systems, and fire fighting forces and how they operate.

4450 Industrial Hygiene. Three credits. Corequisite: ET 4420 or permission of instructor. An introduction to industrial or occupational hygiene-that science and art devoted to the anticipation, recognition, evaluation, and control of those environmental factors or stresses, arising in or from the workplace, which may cause sickness, impaired health and well-being, or significant discomfort and inefficiency among workers or citizens of the community.

4490 Topics in Industrial Technology. One to six credits. Subject topics offered as required to meet the needs of the class.

4590 Manufacturing Automation Systems. Three credits. Prerequisite: Junior status or consent of instructor. Technical, human, and business aspects of modern automation system. Includes automation controls, levels of control and major components/subsystems, object-based software components, intelligent actuators and sensors, emerging trends, flexible manufacturing systems (FMS), computer integrated manufacturing (CIM), industrial systems and supply chain applications, organizational approaches, and automation justification.

4600 Programmable Logic Controllers. Two credits. Prerequisite: ET 3602 or permission of instructor. Introduction to programmable logic controllers (PLCs). Selection, operation, and troubleshooting. Ladder diagrams and programming of PLC emphasized. One hour lecture and three hours laboratory.

4610 Instrumentation and Controls. Three credits. Prerequisites: ET 3620 and 3630. Devices and techniques used in the measurement of physical parameters. Consideration of accuracies and sources of error, identification of typical measurements, sensors and transducers, control stability and response. Two hours lecture and three hours laboratory.

4630 Local Area Networks. Three credits. Provides the necessary foundation experience to understand the design, implementation, and management strategies of local and wide area networks (LAN/ WAN). Data Communication Standards and protocol, fundamentals included. Will include lecture, laboratory activities, and a LAN design requirement. Two hours lecture and three hours laboratory.

4640 Industrial Electricity. Three credits. Prerequisite: ET 3602 or permission of instructor. AC power theory and circuits for industrial
applications, polyphase systems, power factor correction, and transformers. Theory, applications, and selection of motors and generators. Industrial motor control and power transmission. Two hours lecture and three hours laboratory.

4660 Microprocessor Interfacing. Three credits. Prerequisites: ET 3640 and 3650 or permission of instructor. Emphasis on interfacing various analog and digital devices to a microcontroller/ microprocessor-based system: memory expansion, A/D and D/A, display devices, keyboards and keypads, electromechanical devices, and sensors. PLDs (FPGAs/CPLDs) interfaced to facilitate rapid prototyping of digital system design. Two hours lecture and three hours laboratory.

4670 Microprocessor Design. Three credits. Prerequisite: ET 4660 or permission of instructor. Advanced microprocessor system design. Emphasis on the design of core CPUs and imbedded components using high-density FPGA/CPLD development boards. Industrial applications of microprocessor-based systems. Two hours lecture and three hours laboratory.

4700 Transform Circuit Analysis. Three credits. Prerequisites: ET 3602 and MATH 1920 or permission of the instructor. Advanced network analysis stressing network theorems and solutions of time and frequency-domain problems with the use of Laplace Transforms.

4701 Industrial Topics. One to six credits. Problems in any one of a variety of areas to meet the needs of the class.

4710 Professional Development Seminar. One credit. Prerequisite: Junior status. Orientation to industrial job opportunities, placement practices, interview techniques, and preparation of application materials (resume, cover letter, and portfolio if warranted). Guest lecturers, films, and student and faculty presentations arranged in seminar fashion. One-hour lecture weekly.

4790 Advanced Problems in Technology. Three credits. Prerequisite: Completion of all courses in a given area or approval of instructor. For the advanced student who wishes to work on a designated problem in a specific area. Works on an individual problem or project independently under the guidance of an instructor.

4801- Senior Problem in Engineering Technology. One to three cred4804 its. All required freshman-, sophomore-, and junior-level courses in all disciplines have to be completed before registering for this course. Engineering situations are solved by experimental means. Student must have experimental approach, gather data, interpret results, and prepare a formal technical written and oral report.
4801 Computer Engineering Technology. Prerequisites: ET 4670; CSCI 3160.
4802 Electro/Mechanical Engineering Technology. Prerequisites: ET 3650, 3860, 4610, and 4860.
4803 Mechanical Engineering Technology. Prerequisites: ET 3860, 4340, and 4815.
4804 Design Engineering Technology. Prerequisites: ET 3840, 3860, and 4340.

4815 Heating, Ventilation, and Air Conditioning. Three credits. Prerequisite: ET 3810 or permission of instructor. Design and operation of heat and mass transfer systems which produce the needed environments for manufacturing operations, industrial processes, and human comfort. Systems that use mechanical equipment such as pumps, blowers, fans, compressors, and heat exchanges found in fields such as air conditioning, low temperature metallurgy, food preservation, chemical processing, and industrial manufacturing covered. Two hours lecture and three hours laboratory.

4830 Vibration. Three credits. Prerequisite: ET 3840. Provides a broadbased background in vibration analysis and introduces present practices. Topics include free, damped, and forced vibrations with
one degree of freedom; vibration isolation; free vibration with two degrees of freedom; and introduction to matrix formulation. Two hours lecture and three hours laboratory.

4850 Fluid Power. Three credits. Prerequisites: ET 1840, 3810. Systems and the basic components that make up these systems, including hydraulic, pneumatic, and fluidic. Emphasis on understanding the language and graphic symbols associated with fluid power, the performance characteristics of system components, and problem solving. Two hours lecture and three hours laboratory.

4860 Robotics. Three credits. Prerequisites: ET 4850; MATH 1910; CSCI (3 hours). Fundamentals of robots. Types of robots, types of controls, the prime movers, the application of robots in the industrial environment, and problem solving. Two hours lecture and three hours laboratory.

4900 Productivity Strategies. Three credits. Prerequisite: ET 3910 or equivalent. Analysis, design, and implementation of productivity strategies and productivity improvement programs for a wide variety of organizations. Touches a spectrum of disciplines such as work design, quality, design engineering, and employee involvement. Includes lean manufacturing with certification available after successful industry project.

4915 Technical Project Management and Soft Skills. Three credits. Senior standing or permission of instructor. Project management as sanctioned by the International Project Management Institute and how to assess and boost emotional intelligence or soft skills. Student successfully completing course will earn 20 Professional Development Units (PDUs) issued by the International Project Management Institute.

4920 Plant Layout and Materials Handling. Three credits. Prerequisites: ET 2310 and 3910. An overview of facility planning including equipment selection, work flow analysis, activity relationship analysis, and plant layout for product, process, and JIT requirements. Teams assigned actual projects in industry. CAD layout presentations to industry management required.

4970 Engineering Economy. Three credits. Prerequisite: Junior standing or permission of instructor. Development of capital budgets. Justification of capital projects using time value of money concepts. Replacement analysis. Review of justification of actual capital projects and computer applications.

4990 Industrial Engineering Systems. Three credits. Prerequisite: ET 3910. System design of work tasks including establishing time standards by time and motion study and work sampling; ergonomic design for integration of the human into the work task environment. Scientific methods supplemented by quality considerations with emphasis on statistical quality control (SQC). Computer software used for design and analysis.

## English [ENGL]

## General Studies English Courses

1008 Writing for English as Second Language (ESL) Students. Four credits. Open only to students whose native language is not English. Prerequisite to ENGL 1010 for ESL students who do not perform satisfactorily on diagnostic test given by the department. Introduces the international student to the process of English composition. Three lecture hours and two one-half hour lab sessions. Does not fulfill General Education English requirement.

1009 Introduction to University Writing. Three credits. An introduction to the practices of university writing. Required for students whose ACT English scores are 15-18 or whose writing assessment indi-
cates placement. Emphasis on developing rhetorical knowledge; critical thinking, reading, and writing skills; understanding of the processes of writing; and knowledge of conventions. Does not fulfill General Education English requirements.

1010 Expository Writing. Three credits. The first General Education English course. Emphasis on learning to adapt composing processes to a variety of expository and analytic writing assignments. Minimum grade of C - required for credit.

1020 Research and Argumentative Writing. Three credits. Prerequisite: ENGL 1010. The second General Education English course. Emphasis on analytic and argumentative writing and on locating, organizing, and using library resource materials in the writing. Minimum grade of C - required for credit.
2020 Themes in Literature and Culture. Three credits. Prerequisites: ENGL 1010 and 1020. Traces a specific theme or idea through a number of literary texts that reflect different historical and cultural contexts. Subject will vary.

2030 The Experience of Literature. Three credits. Prerequisites: ENGL 1010 and 1020. The reading of a variety of literary types which illuminate themes and experiences common to human existence.

2550 Introduction to Peer Tutoring in Writing: Theory and Methods. Three credits. Prerequisite: B or better in ENGL 1020 or permission of the instructor. Techniques of tutoring with a variety of writers and genres and the theoretical and practical components of writing center work with a focus on how collaboration, composition, and learning theories and methods can be applied to tutoring in college as well as high school and middle school settings.

## English Upper-Division Course Offerings

Prerequisites: Completion of 1000- and 2000-level English requirements with a grade of C - or better.

3000 Introduction to Literary Studies. Three credits. An introduction to the study of literature. Focus on strategies for sophisticated reading, literary genres, literary criticism and research. Required for English majors and minors.

3010 British Literature I. Three credits. Prerequisite: ENGL 3000 with a grade of C- or better. Survey of British literature from the Anglo-Saxon period through the seventeenth century. Emphasis on literary periods and genres; major writers, schools, and movements; and on literary analysis of significant works. Required for English majors.

3020 British Literature II. Three credits. Prerequisite: ENGL 3000 with a grade of C- or better. Survey of British literature in the eighteenth, nineteenth, and twentieth centuries. Emphasis on literary periods and genres; major writers, schools, and movements; and on literary analysis of significant works. Required for English majors.

3030 Introduction to American Literature. Three credits. Prerequisite: ENGL 3000 with a grade of C- or better. Open only to majors. Examines from the beginning to the present America's literary history, themes, and genres with additional focus on critical approaches and research. Required for English majors.

3110 English Literature: The Medieval Period. Three credits. A reading of selected works from Old English literature, especially Beowulf, and Middle English literature, with emphasis on Sir Gawain and the Green Knight and Malory's Le Morte d'Arthur and medieval drama.

3120 English Literature: The Sixteenth Century. Three credits. Readings in the major authors (More, Sidney, Spenser, Shakespeare,

Jonson, Donne) and genres (prose fiction, romance, epic, sonnet, lyric). Effects of cultural, political, and religious influences on the literature.

3130 English Literature: The Seventeenth Century. Readings in the major authors (Bacon, Jonson, Donne, Herbert, Herrick, Marvell, Crashaw, Vaughan, Milton) and genres (essay, epic, lyric, sermon). Effects of cultural, political, and religious influences on the literature.

3135 Introduction to Shakespeare. Three credits. Focuses on Shakespeare's major plays which will be considered both as products of their author's time and as enduring cultural artifacts. Special attention will be given to Shakespeare's development as a dramatist and to his depiction of character, theme, and imagery.

3160 English Drama: 1475-1642 (excluding Shakespeare). Three credits. Plays written by Shakespeare's predecessors, contemporaries, and immediate successors.

3210 English Literature: Restoration and Eighteenth Century. Three credits. English literature 1660-1800 emphasizing writings which reflect or influenced historical and literary developments.

3220 English Literature: 1790-1850 Three credits. A definition of English Romanticism and a study of works-mainly poems-by Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.

3230 English Literature: The Victorian Period. Three credits. The literature of England, 1830-1900. Emphasis on poetry and the novel.

3300 Native American Literature. Three credits. Introduces oral and written literature of native America in its cultural, historical, and aesthetic contexts, with special emphasis on fiction, poetry, and autobiography.

3305 Early American Literature. Three credits. A survey of American literature from the first European encounters with the New World to the beginning of the nineteenth century.

3310 Nineteenth-Century American Literature. Three credits. Survey of American literature from Washington Irving to Henry James. Concentration on Romanticism, Realism, Naturalism, Pragmatism. Selected novels.

3320 Twentieth-Century American Literature. Three credits. Survey of American literature from Theodore Dreiser to the present. Concentration on major authors. Selected novels.

3330 Southern Literature. Three credits. Early and modern Southern writers. Emphasis on the period 1920-present.

3340 African American Literature. Three credits. Defines and traces the development and transformations of the African American literary tradition. Emphasis on analysis of historical, literary, philosophical, and cultural contexts.

3350 The American Short Story in Context. Three credits. Traces development of the short story from Poe and Irving to the experimental writers of the 1970s. Intensive reading of American writers with some exposure to British and continental authors. Critical essays on short story form.

3360 Multicultural Literature of the United States. Three credits. Writers, genres, and criticism in Native American, African American, Hispanic American, and Asian American literatures.

3365 Hispanic Writers in American Literature. Three credits. (Same as HUM 3365.) Acquaints students with the literary works of

Hispanic Americans writing in English. Emphasis on analysis of the intersection of cultures and traditions and the formation of Hispanic American identity.

3370 Modern American Poetry. Three credits. A survey of the lives, times, and works of the major American poets since 1860: Whitman, Dickinson, Frost, Stevens, Williams, Pound, Moore, Eliot, Crane, Hughes, Bishop, Lowell, Plath.

3400 European Literature to 1400 . Three credits. Selections from Greek and Roman literature and Dante; emphasis on epic, drama, mythology; comparison of values commended by our literary ancestors.

3410 Classical Mythology. Three credits. Survey of the major myths and legends of the classical world with an emphasis on Greek mythology.

3420 European Literature: 1400-1800. Three credits. Survey of continental literature (in translation) of the Renaissance, Neoclassical, and Enlightenment periods. Emphasis on Rabelais, Cervantes, Moliere, and Voltaire.

3430 Modern European Literature. Three credits. Survey of continental literature (in translation) from 1800 to the present, including Goethe, Flaubert, Tolstoy, Ibsen, and Mann.

3440 The Bible as Literature. Three credits. Origin and nature of the Bible; cultural and historical backgrounds, influence on English language and literature; history of texts and canon; major religious and philosophical concepts and literary features.

3450 Studies in Narrative. Three credits. Examines the chronological and/or thematic development of at least two different types of narrative, representing at least two different continents.

3470 Satire. Three credits. The theory and practice of satire in a broad cultural and historical context. Different instructors will emphasize different periods or traditions.

3480 The Comic Tradition. Three credits. The various forms of comic literary art as manifested in fiction, drama, and poetry and in folk humor and rituals.

3570 Introduction to Linguistics. Three credits. Anatomy of sound production, levels of structure in language: phonological (sound), morphological (meaningful segments), syntactic (interrelation of words in a sentence). Various meanings of language.

3580 Teaching Internship. One credit. Prerequisite: Admission to teacher education and permission of internship director. Students, under supervision of English Department faculty members and partnering teachers in community schools, serve as interns in secondary school classrooms. May not be used to satisfy English minor requirements. May not be repeated for major credit. Pass/ Fail.

3605 Applied Writing. Three credits. Develops reading and writing strategies for examining individual writing processes and solving writing problems posed in university studies across the disciplines: essays, reports, reviews, analyses, memos, proposals.

3620 Professional Writing. Three credits. Prerequisite: Completion of ENGL 1020 or 3605 with a B or better. A specialized composition course for students planning to enter the professional workplace, including industry, science, and government. Collaborative practice in the discourse and conventions of professional and technical writing: employment packages, memoranda, instructions, proposals, and reports.

3645 Fiction Writing. Three credits. Prerequisite: Permission of instructor. A specialized seminar in which students study and create works of fiction.

3655 Poetry Writing. Three credits. Prerequisite: Permission of instructor. A specialized seminar in which students study and create poetry.

3665 Playwriting. Three credits. Prerequisite: Permission of instructor. A specialized writing course focusing on the appreciation and realization of the dramatic form.

3690 Individualized Writing Project. One credit. Prerequisite: Permission of instructor. A small-group writing tutorial which allows work on a major writing project from any major or field of interest. Does not count for the English major or minor without advisor approval. Pass/Fail depending on attendance, participation, and progress. May be repeated twice for a total of three (3) credits.

3720 Early Women Writers. Three credits. An introduction to British/ American/world literature by women through the eighteenth century.

3725 Nineteenth-Century Women Writers. Three credits. Examines works by British and American writers in the context of a female literary tradition. Writers studied may include Jane Austen, Mary Shelley, Emily Brontë, Charlotte Brontë, George Eliot, Christina Rossetti, Elizabeth Barrett Browning, and Emily Dickinson.

3730 Twentieth-Century Women Writers. Three credits. Literature of major women writers of the period. Divided by genre and primarily includes the fiction, poetry, and drama of British and American women.

3735 Black Women as Writers. Three credits. A survey of black women's literary expressions and the historical and sociocultural factors that shape these women's artistic sensibilities and thematic concerns. Emphasis will be given to U.S. women writers.

3740 Children's Literature. Three credits. A survey of literature for children based on wide reading in the field.

3745 Literature for Adolescents. Three credits. Surveys literature for adolescents, historical and contemporary; analysis of contemporary issues in the field. Required for English majors seeking teacher licensure.

3755 Children's Literature: Folk/Fairy Tales, Legends, Myths, Ancient Stories. Three credits. Introduces folk/fairy tales, myths, epics, legends, and verse from a variety of languages, cultures, ethnic groups, and historical periods.

3760 Introduction to Folklore. Three credits. Traditional lore and culture (literature, ballads, beliefs, materials) with primary attention to the American scene.

3810 British Popular Culture. Three credits. A cultural survey of Great Britain since 1945, including history, music, film, and literature.

3815 Survey of Popular Culture. Three credits. An overview of literature and media reflecting the mass culture of America from 1900 to the present: westerns, mysteries, science fiction, popular music, film, and television.

3840 Science Fiction. Three credits. The science fiction genre, emphasizing significant themes, recurrent images and conventions, and historical and cultural context.

3850 Literature and Film. Three credits. The relationship between literature and film with emphasis on narration, characterization, point of view, and setting.

3860 Film Genre. Three credits. One or more groups of films linked through narrative, stylistic, and/or thematic characteristics.

3870 Film History. Three credits. History of world film from its inception through the 1990s.

3880 Women and Film. Three credits. Representations of women in classic and contemporary films and of the work of contemporary women directors.

3885 Gender in Film. Three credits. Gender representation in film with emphasis on such subjects as masculinity and femininity in film, history of gender representation in film, drag and transgender film images, and images of diversity in gendered film images (e.g., race, class, ethnicity, nationality, sexual orientation).

4110 Chaucer: The Canterbury Tales. Three credits. An intensive study of The Canterbury Tales and the background out of which they were written.

4130 Shakespeare: The Sixteenth-Century Plays. Three credits. Focuses on the first half of Shakespeare's career. Works considered both as products of their author's time and as enduring cultural artifacts. Special attention given to Shakespeare's development as a dramatist and to his depiction of character, theme, and imagery.

4140 Shakespeare: The Seventeenth-Century Plays. Three credits. Focuses on the second half of Shakespeare's career. Works considered both as products of their author's time and as enduring cultural artifacts. Special attention given to Shakespeare's development as a dramatist and to his depiction of character, theme, and imagery.

4180 Milton. Three credits. An intensive study of Paradise Lost, Samson Agonistes, "Lycidas," Areopagitica, and the minor poetry.

4230 Selected British Writers after the Restoration. Three credits. Focuses on the work of at most three authors in a cultural and literary context. Specific authors will vary. May be repeated for up to six credits.

4240 Modern British Literature. Three credits. Poetry, fiction, and nonfiction written in Britain from approximately 1910 to 1939. Representative works of major British writers in the context of contemporary social and literary history.

4270 Contemporary British and Commonwealth Literature. Three credits. Contemporary British and Commonwealth novels in the context of social and literary history.

4310 The American Renaissance. Three credits. American Romanticism in the selected writings of Emerson, Whitman, Thoreau, Hawthorne, and Melville.

4320 Selected American Writers. Three credits. Focuses on the work of at most three American authors in a cultural and literary context. Specific authors will vary.

4410 Literary Criticism. Three credits. Critical theories: Classical, Neoclassical, Romantic, and Modern. Practical criticism: the technical analysis of poetry and prose.

4425 Backgrounds of Modern Literature. Three credits. Readings in the intellectual history of modern literature. Selected literary figures, major aesthetic movements, and pivotal ideas of modern Western
culture, including Marx, Darwin, Nietzsche, Freud, Sartre. Course divided by themes representing disciplines or modes of thought.

4470 Modern Drama. Three credits. World drama from 1880 to the present.

4500 Methods of Teaching Secondary English. Three credits. Prerequisite: YOED 3500 and permission of department. An intensive study of both grammar and composition for the teacher, the writer, and the editor: writing, analyzing, and judging composition. Required for English majors seeking teacher licensure.

4510 Modern English Grammar and Usage. Three credits. Traditional English grammar and the principles upon which grammatical analysis is based. Required for English majors seeking teacher licensure.

4520 The Structure of English. Three credits. Structure of modern English and overview of current syntactic theories.

4530 History of the English Language. Three credits. Political, social, intellectual forces determining historical development of English; internal structural changes-sounds, inflections-resulting from those forces.

4540 Approaches to Teaching ESL Grammar and Writing. Three credits. Prerequisite: ENGL 4510 or equivalent. Background and basic methods needed to teach English grammar and composition to students for whom English is a second language. Emphasizes understanding of problems that non-native speakers face and develops techniques for helping non-native speakers express themselves in written English.

4570 Special Topics in Linguistics. Three credits. Prerequisite: ENGL 3570, ANTH 3410, PSY 4820, or CDIS 3250. Selected topic in theoretical linguistics. Content varies from semester to semester. May be repeated under a different subtitle.

4600 Writing Internship. Three to twelve credits. Prerequisites: Fulfillment of ENGL 3520, 3620, 4000, or 4605 with a B or better and permission of department. A special course in which students work for a publishing company or other business or organization involved in professional writing. Enrollment open to English majors, Writing minors, and other students with permission of the internship director. Only 3 hours may count toward the English major and 3 hours toward the Writing or English minor. Arrangements for this course must be made in advance with the internship director through the Upper-Division office. Pass/Fail.

4605 Advanced Composition. Three credits. Prerequisite: Completion of ENGL 1020 or 3605 with a B or better. Approaches to various writing problems posed in advanced university studies and nontechnical professions: essays, proposals, critical reviews, analyses.

4670 Special Topics in Writing. Three credits. An intensive study in one specialized form of writing. The form of writing will vary with the instructor teaching the course.

4750 Special Topics in Children's Literature. Three credits. Selected genre, period, ethnicity, tradition, or literary focus in children's and/or young adult literature. Subject will vary with instructor.

4760 Special Topics in Folklore. Three credits. Prerequisite: ENGL 3760 recommended. An intensive study on a selected topic of folklore. Content varies from semester to semester and will reflect the interests and expertise of the instructor.

4780 War and Literature. Three credits. Open to all majors. A selected author, genre, period, tradition, or context of literary inquiry in the subject of war. Topic will vary with instructor.

4785 Law and Literature. Three credits. Introduces interrelations of law and literature as seen in a variety of literary texts and classic writings of great jurists.

4855 Film Theory and Criticism. Three credits. A survey of the major theoretical approaches to film, including montage, mise-en-scene, and structuralist theory.

4860 Special Topics in Film Studies. Three credits. A selected director, genre, period, aspect, or theme. The subject will vary each time course is taught.

4900 Selected Topics in Literature and Language. Three credits. A selected author, genre, period, tradition, or context of literary or linguistic inquiry. The field will vary with instructor.

4910 Studies in Poetry. Three credits. Selected topics in poetry. Topics may include the poetic works of a single author, those of a number of authors, a particular style of poetry, poetic works linked by period, culture, or subject matter, or any combination of the above. Topics will vary.

4920 Studies in Drama. Three credits. Works of drama linked by historical period, region or culture, author(s), subject matter, or other connective thread. Topic will vary with instructor.

4930 Studies in Prose Fiction. Three credits. Selected topics in the novel and other forms of prose fiction. Focuses on works and writers from the U.S., Britain, and Europe during the eighteenth- through twenty-first centuries, although other regions and eras may be included as supplemental features. Topics vary each semester.

4940 Studies in Prose Nonfiction. Three credits. Examines works of nonfiction such as autobiography, journals, essays, etc. Specific topics will vary.

4950 Special Topics in Contemporary Literature. Three credits. A selected genre, author, theme, or nation, with a focus on literature after World War II. Subject will vary with instructor.

4980 English Studies Abroad. Three credits. Selected genre(s), period(s), tradition(s), or literary focus combined with study abroad. Subject will vary with instructor. Courses may be taken multiple times with different topics.

## Environmental Science and Technology [EST]

2810 Introduction to Environmental Science. Three credits. The technical, economic, and political aspects of environmental science. Introduction to specific problems dealing with many pollution issues. Specific monitoring, abatement techniques, and equipment. An overview of energy production processes, industrial pollution problems, air, noise, solid and hazardous wastes, along with economic and environmental concerns. Field trips, lecture, and research projects and/or papers highlight specific topics of special interest to students.

4760-Seminar in Environmental Science and Technology. One
4763 credit each. Four interdisciplinary seminars conducted jointly among Agribusiness and Agriscience, Biology, Chemistry, Physics and Astronomy, and Engineering Technology. Guest lecturers, agency and resource personnel, readings, reflective thought, films, and discussions on environmental problems and issues, new and proposed legislation, and the role of environmental science and technology in pollution control.

4770 Pollution Control Technology. Three credits. Prerequisites: 8 hours each in biology, chemistry, and physics, or consent of instructor. Solid waste and water pollution control technology.

Legislative regulations and quality standards, pollution types and sources, detection and analysis instruments, and treatment or abatement principles and practices.

4780 Air, Solids, and Noise Pollution Technology. Three credits. Prerequisites: 8 hours each chemistry, biology, and physics or permission of instructor. Air, noise, solid and hazardous waste pollution technology, including legislative regulations and quality standards: sources, detection, and analysis instrumentation and practices, and treatment and abatement principles, equipment, and practices.

4810 Energy and the Environment. Three credits. Prerequisites: 4 hours chemistry and 3 hours mathematics or consent of instructor. Sources and methods of energy production and classifications of energy usages, with emphasis on usage trends, energy conservation strategies, and alternate energy utilization.

4820 Solar Building Design. Three credits. Prerequisites: 4 hours science and 3 hours mathematics or consent of instructor. Broad introduction to the environmental and economic impact of solar energy for residential and light industrial construction including day lighting, passive solar design, and hot water heating.

4840 Energy Auditing. Three credits. Prerequisites: 4 hours chemistry and 3 hours mathematics or consent of instructor. Types of energy consumption and classifications of energy usages, with emphasis on conservation strategies and total management for residential and industrial plants.

4980 Environmental Public Health. Three credits. Prerequisites: 8 hours college biology and 8 hours college chemistry. Applying the sciences of biology, chemistry, statistics, and environmental engineering to the field of public health. Public health epidemiology and disease control concepts related to the anticipation, recognition, assessment, and control of common public health disease problems.

## Exercise Science [EXSC]

3500 Exercise Leadership and Program Planning. Three credits. Practical experience in adult exercise leadership in individual and group settings. Precautions for safe and effective exercise leadership, instruction, and adult fitness programming based on the guidelines of the American College of Sports Medicine included.

4000 Research Seminar in Exercise Science. Three credits. Prerequisite: EXSC 4830. Development of research ideas, application of computers in searching research databases, methods of research and data collection, and preparation and presentation of a research proposal.

4010 Applied Research in Exercise Science. Three credits. Prerequisite: EXSC 4000. Completion of a research study in exercise science including preparation of Institutional Review Board documents, collection and analysis of research data, preparation of research report, and presentation of research findings.

4240 Principles of Exercise Prescription and Assessment. Three credits. Prerequisite: EXSC 4830. Provides students with practical and theoretical experiences in exercise prescription and health/fitness assessment techniques; primarily for healthy population. Upon completion, pursuit of ACSM Health/Fitness Instructor Certification recommended.

4250 Internship. Twelve credits. Prerequisites: Permission of department. On-site practical experience in an exercise science/health promotion program.

4260 Exercise Assessment and Prescription for Special Populations. Three credits. Prerequisite: EXSC 4240. Practical and theoretical experiences in exercise prescription and health/fitness assessment techniques for special populations. Precautions for safe and effective participation in exercise programs identified.

4810 Measurement and Evaluation. Three credits. (Same as HLTH 4810.) Concepts and procedures used for applied measurement and evaluation in health and human performance settings. Basic statistics, reliability and validity, measurement instruments in field and laboratory settings, and the administration of a variety of tests within discipline.

4830 Physiology of Exercise. Four credits. Prerequisites: BIOL 2010/2011; EXSC 4831 must be taken concurrently. Acute response and chronic adaptations of the body to physical activity, exercise, and sports participation, and their impact on homeostasis examined.

4831 Physiology of Exercise Lab. Zero credits. Laboratory to accompany EXSC 4830.

4920 Independent Study. One, two, or three credits. (Same as ATHT/ HLTH/PHED/REC 4920.) Independent study topics based on a study plan prepared in cooperation with a faculty supervisor. Culminates in a formal paper and/or comprehensive examination. Application forms must be completed and approved prior to enrollment. A maximum of three credit hours may be applied toward degree.

4965 Aquatic Exercise and Therapeutic Rehabilitation Techniques. Three credits. (Same as ATHT/REC 4965.) Examines the various uses of the aquatic environment to develop, maintain, and improve physical performance with practical development of skills and techniques and aquatic exercise programming. Combines both didactic and laboratory activities in an experiential learning environment.

## Experiential and Service Learning [EXL]

2010 Service-Learning Practicum. One credit. Prerequisite: Permission of instructor. Opportunity to take part in service-learning projects with community partners. Pass/Fail. (May be repeated for a total of two credits.)

2020 Leadership Studies Practicum. One credit. Prerequisite: Permission of instructor. Opportunity to enhance personal leadership development and understanding through campus- or communitybased projects. Pass/Fail. (May be repeated for a total of two credits.)

2030 Civic Engagement Practicum. One to three credits. Prerequisite: Permission of instructor. Opportunity to take part in civic engagement projects with community partners. Pass/Fail. May be repeated for a total of two credits.)

3010 Service Learning Practicum. One to three credits. Prerequisite: Permission of instructor. Opportunity to take part in servicelearning projects with community partners. Pass/Fail. (May be repeated for a total of up to six credits.)

3020 Leadership Studies Practicum. One to three credits. Prerequisite: Permission of instructor. Opportunity to enhance personal leadership development and understanding through campus- or community-based projects. Pass/Fail. (May be repeated for a total of up to six credits.)

3030 Civic Engagement Practicum. One to three credits. Prerequisite: Permission of instructor. Opportunity to take part in civic engagement projects with community partners. Pass/Fail. (May be repeated for a total of up to six credits.)

4000 EXL Seminar. One credit. Prerequisites: Senior standing, EXL Scholars Program participant. Culminating experience for students in the EXL Scholars Program. Students will develop an e-portfolio of experiential and service-learning experiences and will participate in discussions of their EXL experiences.

## Family and Consumer Sciences Education [FCSE]

1400 Personal Finance. Three credits. Provides basic principles and related skills for young adults soon to be involved in making personal financial decisions on their own. Modules focus on key financial concepts that affect individuals and families as responsible economic citizens. Emphasis placed on utilizing personal financial planning tools for effective money management practices throughout the life span.

2510 Family and Consumer Sciences Education Curriculum. Three credits. Overview of the philosophy, career, federal and state legislation and standards, co-curricular youth programs and curriculum in Family and Consumer Sciences Education. Emphasis on diversity, technology, lifelong learning, and special needs of students.

3510 Methods and Materials for Teaching Family and Consumer Sciences Education. Three credits. Influences on FCSE components of a learning environment, principles of teaching, and curriculum construction; analysis and application of assessment tools and data collection methods for the FCS classroom; and a career management action plan. Community resources and local educators provide mentoring and teaching opportunities in classrooms.

4500 Occupational Field Experience. Three credits each. Prerequisite: Permission of instructor. Directed participation in planned and supervised occupational experiences of 8 hours field experience per week. Must apply previous semester.
4501 Care and Guidance of Children. Three credits. 4502 Culinary Arts. Three credits.

4540 Teaching Family and Consumer Sciences Education. One to six credits. Review of recent advances in family and consumer sciences education. Analysis and evaluation of selected topics, materials, and methods in terms of their appropriateness for teaching competencies in family and consumer sciences.

4550 Curriculum Development. Three credits. Review of recent advances in home economics education. Analysis and evaluation of selected topics, materials, and methods in terms of their appropriateness for teaching curriculum objectives in home economics.

4560 Problems in Teaching Materials. One to three credits. Prerequisite: Permission of department chair. Application of principles and techniques involved in the selection and preparation of effective teaching materials and visual aids.

4570 Occupational Family and Consumer Sciences Seminar. Three credits. Prerequisite: Consent of instructor. Examination and analysis of program development, execution, and evaluation in a selected occupational area.

## Finance [FIN]

## Finance (Business)

3000 Principles of Financial Management. Three credits. Prerequisite: ACTG 2110 or 3000 . Will not substitute for FIN 3010. An overview of the fundamental concepts and tools for financial decision making within a business firm. (Not open to business majors.)

3010 Business Finance. Three credits. Prerequisites: ACTG 2120 or 3000; QM 2610; junior standing. Theory of corporate finance, emphasizing wealth creation, valuation, risk, capital budgeting, and cost of capital.

3810 Investments. Three credits. Prerequisite: FIN 3010. Introductory survey course focusing on investment markets and instruments. Emphasis on security characteristics, analysis, and valuation.

4010 Intermediate Financial Management. Three credits. Prerequisites: FIN 3010 with a minimum grade of C (2.00); MATH 1810 or 1910; QM 3620. Reviews and extends the basics of risk, valuation, and the creation of wealth. Explores capital budgeting, capital structure, and their interactions.

4110 Managerial Finance. Three credits. Prerequisite: FIN 3010 with a minimum grade of $C$ (2.00). A case course emphasizing the financial aspects of management. Topics include financial statement analysis, working capital management, capital budgeting, and cost of capital.

4390 Employee Benefits. Three credits. (Same as ECON 4390.) Prerequisite: Junior standing. Includes descriptive review and taxation, legislative, and administrative dimensions of the major components of employee benefit plans such as retirement systems, deferred compensation plans, health insurance, death benefits, disability benefits, paid and unpaid time off. Technical analysis and problem solving emphasized to develop applied skills. Social insurance and international benefits integrated.

4810 Portfolio Theory and Management. Three credits. Prerequisites: FIN 3810; MATH 1810 or 1910; QM 3620. Rigorous development of investment theory from its origins to current extensions and alternatives. Emphasis on investor rationality, efficient portfolio selection, capital asset pricing and options valuation models, and market efficiency.

4860 International Financial Management. Three credits. Prerequisite: FIN 3010 with a minimum grade of C (2.00). International capital markets, exchange rate exposure, risk management, and other multinational finance issues. Essential not only for United States exporters, but also for those facing competition from abroad.

## Financial Institution Management

4260 Financial Markets and Institutions. Three credits. (Same as ECON 4260.) Prerequisites: ECON 3210 with a minimum grade of C (2.0); FIN 3010 or 3000. Develops an understanding of the structure and functioning of our monetary-financial system. Emphasis on the institutional process of financial intermediation in the financial marketplace and the role that specific institutions and instruments play.

4360 Management of Financial Institutions. Three credits. Prerequisite: ECON 3210 with a minimum grade of C (2.0). Development of fundamental concepts and principles of sound institution management. Includes the financial environment, strategy, performance measures, asset/liability management topics, within an overall decision framework.

## Finance (Real Estate)

2450 Principles of Real Estate. Three credits. Real estate practices and procedures, basic principles of real property ownership utilization and transfer, mortgage financing, brokerage, management, valuation, subdividing, and legislation.

4430 Real Property Valuation. Three credits. Prerequisites: FIN 2450; junior standing; FIN 3010 strongly recommended. Theory and methods of real property valuation. Employs qualitative and quantitative analysis to appraise residential and income-producing properties. Emphasizes comparable sales, cost-depreciation, and income capitalization.

4440 Real Estate Finance. Three credits. Prerequisites: Junior standing; FIN 2450 and 3010 strongly recommended. Financial analysis applied to various types of real property. Includes underwriting, sources of funds, portfolio problems, and government programs. Emphasizes analysis of money and mortgage markets and modern creative financing.

4470 Real Estate Law. Three credits. (Same as BLAW 4470.) Prerequisite: Junior standing. Legal rights and limitations of ownership of property, estates, titles, methods of transferring titles, abstract of titles, mortgages, leases, easements, restrictions on the use of property, real estate development, and planning, application of contract law to real property, and the administration of wills.

4510 Real Estate Brokerage and Management. Three credits. Prerequisites: FIN 2450; junior standing. Management principles and techniques for the successful real estate brokerage firm. Topics emphasized are organizing, planning, management, marketing, and advertising techniques.

4550 Real Estate Investment Analysis. Three credits. Prerequisites: FIN 2450, 3010; junior standing. Analysis of real estate projects and markets. Emphasizes market research, taxes, financing techniques, and discounted cash flow analysis. Requires computer-assisted investment tools and case analysis.

4590 Independent Study in Real Estate. One to three credits. Prerequisite: Junior standing. Current analysis of issues in the field of real estate with concentration on major problems and policies in managing real estate and other related resources.

## Finance (Insurance)

3610 General Insurance. Three credits. Prerequisite: Junior standing. The principles of risk and risk bearing; insurance carriers; survey of principles of life, health and accident, fire, marine, and automobile insurance policies; government regulation of insurance.

3660 Life Insurance and Health Insurance. Three credits. Prerequisite: Junior standing. Problems of purchaser and seller; critical investigation of life and health insurance with emphasis on social and economic aspects.

3710 Property and Casualty Insurance. Three credits. Prerequisite: Junior standing. Scope and fundamentals of property and liability insurance; analysis of contracts, rating, underwriting, insurers, and loss of adjustment requirements and procedures.

4710 Insurance in Estate Planning. Three credits. Prerequisite: FIN 3610. Insurance as it may relate to estate planning examined in detail. Focus on estate planning principles including the problems of estate liquidity, taxation, governmental regulation, and costs involved in handling estates. Also included are ownership provisions and beneficiary designations, settlement options, and trusts.

4730 Insurance Company Operations. Three credits. Prerequisite: FIN 3610. Insurance marketing, underwriting, reinsurance, rate making, claims adjusting, loss control activities, and other functions and activities.

4750 Risk Management. Three credits. Prerequisite: FIN 3610. Analysis of major sources of liability loss exposures and the insurance coverages designed to meet those exposures. Noninsurance techniques such as loss control and risk transfer also discussed.

4790 Independent Study in Insurance. Three credits. Prerequisite: FIN 3610. Application of various insurance coverages to fulfillment of personal, business, and social needs. Special problems chosen or assigned in areas of the student's interest in joint consultation between student and instructor.

## Finance (General)

2010 Personal Financial Planning. Three credits. Includes budgeting and saving techniques, tax planning, insurance principles, consumer credit, housing, investment alternatives, and retirement and estate issues.

3430 Public Finance. Three credits. (Same as ECON 3430.) Prerequisites: ECON 2410, 2420; junior standing. Economic foundations of federal tax and expenditure policies. Current issues in federal budget policy. Policy applications illustrating key concepts such as public goods, externalities, income distribution, tax incidence, tax equity, and allocative efficiency. Intergovernmental fiscal relations.

3910 Computer Applications in Finance. Three credits. Prerequisites: INFS 3100; ECON 2420; FIN 3010 or 3000. Employing a computer in economics and financial decision making. Covers spreadsheets, object-relational database management systems, and data warehousing.

3970, 3980 Cooperative Education. Three credits. (Same as ECON 3970 and 3980.) Prerequisite: Junior standing. Cooperative Education experiences provide students with opportunities for on-the-job training in conjunction with on-campus academics. These courses will not satisfy major or minor requirements. Interested students should contact the Career Development Center. Students will be selected for participation and opportunities may be limited.

4310 Problems in Government Finance. Three credits. (Same as ECON 4310). Prerequisites: ECON 2410, 2420. Current issues in taxation, theory of income taxation, consumption taxes, property and wealth taxes. Advanced treatment of tax incidence, tax efficiency, income distribution, fiscal federalism, and state and local budget issues.

4890 Internship in Finance. One to three credits. Prerequisites: Junior status and recommendation of advisor. Supervised work experience in cooperating business firms or government agencies together with specialized academic study relating to the work experience. Pass/Fail.

4910 Options, Futures, and Other Derivatives. Three credits. Prerequisite: FIN 3010 or equivalent. Valuation and hedging of options, forward contracts, futures contracts, swaps, and other derivatives. Examines fundamental tools commonly used for pricing and hedging and options and futures contracts. For undergraduate and graduate students with little mathematics beyond algebra.

4990 Independent Study in Finance. One to three credits. Prerequisite: Junior standing. Problems for intensive study are chosen in joint consultation between student and instructor.

## Foreign Languages [FL]

4500 Introduction to Teaching Foreign Languages. Three credits. Introduces students who plan to teach a foreign language in elementary or secondary schools to a variety of approaches and instructional methods.

## Foundations of Education [FOED]

1110 Education as a Profession. Three credits. History and organization of American education from its foundation to the present. Includes issues concerning curriculum, organization, and administration of public education in the United States. Designed to assist prospective teachers in evaluating personal qualification in relation to professional needs and investigating teaching as a career.

2110 Educational Psychology. Three credits. Physical, social, emotional, and mental development of the human from birth to maturity. Includes basic theories of learning including behaviorism, constructivism, and humanism along with theories of motivating and facilitating learning processes in social settings. A 10-hour tutorial assignment in a public school necessary.

3350 Instructional Development Laboratory for Teachers. Four credits. Innovative course in methodology providing experiences with audio/visual aids and equipment, preparation of instructional plans, tryout of plans with videotaped, micro-teaching sessions; problems relating to teacher-pupil relationships and discipline included.

## French [FREN]

1010 Elementary French I. Three credits. Foundation course in reading, writing, speaking, and aural comprehension.

1020 Elementary French II. Second semester. Three credits. Prerequisite: FREN 1010 or advanced placement. Continuation of 1010.

1030 Elementary Business French. Three credits. Prerequisite: FREN 1010 or equivalent. Embarks students on a mastery of the linguistic and cultural skills necessary for effective communication in francophone professional contexts. May substitute for FREN 1020.

2010 Intermediate French I. Three credits. Prerequisite: FREN 1020 or advanced placement.

2020 Intermediate French II. Second semester. Three credits. Prerequisite: FREN 2010 or advanced placement. Continuation of 2010.

2910 Study Abroad. One to six credits. Prerequisites: Two semesters of French or equivalent and/or approval of French faculty. For students in any major or minor.

3010 Advanced Composition. Three credits each. Prerequisite: FREN 2020 or equivalent.

3030 Business French. Three credits. Prerequisite: FREN 3010 or equivalent. The linguistic and cultural skills necessary to conduct business in France or any other francophone setting.

3040 Intensive Conversational French. Three credits. Prerequisite: Two years of French.

3050 Survey of French Literature and Culture (Middle Ages-1800). Three credits. Prerequisite: FREN 3010 or equivalent.

3060 Survey of French Literature (1800-Present). Three credits. Prerequisite: FREN 3010 or equivalent.

3070 Topics in French and Francophone Film. Three credits. Prerequisite: FREN 3010 or equivalent. History, aesthetics, and analysis of French and francophone film. Course conducted in French.

3080 Introduction to French Literary Studies. Three credits. Prerequisite: FREN 3010. Concepts and vocabulary fundamental to the study of French literature; general view of the main currents of French literary history; introduction to French versification; techniques of literary analysis; practice in literary analysis and in writing about literature; preparation for 4000 -level courses.

3110 French/Francophone Culture. Three credits. Prerequisite: FREN 2020 or equivalent. History of French/Francophone culture from the beginning to present.

3130 Twentieth-Century Women Writers in French. Three credits. Prerequisite: FREN 2020 or equivalent for French majors and minors; ENGL 2020 or 2030 or equivalent for all others. The literary works of twentieth-century women writers of French-speaking countries including Algeria, Canada, France, Guadeloupe, Haiti, Morocco, Senegal, and Vietnam. Class conducted in English.

3910 Study Abroad. Three to twelve credits. Prerequisites: 12 credits; two years study of French or equivalent with B average or better; and approval of Foreign Languages and Literatures Department. Majors and minors only. Students will spend one or two semesters abroad studying French language, literature, and culture. Students may earn three to twelve credit hours in other study abroad programs approved by the Department of Foreign Languages and Literatures. May be repeated.

3970, 3980 Cooperative Education. Three credits. Provides students with opportunities for on-the-job training in conjunction with on-campus academic experiences. Students will participate in professional growth seminars. Requirements of the department must be completed to receive credit.

4010 Topics in Twentieth-Century French Literature. Three credits. Prerequisite: FREN 3080 or permission of instructor.

4020 Topics in French Film. Three credits. Class conducted in English. No language prerequisite. However, students taking course for French major or minor credit will be required to do some written assignments in French.

4030 Topics in Nineteenth-Century French Literature. Three credits. Prerequisite: FREN 3080 or permission of instructor.

4040 Topics in Eighteenth-Century French Literature. Three credits. Prerequisite: FREN 3080 or permission of the instructor.

4050 Topics in Medieval and Renaissance French Literature. Three credits. Prerequisite: FREN 3080 or permission of instructor.

4060 Topics in Neoclassical French Literature. Three credits. Prerequisite: FREN 3080 or permission of instructor.

4070 Topics in Sixteenth-Century French Literature. Three credits. Prerequisites: FREN 3080 or permission of instructor.

4080 Topics in Medieval French Literature. Three credits. Prerequisite: FREN 3080 or permission of instructor.

4900 Directed Study in French Literature and Culture. One to six credits. Prerequisites: FREN 3010 or permission of instructor. Individualized intensive reading in primary and secondary sources relating to a specific topic in French literature or culture. Arrangements must be made with instructor prior to registration. Proposals must be approved by the French section one month prior to the end of the preceding semester.

4958 Honors in French Literature. Three credits. For students of advanced standing and superior academic ability. Admission only by permission of the Departmental Honors Committee and approval by the Honors Council. Proposals must be approved by midterm of the semester preceding enrollment in 4958.

4990 Techniques of Translation. Three credits. Prerequisites: Admission to the College of Graduate Studies or permission of the instructor. For graduate students seeking proficiency in reading French for research purposes. Open to undergraduates seeking to prepare for graduate study. Will not count toward a major or minor in French.

## Geography [GEOG]

Some departmental courses may be accepted in either concentration; others are accepted only in one concentration. Substitutions are made at the discretion of the department chair in consultation with the academic advisor.

## Geography (Basic Courses)

1030 Physical Geography. Four credits. The physical earth as the home of humans. The global earth in space, tools of the discipline, the atmosphere, the hydrosphere, and the biosphere. Field trips may be required. Three hours lecture and two hours laboratory per week.

2000 Introduction to Regional Geography. Three credits. Examination of world regions using the geographical perspective, identifying the main physical and cultural features, especially through the use of maps.

3120 Geography of Tennessee. Three credits. (Same as HIST 3121.) Focuses on the diverse physical and human landscapes of the state. Topics include weather and climate, landforms, vegetation and soils, population patterns and trends, economic activities (including agricultural and geographical perspectives on social and environmental issues).

## Geography (Regional)

2105 Introduction to Latin American Studies. Three credits. (Same as SPAN 2105, PS 2105, SOC 2105, ART 2105, ANTH 2105.) A multidisciplinary, team-taught introduction to Latin America. Covers the cultures and societies of the region: pre-history, history, geography, politics, art, languages, and literatures. Required course for all Latin American Studies minors.

3401- Field Course. Four credits each. Supervised study in some geo-
3402 graphical area, preceded by classroom preview and concluded by a time of evaluation. Emphasis on natural and cultural elements of the environment with special attention directed toward the pattern of human occupancy. For fees and specific credit, consult the instructor.

3410 Geography of the United States and Canada. Three credits. Natural, cultural, and geographic environment of these regions.

3420 Geography of Latin America. Three credits. Geographic regions of Mexico, Central America, the West Indies, and South America.

3430 Geography of Europe. Three credits. General distribution of natural and cultural features of Europe followed by a detailed study of the regions and countries of the southern, central, and northwestern parts of the continent.

3440 Geography of Asia. Three credits. Survey of the entire continent followed by a detailed study of the geographic regions outside the
former Soviet Union with special emphasis on the Indian Realm, China, and Japan.

3460 Geography of the Former Soviet Union. Three credits. Analysis of the natural, cultural, and human-use regions of the former Soviet Union.

3470 Geography of Africa. Three credits. Survey of the physical and cultural features of Africa, followed by a detailed study of the geographic regions of the continent.

4500 Geography of the Middle East. Three credits. An analysis of the problems, issues, and theories involved in understanding the physical, cultural, and regional geography of the area.

## Geography (Topical Courses)

3720 Cultural Ecology. Three credits. (Same as ANTH 3720; HIST 3720.) Prerequisites: 3 hours anthropology or geography. Comparison of ecological systems utilized by tribal, peasant, and industrialized peoples of the world. Special attention paid to the theoretical approaches examining the interface of the environment and culture, the evolution of modes of subsistence, and contemporary development and indigenous people.

4280 Special Problems and Topics in Geography. One to six credits. (Variable credit.) Prerequisite: Must have equivalent of a minor in Geography. Research participation or guided readings in a particular area or topic appropriate to the student's interest and professional objectives.

4300 Military Geography. One credit. An examination of geography as applied to the conduct of military forces in pursuing and securing national objectives.

4310 Resource Management and Conservation. Three credits. Current problems related to intelligent use and management of environmental resources.

4320 Economic Geography. Three credits. Relationship of the physical factors of the environment to the productive occupations of humans and the distribution of products.

4330 Political Geography. Three credits. Significance of geographical factors in understanding political relationships within and among nations; spatial implications of political decision-making processes.

4340 Historical Geography. Three credits. (Same as HIST 4341.) Prerequisite: GEOG 2000 or permission of instructor. The changing human geography of the United States during four centuries of settlement and development. Emphasis on changing population patterns as well as patterns of urban and rural settlement.

4360 Cultural Geography. Three credits. (Same as HIST 4361.) Prerequisite: GEOG 2000 or permission of instructor. Description and explanation of spatial patterns and ecological relationships in human culture. Emphasis on "reading" the cultural landscapes.

4370 Urban Geography. Three credits. An introduction to the development of towns, cities, and associated urban areas. Environmental problems also examined. Classroom analysis of various theories of urban development and data collected by field work.

4380 Cartography. Four credits. General knowledge of the field including familiarity with the techniques and tools of professional cartography and graphics. Selected lectures, class discussions, and a series of map construction assignments. Three hours lecture and two hours laboratory per week.

4470 Rural Settlement. Three credits. (Same as HIST 4471.) Prerequisite: GEOG 2000 or permission of instructor. A geographical
analysis of forms, structures, and distribution of rural settlements in distinctive parts of the earth based upon their origin, function, and development. Special emphasis in analyzing rural settlements of middle Tennessee.

4480 Recreational Geography. Three credits. A geographical analysis of natural and cultural factors influencing use of space for recreational purposes. Emphasis given to recreational land use in the United States and contemporary problems and conflicts. Lectures and field problems.

4490 Remote Sensing. Four credits. The various aspects of remote sensing such as radar, satellite imagery, and infrared data. Use of data in preparation of maps and application to land use and environmental problems examined. Three hours lecture and two hours laboratory per week.

4510 Laboratory Problems in Remote Sensing. Four credits. Prerequisite: GEOG 4490. Computer processing of selected satellite imagery. Laboratory will provide practical experience through design, execution, and completion of an applied remote sensing project.

4520 Image Interpretation. Four credits. Principles, methods, and techniques of image interpretation, including maps, satellite data, and aerial photos.

4530 Geographic Information Systems. Three credits. Lecture and laboratory work relative to computer-manipulated geographic data base. Laboratory work will involve experience in practical application of a geographic information system (GIS) to problem solving.

4540 Geography of Native Americans. Three credits. (Same as HIST 4540.) Prerequisite: GEOG 2000 or permission of instructor. Lecture and field exercise format viewing America's native population from a geographic perspective. Native Americans will be examined geoarcheologically using geo-techniques to explore their past, present, and future; cultural ecologically-their symbiotic relationship with their surroundings; and through their economic and resource development-how they utilize natural and cultural resources that are presently on tribal lands.

4550 Global Issues. Three credits. An examination of current global issues in the context of their geographic environment. Emphasis on geographic factors impacting those issues. Topics examined vary from year to year.

4570 Advanced Geographic Information Systems. Three credits. Prerequisites: GEOG 4530 or introductory course in geographic information systems or equivalent; coursework in statistics and computer programming recommended. Advanced course in spatial analysis. Using spatial statistics, Visual Basic programming, and databases to solve problems involving proximity, density, clustering, the cost of travel paths, etc. Other major topics include environmental modeling and error analysis.

4571- Internship in Geography. Three credits each. Prerequisites:
4572 Major or minor in geography; 15 hours of geography/geology with junior or senior standing; permission of employer and department. Practical experience for students in a professional setting relating to geographic work. Counted as a free elective, not part of major or minor requirements. After completion of one internship, 4571 or 4572 , the other may be taken (total of 6 credits).

4772 Field Course in Historical Archaeology. Three credits. Prerequisites: HIST 4860; ANTH 3210; or permission of instructor. Archaeological resources and procedures and the interpretation of historical evidence undertaken at a field archaeological site.

## Geology [GEOL]

Some departmental courses may be accepted in either concentration; others are accepted only in one concentration. Substitutions are made at the discretion of the department chair in consultation with the academic advisor.

1030 Introduction to Earth Science. Three credits. The earth and its relationship to its space and environment emphasized. Forces and processes which combine to mold the face of the earth and its atmosphere, as well as the internal constitution of the earth. Three hours lecture. GEOL 1031 must be taken concurrently. Together, GEOL 1030 and 1031 satisfy 4 hours of the Natural Sciences portion of the General Education requirement.

1031 Introduction to Earth Science Lab. One credit. Laboratory to accompany GEOL 1030.

1040 Physical Geology. Four credits. Corequisite: GEOL 1041. The origin, composition, and structure of the solid earth: rock-forming minerals; igneous, sedimentary, and metamorphic rocks; earthquakes and plate tectonics; surface processes; geologic time. Identification and description of minerals and rocks in hand sample. Use of topographic and geologic maps. Three hours lecture and two hours laboratory per week.

1041 Physical Geology Lab. Zero credits. Corequisite: GEOL 1040.
1050 Historical Geology. Four credits. Prerequisites: GEOL 1030 and 1031 or GEOL 1040/1041. The major divisions of geologic time with emphasis on earth movements, sea fluctuations, life of the time, and the effect these have had on our present environment. Close attention to the development of the physiographic regions of North America, which are correlated with chronologically similar events in other parts of the world. Topographic maps, geologic maps, and fossil animals and plants. Three hours lecture and two hours laboratory per week.

3000 Mineralogy. Five credits. Prerequisites: GEOL 1030/1031 or 1040/1041 or permission of instructor. Crystallography and crystal chemistry. Physical and chemical properties of silicate and nonsilicate mineral groups. Examination of the common rock-forming minerals in hand sample and thin section. Four hours lecture and two hours laboratory per week.

3010 Oceanography. Three credits. Prerequisites: GEOL 1030 and 1031 or 1040 or GEOG 1030; or consent of instructor. Physiography, structures, and sediments of the ocean floor; coastal and oceanic environments; and the nature of sea water, currents, waves, and tides. Geological processes, geophysical studies, and oceanographic instrumentation discussed.

3020 Engineering Geology. Three credits. Prerequisites: GEOL 1030/1031 or GEOL 1040/1041 or equivalent; MATH 1730 or equivalent. Principles and applications of geology in engineering practice. Engineering geology exploration, behavior of soils and rocks for engineering projects, application of engineering geology to the solution of construction and environmental problems.

3050 Field Methods in Geology. Two credits. Prerequisites: MATH 1730 or equivalent; GEOL 1030/1031 or 1040/1041 and 1050; major or minor in Geoscience; or consent of instructor. Introduction to field observation in geoscience. Topics include tape and compass surveys, triangulation, orientation of rock strata, measurement of stratigraphic section, map preparation, and use of GPS. Two hours lecture/field work per week.

3060 Computer Methods in Geology. Three credits. Prerequisites: GEOL 1030/1031 or 1040/1041 and 1050; CSCI 1000 or
equivalent; major or minor in Geology/Earth Science; or consent of instructor. Extensive use of personal computers for processing field data, map contouring, geologic reports and illustrations, lettering and cartography, image processing, geologic databases, and digital maps. Brief treatment of classical cartography. Four to five hours lecture/laboratory per week.

3160 Geologic Literature and Report Writing. One credit. Prerequisites: CSCI 1000; GEOL 1030/1031 or 1040/1041, and GEOL 3060; at least 8 semester hours of upper-division Geology courses. Acquisition and presentation of geological data from traditional library and database sources. Preparation of geologic field and laboratory reports in addition to professional reports and papers.

3401- Field Course. Four credits each. Prerequisite: GEOL 1030/1031 or
3402 1040/1041. Supervised study in some geological area preceded by classroom preview and concluded by a time of evaluation. Emphasis on the natural and physical elements of the environment, with special attention directed toward the geomorphology and geology of specific areas. For fees and specific credit, consult the director, division of geology.

4000 Petrology and Petrography. Four credits. Prerequisite: GEOL 3000. Igneous, sedimentary, and metamorphic rocks. Theories of formation and evolution based upon mineralogical and geochemical evidence. Examination and classification of rocks in hand sample and thin section. Three hours lecture and two hours laboratory per week.

4020 Geomorphic Regions of the United States. Four credits. Prerequisites: GEOL 1030/1031 or 1040/1041; GEOL 1050. Origin, regional distribution, and geomorphic features and history of landforms of the United States. Students will be required to analyze maps, structure sections, and aerial photography to determine geomorphic forms and the forces and processes that produced these forms. Three hours lecture and two hours laboratory per week.

4030 Invertebrate Paleontology. Four credits. Prerequisite: GEOL 1050. Invertebrate and microscopic animal life of the past, including recently preserved representatives and their ancient fossilized ancestors. Numerous field trips to local fossil-collecting sites. Designed to aid in the preparation of earth science teachers, geologists, and biologists. Three hours lecture and two hours laboratory per week.

4050 Meteorology. Three credits. A general, nonmathematical introduction to the atmosphere. Emphasis on main elements such as temperature, precipitation, clouds, and humidity. In-depth analysis of storms, tornadoes, and hurricanes and human alteration of the atmosphere such as the ozone hole. Weather forecasting and climate change.

4070 Sedimentation and Stratigraphy. Four credits. Prerequisites: GEOL 1050 and 3000 or consent of instructor. Sedimentary rocks, the processes of sedimentation, the alteration of sediments through time, and examination of resulting stratigraphic units. Designed for geoscience majors and those with interests in soil mechanics and civil engineering. Three hours lecture and two hours laboratory per week.

4080 Structural Geology. Three to four credits. (Variable credit.) Prerequisites: MATH 1730 or equivalent; GEOL 1030/1031 or 1040/1041; GEOL 1050 recommended. Orientation and deformation of rock. Geometric, analytical, and statistical solutions to structural problems. Emphasis on three-dimensional visualization, problem solving, geological map interpretation, and the mechanics of deformation. Lecture and laboratory.

4090 Problems in Geology. One to six credits. (Variable credit.) Prerequisites: A minimum of 12 semester hours of geology (excluding GEOL 1030/1031) at least 6 hours of which must be upper division; consent of instructor. A problem-solving course. Includes an independent research-oriented project commensurate with the student's interests and qualifications. May be repeated up to a maximum of 6 hours.

4100 Geophysical Prospecting. Four credits. Prerequisites: GEOL 3060; MATH 1910; PHYS 2010/2011 or 2110/2111; or consent of instructor. (PHYS 2020/2021 or 2120/2121, GEOL 1030/1031 or 1040/1041, and MATH 1920 also recommended.) Survey of seismic, gravimetric, and magnetic/electrical exploration methods. An applied course covering some elementary theory, basic field practice, computation fundamentals, interpretation techniques. Three hours lecture and two hours laboratory per week.

4120 Environmental Geology. Four credits. Prerequisites: GEOL 1030/ 1031 or 1040/1041 or GEOG 1030 or consent of instructor. Application of geologic information to minimize possible environmental degradation and maximize utilization of resources in the natural and modified environment; local examples and field trips. Topics include engineering properties of earth materials, natural hazard prediction and reduction, water supply, solid and hazardous wastes, mineral resources, global change, land-use planning, environmental impact analysis. Three hours lecture and two hours laboratory per week.

4130 Hydrogeology. Four credits. Prerequisites: MATH 1730 or equivalent; GEOL 1030/1031 or 1040/1041; 4 hours of geology; or consent of instructor. Basic processes and measurement of the hydrologic cycle, including precipitation, evaporation, surface runoff, stream flow, soil moisture, and ground water. Emphasis on ground water including geology of occurrence, principles of flow, conceptual models of regional flow, chemistry and quality, well hydraulics, aquifer characteristics, resource development, detection of pollutants, and contaminant transport. Lecture and laboratory.

4140 Inorganic Geochemistry. Three credits. Prerequisite: GEOL 4000. Principles of inorganic geochemistry. Geochemistry of the earth and solar system, isotopic geochronometers, thermodynamics and rates of geochemical processes, chemical weathering, chemical compositions of surface and groundwater. Three hours lecture per week.

4150 Environmental Applications of Hydrogeology. Three credits. Prerequisite: GEOL 4130. An advanced course in hydrogeology that emphasizes applied methods for assessing hazardous and solid waste facilities and contaminated ground water remediation techniques. Included will be site characterization methods, ground water sampling procedures, and monitoring well installation techniques. Three hours lecture per week.

4170 Applied Geochemistry. Three credits. Prerequisites: GEOL 1030/1031 or 1040/1041 plus CHEM 1010/1011 or CHEM 1110/ 1111. Theory and application of geochemical techniques to the study of geologic problems. Sample preparation and analysis of geologic materials using departmental instrumentation. Two hours lecture and two hours laboratory per week.

4571- Internship in Geology. Three credits each. Prerequisites: Major
4572 or minor in geology; 15 hours of geology/geography with junior or senior standing; permission of employer and department. Practical experience for students in a professional setting relating to geologic work. Counted as a free elective, not as a part of major or minor requirement. After completion of one internship, 4571 or 4572, the other may be taken (total of six credits).

4580 Seminar in Geology. One credit. Prerequisite: Senior standing in geology. A reading and discussion seminar in which current topics in the geological sciences are examined to broaden the major's knowledge of the scope and literature of the discipline.

## German [GERM]

1010 Elementary German I. Three credits. A foundation course in reading, writing, speaking, and aural comprehension.

1020 Elementary German II. Second semester. Three credits. Prerequisite: GERM 1010 or advanced placement.

2010 Intermediate German I. Three credits. Prerequisite: GERM 1020 or advanced placement.

2020 Intermediate German II. Second semester. Three credits. Prerequisite: GERM 2010 or advanced placement.

3000 Group Conversational German. One credit. Prerequisites: GERM 1010 and 1020 or permission of instructor. One hour per week of experiences students may expect to encounter in a Germanspeaking community. Graded Pass/Fail depending on attendance, participation, and progress. May be repeated for a maximum of 3 hours credit; does not count for the minor.

3010, 3020 Advanced Composition and Conversation. Three credits. Prerequisite: GERM 2020 or advanced placement.

3030 Business German. Three credits. Prerequisites: GERM 2020 or equivalent, plus either 3010 or 3020 . A foundation course offering linguistic skills necessary to conduct business in German settings.

3040 Intensive Conversational German. Three credits. Prerequisite: GERM 2010 or equivalent.

3050, 3060 Survey of German Culture. Three credits. Prerequisite: Intermediate German or permission of instructor. 3050 covers the history of German culture through the eighteenth century. 3060 deals with the nineteenth and twentieth centuries.

3070 Applied German. Three credits. Substitutes for GERM 2020. Deals with specialized vocabularies (e.g., business, electronics, economics, music). Extensive readings in the student's area of specialization and practical experience in drafting letters, outlines, reports, etc.

3910 Study Abroad. Twelve credits. Prerequisites: Completion of Intermediate German or equivalent with $B$ average or higher; declared major or minor in German; approval of Foreign Languages and Literatures Department. Semester enrolled at Johannes Gutenberg Universitat, Fachbereich der angewandten Sprachwissenschaften, in Germersheim, Germany, studying German language, literature, and culture. May be repeated once.

3970, 3980 Cooperative Education. Three credits. Provides students with opportunities for on-the-job training in conjunction with on-campus academic experiences. Students participate in professional growth seminars. Requirements of the department must be completed to receive credit.

4010 Topics in German Literature and Culture. Three credits each. Prerequisites: 6 hours German beyond intermediate level or permission of instructor. Topics will vary; may be repeated with different topic.

4020 German Literature: 1725-1880. Three credits. Prerequisites: 6 hours German beyond intermediate level or permission of instructor.

4030 German Literature: $\mathbf{1 8 8 0}$ to Present. Three credits. Prerequisites: 6 hours German beyond intermediate level or permission of instructor.

4900 Directed Study in German Literature and Culture. One to six credits. Prerequisites: 15 hours of German or permission of instructor. Individualized intensive reading in primary and secondary sources relating to a specific topic in German literature or culture. Arrangements must be made with instructor prior to registration.

4958 Honors in German Literature. Three credits. For students of advanced standing and superior academic ability. Admission only by permission of the Departmental Honors Committee and approval by the Honors Council. Proposals must be approved by midterm of the semester preceding enrollment in 4950.

4990 German for Reading Knowledge. Three credits. Prerequisites: Admission to the College of Graduate Studies or permission of the instructor. For graduate students seeking proficiency in reading German for research purposes. Open to undergraduates seeking to prepare for graduate study. Will not count toward a major or minor in German.

## Gerontology [GERO]

2600 Introduction to Gerontology. Three credits. (Same as SOC 2600.) Basic concepts, overview of the field, illustrations of problems, and applications for an aging America.

4030 Topics in Gerontology. Three credits. (Same as SOC 4030.) An opportunity to integrate gerontological theory and research techniques with the practical problems of older persons.

4800 Special Projects. One to six credits. (Same as SOC 4800.) Field experiences or reading courses through which special interests or needs of the student may be pursued under individual supervision. No more than three hours may be used in the major. Arrangements must be made with an instructor prior to registration.

4900 Practicum. Three to six credits. Prerequisites: GERO 2600 plus six hours of Gerontology electives and senior standing. Student is placed in an agency setting on a contractual basis. Application must be made the preceding semester.

## Global Studies [GS]

2010 Introduction to Cross-Cultural Experiences. Three credits. Required of all Global Studies majors or minors. Establishes a broad-based foundation for understanding varying perspectives and values in a culture other than one's own. Differing global and international views on cultural and environmental issues past, present, and future. The student's cultural background will be used for comparative purposes.

3010 Field Experience and Study Abroad. One to twelve credits. Three credit hours are required of all Global Studies majors or minors. Prerequisite: GS 2010 or approval of program director. Credit given for study abroad and/or extended field experiences in another culture.

4990 Senior Seminar. Three credits. Required of all Global Studies majors or minors. Capstone course requiring projects reflecting integration and demonstration of knowledge and skills used by all successful global citizens. Projects determined by the student with advisement of the program director and may be completed on campus, abroad, or in the field.

## Health [HLTH]

1530 Health and Wellness. Three credits. Corequisite: HLTH 1531. Explores the role and importance of health and wellness in the lives of individuals and society in general. Laboratory venues will allow opportunities for assessment of lifestyles, decision-making, and research data on health and wellness. Lectures will provide concepts, information, and data involved in maintaining optimum health and wellness. Two lectures and one laboratory.

1531 Health and Wellness Lab. Zero credits. Corequisite: HLTH 1530.
2600 Introduction to Health Professions. Three credits. Examines select health professions. Includes admission procedures, training, post-graduate training, licensure, practice options. Designed to assist students interested in a health career make a more informed choice early in their undergraduate preparation.

3000 Service Learning in Health Education. Three credits. Prerequisites: HLTH 1530/1531 and 3320. Health and health care services and the principles, techniques, and context for service. Insight into service organizations, the basic methods and concepts of service learning, and the impact of actual service experiences. Offers background in the cultural, political, and social contexts of service experiences and serves as a forum for discussion of issues surrounding civic engagement and social responsibility. (An EXL course.)

3020 Terminology in Health and Human Performance. Three credits. Develops vocabulary skills and provides content important to the health and human performance field. Self-study using the Internet.

3250 Workshops and Instructional Methods in Health Education. Three credits. (Same as PHED 3250.) Preparation for conducting workshops in a variety of professional settings.

3300 First Aid and Safety Education. Three credits. (Same as PHED 3300.) Deals with first aid measures, accident prevention, and cardiopulmonary resuscitation. Addresses issues related to drug use/abuse and related acts of violence. Satisfactory completion of the course qualifies the student for American Red Cross Standard and CPR certificates.

3310 Health Problems of Exceptional Children. Three credits. Common health problems of all children with emphasis on health problems peculiar to children in various areas of exceptionality. Consideration will be given to identification and referral.

3320 Community and Public Health. Three credits. Basic preparation for health educators in community and public health programs with an emphasis on identifying and solving problems. Concentrates on the role of the health educator in needs assessment, effective communication, and the management of public health concerns.

3330 History of Health Education and Health Organizations. Three credits. Analysis of health education from origins to present. Emphasis on health philosophies, conferences, significant movements, associations, and pioneer health leaders.

3340 Foundations of Health Education. Three credits. Historical issues, philosophical foundations, ethical considerations, and theories of health behavior and learning which provides a foundation for the practice of health education.

4250 Internship. Nine to twelve credits. Prerequisite: Permission of department; must be taken after major classes. On-site practical experience in an exercise science/health promotion program.

4260 Curriculum and Teaching Methods in Health Education. Three credits. Curriculum planning and teaching methods for prospective school, community, and public health personnel who aspire to teach health education.

4270 Bioethical Issues in Health Education. Three credits. An analysis of current bioethical issues, problems, needs, trends, and interests in health education.

4280 Instructor's Course in First Aid and CPR. Two credits. Prerequisite: HLTH 3300 or current Red Cross certification in multi-media first aid and CPR or standard first aid. Organization, planning, and teaching American Red Cross safety course. Red Cross instructor certification for successful completion.

4300 The School Health Program. Three credits. Offers preparation for leadership roles in school health services, instruction, and emergency situations, with special emphasis on evaluation.

4340 Fitness Education for the Adult. Three credits. (Same as PHED/ REC 4340.) Planning, teaching, and participating in individual and group fitness programs for the adult. Offers preparation for administering and interpreting assessments of related components with understanding of physiological principles related to exercise in the adult. Major lifetime wellness activities covered.

4360 Teaching Human Sexuality. Three credits. Assists individuals in developing, implementing, and evaluating human sexuality curricula and programs for schools (K-12) and other educational venues.

4370 Health and First Aid for Children (Pre-K-3). Two credits. Skill and knowledge required to maintain a healthy and safe school or day-care environment for pre-K-3 children.

4390 Women's Health. Three credits. Applies and extends the knowledge base of health care for women and provides students with the knowledge to help them enhance their own and others' health.

4400 Drugs and Violence in Health Education. Three credits. Offers an understanding of the nature of drugs, relationships people form with drugs, and consequences of those relationships. Relationship of drugs to acts of violence considered as well as educational programs addressing issues related to drug use/abuse and acts of violence.

4460 Introduction to Epidemiology. Three credits. Epidemiologic analysis including measures of disease frequency, measures of effect, association and causation, sources of inaccuracy, experimental and observational study designs.

4600 Technology Applications. One credit. Prerequisite: An introductory course in computer literacy or equivalent with instructor permission; corequisite: HLTH 4601. Understanding and competency using a variety of technology applications related to the profession. Students required to enroll in corresponding lab during the same semester.

4601 Technology Applications Lab. Two credits. Corequisite: HLTH 4600. Investigation and application of profession-specific software and hardware applications.

4700 School Health Coordinator. Three credits. Prerequisites: HLTH 4300 and at least junior status or permission of instructor. Offers preparation for individuals to assume roles as school health coordinators. Emphasizes comprehensive school health and how it fits into K-12 education.

4810 Measurement and Evaluation. Three credits. (Same as EXSC 4810.) Concepts and procedures used for applied measurement
and evaluation in health and human performance settings. Basic statistics, reliability and validity, measurement instruments in field and laboratory settings, and the administration of a variety of tests within discipline.

4860 Program Planning in Health Education. Three credits. Historical and contemporary health education philosophy and theories, Health Objectives for the Nation, the Certified Health Education Specialist (CHES) process, ethical issues, diversity issues, and practice in various setting.

4870 Methods of Communicating and Marketing Health Education. Three credits. Prerequisites: HLTH 3320 and 3340. Theory and practice of planning, implementing, and evaluating marketing and communication programs in community and public health education. Includes a review of health communication theories, social marketing, assessment of population needs, coalitionbuilding, health literacy, health advocacy and campaign design, implementation, and evaluation.

4900 Certified Health Education Specialist (CHES) Review. One credit. For Health majors; to be taken with HLTH 4250. Responsibilities and competencies on the Certified Health Education Specialist examination.

4920 Independent Study. One, two, or three credits. (Same as ATHT/ EXSC/PHED/REC 4920.) Independent study topics based on a study plan prepared in cooperation with a faculty supervisor. Culminates in a formal paper and/or comprehensive examination. Application forms must be completed and approved prior to enrollment. A maximum of three credit hours may be applied toward degree.

## Hebrew [HEBR]

1010 Elementary Hebrew I. Three credits. Foundation course in reading, writing, speaking, and aural comprehension.

1020 Elementary Hebrew II. Second semester. Three credits. Prerequisite: HEBR 1010 or permission of instructor.

2010 Intermediate Hebrew I. Three credits. Prerequisite: HEBR 1020 or permission of instructor. An intermediate course in reading, writing, and speaking Hebrew as well as aural comprehension at the intermediate level.

2020 Intermediate Hebrew II. Second Semester. Three credits. Prerequisite: HEBR 2010 or permission of instructor. Continuation of HEBR 2010.

## History [HIST]

1010 Survey Western Civilization I. Three credits. A survey of Western humanity from the earliest cultures to 1715. May be used to satisfy one part of the General Education Humanities and/or Fine Arts requirement. HIST 1010 is NOT a prerequisite for HIST 1020.

1020 Survey Western Civilization II. Three credits. A survey of Western humanity since 1715. May be used to satisfy one part of the General Education Humanities and/or Fine Arts requirement.

1110 Survey World Civilization I. Three credits. A global approach to history, with cultural interchange as a major thematic focus; reasons for the rise and decline of civilizations. May be used to satisfy one part of the General Education Humanities and/or Fine Arts requirement. HIST 1110 is NOT a prerequisite for HIST 1120.

1120 Survey World Civilization II. Three credits. The impact of Western expansion upon the indigenous civilizations of Asia, Africa, and the Americas; their mutual interchange in the creation of the modern world. May be used to satisfy one part of the General Education Humanities and/or Fine Arts requirement.

2010, 2020 Survey of United States History I, II. Three credits each. Survey of the political, economic, social, cultural, and diplomatic phases of American life in its regional, national, and international aspects. HIST 2010 discusses the era from the beginning to 1877. HIST 2020 discusses the era from 1877 to the present. These courses are prerequisite for all advanced courses in American history and satisfy the General Education History requirement. HIST 2010 is NOT a prerequisite for HIST 2020.

2030 Tennessee History. Three credits. The role of the state in the development of the nation. May be used to satisfy one part of the General Education History requirement.

2040 Survey African American History I. Three credits. (Same as AAS 2040.) The role of African Americans in establishing and shaping the American nation. Covers their historical development and contributions to American art, music, literature, and religion.

2050 Survey African American History II. Three credits. (Same as AAS 2050.) The role of African Americans in shaping the American nation and creating a twentieth-century racial identity. Covers their historical development and examines their contributions to American art, music, literature, and religion.

## Upper-Division History Course Offerings

Six hours of HIST 2010, 2020, or 2030 are required of all students and are prerequisite to all upper-division American History courses. Three hours of HIST 1010, 1020, 1110, OR 1120 are prerequisite for all other courses. Exceptions are stated in the course descriptions or may be made by the department.

## History (United States)

3020 Topics in American History. Three credits. A detailed analysis of a topic pertinent to U.S. history. Topics vary from year to year. May be taken more than once for credit with different topic.

3030 Topics in African American History. Three credits. A seminar course exploring selected topics and problems in the AfricanAmerican experience since 1619. Possible topics include the Great Migration, the life and work of Malcolm X, Pan-Africanism, Caribbean enslavement, the African American church, the African American woman, African American education, and the Harlem Renaissance. This course may not be repeated for credit in either the major or minor.

3040 Topics in American Cultural History. Three credits. Literature, arts, social sciences, and popular culture examined with regard to a particular topic (such as the history of morality or the history of cultural rebellion) in order to understand how Americans have reacted to conflicting values in society. May be taken more than once for credit with different topic.

3050 Topics in Southern Studies. Three credits. Detailed examination of a particular topic important to the region's society, life, and development. May be taken more than once for credit with different topic.

3060 Topics in Tennessee History. Three credits. Prerequisites: HIST 2010 and 2020. Detailed examination of a pertinent topic in Tennessee history; topics will vary.

3120 Military History of the United States. Three credits. Particular emphasis on land warfare; examines battles, campaigns, and wars and the military's relationship to American governmental, societal, technological, and managerial patterns.

3121 Geography of Tennessee. Three credits. (Same as GEOG 3120.) Focuses on the diverse physical and human landscapes of the state. Topics include weather and climate, landforms, vegetation and soils, population patterns and trends, economic activities (including agricultural and geographical perspectives on social and environmental issues).

3170 History of the American South in Film. Three credits. Explores the South's image in major motion pictures during the twentieth century. Examines the links between the portrait of the South on screen and the particular social, political, cultural, and economic concerns of the historical period in which the films were made.

4010 Colonial America. Three credits. Exploration and colonization of North America, relations between Native Americans, Europeans, Africans, and colonial societies in the context of the Atlantic world from 1492 to 1760 .

4020 The American Revolution. Three credits. Examines the period from the Seven Years' War through the War of 1812, while emphasizing political, social, intellectual, and economic developments in the new United States.

4030 Jacksonian America, 1815-1850. Three credits. Major political, social, and economic developments in the awakening of American nationalism, Jacksonian democracy, expansionism, and the Mexican War.

4040 Civil War and Reconstruction. Three credits. Examines the various causes of the war, the military and political history of the war years, and the legacy of the war in Reconstruction, the Lost Cause, and American social and economic developments through World War I.

4050 Modern America, 1877-1914. Three credits. The nature and consequences of the shift of the United States from an agrarian to an urban and industrialized society between Reconstruction and World War I.

4060 Modern America, 1914-1945. Three credits. The increasing involvement of the United States in world affairs from World War I through World War II and the social and political consequences of economic complexity which resulted in prosperity, depression, and the New Deal.

4070 Modern America, Post-1945. Three credits. The major social, political, economic, and diplomatic developments in the history of the United States from 1945 to the present with particular emphasis on the role of government.

4130 The Sunbelt. Three credits. An overview of the economic, political, and cultural evolution of the Southern tier of states in the twentieth and twenty-first centuries.

4140 The United States West. Three credits. Emphasis on the area west of the Mississippi River from pre-contact to the twenty-first century. Explores major social, political, economic, and environmental issues with particular attention to race, class, gender, and the original inhabitants.

4150 The American South. Three credits. Major themes that have created and recreated Southern culture from the Colonial period to the present. Explores the major social, political, and economic factors that made and remade the region through time.

4341 Historical Geography. Three credits. (Same as GEOG 4340.) Prerequisite: GEOG 2000 or permission of instructor. The changing human geography of the United States during four centuries of settlement and development. Emphasis on changing population patterns as well as patterns of urban and rural settlement.

4540 Geography of Native Americans. Three credits. (Same as GEOG 4540.) Prerequisite: GEOG 2000 or permission of instructor. Lecture and field exercise format viewing America's native population from a geographic perspective. Native Americans will be examined geoarcheologically using geo-techniques to explore their past, present, and future; cultural ecologically-their symbiotic relationship with their surroundings; and through their economic and resource development-how they utilize natural and cultural resources that are presently on tribal lands.

4620 American Medical History. Three credits. History of health and sickness in the United States from 1607 to the present and the increasing influence of science and public policy on the delivery of health care and the practice of medicine.

4640 Environmental History. Three credits. Traces environmental change in America from European contact to the present and from wilderness to suburbia. Explains impact of growth, settlement, and resource exploitation on our national landscape and institutions.

4650 Religious Experience in America. Three credits. Explores the nature of religion as experienced in American history focusing on the questions "How has religion affected America?" and "How has America affected religion?" Emphasis on the nineteenth and twentieth centuries and on the contact of and exchanges among traditions such as Protestant/Catholic Christianity, Judaism, Islam, Eastern religions, and Animism.

4660 American Architectural History. Three credits. An analysis of the historical development of American architecture and of architecture as evidence of America's cultural, social, economic, and technological growth from 1607 to the present.

4670 American Urban History. Three credits. Development and growth of cities and suburbs from the colonial period to the present with particular emphasis on urban institutions, problems, politics, culture, and society.

4680 History of Sport in America. Three credits. The role of sport in American society from the colonial era to the present, with emphasis on how sporting activities reflect political, cultural, and economic characteristics of various time periods.

4690 Native American History. Three credits. United States American Indian history from before European contact to the present with emphasis on issues important to native peoples and their active participation in a constantly changing world.

4710 American Biography. Three credits. Lives and achievements of men and women most prominent in American history. Selected biographies and autobiographies will be read and analyzed.

4720 Boone's and Crockett's America. Three credits. The mass movement of farm families into the interior of North America before 1860. Emphasis on Native American life, frontier politics, society, and culture, as well as the subsequent development of a "frontier myth" celebrating this folk migration.

4730 American Social History. Three credits. Examines class, ethnicity, family life, and community in America from the colonial period to the present.

4740 American Cultural and Intellectual History. Three credits. Explores the major issues in American cultural and intellectual history
through an examination of American literature, philosophy, social sciences, fine arts, and popular culture.

4750 African American Social and Intellectual History. Three credits. (Same as AAS 4750.) The changing ideology of race and the socioeconomic status of African Americans in the American experience; contributions to the culture and institutions of the United States.

4760 America Divided: Race, Class, and Gender. Three credits. Interaction of race, class, and gender in the lives of Americans within historical frameworks and how such interactions have shaped American social and political institutions.

4770 Women in America to 1890. Three credits. Examines women's roles in the United States from colonial times to 1890, emphasizing experiences of different classes, races, and ethnic groups; work, family, and politics.

4780 Women in America Since 1890. Three credits. Examines women's roles in the United States since 1890, emphasizing experiences of different classes, races, and ethnic groups; work, family, and politics.

4820 American Diplomatic History to 1900. Three credits. An examination of United States foreign relations to 1900.

4830 American Diplomatic History Since 1900. Three credits. An examination of United States foreign relations since 1900.

## History (European)

3090 Topics in European History. One to three credits. A detailed examination of a topic pertinent to European history. May be taken more than once for credit with different topic.

4210 Middle Ages. Three credits. The progress of medieval civilization with emphasis on the period from 1100 to 1300.

4212 Intellectual and Cultural History of Early Modern Europe. Three credits. Examines major trends and movements in artistic, literary, social, economic, political, scientific, and religious thought in cultural context and diffusion in society, and how these trends and movements have changed European concepts since the Enlightenment. Begins about 1200 to establish a background and then focuses on 1400 to 1789 .

4213 Intellectual and Cultural History of Modern Europe. Three credits. Examines major trends and movements in artistic, literary, social, economic, political, scientific, and religious thought in cultural context and diffusion in society, and how these trends and movements have changed European concepts since the Enlightenment. Begins about 1650 then focuses on 1789 to the present.

4220 Renaissance Europe. Three credits. Examines the political, economic, social, intellectual, and cultural developments of Italy, France, England, Germany, and the Low Countries during the fourteenth through the seventeenth centuries.

4230 Reformation Europe. Three credits. Examines the political, economic, social, intellectual, and cultural developments of Italy, France, England, Germany, and the Low Countries during the sixteenth and seventeenth centuries.

4240 Europe: Absolutism and Enlightenment. Three credits. European history in the seventeenth and eighteenth centuries, covering social, economic, intellectual, and political developments.

4250 Europe: The French Revolution and Napoleon. Three credits. The social, political, and economic aspects of the Old Regime the French Revolution, and the Napoleonic period in European history.

4260 France Since 1870. Three credits. The social, political, intellectual, cultural, and economic history of France from the origins of the Third Republic to the present.

4270 Europe 1815-1900. Three credits. Nineteenth-century Europe.
4280 Europe 1900-1939. Three credits. Europe in the early twentieth century with emphasis on the expansion of democracy, continued industrialization, total war, and totalitarian ideologies.

4290 Europe Since 1945. Three credits. Major European countries and European themes from 1945 to the present.

4310 Germany to $\mathbf{1 8 7 0}$. Three credits. The evolution of the German states from their Indo-European origins to their unification in a single German nation in 1871 with particular emphasis on the history of German men and women since the Middle Ages. The history of Austria and its possessions also included.

4320 Germany Since 1870. Three credits. History of Germany from national unification in 1871 through its reunification in the contemporary world. Emphasis on the major social, cultural, political, intellectual, and economic developments of the period as they relate to both German men and women. The history of the Austro-Hungarian empire (1867-1918) and the modern Austrian state also included.

4330 Russia to the Twentieth Century. Three credits. Russian history from its beginnings to the end of the nineteenth century.

4340 Russia in the Twentieth Century. Three credits. A continuation of 4330 emphasizing the Revolution and the Soviet era.

4350 England to 1783. Three credits. English history from earliest times to the end of the American Revolution with emphasis on major political, cultural, economic, and social developments.

4360 Britain in the Nineteenth Century. Three credits. Political, economic, diplomatic, military, and cultural developments from the end of the Napoleonic era to Gladstone's retirement in 1894.

4370 Britain in the Twentieth Century. Three credits. Political, military, imperial, economic, and social history of a changing Britain in its century of total war, imperial decline, and economic readjustment.

4610 History of Medicine. Three credits. Medical developments and the relationship between medicine and society. Examines two medical traditions: the West and China. Focus not only on major developments in medicine but also on the systems of healing in these cultures; compares roles medicine played within these societies. Also investigates impact of Western scientific medicine on various systems of traditional medicine.

4790 Women in Europe Since 1700. Three credits. A comparison of the social, intellectual, cultural, political, and economic history of women's lives in Great Britain, France, Germany, and Russia/ USSR in the modern era.

## History (Global)

3070 Topics in World History. Three credits. A detailed examination of a topic pertinent to world history. Topics vary. May be taken more than once for credit with different topic.

3080 Topics in Modern Middle East History. Three credits. A major problem or political or social development in the contemporary Middle East. May be taken more than once for credit with different topic.

3130 The Vietnam War. Three credits. Examines military, diplomatic, political, and cultural aspects of the Vietnam War. Causes of the war; interplay between military, diplomatic, and domestic policy; historical memory of the conflict through analysis of texts, oral histories, films, and material culture.

3140 Latin American History. Three credits. Examines the chronological and basic periods, themes, and topics of Latin America's economic, social, political, and cultural histories from pre-Colombian times to the present.

3150 Twentieth Century Global History. Three credits. An integrated examination of major themes and selected area studies of the twentieth century. Themes include the world system, colonialism, the Great Depression, both world wars, the cold war, emergence of independent countries, economic globalization and dependency, religious stirrings, urbanization, massive migrations, social revolution, and the postindustrial world.

3160 Study Abroad in Africa. Six credits. Theoretical as well as first-hand experience on the history and cultures of Africa. Course may not be repeated for additional history hours.

4410 Classical History. Three credits. Ancient Greece and Rome, from about 2,000 B.C. to A.D. 476, emphasizing the classical historians, Greek and Roman culture.

4420 The Medieval Mediterranean World. Three credits. Examines the political, economic, social and intellectual, and cultural development of the countries bordering the Mediterranean.

4430 Sub-Saharan Africa. Three credits. (Same as AAS 4430.) Prerequisite: HIST 2040, 2050, 1010, 1020, 1110, or 1120 or AAS 2040 or 2050. Survey of the history of Africa from prehistoric times to the present. Emphasis on the early African kingdoms, European imperialism and colonialism, and the role of Africa as a contemporary world force.

4440 The Middle East. Three credits. The rise and spread of Islam, the Ottoman Empire, European imperialism in the Middle East, and contemporary developments. Emphasis on cultural contributions of the Middle East to Western civilization.

4450 Japan. Three credits. Japanese history from the formation of the first Japanese political state to the country's emergence as a postWorld War II economic superpower, focusing on the interconnection between cultural, economic, and political developments.

4460 China. Three credits. Chinese history from antiquity to the present People's Republic, stressing social history and the unique cultural features defining China's civilization.

4470 Canada. Three credits. Canadian history from the colonial era to the present with emphasis on European competition and major internal economic, religious, and cultural developments.

4480 South America. Three credits. Cultural, economic, and political traditions since 1492.

4490 Mexico and the Caribbean. Three credits. (Same as AAS 4490.) The development of cultural, economic, and political traditions since 1492.

4510 Colonial Latin America. Three credits. Examines the indigenous societies present before European colonization and the first encounters in Mexico, the Caribbean, and South America. Analyzes political structures imposed by the Spanish as well as the social and cultural implications of colonialism and miscegenation.

4520 Modern Latin America. Three credits. Prerequisite: HIST 1010, 1020, 1110, 2040, or 2050. Nineteenth- and twentieth-century Latin America. Examines colonial background, then focuses on the post-Independence period. Explores economic, political, social, and cultural developments since Independence.

4530 Latin American-United States Relations. Three credits. Relations between the United States and Latin America in the nineteenth and twentieth centuries with emphasis on the effect of cultural differences on inter-American diplomacy.

4610 History of Medicine. Three credits. Medical developments and the relationship between medicine and society. Examines two medical traditions: the West and China. Focus not only on major developments in medicine but also on the systems of healing in these cultures; compares roles medicine played within these societies. Also investigates impact of Western scientific medicine on various systems of traditional medicine.

4810 History of Women in the Third World. Three credits. Connections between modern colonialism and development of third-world feminisms. Focuses first on conquest and colonialism and the consequences for third-world women. Focus moves to post-colonial societies and expands to include women's political, economic, and social roles in the three regions of Africa, China, and Latin America.

4840 World War II. Three credits. Examines various aspects of the military, diplomatic, social, economic, and cultural changes caused by the global cataclysm of World War II.

4850 Material Culture Resources in World History. Three credits. The material culture resources (architecture, furniture, tools, utensils, weapons, ceremonial objects, etc.) of the world's major civilizations. Provides a basis for studying how various cultural styles have influenced the development of our own material culture resources.

## History (General Courses)

3010 The Historian's Craft. Three credits. Investigates the full range of activities of professional historians, teaches skills of research and writing history, and prepares students to enter the professional job market or to seek further education. Required for all History majors.

3012 University and Community History Project. Three credits. Indepth field study of some aspect of MTSU or local community history through the use of oral history methods and historical research. Interview skills and public presentation of findings emphasized. Topics vary.

3110 Explorations in Public History. Three credits. Historical artifacts with special emphasis on eighteenth- and nineteenth-century American architecture and furnishings. Related work in techniques of genealogical research. Readings, discussions, reports, and field trips.

3180 History of Modern War in Film. Three credits. Modern war as presented in major motion pictures. Analyzes the cultural responses to war in the twentieth and twenty-first centuries through movies made about war.

3720 Cultural Ecology. Three credits. (Same as ANTH 3720; GEOG 3720.) Prerequisites: 3 hours anthropology or geography. Comparison of ecological systems utilized by tribal, peasant, and industrialized peoples of the world. Special attention paid to the theoretical approaches examining the interface of the environment and culture, the evolution of modes of subsistence, and contemporary development and indigenous people.

4361 Cultural Geography. Three credits. (Same as GEOG 4360.) Prerequisite: GEOG 2000 or permission of instructor. Description and explanation of spatial patterns and ecological relationships in human culture. Emphasis on "reading" the cultural landscapes.

4471 Rural Settlement. Three credits. (Same as GEOG 4470.) Prerequisite: GEOG 2000 or permission of instructor. A geographical analysis of forms, structures, and distribution of rural settlements in distinctive parts of the earth based upon their origin, function, and development. Special emphasis in analyzing rural settlements of middle Tennessee.

4630 Quantitative History. Three credits. Examines quantitative reasoning in historical research. Covers historiographical questions and practical research skills. Includes historical causality, historical change over time, data preparation, sampling, and the interpretation of quantitative data.

4860 Historical Archaeology. Three credits. (Same as ANTH 4860.) Disciplines of historical archaeology, including examination of archaeological evidence, historical documentation, and interpretation of evidence.

4898 Honors in History. Three credits. For students of advanced standing and superior academic ability. Admission only by permission of the Department Honors Committee and approval by the University Honors Subcommittee.

4950 Public History Internship. Three credits. Student works in a public or private agency or organization under the guidance of a professional mentor in a public history field related to career goals.

4970 Senior Independent Research. Three credits. Prerequisite: Permission of department and professor. For advanced History majors. Research project under the careful guidance of a faculty member; substantive research product in history completed. May be taken only once for History major credit.

## Human Sciences [HSC]

## Human Sciences (General)

1010 Career Orientation. One credit. Development and scope of human sciences as a profession; its wide variety of career opportunities with analysis of interests, aptitudes, proficiency, and education related to success in these areas. Two hours per week until midterm.

3020 Presentation Techniques. Three credits. Principles and techniques of effective presentations and demonstrations. Opportunities for experience in presenting demonstrations to the public through mass media. Three hours per week.

3430 Housing. Three credits. Evaluation of housing and equipment in terms of family needs, economics, building codes, legislation, and technological developments. Housing alternatives presented and analyzed with emphasis on future trends in the field. Spring only.

4000 Senior Seminar. One credit. Prerequisites: HSC 1010 and junior standing. Examines human sciences professions from a global perspective. Identifies skills for success in developing and managing a career. Includes resume and cover letters, leadership, networking, life/work planning, and ethics and professionalism in human sciences fields.

4041- Seminar in Human Sciences. Prerequisite: Permission of de-
4044 partment. Individual research and/or analysis of contemporary problems and issues in a concentrated area of study. For advanced students. Can be repeated for up to 9 hours.
4041 Child Development and Family Studies. Three credits.
4042 Nutrition and Food Science. Three credits.
4043 Textiles, Merchandising, and Design. Three credits.
4044 Interior Design. Three credits.
4051- Advanced Problems in Human Sciences. Prerequisite: Permis-
4054 sion of department. Opportunity for advanced students to do independent study or conduct research in their areas of emphasis. Topic of study or research to be determined by student and professor prior to registration. Can be repeated for up to 9 hours.
4051 Child Development and Family Studies. Three credits.
4052 Nutrition and Food Science. Three credits.
4053 Textiles, Merchandising, and Design. Three credits. 4054 Interior Design. Three credits.

4060 Readings in Human Sciences. One to three credits. Prerequisite: Permission of department. Selected readings in current trends, developments, and research in human sciences. Topic of independent study to be determined prior to registration.

4101- Internship. Six credits. Prerequisites: Permission of department,
4104 minimum 2.25 GPA , and specific program area course requirements. Experiential learning opportunity to provide students with supervised professional work experience in their major fields. Minimum of 300 hours at internship site plus seminars. 4101 Child Development and Family Studies (Prerequisites: CDFS 2350, 3310, 3320, 3330, 3390, 4140, 4310, 4340, 4350, 4390, 4391, and 4790). Spring and Summer only.
4102 Nutrition and Food Science (Prerequisites: NFS 3200, HSC 4430, and approval of advisor).
4103 Textiles, Merchandising, and Design (Prerequisites: retail -oriented: TXMD 1170, 2180/81, 3150 or 2320, 3170, 4150; design-oriented: TXMD 1110, 1170, 2320, 2180/81, 3220.)
4104 Interior Design (Prerequisites: IDES 3730, 4750).
4410 Consumer Economics. Three credits. Study of the economic system and factors influencing consumer decisions and the marketplace; identifies social, economic, and political forces shaping consumer demands; and analyzes the influence of customs, trends, peer groups, and advertising.

4420 Personal and Family Management. Three credits. Examines management functions. Emphasis on management roles and responsibilities of human sciences professionals, the relationship of the learning organization concept to the human sciences profession, and the use of quality improvement techniques to solve problems encountered by professionals.

4430 Resource Management. Three credits. Opportunity to identify and integrate the management functions of the human sciences areas. Emphasis on management roles and responsibilities of human sciences professionals, the relationship of the learning organization concept to the human science profession, and the use of quality improvement techniques to solve human sciencesrelated problems.

4450 Professionalism in Consumer Services. Three credits. The role, functions, and responsibilities of consumer services professionals employed in business, government, and other organizations.

## Humanities [HUM]

2130 Medical Vocabulary. Three credits. Principles of forming and deciphering medical terminology.

2610 Foreign Literature in Translation. Three credits. Prerequisites: ENGL 1010 and 1020. Representative works of French, German, and Hispanic authors in English translation. No foreign-language proficiency required. Carries General Education credit.

3000 Special Topics in Foreign Language Linguistics. Three credits. Prerequisite: ENGL 3570, PSY 4820, ANTH 3410, or SPAN 3120 or permission of instructor. Selected topic in theoretical linguistics focusing on languages other than English. Content varies from semester to semester. May be repeated under a different subtitle.

3365 Hispanic Writers in American Literature. Three credits. (Same as ENGL 3365.) Acquaints students with the literary works of Hispanic Americans writing in English. Emphasis on analysis of the intersection of cultures and traditions and the formation of Hispanic American identity.

3500 Latino Images in U.S. Film. Three credits. Prerequisites: ENGL 2020 or 2030 or permission of instructor. Explores the past and present portrayals of Latinos in U.S. cinema.

3600 Israeli Cinema. Three credits. Prerequisite: ENGL 2020 or 2030 or permission of instructor. Explores personal and political conflicts conveyed by filmmakers from Israel.

3950 Women in the Middle Ages. Three credits. The role of women in western Europe from the late fifth to the end of the fifteenth century, emphasizing their cultural contributions in the courtly world, the church, the world of work, and the arts.

4000 Women of the Middle East: Representations and Perceptions. Three credits. Prerequisite: ENGL 2020 or permission of the instructor. Explores images of Middle Eastern women and their reception over time.

4550 The Grail Legend in Film and Literature. Three credits. Prerequisites: ENGL 2030 and either HUM 2610 or ENGL 2020; or permission of the instructor. Explores the origin and development of the Grail legend in Western art primarily in literature and film.

4610 Comparative Literature. Three credits. Comparative literature in terms of its concerns with literary theory and criticism as well as its practical application. A reading knowledge of a foreign language is recommended.

## Information Systems [INFS]

1000 Introduction to Computers and Related Topics. Three credits. An overview of the workings of a computer including hardware, software, and applications. Provides hands-on experience with various software packages. (Not open to business majors.)

1010 Social Networking and Collaborative Technologies. Three credits. Recent trends in social networking technologies, focusing on such popular applications as Facebook and LinkedIn. Covers modern developments in collaborative enabling technologies, including blogs, wikis, and groupware; technologies to facilitate personal, academic, and professional growth; and privacy, security, and ethical issues surrounding the use of social networking and collaborative technologies.

2200 Introduction to Microcomputing. Three credits. Microcomputer applications and the microcomputer environment. (Not open to CIS majors.)

2400 Web Development. Three credits. Web development using HTML, XHTML, CSS, JavaScript, and multimedia Web content. Covers planning, design, development, and publishing of a Web site.

2600 Programming Logic with VB.NET. Three credits. Programming logic and concepts using the VisualBasic.NET programming environment. Includes program design, data types, data structures, flow control, arrays, error control, graphical userinterfaces, and file processing as applied in the context of business information systems problem solving.

2720 COBOL Applications. Three credits. Prerequisite: INFS 2200 or permission of instructor. Systems of commercial computer programming using Common Business Oriented Language in solving business problems.

2730 Programming Languages. Three credits. Object-oriented programming methods. Topics include fundamental programming structures, objects and classes, encapsulation, inheritance and polymorphism, exceptions, graphical user-interfaces and event handling, and file processing. Emphasis on practical applications of object-oriented concepts in business context.

3100 Principles of Management Information Systems. Three credits. Prerequisite: Junior standing. The role of information technology in organizations.

3200 Business Application Development. Three credits. Prerequisites: INFS 2200 or foundation knowledge of microcomputer applications; junior standing. An applications-oriented course; extensive laboratory work and development of projects.

3400 Object-Oriented Programming with C\#.NET. Three credits. Prerequisite: INFS 2600 or equivalent. Introduction to objectoriented programming methods. Topics include objects and classes, encapsulation, inheritance and polymorphism, exceptions, graphical user-interfaces and event handling, streams and files, and deployment. Emphasis on practical applications of object-oriented concepts in a business context.

3500 Knowledge Management Systems. Three credits. Analysis, design, and implementation of knowledge management systems in organizations. Addresses the facilitating and enabling role of information management and communication technologies. Technologies covered include neural network, software agent, workflow management, integrated communication network, expert systems, content management, Web portal, and search mechanisms. Hands-on projects to reinforce understanding of theoretical frameworks.

3700 Systems Analysis and Design. Three credits. Prerequisites: 6 hours of information systems; junior standing. Applied system analysis and design (concepts and techniques) including problem definition, feasibility analysis, various modeling methods, hardware and software selection, documentation, physical design, and auditing procedures. Appropriate automated technologies used.

3800 Project Management and Systems Development. Three credits. Prerequisite: Junior standing. Explores the roles and environments of project management, the product life cycle, and techniques for work planning, control, and evaluation. Covers developing a project plan, resource management, project scope and quality, budgeting, and managing project risk

3990 Independent Study in Information Systems. One to three credits. Prerequisites: Junior standing and consent of department chair. Assigned research or projects in contemporary problem areas in the information systems discipline under direct faculty supervision. Aggregate credits allowable toward a degree may not exceed 3 hours under 3990 courses.

4200 Data-Enhanced Internet Applications. Three credits. Prerequisite: INFS 3200 or permission of instructor. Focuses on database system design, deploying, maintaining, and querying a database
using appropriate hardware and software. E-commerce applications in a microcomputer environment.

4300 Security Assurance and Information Systems Auditing. Three credits. An in-depth look at developing, implementing, monitoring, and auditing an information system's security. Managerial concepts for security of operating systems, administering security, and legal/ethical/policy issues examined as well as a hands-on approach to implementing operating systems security techniques. Explores the advancement in security detection and implementation, problem-solving techniques, and the role and importance of the information systems auditor.

4420 Information Systems Internship. Three credits. Prerequisites: Junior standing, consent of advisor, and a plan of activities with the associated firm prior to registration. Active employment with a governmental agency or business firm for information systems/ accounting fieldwork; credit given for experience and research upon completion of acceptable work and formal report. Aggregate credits allowable toward a degree in information systems may not exceed 3 hours under 4420 courses.

4500 New Technologies in Information Systems. Three credits. Prerequisites: 12 hours of information systems credit; senior standing. Future technological advances including automating the creation and maintenance of systems with CASE tools, systems engineering packages, and integrated CASE technologies.

4740 Information Resource Management. Three credits. Prerequisites: 6 hours of information systems; junior standing. Information technologies utilizing computers as a competitive tool in a global environment.

4760 Advanced Programming. Three credits. Prerequisites: INFS 2720; junior standing. Functional programming experience in structured programming techniques; top-down design; advanced file handling and maintenance techniques to include sequential, indexed sequential, direct, and relative file organization; interactive, menu-driven applications; and uploading/downloading programs to a central site. Requires extensive laboratory work.

4790 Database Design and Development. Three credits. Prerequisites: INFS 3200; junior standing. Fundamental concepts: conventional data systems, integrated management information systems, database structure systems, data integration, complex file structure, online access systems. Emphasis on total integrated information systems database and database management languages.

4830 Database Programming. Three credits. Prerequisites: INFS 4790 or consent of instructor. Operational database design and implementation. Development of the interfaces that enable end users to query the database contents and transform data into information. Requires each student to participate fully in a group project.

4900 Business Data Communications. Three credits. Prerequisites: 6 hours of information systems; junior standing. Practical explanation of data communications technologies and basic applications for business. Includes projects to develop a prototype network in a lab environment for hands-on experience.

4950 Advanced Web-Enabled Application Development. Three credits. Prerequisites: INFS 2400, 3400, and 3800. Server-side Web programming techniques and multitier application development. Includes accessing databases and XML documents, creating and processing Web forms, methods of Web form validation, maintaining session state, Web application security, and configuration and deployment.

4980 Information Systems Project. Three credits. Prerequisites: Senior standing and 12 hours of information systems credit including INFS 3200 and 3700. Systems Development Life Cycle (SDLC) design
and implementation. Appropriate automated technologies used throughout the course.

4990 Independent Study in Information Systems. One to three credits. Prerequisites: Senior standing and consent of department chair. Assigned research or projects in contemporary problem areas in the information systems discipline under direct faculty supervision. Aggregate credits allowable toward a degree may not exceed 3 hours under 4990 courses.

## Interdisciplinary Microanalysis and Imaging Center [IMIC]

4820 Practical Training in Microanalysis Techniques. One credit. Introduces students to one microanalytical technique. Individual attention provided with the goal that the student will become an independent user with the technical skills to pursue research projects safely, properly, and independently. Emphasis on sample preparation, data collection, and data analysis. May be retaken with emphasis on a different instrument. Pass/Fail.

## Interior Design [IDES]

2700 Interior Design Fundamentals. Three credits. Prerequisite: Sophomore standing; admission to IDES professional course sequence. IDES 2700 and 2710 must be taken during same semester. Introduction to interior design as a profession, career opportunities, professional organizations. Development of handblock lettering styles and techniques. Exploration of elements and principles of design with emphasis on the impact on the built environment. Five contact hours per week.

2710 Interior Design Graphics. Three credits. Prerequisite: Sophomore standing; admission to IDES professional course sequence. IDES 2700 and 2710 must be taken during same semester. Drafting techniques and media commonly used in interior design. Will include orthographic, isometric, axonometric, and oblique drawings, graphic symbols, and entourage. Five contact hours per week.

2930, 2940, 3970, 3980 Cooperative Education. Three credits. Prerequisite: Permission of instructor. Experiential learning that occurs in real employment situations. Must be taken in sequence or approved by the IDES coop coordinator.

3600 House Design. Three credits. Prerequisites: IDES 2700 and 2710; must be taken concurrently with IDES 3750 . Human shelter: the personal dwelling. Emphasis on the organization and documentation of interior space, light frame construction methods and materials, structure, and systems derived from human needs and activities. Five contact hours per week.

3700 Interior Design Visual Presentations I. Three credits. Prerequisites: IDES 3600; ART 1620. Interior rendering techniques, perspective drawing, sketching, and operation and care of equipment necessary in the effective communication of design solutions. Five contact hours per week.

3710 Principles of Interior Design. Three credits. Prerequisites: IDES 2700 and 2710. Basic principles, theories, and procedures involved in creative problem solving. Five contact hours per week.

3720 Interior Materials and Finishes. Three credits. Prerequisites: IDES 2700 and 2710. Materials and finishes used in the treatment of interior space to be examined in terms of properties, specifications, installation, and manufacturers.

3730 Residential Design I. Three credits. Prerequisites: IDES 3710, 3720, and 3600. Corequisite: IDES 3700. Analysis and organization of components, materials, and space relative to human scale and habitability. Influence factors of architecture, function, and economics on the design of interior environment. Emphasis on the data gathering and space planning. Five contact hours per week.

3740 Interior Design Business Practices. Three credits. Prerequisite: IDES 3720; must be taken concurrently with IDES 4750. Business practices, ethics, Americans with Disabilities Act, building, fire, and life safety codes as applied to the interior design profession.

3750 Interior Design Visual Presentations II. Three credits. Prerequisites: IDES 2700, 2710; corequisite: IDES 3600. Presentation techniques using computer-aided drafting as applied to the interior design profession. Emphasis on 2-dimensional drawings. Five contact hours per week.

3760 Interior Design Visual Presentations III. Three credits. Prerequisite: IDES 3750. Presentation techniques using computer-aided drafting as applied to the interior design profession. Emphasis on 3 -dimensional drawings and customizing techniques. Five contact hours per week.

3770 Advanced Computer Applications in Interior Design. Three credits. Prerequisite: IDES 3750. Computer applications used in creating interior design presentations. Emphasis on rendering and illustration. Five contact hours per week.

4620 House Furnishings. Three credits. Design principles; space planning; materials; furniture styles, selection, and buying. Four contact hours per week. Not accepted for credit toward Interior Design major.

4700 History of Interiors. Three credits. Prerequisite: Junior standing. Survey of historic styles from antiquity through 18th Century Europe. Emphasis on major design characteristics of interior architectural and furnishing styles.

4710 Survey of Contemporary Interior Design. Three credits. Prerequisite: IDES 4700. Survey of American interiors and the development of contemporary interiors from the early nineteenth century to the present with consideration given to style characteristics, cultural influences, designers, and relationships among styles.

4730 Residential Design II. Three credits. Prerequisites: IDES 3730, 3760, 4740, and 4750. Corequisites: IDES 4780 and 4790. Advanced studio experiences in residential interiors. Emphasis on designing for special populations, sustainable design, and multicultural influences. Five contact hours per week.

4740 Lighting Design. Three credits. Prerequisites: IDES 3710, 3730, and 3750. Corequisites: IDES 3740 and 4750 . Principles, terminology, design requirements, and equipment for general and decorative illumination as utilized in the interior environment. Methods of light generation, control, product analysis, selection, and specification.

4750 Introduction to Commercial Design. Three credits. Prerequisite: IDES 3730; corequisites: IDES 3740 and 4740. Issues and procedures found in the commercial interior design field; utilization of resources, human factors and client needs in planning and developing design solutions for office spaces. Five contact hours per week.

4760 Contract Design I. Three credits. Prerequisites: IDES 3740, 4730, 4750 , and 4790 . Specific human and physical needs encountered in the total design of interiors of a public nature. Emphasis on health care and institutional spaces. Five contact hours per week.

4770 Contract Design II. Three credits. Prerequisite: IDES 3740, 4730, 4750, 4790. Advanced studio experience in contract design. Emphasis on problem solving, documentation, and presentation of hospitality spaces. Five contact hours per week.

4780 Interior Design Portfolio. Three credits. Prerequisite: IDES 4750; corequisites: IDES 4730 and 4790. Preparation of interior design portfolio, including projects, resumes, and job search skills. Design of retail spaces. Review of NCIDQ exam. Five contact hours per week.

4790 Interior Construction Documents. Three credits. Prerequisite: IDES 4750; corequisites: IDES 4730 and 4780. Advanced studio experience addressing residential and commercial interior construction techniques, documentation, and project management. Five contact hours per week.

## Italian [ITAL]

1010 Elementary Italian I. First semester. Three credits. An introductory course in the Italian language and culture, with special emphasis on daily expressions and forms of communication.

1020 Elementary Italian II. Second semester. Three credits. Prerequisite: ITAL 1010 or advanced placement. Continuation of ITAL 1010. Increased emphasis on the acquisition of fluency in Italian.

2010 Intermediate Italian I. Three credits. Prerequisite: ITAL 1020 or permission of instructor. A review of Italian grammar with reading and oral exercises designed to improve understanding of written and spoken language.

2020 Intermediate Italian II. Second Semester. Three credits. Prerequisite: ITAL 2010 or permission of instructor. Continuation of ITAL 2010.

## Japanese [JAPN]

1010 Elementary Japanese I. Three credits. A foundation in reading, writing, speaking, and aural comprehension.

1020 Elementary Japanese II. Second semester. Three credits. Prerequisite: JAPN 1010 or equivalent. A continuation of materials introduced in 1010.

2010 Intermediate Japanese I. Three credits. Prerequisite: JAPN 1020 or equivalent.

2020 Intermediate Japanese II. Second semester. Three credits. Prerequisite: JAPN 2010 or equivalent.

3010, 3020 Advanced Japanese. Three credits. Prerequisite: JAPN 2020 or equivalent. A continuation of modern Japanese. Emphasis on linguistic and communicative skills in speaking, reading, writing, and listening. Includes further study of Japanese culture for enhanced understanding of the language.

3030 Advanced Japanese III. Three credits. Prerequisite: JAPN 3020 or permission of instructor. A continuation of JAPN 3020. Emphasis on linguistic and communicative skills in speaking, reading, writing, and listening. Includes further study of Japanese culture for enhanced learning of the language.

## Journalism [JOUR]

1020 American Media and Social Institutions. Three credits. (Same as EMC/RIM 1020.) The power of the mass media and its effect on social institutions and practices. Develops skills of qualitative and quantitative social science research in the area of mass communication processes; examines media as social, cultural, and economic institutions that shape the values of American society, its political dialogues, its social practices, and institutions.

2710 Media Writing. Three credits. Prerequisites: ENGL 1010 and 1020 or equivalents. Theory and practice of writing for print and electronic media according to the techniques, styles, and formats of various media. Laboratory required.

3000 Introduction to Motion Pictures. Three credits. (Same as EMC 3000.) Prerequisite: Junior standing or permission of instructor. The development and role of motion pictures in America, including the history of films and filmmakers, the influence of film on American culture, and film criticism.

3090 Reporting. Three credits. Prerequisite: JOUR 2710. Theory and practice of basic journalistic skills, including the gathering, evaluating, and processing of news copy for newspapers. Classwork will be submitted to student or local newspapers.

3100 Music as Popular Culture. Three credits. (Same as RIM 3100.) Prerequisite: Admission to candidacy. Introduces range of scholarly approaches to the study of popular music. Encourages perspectives other than those of "producer" or "consumer." Requires applications of analytical and critical methods in research paper assignment.

3450 Editing. Three credits. Prerequisite: Admission to candidacy. Theory and practice in the art of copy editing, including editing, language skills, newspaper style, news judgment, headline writing, photo editing, cutline writing, and page design.

3510 Media History and American Culture. Three credits. (Same as EMC 3510.) Development of American journalism and the mass media from Colonial times to the present, including the role and influence of mass media on American culture, technical advances, and contributions of individual personalities.

3520 Specialized Journalism. Three credits. Prerequisite: JOUR 3090 and admission to candidacy. The unique facets of print journalism not available in other courses. Topics include investigative, online, environmental, sports, medical, political reporting, or opinion writing. May be repeated up to 6 credits.

3530 Feature Writing. Three credits. Prerequisite: Admission to candidacy or permission of instructor. Theory and practice of writing feature stories for newspapers and magazines. Assignments in writing for professional publications as well as the student newspaper.

3580 MC Practicum. One to three credits. Prerequisites: Admission to candidacy; junior standing; permission of instructor. Practical experience in an on-campus mass communication setting. Note: Total credit for practicum and internship courses cannot exceed 3 credits. Pass/Fail.

3590 Magazine Writing and Editing. Three credits. Prerequisites: Admission to candidacy; JOUR 3530. Types of magazines and editorial needs; practice in magazine article writing.

3650 Free Expression, Mass Media, and the American Public. Three credits. (Same as EMC/RIM 3650.) A general introduction to the issues surrounding free expression and its relationship to mass media in contemporary America. Comprehensive analysis of the
history, philosophies, cases, and controls associated with freedom of expression.

4000 MC Internship. One to three credits. Prerequisites: Admission to candidacy; upper-division standing; permission of the internship coordinator. Advanced students gain practical experience in a professional setting. Note: Total credit for internship and practicum courses cannot exceed $\mathbf{3}$ credits. Pass/Fail.

4210 Mass Communication and Society. Three credits. (Same as EMC 4210.) Prerequisite: Junior standing. Theories of the process of mass communication, how media affect society, the evolution within a social and cultural context, ethical and social dimensions. Extensive reading in theory, history, and research. Media-content emphasis varies depending on instructor's expertise.

4250 Mass Media Law. Three credits. (Same as EMC 4250.) Prerequisites: JOUR 1020; junior standing. Examination of legal guarantees and restrictions on the flow of information using the case study method. Focus on libel, privacy, obscenity, and the special restrictions placed on advertising, broadcasting, cable TV, and the Internet.

4300 Reviewing and Criticism. Three credits. Prerequisite: Admission to candidacy or permission of instructor. Theories and practice of reviewing and criticism in the mass media. Overview of current trends in film, theatre, music, books, and other entertainment media. Practice in critical and analytical writing.

4440 Advanced Reporting. Three credits. Prerequisite: Admission to candidacy. Advanced theory and practice in news reporting, emphasis on coverage of governmental affairs and other public affairs-related assignments, including an introduction to interpretive and investigative reporting techniques.

4660 Mass Media Research. Three credits. (Same as EMC 4660.) Prerequisite: Junior standing. Overview of contemporary research methods, analysis, and evaluation of current research, and design and execution of a study. Emphasis on public opinion and media research.

4780 Media and Markets. Three credits. Prerequisite: Junior standing. Approaches to understanding media audiences. Examines tensions between the business and public functions of media, and social and ethical conflicts related to media marketing.

4790 Global News and World Media Cultures. Three credits. (Same as EMC 4790.) Prerequisite: Junior standing. Systems and philosophies associated with gathering international news and news coverage in different regions. Looks at global communication systems and ownership; examines how cultures shape news and the role of the individual in reporting news internationally. Includes discussion of development issues and role of global advertising and public relations.

4800 Seminar in Media Issues. Three credits. (Same as EMC 4800.) Prerequisite: Junior standing. Examination and critical evaluation of issues relevant to the operation and functions of mass media, including their relationships to each other and to government, advertisers, consumers, and other publics. May be repeated up to 6 credits.

4810 Global Comparative Media Systems. Three credits. (Same as EMC 4810.) Prerequisites: EMC/JOUR 4790 or permission of instructor and junior standing. A close comparative study of chosen media systems in regions of the world. Examines print, broadcast, entertainment, and new media in Western and Eastern Europe, Asia and the Pacific Rim Region, the Middle East, Africa, and the Americas. Media interactions with an influence on the geographic,
demographic, linguistic, cultural, economic, and political structures of countries.

4850 Ethics and Mass Communication. Three credits. (Same as EMC 4850.) Prerequisite: Junior standing. Examination of ethical concerns of media practitioners illuminated by study of selected current ethical issues and an overview of the cultural and philosophical basis of socially responsive mass media.

4900 Individual Problems in Mass Communication. One to three credits. (Same as EMC 4900.) Prerequisites: Admission to candidacy; permission of instructor. Independent study projects or research related to media issues or professions. Pass/Fail.

## Latin [LATN]

1010 Elementary Latin I. Three credits. A foundation course in Latin grammar, word derivations, and reading. Special attention given to contributions of Latin to legal and medical terminology.

1020 Elementary Latin II. Second semester. Three credits. Prerequisite: LATN 1010 or equivalent. Continuation of materials introduced in LATN 1010. Increased emphasis on reading Latin texts.

2010 Intermediate Latin I. Three credits. Prerequisite: LATN 1020 or advanced placement. Includes readings from both classical and later periods, prose and verse.

2020 Intermediate Latin II. Three credits. Prerequisite: LATN 2010 or advanced placement. Continuation of LATN 2010.

## Leadership Studies [LEST]

3010 Leadership Theories and Practices. Three credits. Examines prominent leadership theories, approaches, and research.

3245 Women, Leadership, and Communication. Three credits. (Same as ORCO 3245.) Prerequisites: COMM 2300, 3340, and 3225; ORCO 3240. Communication behaviors and issues unique to women in leadership positions. Students exposed to various activities and discussions designed to develop critical-thinking skills, broaden perspectives, adapt decision-making skills to the professional environment, and create professional relationships.

4001 Integrative Seminar in Leadership Studies. One credit. Prerequisites: Completion of Leadership Studies minor coursework or permission of instructor. Culminating experience aimed at interconnecting learning from courses in the Leadership Studies minor. Pass/Fail.

4500 Topics in Leadership Studies. Three credits. Prerequisite: Completion of 60 credit hours. An in-depth study of a special topic which is significant in leadership studies literature and/or practice.

## Library Science [LIBS]

4150 Books, Media, and Literacy for Children. Three credits. Materials suitable for elementary school children. Includes a study of leisure time and curricular materials, criteria for evaluating materials, and related aids in selection of materials and their use in a classroom setting.

4160 Books, Media, and Literacy for Young People and Adults. Three credits. Materials suitable for young adults and adults, criteria for selection and evaluation of materials, and their use in a classroom setting.

## Management [MGMT]

## Management (General)

1500 First-Year Seminar. One credit. Only for students with fewer than 30 hours or first-semester transfer students. Designed as an elective for first-year declared management majors and others interested in the management major. Introduces course requirements for a major in management, options for management electives, diverse subfields, and career options.

3610 Principles of Management. Three credits. Prerequisite: Junior standing. Concepts of the management functions of planning, organizing, and controlling with an emphasis on behavioral science concepts as applied to managing people in organizations.

3630 Organization Theory. Three credits. Prerequisite: MGMT 3610. The organization as a system. Emphasis on the external environment, performance measurement, structure (including contingency theory of organization design), bureaucracy, and the impact of behavioral aspects on organization theory.

3650 New Venture Creation. Three credits. Prerequisites: BCEN 2900 or MGMT 3610; junior standing. An examination of the process of new venture formation. Topics include recognizing and testing opportunity, developing the business concept, analyzing risks, and financing the new venture.

3890 Managerial Decision Making. Three credits. Prerequisite: MGMT 3610. Investigates the decision-making processes of business professionals to gain an understanding of how decisions are made. Emphasis on creative problem solving, critical thinking, problem formulation, and decision analysis.

3940 Business Ethics. Three credits. Prerequisite: Junior standing. The impact of individual values and ethics on business operations, including management of the organization and marketing of goods and services. Topics include legal and ethical aspects of dealing with the environment, consumers, employees, and the general community.

3970, 3980 Cooperative Education. One to three credits. Prerequisite: Junior standing. Provides students with the opportunities for full-time on-the-job training in conjunction with on-campus academic experiences. Students will participate in professional growth seminars. Departmental and MTSU Career Development Center requirements must be completed to receive credit. These courses (1) may not be used to satisfy the major or the minor requirements and (2) may not be taken concurrently with BUAD 4980.

4200 Leadership in Organization. Three credits. Prerequisites: Junior standing; MGMT 3610 or permission of department. Importance of leadership in organizations. Examines major theories and concepts relative to leadership in formal organizations. Emphasis on practical application of leadership knowledge in the leadership role.

4680 Organization Behavior. Three credits. Prerequisite: MGMT 3610. Human behavior in organizations. Emphasis on motivation, leadership, communication, group processes, and methods for managing change. Understanding human behavior allows student to learn better employee utilization strategies resulting in a more effective and efficient organization.

4710 International Business. Three credits. (Same as MKT 4710.) Prerequisites: MGMT 3610 and MKT 3820. International organizational structures and managerial processes. Cultural, political, economic, and legal environments of global marketing. World market patterns and international trade theory.

4730 Global Comparative Management. Three credits. Prerequisite: MGMT 3610. Cross-cultural dimensions of management theories and the applicability of these theories in a multicultural and multinational environment. Topics include cross-cultural communications, motivation, leadership, and decision making. The role of MNCs in economic development and their relationship with host countries also examined.

4820 Management Research. Three credits. Prerequisites: QM 2610 and MGMT 3610. Scientific concepts, methodology, and procedures in designing and conducting research for management decision making.

4840 Study Abroad. Three credits. (Same as MKT 4840.) Prerequisite: Junior/senior standing. A short-term international business education experience designed to expose the student to the economic, political, cultural, and social environments of a foreign country(ies). Emphasis on the international state/status of the subject matter pertinent to management and marketing.

4920 Small Business Management. Three credits. Prerequisite: MGMT 3610. Analysis of problems and considerations involved in planning, organizing, and operating small businesses and entrepreneurial ventures. Emphasis on environmental issues, growth strategies, process management activities, and human resource management.

4950 Management Internship. Three credits. Prerequisites: Management or entrepreneurship major with senior standing and an overall grade point average of at least 2.50 . Student is affiliated with an organization on a part-time basis to develop knowledge and experience in the practical application of management theory to actual business problems in a non-classroom situation. This course can only be taken one time, and those taking it may not take MGMT 4990.

4990 Independent Study. One to three credits. Prerequisites: Senior standing and approval of department chair. Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of an approved faculty member. This course can only be taken one time, and those taking it may not take MGMT 4950.

## Management (Human Resources)

3810 Human Resources Management. Three credits. Prerequisite: Junior standing. The organization, functions, and administration of a human resources management department, including selection, training, placement, promotion, appraisal, pay incentives, and laws affecting the human resource function.

4490 Industrial Relations Legislation. Three credits. (Same as BLAW 4490 and ECON 4490.) Prerequisite: Junior standing. Economic background and effects of government regulation of labor relations; emphasis on a detailed examination of the National Labor Relations Act as amended or expanded by the Labor Management Relations Act, the Labor Management Reporting and Disclosures Act, and Title 7 of the Civil Rights Act.

4500 Employment Discrimination Law. Three credits. (Same as BLAW 4500.) Prerequisite: Junior standing. A detailed examination of the legal rights and responsibilities of employers and employees with respect to fair employment practices; emphasis on significant statutes, administrative regulations, and judicial decisions forming the body of antidiscrimination law.

4510 Unions and Collective Bargaining. Three credits. (Same as ECON 4510.) Prerequisite: Junior standing. The decision-making processes in the industrial relations system and their impact upon the American economy. Particular emphasis on collective bargain-
ing, contract administration, and impasse procedures both in the public and private sectors.

4620 International Human Resource Management. Three credits. Prerequisite: MGMT 3810. International human resource functions including compensation, labor relations, training, selection, and performance appraisal; impact of culture on IHRM activities.

4640 Human Resources Planning and Staffing. Three credits. Prerequisites: MGMT 3610 and 3810. Basic concepts, principles, and practices involved in the acquisition of human resources: identifying employment needs, forecasting human resource requirements, recruiting employees internally and externally, and selecting qualified candidates and matching them with appropriate jobs.

4650 Human Resource Development. Three credits. Prerequisites: MGMT 3610 and 3810. The role of human resource development in organizations including needs analysis; design, development, and implementation of programs in training and development; career development; management development; and executive development.

4660 Compensation Systems. Three credits. Prerequisites: MGMT 3610 and 3810 . Formal organization compensation systems. Emphasis on the design, implementation, and administration of compensation systems utilizing wage theory, applicable analytical tools, research results from the behavioral sciences, and evaluations of actual practices currently utilized in the private and public sectors.

4690 Problems in Human Resources Management. Three credits. Prerequisites: MGMT 3610 and 3810. Contemporary problems and issues in personnel and industrial relations in industry, using research findings as a basis for more constructive action in government-labor-industry relations.

4830 Performance Appraisal. Three credits. Prerequisites: MGMT 3610 and 3810. Theoretical and practical issues related to HRM performance appraisal in organizations. Emphasis on job analysis, measurement of performance, judgmental measures of performance, rating biases, cognitive components in rating, feedback process, performance appraisal training, perceived fairness and accuracy, and legal issues.

## Management (Operations)

3010 Management of Operations. Three credits. Prerequisites: MATH 1730 or 1710; junior standing. Will not substitute for MGMT 3620. Fundamental concepts and decisions involved with planning, operating, and controlling operations function in a firm. (Not open to business majors.)

3620 Operations Management. Three credits. Prerequisites: QM 2610; junior standing. Management of production systems with emphasis on the process, system inputs, transformations, system outputs, and techniques for decision making.

3640 Introduction to Management Science. Three credits. Prerequisites: QM 2610; junior standing. Introduction to optimization techniques used in business decision making, including mathematical programming, linear and integer modeling, network modeling and queuing theory. NOTE: Should take with or have completed MGMT 3620.

3710 Management of Quality. Three credits. Introduction to design, operation, and control of quality systems; implementation approaches including behavioral and technical issues; strategic importance; quality improvement tools and their use; supplier certification; awards and recognition. NOTE: Should take with or have completed MGMT 3620.

3730 Management of Technology. Three credits. Examination of the management of the process of forecasting, acquiring, and integrating emerging technologies into the firm's products/services and processes. Particular emphasis given to information and communications technologies. Course structure may vary. NOTE: Should take with or have completed MGMT 3620.

3750 Supply Chain Management. Three credits. Prerequisite: MGMT 3620. Design, operations, and control of materials management systems; implementation approaches including behavioral and technical issues; strategic role in independent and dependent demand environments; software systems; customer-supplier relationships. NOTE: Should take with or have completed MGMT 3620.

3770 Operations Simulation. Three credits. Introduction to the development of computer simulation as a decision-making tool. Investigation of simulation methodology and its application in business settings. Personal computers will be used. NOTE: Should take with or have completed MGMT 3620.

4550 Service Operations Management. Three credits. Prerequisite: MGMT 3620. Management of service operations systems with emphasis on process, system inputs, transformation, systems outputs, information/feedback systems, and techniques for decision making. Includes a global perspective of services and development of an understanding of the trend toward a service economy in the U.S.

4610 Advanced Operations Management. Three credits. Prerequisites: MGMT 3620 and 6 hours production/operations management electives (MGMT 3710, 3730, 3750, 3770, 4700). Application of techniques used to design, operate, and control complex operations systems. Emphasis on system description, analysis, and implementation issues. Course structure varies.

4700 Problems in Operations Management. Three credits. Prerequisite: MGMT 3620. Current issues in managing operations such as operations strategy, productivity, quality, capacity management, facilities location, materials management systems, service operations, and operations planning and control systems. Topics covered and course structure vary.

## Marketing [MKT]

3820 Principles of Marketing. Three credits. Prerequisite: Junior standing. Survey of the functions, processes, and institutions involved in the distribution of consumer and industrial goods and services. Decision making in marketing management introduced.

3830 Retailing. Three credits. Prerequisite: MKT 3820. Development and present status of the retailing structure with special consideration given to the fundamentals of store organization, operation, current distribution problems, research techniques, and possible innovations.

3840 Personal Selling. Three credits. Prerequisite: MKT 3820. Principles, problems, and role of personal selling in the business environment. Buying motives, persuasion techniques, and steps of selling process are considered as they relate to different types of sales activities and products.

3850 Promotion. Three credits. Prerequisite: MKT 3820. Psychological, sociological, legal, and marketing environments of promotion; the promotion mix consisting of advertising, publicity, personal selling, and sales promotion; and the development of promotion objectives, strategies, and plans.

3855 Product Management. Three credits. Prerequisites: MKT 3820; QM 2610; ACTG 2110, 2120. Issues pertaining to marketing of products. Examines topics of interest to product managers including product life cycle, sales forecasting, new products, product positioning, and brand management.

3860 Purchasing. Three credits. Prerequisite: MKT 3820 or approval of instructor. Purchasing management of materials and equipment in industry and government. Includes the optimum of quality, price, source, quantity, and time.

3865 Sports Marketing. Three credits. Prerequisites: MKT 3820 and 3850. Survey of issues pertaining to the marketing of sports products and entities. Focuses on the application of strategic marketing planning to the sports industry.

3870 Principles of Transportation. Three credits. Prerequisite: MKT 3820. Transportation development in the United States and internationally. A historical, economic, and regulatory perspective.

3880 Credit and Price Management. Three credits. Prerequisite: MKT 3820. Credit and pricing policies, procedures, organization; analysis of credit and pricing information as related to marketing activities; determination of credit limits and price levels; statement analysis; cost and collection procedures.

3900 Direct Marketing and Electronic Commerce. Three credits. Prerequisite: MKT 3820. Direct marketing and its strategic use in the development of an integrated marketing communications plan. Topics include traditional direct marketing techniques such as direct mail, broadcast and print media, and telemarketing; Webbased marketing; and technology's impact on direct marketing communications techniques.

3910 Consumer Behavior. Three credits. Prerequisite: MKT 3820. Buyer behavior as an influence in marketing decisions; special attention given to the processes of motivation, perception, attitude, learning, and interaction.

3920 Entertainment Marketing. Three credits. Prerequisite: MKT 3850. Discussion of interrelated marketing issues dealing with the entertainment industry. Develops and relates the marketing mix for industry issues with regard to personality management, merchandising tie-ins, sports marketing/issues, and film/television distribution.

3930 Marketing Research. Three credits. Prerequisites: MKT 3820 and QM 3620. Modern research methods and their application in gathering information for marketing decisions. Special emphasis given to the implementation of marketing surveys and experiments.

3950 Business-to-Business Marketing. Three credits. Prerequisite: MKT 3820. Survey of managerial decisions involved in the business-to-business marketing of goods and services.

3960 Marketing Channels Management. Three credits. Prerequisite: MKT 3820. Interrelationships and interdependencies among the various institutions and agencies composing marketing channels. Emphasis on analysis of alternative strategies of different channel members for optimum efficiency within a given distribution system.

3970, 3980 Cooperative Education. One to three credits. Prerequisite: Junior standing. Provides students with opportunities for full-time on-the-job training in conjunction with on-campus academic experiences. Students participate in professional growth seminars. Departmental and MTSU Career Development Center requirements must be completed to receive credit. Courses (1) may not
be used to satisfy the major or minor requirements and (2) may not be taken concurrently with BUAD 4980.

4170 Applied Promotional Strategy. Three credits. Prerequisite: MKT 3850. Integrative nature of the elements of the promotional mix in the successful communication with the consumer of a firm's products and services.

4710 International Business. Three credits. (Same as MGMT 4710.) Prerequisites: MGMT 3610 and MKT 3820. International organizational structures and managerial processes. Cultural, political, economic, and legal environments of global marketing. World market patterns and international trade theory.

4800 Sales Management. Three credits. Prerequisites: MKT 3820 and 3840. Management functions as applied to field sales force. Includes sales organization structures, selection and training of sales personnel, sales compensation, supervision and stimulation of the sales force, and evaluation of sales performance.

4810 Physical Distribution Analysis. Three credits. Prerequisite: MKT 3820. Distribution logistics as related to time-service concepts, profit control centers, and technological gains. Organization structure, communication problems, and alternative inventory management, warehousing, and transportation.

4840 Study Abroad. Three credits. (Same as MGMT 4840.) Prerequisite: Junior/senior standing. A short-term international business education experience designed to expose the student to the economic, political, cultural, and social environments of a foreign country(ies). Emphasis on the international state/status of the subject matter pertinent to management and marketing.

4850 Advanced Selling. Three credits. Prerequisites: MKT 3820 and 3840. The sales function as it relates to business-to-business selling and strategic relationship development. Topics include relational selling, account management, negotiation, team selling, handling conflict and ethical dilemmas, and selling to buying committees. Learning through interactive lecture, role-playing, and sales force automation software.

4860 Problems in Retail Management. Three credits. Prerequisite: MKT 3830. Factors governing a successful retail operation including current problems, case studies, and simulation in merchandising, budgeting, and control.

4870 Services Marketing. Three credits. Prerequisite: MKT 3820. The role and scope of marketing in service entities, including impact, issues, and domestic and global trends.

4880 Applied Marketing Research. Three credits. Prerequisite: MKT 3930. Applies marketing research concepts and tools learned in the introductory marketing research class to "real-life" marketing problems. Emphasis on planning and implementing research activities as well as oral and written presentation of results and conclusions based on marketing research.

4890 Marketing Management. Three credits. Prerequisites: Senior standing; Marketing major; MKT 3910, 3930, and 6 additional semester hours of marketing courses. Marketing strategy, marketing policies, production planning, pricing, promotion, and service from the marketing manager's point of view. Case analysis and marketing simulation emphasized.

4950 Marketing Internship. One to three credits. Prerequisites: Marketing or Entrepreneurship major with senior standing and an overall grade point average of 2.50 . Student is affiliated with an organization on a part-time basis to develop knowledge and experience in the practical application of marketing principles
to actual business problems in a non-classroom situation. Can be applied toward the student's degree requirements only upon approval of the department chair. This course can only be taken one time.

4990 Independent Study. One to three credits. Prerequisites: Senior standing and approval of department chair. Individual research and analysis of contemporary problems and issues in a concentrated area under the guidance of an approved faculty member. This course can only be taken one time.

## Mathematics [MATH]

1000 Essentials of Mathematics. Three credits. The practices of learning mathematics. Required for students whose ACT Mathematics score is $15-16$ or whose mathematics assessment indicates placement. Emphasis on problem solving, critical thinking, math study skills, and solving and graphing linear equations and inequalities. Course will meet for three hours in the classroom and will have a required two-hour lab component, which will include structured online activities. Does not fulfill General Education Mathematics requirement.

1010 Mathematics for General Studies. Three credits. Prerequisites: Two years of high school algebra and a Math Enhanced ACT of at least 19 or DSPM 0850 or COMPASS placement. Course satisfies the General Education Mathematics requirement and is also part of the mathematics sequence for students preparing to become elementary school teachers. Topics include logic, sets, algebraic reasoning, probability, statistics, and consumer mathematics.

1410 Concepts and Structure of Elementary School Mathematics. Three credits. Prerequisites: Two years of high school algebra and a Math Enhanced ACT of at least 19 or DSPM 0850 or COMPASS placement. Algebra-based study of school mathematics in keeping with the recommendations of the National Council of Teachers of Mathematics. Tools for problem solving, set theory, functions, number theory, and examinations of number systems from counting numbers to irrational numbers.

1420 Informal Geometry. Three credits. Prerequisite: A grade of C or better in MATH 1410. Geometry-based study of school mathematics in keeping with the recommendations of the National Council of Teachers of Mathematics. Studies of plane, solid, coordinate, and motion geometry as well as constructions, congruence, similarity, and concepts of measurement. A variety of instructional technology tools investigated.

1530 Applied Statistics. Three credits. Prerequisites: Two years of high school algebra and a Math Enhanced ACT 19 or greater or equivalent. Descriptive statistics, probability, and statistical inference. The inference unit covers means, proportions, and variances for one and two samples, and topics from one-way ANOVA, regression and correlation analysis, chi-square analysis, and nonparametrics.

1630 College Mathematics for Managerial, Social, and Life Sciences. Three credits. Prerequisites: Two years of high school algebra and a Math Enhanced ACT greater than 25 or MATH 1710. Topics include solving systems of linear equations, Leontief models, linear programming, mathematics of finance, set theory, and probability theory.

1710 College Algebra. Three credits. Prerequisite: DSPM 0850 or two years of high school algebra; a Math Enhanced ACT 19 or greater or COMPASS placement. Course satisfies the General Education Mathematics requirement. Topics include functions-linear, quadratic, exponential, and logarithmic; analysis of graphs; linear systems; inequalities; counting principles; and probability. Graph-
ing calculator required. Course may be taken by correspondence. Not open to those who have had MATH 1730.

1720 Plane Trigonometry. Three credits. Prerequisite: Strong background in algebra recommended. Trigonometric functions of the acute and general angle, circular functions, graphs of trigonometric and inverse functions, identities, solutions of right and general triangles, equations, complex numbers, and vectors. Not open to those who have had MATH 1730. Graphing calculator required.

1730 Pre-Calculus. Four credits. Prerequisite: MATH 1710 or successful completion of high school precalculus course. An integrated and rigorous study of the algebra and trigonometry needed to successfully attempt calculus. Emphasis on functions, their analysis and their applications. Level of algebraic sophistication developed above that found in MATH 1710. Topics include exponentials and logarithms, analysis of graphs, and word problems. Graphing calculator required.

1810 Applied Calculus I. Three credits. Prerequisite: Eligibility to take MATH 1710. First of a four-course sequence. Introduces mathematical modeling applied to real-world problems. Sets, functions, inverse models, limits, continuity, first and second order model building, single variable differentiation, implicit differentiation, inverse problems (exponential and log models). First and second derivatives used to study the behavior of real-world applications.

1820 Applied Calculus II. Three credits. Prerequisite: MATH 1810. Second of a four-course sequence. Riemann Sum, indefinite and definite integrals, modeling using substitution, differential equations with initial conditions, modeling real-world problems using functions of two or more variables, level curves, feasible regions, linear objective functions, system of linear equations, annuities, partial derivatives, least squares, matrix multiplication and addition, inverse matrix, and matrix equations.

1910 Calculus I. Four credits. Prerequisite: MATH 1730 with a grade of C or better or Math ACT of 26 or better or Calculus placement test score of 73 or better. An introduction to calculus with an emphasis on analysis of functions, multidisciplinary applications of calculus, and theoretical understanding of differentiation and integration. Topics include the definition of the derivative, differentiation techniques, and applications of the derivative. Calculus topics related to trigonometric, exponential, and logarithmic functions also included. Course concludes with the fundamental theorem of calculus; the definition of antidifferentiation and the definite integral; basic applications of integrations; and introductory techniques of integration. Graphing calculator required.

1920 Calculus II. Four credits. Prerequisite: MATH 1910. A topics course providing a wide view of different techniques and applications of calculus in the plane. Techniques of integration and applications of integration fully developed. Power series and Taylor series included. Emphasis on multidisciplinary applications includes Taylor series approximation; applications of integration to physics, biology, and business; and geometric and power series applications. Graphing calculator required.

2010 Elements of Linear Algebra. Three credits. Prerequisite: MATH 1910. Vectors and vector spaces, matrices and systems of linear equations, geometry of vector spaces and linear transformations in a vector space.

2050 Probability and Statistics. Three credits. Prerequisite: Calculus I. Data analysis, probability, and statistical inference. The inference material covers means, proportions, and variances for one and two samples, one-way ANOVA, regression and correlation, and chi-square analysis.

2090 Mathematics for Health Professions. Two credits. Enables students in the health professions to apply mathematical concepts to interpret and solve drug dosage calculation problems encountered in fields such as nursing. Includes basic math review, solid and liquid doses of medications for adults and children, solutions, and IV administration. Also includes conversions from metric to household and apothecary measurements. Not open to Mathematics majors or minors.

2110 Data Analysis. One credit. Grouping and classifying technical data. Curve fitting by statistical and nonstatistical methods. Graphing of scientific data. Secondary education in mathematics students should take concurrent or subsequent to MATH 2050.

2130 Mathematics of Finance. Three credits. Prerequisites: Two years of high school algebra and a Math Enhanced ACT 19 or greater or DSPM 0850. Investment finance, including general annuities, evaluation of bonds, and life annuities.

3020 Applied Calculus III. Three credits. Prerequisites: MATH 1810 and 1820. In-depth study of continuity of single variable functions; inverses of functions; differentiation and integration of various functions including trigonometric functions, logarithmic functions, exponential functions, power functions, and piecewise functions; methods of integration; the Riemann Sum, extensive applications of the fundamental theorem of calculus, and arc length of a curve. Emphasis on real-world applications.

3030 Applied Calculus IV. Three credits. (Same as ACSI 3030.) Prerequisite: MATH 3020. In-depth study of L'Hopital's Rule, improper integrals, sequences, convergence and divergence of series, Taylor and Maclaurin series, approximations for single-variable functions, two- and three-dimensional vector spaces, vector-valued functions, polar coordinates, and partial differentiation and integration of multivariate functions. Emphasis on blending these topics with real-world applications.

3070 College Geometry. Three credits. Prerequisite: MATH 3460. Advanced treatment of standard topics in Euclidean geometry using informal and axiomatic approaches. Includes proofmaking techniques, traditional and transformational geometry, finite geometries, and a brief introduction to other geometries.

3080 Discrete Structures. Three credits. Prerequisites: CSCI 1160 or 1170 and MATH 1910 or consent of instructor. Topics include formal logic, proof techniques, matrices, graphs, formal grammars, finite state machines, Turing machines, and binary coding schemes.

3110 Calculus III. Four credits. Prerequisite: MATH 1920. Adjusts calculus techniques developed in the plane (Calculus I and II) to make them applicable in three-dimensional space. Introductory study of the nature of three-dimensional space and definition of the algebraic calculations in three-dimensional space. Differential and integral calculus definitions and techniques revised to appropriately transfer into this new space. Topics include multivariate functions, partial differentiation, partial integration, multiple integration, and multidisciplinary applications.

3120 Differential Equations I. Three credits. Prerequisite: MATH 1920. The solution and application of ordinary differential equations with emphasis on first order equations, second order linear equations, Laplace Transform method, systems of differential equations, and numerical methods.

3180 Introduction to Numerical Analysis. Three credits. (Same as CSCI 3180.) Prerequisites: MATH 1920 and CSCI 1160 or 1170. Topics include series approximation, finite differences, interpolation, summation, numerical differentiation and integration, iteration, curve fitting, systems of equations and matrices, and error analysis.

3190 Deterministic and Probabilistic Models. Three credits. Corequisite: MATH 2050. Linear programming, network analysis, queuing theory, dynamic programming.

3260 Differential Equations II. Three credits. Prerequisite: MATH 3120. A continuation of MATH 3120 with emphasis on series solutions, method of Frobenius, orthogonal functions, equations of Bessel, Legendre, Gauss, Chebyshev; introduction to partial differential equations.

3300 Discrete Mathematics for Middle Grades Teachers. Three credits. Prerequisites: MATH 1410, 1420, and 1710. Supports the development of prospective middle grades teachers' knowledge of discrete mathematics. Topics include set theoretic topics, logic, counting, probability, graph theoretic topics. Focuses on students' learning discrete mathematics topics as well as the teaching of related mathematical topics to middle grades students. Field experience in a nearby middle school incorporated.

3310 Functions: Connecting Algebra and Geometry for Middle Grades Teachers. Three credits. Prerequisites: MATH 1410, 1420, and 1710. Supports the development of prospective middle grades teachers' knowledge of functions and connections between algebra and geometry. Focuses on students connecting mathematics topics as well as the teaching of mathematical topics to middle grades students to support learning about the connected nature of mathematics. Field experience in a nearby middle school incorporated.

3320 Teaching Mathematics in Grades 5-8. Three credits. Prerequisite: Admission to the teacher education program. Required of all Mathematics majors seeking a license to teach mathematics in grades 7-12. Strongly encouraged for elementary education majors with a 5-8 emphasis. Topics from number relationships, mental computation and estimation strategies, patterns and functions, algebra, statistics, probability, geometry, and measurement. Must be taken prior to student teaching.

3330 Teaching Mathematics in Grades 9-12. Three credits. Prerequisites: Admission to teacher education, completion of the mathematics core, and MATH 3320. Required of all Mathematics majors seeking a license to teach mathematics in grades 7-12. In-depth study of mathematics learning and teaching strategies in secondary school mathematics. Selected topics from junior and senior high school curricula provide a foundation for student investigations into the conceptual nature of mathematics and applications in the secondary school curriculum. Must be taken prior to student teaching.

3400 Symbolic Logic. Three credits. (Same as PHIL 3400.) The elements of propositional calculus-propositional connectives and their truth functions, validity, proof, and an introduction to quantification theory. Where appropriate and natural, parallels from elementary set theory are introduced. May count for credit in Philosophy.

3460 Foundation of Higher Mathematics. Three credits. Prerequisite: MATH 1920. The language of mathematics, set theory and proof, relations and functions, number systems, mathematical structures. Focuses on the transition from lower-division study to upperdivision study by actively engaging the student in problem solving, mathematical reasoning, and both informal and technical writing.

4010 Selected Topics in Elementary Mathematics. Three credits. Prerequisites: MATH 1410, 1420, and 1010. Required of students who are preparing to teach grades 5-8. Examines in greater depth topics to which the student has prior exposure; emphasizes the relevance and implications of these topics to the middle school classroom.

4200 Introduction to Mathematics of Investment. Three credits. (Same as ACSI 4200.)

4210 Advanced Calculus I. Three credits. Prerequisites: MATH 3110 and 3460. Theory and application of continuity, differentiation, and integration.

4220 Advanced Calculus II. Three credits. Prerequisite: MATH 4210. A continuation of MATH 4210 including theory and application of convergence.

4230 Vector Analysis. Three credits. Prerequisite: MATH 3110. A review of vector algebra and vector differentiation with emphasis on aspects of these topics not covered in previous calculus courses. Stress on line and surface integrals; Divergence Theorem and Stokes' theorem with generalizations and related topics.

4250 Theory of Calculus. Three credits. Prerequisites: MATH 3110 and 3460. Theoretical development of limits, continuity, differentiation, and integration in one dimension.

4270 Introduction to Topology. Three credits. Prerequisites: MATH 3110 and 3460. Fundamental concepts of topology including continuity, compactness, connectedness, separation axioms, and metric spaces.

4280 Undergraduate Research. One to four credits. Prerequisite: Permission of department. Independent investigation of a selected research problem under the guidance of a faculty member resulting in an oral and written report of results. May be repeated for a maximum of four credits.

4310 Numerical Analysis I. Three credits. Prerequisites: CSCI 1170 and MATH 2010 or consent of instructor. Application of computer -oriented numerical algorithms to algebraic equations, differential and integral equations, and linear algebra. Rigorous mathematical treatment of error included.

4320 Numerical Analysis II. Three credits. Prerequisite: MATH 4310. A continuation of MATH 4310.

4420 Number Theory. Three credits. Prerequisite: MATH 3460. Divisibility, congruences, quadratic residues, Diophantine equations, quadratic forms, and continued fractions.

4470 Introduction to Modern Algebra. Three credits. Prerequisite: MATH 3460. A treatment of sets, relations, operations, and the construction of number systems in algebra.

4510 Abstract Algebra I. Three credits. Prerequisite: MATH 3460. An introduction to groups, with a brief introduction to rings, integral domains, and fields.

4530 Abstract Algebra II. Three credits. Prerequisite: MATH 4510/5510. The theory of rings, fields, integral domains, and vector spaces.

4540 Topics in Secondary School Mathematics. Three credits. Prerequisites: Admission to teacher education, completion of the mathematics core, MATH 3070 and 4510. Required of all Mathematics majors seeking a license to teach mathematics in grades $7-12$. Examines in greater depth topics to which the student has prior exposure; emphasizes the relevance and applications of these topics to the pre-college level classroom.

4600 Problems in Contemporary Mathematics. One to six credits. Pass/Fail grading in specified sections.

4601 Problems in Contemporary Mathematics-Complex Variables. Three credits. Prerequisite: MATH 3460. Fundamental principles and applications of complex variables.

4602 Problems in Mathematics. One to six credits. Prerequisite: Consent of instructor. Problem-oriented course providing opportunities for mathematical study in areas of need.

4620 History and Philosophy of Mathematics. Three credits. Prerequisite: MATH 3460. Background in geometry and number theory helpful. The character of mathematical thought by way of mathematical problems that have occupied the outstanding mathematicians of Babylon, Egypt, Greece, China, the Renaissance, and modern times paralleled with a study of three schools of mathematical philosophy: intuitionism, logicism, and formalism.

4630 Mathematics of Risk Management. Three credits. (Same as ACSI 4630.)

4640 Mathematics of Options, Futures, and Other Derivatives. Three credits. (Same as ASCI 4640.)

4700 Combinatorics and Graph Theory. Three credits. Prerequisites: MATH 2010 and 3460. Selected topics in combinatorics and graph theory emphasizing combinatorial problem solving and algorithmic proof.

4800 Seminar in Mathematics with Technology. Three credits. Prerequisite: 18 semester hours in mathematics including calculus or consent of instructor. Examine and utilize the technological tools available for doing mathematics. Emphasis on non-numerical tools such as theorem provers and algebraic manipulation systems.

4990 Seminar in Mathematics. Three credits. Open only to Mathematics majors; normally taken during last regular semester of coursework. Required of all Mathematics majors. Offers graduating Mathematics majors a broad perspective of mathematics, mathematical activity, and problem solving in various areas of application; offers preparation for professional examinations; acquaints students with job possibilities and aids in career decisions; acquaints students with the nature of graduate study in mathematics. Pass/fail.

## Media Design and Graphics [GRAF]

2010 Media Design and Visual Language. Three credits. Required for candidacy. Overview of concepts for effective visual communication; the role of visual elements and design practices in a cultural, historical, and political context; basic typography and design, electronic and digital composition and reproduction, and technological aspects of design and production.

2950 Media Design Applications. Three credits. Introduction to software applications used in publication media design, related hardware and peripheral components applicable to publication design, and electronic publishing procedures.

3910 Basic Media Design. Three credits. Prerequisites: Admission to candidacy; JOUR 2710 and GRAF 2010. Basic design process for publication; in-depth analysis of typography, copywriting, art and illustration, photography; theory and practice of color reproduction; diverse design images; informational graphics, production methods of design for print and electronic media. Cannot be taken concurrently with GRAF 2950.

4010 Publication Design. Three credits. Prerequisites: Admission to candidacy; GRAF 3910 or 2950. Principles and practices of publication design and production with emphasis on newsletters, magazines, newspapers, and contemporary formats; use of traditional and electronic information services as a resource; selection and use of photographs and illustrations for publication; preparation of design for print, electronic, or multimedia publication.

4180 Advanced Media Design. Three credits. Prerequisites: Admission to candidacy; GRAF 4010. Application of contemporary graphic design technologies for solving visual problems in print and electronic media. Creative strategies in media design and design copywriting; cooperative and collaborative design projects; legal aspects of media graphics; strategies for designing diverse images, color reproduction, and evaluation of design performance standards for portfolio.

## Middle East Studies [MES]

2100 Introduction to Middle East Studies. Three credits. An introduction to the people, culture, geography, and history of the Middle East from the distant past to the present. Includes ancient history, the rise of Islam, Arab nationalism and formation of the modern states, the creation of Israel, oil and natural resources, social structures and family life, international diplomacy and peacemaking, problems of Westernization and modernization, and political Islam.

2030 Literatures of the Middle East. Three credits. Prerequisites: ENGL 1010 and 1020 or permission of instructor. Works in English translation of selected literary genres, periods, and traditions produced in the cultures of the Middle East. May be repeated once with different topic.

3100 Special Topics in Middle East Studies. Three credits. Prerequisite: Completion of three (3) credit hours in a course listed for the Middle East Studies minor or permission of the instructor. An in-depth study of a specific topic relating to the Middle East announced in the online course schedule by the faculty member teaching the course. May be repeated with a different topic. A maximum of six semester hours credit may be applied toward a minor in Middle East Studies.

## Military Science [MS]

1000 Military Science Practicum (Elective). One credit per semester for up to four credits. Corequisite: Enrollment in MS Basic or Advanced Course or permission of PMS. For those interested in enrichment activities which contribute to the development of leadership and management abilities, including the Forrest Raiders (adventure training and small unit military tactics), Blue Brigade Drill Team (drill and ceremonies under arms).

1010 First-Year Basic Military Science. Two credits. Practical application in adventure-oriented skills such as rappelling, marksmanship techniques, and survival. Focuses on leadership development with a hands-on approach to classroom instruction. Also includes a general overview of the army's mission, organizational structure, and customs and traditions. Meets twice weekly, 85 minutes per class.

1020 First-Year Basic Military Science. Two credits. Prerequisite: MS 1010 or permission of PMS. Further development in adventureoriented skills. Hands-on approach to basic rifle marksmanship, land navigation, and first aid. Students fire the M16A2 rifle, conduct a land navigation course, and learn first aid skills through practical application. Continued focus on leadership development. Meets twice weekly, 85 minutes per week.

2010 Second-Year Basic Military Science. Two credits. Prerequisites: MS 1010 and 1020 or permission of PMS. Development of leadership potential through practical exercise. Leadership, small unit tactics, first aid, basic rappelling, weapons familiarization, oral communication exercises, and team-building skills.

2020 Second-Year Basic Military Science. Two credits. Prerequisites: MS 1010, 1020, and 2010 or permission of PMS. Application of basic map reading and compass principles, unit organization at squad level, small unit tactics, branches of the army, discussion of the advanced program. Practical exercises, land navigation, first aid, current events, marksmanship, water safety training. Continues team-building development.

3000 Basic Military Science. Six credits. Prerequisite: Permission of PMS. Four-week training normally taken during the summer between the sophomore and junior academic years by students who have not taken all basic MS courses. Training conducted at a designated U.S. Army installation; practical experience in leadership, small unit tactics, weapons, drill, and communications under field conditions. U.S. Army pays the student approximately $\$ 900$.

3080 U.S. Army History. Two credits. Prerequisites: MS 1010 and 1020 or permission of department chair. Introduces students enrolled in the ROTC program to the U.S. Army's development and role in military operations from colonial times to the present.

3110 First-Year Advanced Military Science. Three credits. Prerequisites: MS 1010, 1020, 2010, and 2020; or MS 3000; or equivalent credit for previous military service. Formal instruction in troop leading procedures, army problem solving, branches of the army, combat orders, leadership traits and principles, small unit tactics based on infantry rifle squad and platoon, map reading and land navigation skills, and military briefings. Focus on leadership development, instilling the warrior ethos, and preparation for the Leader Development and Assessment course and potential for service as a junior officer.

3120 First-Year Advanced Military Science. Three credits. Prerequisite: MS 3110. Formal instruction in leadership, principles of war, squad and platoon tactics, situational training exercises, patrolling techniques, map reading and land navigation. Hands-on application of troop leading procedures, written and oral combat orders, maneuver techniques, and field craft. Focus on leadership development, instilling the warrior ethos, and preparation for the Leadership Development and Assessment course and potential for service as a junior officer.

3130 Military Science Field Methods. Six credits. Prerequisites: MS 3110 and 3120 . Six weeks of training normally taken during the summer between the junior and senior academic years. Training conducted at a designated U.S. military installation; practical experience in leadership, military teaching, weapons, and communications under field conditions. The U.S. military pays the student for attending the training.

3140 Military Leadership and Management. Two credits. Prerequisites: Contracted students in Army ROTC and department chair approval. Dynamics of leadership and officership in the U.S. Army and inherent responsibilities of an officer in today's environment discussed. Explores good and bad leadership, the principles of war, and their applications to war fighting through U.S. history.

4110 Second-Year Advanced Military Science. Three credits. Prerequisites: MS 3110 and 3120. Seminar in leadership and management designed to prepare the senior student for active duty responsibilities. The commander, the staff, the military team, and army ethics are the main focus. Emphasis on instilling warrior ethos.

4120 Second-Year Advanced Military Science. Three credits. Prerequisites: MS 3110, 3120, and 4110. Seminars in leadership and management to prepare the senior student for active duty responsibilities. Focus is military law, army writing standards, and organizational skills. Emphasis on leading soldiers in the complex situations of current military operations.

## Music [MUS]

1010 Recital Attendance. Zero credit. Attendance at a minimum number of recitals and concerts given by students, faculty, and guest artists. Six semesters required for undergraduate music majors (see School of Music handbook for details). May be repeated multiple times. Pass/Fail.

1020 Music Enrichment - Instrumental. Three credits. Prerequisite: Acceptance into Governor's School for the Arts. A component of the Governor's School for the Arts. Provides an opportunity for qualified high school students to get first-hand musical experience in an intense, academic, collegiate environment.

1021 Music Enrichment - Vocal. Three credits. Prerequisite: Acceptance into Governor's School for the Arts. A component of the Governor's School for the Arts. Provides an opportunity for qualified high school students to get first-hand musical experience in an intense, academic, collegiate environment. Combines traditional large ensemble and opera workshop rehearsals and performances and voice master classes.

1022 Music Enrichment - Piano. Three credits. Prerequisite: Acceptance into Governor's School for the Arts. A component of the Governor's School for the Arts. Provides an opportunity for qualified high school students to get first-hand experience in an intense, academic, collegiate environment. Combines traditional applied studio instruction, supervised practice sessions, chamber ensemble rehearsals and performances, master classes, and solo performances.

1030 Introduction to Music. Three credits. Meets part of the General Education Humanities and/or Fine Arts requirement. Perceptive listening to music of various styles and cultures including popular and world musics and Western classical concert music.

1510 Class Voice I. One credit. Basic vocal techniques including posture, breath control, tone quality, and diction. Italian and English diction, Vaccai studies, and moderately easy song repertory.

1520 Class Voice II. One credit. Prerequisite: MUS 1510. A continuation of the vocal techniques in Class Voice I with addition of vocal flexibility, uniform tone quality in extending the voice range, interpretation of songs, and stage deportment in public performance. Further study of Vaccai, Italian art songs, and English songs.

1530 Class Piano I. One credit. Acquaints beginning piano students with the keyboard. Includes such skills as note reading, basic chords for harmonization of melodies, improvisation, basic exercises for development of coordination and technique, transposition, repertory, and sight reading.

1540 Class Piano II. One credit. Prerequisite: MUS 1530. Continuation of skills and concepts taught in MUS 1530. Emphasis on standard piano repertory in addition to sight reading and functional piano skills.

1550 Class Guitar I. One credit. Beginning guitar playing, teaching basic techniques through chording and melodic elements.

1560 Class Guitar II. One credit. Prerequisite: MUS 1550. Continuation of skills and concepts sought in Class Guitar I with emphasis on more advanced playing and repertory study.

2530 Class Piano III. One credit. Prerequisite: MUS 1540. Continuation of skills and concepts taught in MUS 1540. Emphasis on standard piano repertory in addition to sight reading and functional piano skills.

2540 Class Piano IV. One credit. Prerequisite: MUS 2530. Continuation of skills and concepts taught in MUS 2530. Emphasis on standard
piano repertory in addition to sight reading and functional piano skills.

2550 Keyboard Skills for Pianists I. One credit. Elementary-level sight-playing; three-voice, open-score reading; improvisation; harmonization using primary chords; transposition; and common patterns in two-octave range (scales, arpeggios, progressions).

2560 Keyboard Skills for Pianists II. One credit. Intermediate-level ensemble and solo sight-playing; harmonization using primary and secondary chords; improvisation; transposition; four-voice, open-score reading; and common patterns in four-octave range (scales, arpeggios, progressions).

2660 Jazz Guitar Lab. One credit. Prerequisites: MUTH 1110 and 1120, basic proficiency in reading music, and consent of instructor. Recommended: Class Guitar I or one semester of private instruction. Provides minimum background in performing popular guitar styles in an ensemble or studio situation. Course may be taken more than one semester for credit.

2670 Jazz Piano Lab. Two credits. Prerequisite: MUS 1540. For beginning jazz keyboard students. Study of the harmonic language of jazz, chord voicing, keyboard techniques, interpretation of melodies, and improvisation.

3140 Conducting I. Two credits. Prerequisites: MUTH 2120. Interpretation of scores, fundamental diagrams with and without baton, terminology, and stage deportment.

3150 Conducting II Instrumental. Two credits. Prerequisites: Two semesters of MUED 2320; MUS 3140. Further development of techniques, especially those relevant to choral and instrumental conducting. Laboratory experiences with large musical groups; conducting with records to develop awareness of musical texture, form, and general musicianship in all areas as related to conducting.

3160 Conducting II Choral. Two credits. Prerequisite: Two semesters of MUED 2310; MUS 3140. Further development of conducting techniques relative to the choral area. Emphasis on choral style and literature, scope and sequence of the historical perspective, and major developments in the choral art.

4000 Special Topics in Music. One, two, or three credits. Study of a topic in music. Topic and prerequisites to be announced.

4100 Independent Study in Music. One, two, or three credits. Intensive study of a chosen subject. An indication of reasonable skill and knowledge of research techniques, writing, and creativity expected. Requires permission of the instructor and director of the music school.

4270 Music Internship. Three to six credits. Prerequisite: Permission of instructor. Examination and experiences in music industry, music education, or instrumental or choral conducting. Music industry may include songwriting and the creative aspects of music, studio production, music publishing, and music merchandising. Music education may include public and private school settings, state board of education arts consulting, and music textbook consulting. Conducting may include school and church conducting, music publishing, and private or public orchestras and/or choirs. Pass/ Fail.

4550 Vocal Style of Country Music. Three credits. Songs from the various subgenres of country music studied and performed. Proper technique for this demanding style of singing demonstrated. Includes a survey of the history of country music with a focus on evolving vocal styles.

4570 The Body Intelligent: A Study of the Alexander Technique. Three credits. (Same as THEA 4570.) For those interested in improving ease and freedom of movement, balance, support, flexibility, and coordination in daily activities.

## Music (Applied) [MUAP]

## Lower-Division Private Instruction

Private instruction is available to qualified students on all orchestral and band instruments, voice, guitar, keyboards and composition. Those students enrolling in private instruction for the first time audition to determine if they are adequately prepared for college-level study. To arrange for an audition, students should contact the School of Music Office. One-credit private instruction courses require one-half hour lesson per week. Two-credit courses are for music majors only and require one hour-long lesson per week. A corequisite enrollment in an appropriate music ensemble is required for students registered for private instruction in voice, brass, woodwinds, orchestral strings, and percussion. Private instruction course numbers will be repeated for each semester of study.

Students who are not prepared for such private instruction as stated above should register for class instruction, e.g., class piano, class guitar, or class voice. If class instruction is not available, students may be allowed to enroll in private instruction for one semester after which a faculty jury examination must be passed to continue private instruction. Private instruction course numbers will be repeated each semester of study. A maximum of four semesters of lower-division private instruction may be applied to a music degree.

Fees per semester are $\$ 325$ for a one-hour lesson and $\$ 175$ for a half-hour lesson.

[^12]Oboe/English Horn. Two credits.
Clarinet. Two credits.
Bassoon. Two credits.
Saxophone. Two credits.
Trumpet. Two credits.
French Horn. Two credits.
Trombone. Two credits.
Baritone/Euphonium. Two credits.
Tuba. Two credits.
Harpsichord/Continuo. Two credits.
Viola. Two credits.

## Upper-Division Private Instruction

Promotion to the upper division does not follow automatically after the completion of four semesters of courses in the lower division but is made only upon the successful completion of the upper-division jury. This jury, normally given at the end of the sophomore year to music majors, is conducted by the School of Music. Recommendation to upper division is made only if the student's proficiency as a performer bears promise of future artistic qualities as a soloist. It is at this level that the music major normally begins preparation for his/her junior and/or senior recital. A student who fails to pass the upperdivision jury must continue lower-division private instruction until the jury is passed. Private instruction course numbers will be repeated for each semester of study.
A one-credit course requires one half-hour lesson per week. Two- and three-credit courses are for music majors only and require one hour-long lesson per week. A corequisite enrollment in an appropriate music ensemble is required for students registered for private instruction in voice, brass, woodwinds, orchestral strings, and percussion.
After successful completion of the upper-division jury, a student must be enrolled for a minimum of three semesters before being allowed to give the senior recital. Students must pass the upper-division performance jury before being allowed to student teach.
Fees per semester are $\$ 325$ for a one-hour lesson and $\$ 175$ for a half-hour lesson.

[^13]Three-credit private instruction courses are designed for only those students majoring in music with performance as their concentration. Students enrolled in these courses will receive one hour of instruction per week. Although threecredit courses meet for the same length of time as two-credit courses, students enrolled are expected to spend more time in preparation for their lessons and perform more repertoire during the course of the semester as assigned by the instructor.
4353 Piano. Three credits.
4363 Organ. Three credits.
4373 Voice. Three credits.
4383 Violin. Three credits.
4393 Violoncello. Three credits.
4403 String Bass. Three credits.
4413 Guitar. Three credits.
4423 Flute/Piccolo. Three credits.
4433 Oboe/English Horn. Three credits.
4443 Clarinet. Three credits.
4453 Bassoon. Three credits.
4463 Saxophone. Three credits.
4473 Trumpet. Three credits.
4483 French Horn. Three credits.
4493 Trombone. Three credits.
4503 Baritone/Euphonium. Three credits.
4513 Tuba. Three credits.
4523 Percussion. Three credits.
4553 Harpsichord/Continuo. Three credits.
4563 Viola. Three credits.
A student who earns a grade lower than C in private instruction may use the next attempt in the course to remove the previous grade from his or her grade point calculation. To use this policy, the student must have the written permission of the school director at the beginning of the semester in which the next attempt is made.

2342 Composition. Two credits each semester. Experience composing original works in numerous media and styles to develop technique and self-expression. Topics include melodic and harmonic practice, orchestration, analysis, music form, score preparation, and audience psychology. Musical styles may embrace jazz, rock, pop, and electronics in addition to traditional and contemporary art music.

3800 Junior Recital. One credit. Prerequisite: One semester of upperdivision private study. Corequisite: Private lesson in major area of performance. Required of all Bachelor of Music majors with a concentration in Vocal or Instrumental Performance. Constitutes approximately 30 minutes of music with appropriate repertoire as
assigned by the private instructor; recital performance graded by a faculty committee; must be passed with a grade of C or better.

4040 Service Playing. Two credits. Skills and knowledge necessary in order to play for church services including hymn and anthem accompaniments, conducting from the console, liturgical service music, solo accompaniments, and church music materials. (A maximum of 8 semester hours may be applied toward degree.)

4342 Composition. Two credits. Experience composing original works in numerous media and styles to develop technique and self-expression. Topics include melodic and harmonic practice, orchestration, analysis, music form, score preparation, and audience psychology. Musical styles may embrace jazz, rock, pop, and electronics in addition to traditional and contemporary art music.

4800 Partial Senior Recital. Zero to one credit. Prerequisite: Two semesters of upper-division private study. Corequisite: Private lesson in major area of performance. Required of all Bachelor of Music majors with a concentration in Vocal/General Music Education, Instrumental Music Education, and Music Industry. Constitutes approximately 30 minutes of music with appropriate repertoire as assigned by the private instructor. Students must receive permission to present a partial senior recital by giving a pre-recital hearing before the faculty at least two weeks before the scheduled recital. Recital performance graded by a faculty committee; must be passed with a grade of $C$ or better.

4900 Senior Recital. Two credits. Prerequisites: MUAP 3800 with a grade of C or better (Vocal or Instrumental Performance); three semesters of upper-division private study. Required of all Bachelor of Music majors with a concentration in Vocal or Instrumental Performance, Jazz Studies, and Theory-Composition. Constitutes approximately 50 minutes of music with appropriate repertoire as assigned by the private instructor. Recital performance graded by a faculty committee; must be passed with a grade of C or better.

## Music Education [MUED]

1210 Fundamentals of Music. Three credits. Music fundamentals including scales, intervals, meters, rhythm patterns, sight-singing and dictation, principles of music writing, singing and playing elementary-level compositions, keyboard experience, and analysis for understanding and appreciation.

1310 Woodwind Techniques I. One credit. For music majors beginning the study of a minor instrument in woodwinds and open to general college students desiring to learn a musical instrument.

1320 Percussion Techniques. One credit. Building performance ability on snare drum in all styles of playing. Introduces performance on principal percussion instruments, including ethnic percussion groups.

1330 Brass Techniques. One credit. Designed for music majors beginning the study of a minor instrument in brass and open to the general college student desiring to learn a musical instrument.

1410 String Techniques. One credit. Instruction in the elements of stringed instrument playing. The student will select one instrument of the string group and continue its study through one semester.

2000 Philosophy and Introduction to Music Education. Two credits. First course in the music education curriculum for students working toward vocal-general or instrumental K-12 teacher licensure. Organization and curriculum of American music education as well as the place of music education in the total program of the school explored.

2010 Introduction to Wind and String Instruments. Two credits. Prerequisite: MUED 2000. Provides basic performance skills as well as historical and introductory pedagogical knowledge of selected wind and string instruments.

2210 Instrumental Techniques for Music Classroom. Two credits. Prerequisite: MUED 2000. Learning to play the recorder, guitar, autoharp, and basic mallet and other percussion instruments with teaching application to school music.

2310 Choral Music Lab. One credit. Two semesters of Choral Music Lab required of all Vocal/General Education majors. Study and rehearsal of public school materials and repertoire not covered in other music classes. Provides opportunities to explore various methodologies and apply pedagogical skills in a clinical environment. Also provides upper-division music education students opportunities to conduct and teach in an experimental/laboratory setting.

2320 Instrumental Music Lab. One credit. Two semesters of Instrumental Lab required of all Instrumental Music Education majors. Study and rehearsal of public school materials and repertoire not covered in other music classes. Provides opportunities to explore various methodologies and apply pedagogical skills in a clinical environment. Also provides upper-division music education students opportunities to conduct and teach in an experimental/ laboratory setting.

3190 General Music in the Middle and Senior High School. Three credits. Prerequisite: MUED 2000. Required for students working toward vocal-general or instrumental K-12 teacher licensure. Introduces vocal/general music education majors to methods and materials available for teaching general music to students in grades 6-12.

3200 Music in the Elementary Grades for Music Majors. Three credits. Prerequisite: MUED 2000. Focuses on the need for music in the classroom, provides experiences in current methods of music education, and seeks to establish a logical framework of the structure and nature of music as a discipline and an art.

3210 Music in the Elementary Grades for Non-Music Majors. Three credits. Materials and methods appropriate for elementary grade general music, including a comparison of available music series and recordings; care of the child voice; beginning experience in pitched and non-pitched percussion; and simple wind instruments. Pedagogical trends and methods; analysis for understanding and appreciation.

3220 Choral Music in the Middle and Senior High School. Two credits. Prerequisites: MUED 3200 and MUS 3140. Rehearsal techniques, choral materials, organization of ensembles, classification of voices including changing voice, general music methods, and materials.

3230 Instrumental Materials. Three credits. Prerequisites: MUED 2000 and MUS 3140. Examination of materials suitable for public school instrumental music programs. Practice in classifying, grading, and programming. Development of music education philosophy for the control of those procedures.

3250 Band Organization and Marching Band Techniques. Three credits. Prerequisite: MUED 2000. Basic drill, principles of showmanship, and show planning for the band.

3310 Woodwind Techniques II. One credit. Prerequisite: MUED 1310. Instruction in the principles and problems of teaching woodwind instruments. Emphasis on problems found in performance by school students.

4210 General Music Program K-6. Two credits. Prerequisite: MUEN 3200. The role of music and music teaching in elementary education; its objectives, methods, materials, and procedures; innovative trends and exemplary practices; evaluative techniques.

4220 Middle School Music. Two credits. Prerequisite: MUED 3200. The role of music and music teaching in middle school education; its objectives, methods, materials, and procedures; innovative trends and exemplary practices; evaluative techniques.

4230 Secondary School Methods and Materials. Two credits. Prerequisite: MUEN 3200. The role of music and music teaching in secondary education; its objectives, methods, materials, and procedures; innovative trends and exemplary practices; evaluative techniques.

4240 Instrumental Rehearsal Problems. Two credits. Prerequisites: MUED 2000 and MUS 3140. Designed to improve teaching in instrumental music classes through study of rehearsal planning and techniques, the interpretation of music to students, and group dynamics.

4250 Advanced Marching Techniques. Two credits. Prerequisite: MUED 3250. Further development and application of marching band techniques as utilized in half-time and contest show production. Selection and analysis of music scores.

4260 School Instrumental Materials. Two credits. Analysis and compilation of a significant bibliography of instrumental material suitable for use in public schools. Emphasis on practical material possessing a maximum of aesthetic value.

4670 Music for the Young Child. Four credits. Music fundamentals, materials, and methods appropriate for preschool through grade three; pantomime, role playing, improvisation, rhythm, movement, listening, and singing.

## Music Ensembles [MUEN]

Music ensembles are maintained for the benefit of the student body and to provide training for students majoring or minoring in Music. Any MTSU student is eligible to enroll in any School of Music ensemble. All students must have permission of the instructor or audition for placement in an appropriate ensemble. Contact the music office for additional information. All music ensembles may be repeated for credit.
3000 Accompanying. One credit each semester. Both solo and ensemble vocal and instrumental repertory with emphasis on the role of the piano in these combinations. Performance required.

3100 The Band of Blue Marching Band. Zero to one credit per semester. Participation in all phases of the band, including rehearsals and appearances.

3110 Symphonic Band. Zero to one credit each semester. Preparation and public performance of concert and repertoire. Open by audition.

3120 Wind Ensemble. Zero to one credit each semester. Preparation and public performance of concert band and wind band repertoire. Open by audition.

3200 Concert Chorale. Zero to one credit each semester. Participation in all phases of chorus, including rehearsals and appearances.

3210 Meister Singers. One credit each semester. Participation in all phases of the group, including rehearsals and appearances. Reading of early English madrigals and traditional American music.

3220 Women's Chorus. Zero to one credit each semester. Preparation and public performance of treble clef choral repertoire.

3230 Schola Cantorum. One credit each semester. Preparation and public performance of English madrigals and traditional American choral repertoire. Open by audition.

3240 MTSU Singers. One credit each semester. Participation and public performances of a variety of popular and commercial music. Open by audition.

3250 Opera Workshop. One credit each semester. Preparation and public performance of opera. Technical and performing aspects of opera production as they pertain to light and grand opera.

3260 University Chorus. Zero to one credit each semester. Preparation and public performance of varied choral repertoire. Open by audition.

3300 Symphony Orchestra. Zero to one credit each semester. Participation in all phases of the orchestra, including rehearsals and appearances.

3400 Jazz Ensemble. Zero to one credit each semester. A performing organization providing instruction and experience in playing jazz.

3410 Salsa Band. One credit each semester. Preparation and public performance of appropriate repertoire. Open by audition.

3420 Commercial Music Ensemble. One credit each semester. Acquaints the student with the rehearsal and performance of commercial music.

3430 Jazz Combo. One credit each semester. Preparation and public performance of appropriate repertoire. Open by audition.

3500 Percussion Ensemble. One credit each semester. Performance of percussion ensemble literature. Programs are presented.

3700 Mixed Chamber Ensemble. One credit each semester. Preparation and public performance of music literature appropriate to the ensemble.

3710 Brass Chamber Ensembles. One credit each semester. Preparation and public performance of appropriate chamber music repertoire. Open by audition.

3720 Guitar Chamber Ensembles. One credit each semester. Preparation and public performance of appropriate chamber music. Open by audition.

3730 Piano Chamber Ensembles. One credit each semester. Preparation and public performance of appropriate chamber music. Open by audition.

3740 String Chamber Ensemble. One credit each semester. Preparation and public performance of appropriate chamber music. Open by audition.

3750 Woodwind Chamber Ensemble. One credit each semester. Preparation and public performance of appropriate chamber music. Open by audition.

## Music History and Literature [MUHL]

1610 The World of Music. Two credits. Prerequisite: MUTH 1000 with a grade of C - or better or satisfactory score on theory diagnostic exam. The first required music history course for music majors. Sur-
veys the basic elements of music, world music cultures, American vernacular music, and Western art music. Establishes foundation of further music study.

2910 Styles and Analysis of Jazz. Two credits. Technical features of various styles from the inception of jazz to present. Introduction of jazz style periods, performance practices, stylistic features, and artists.

3010 History of Western Art Music I. Three credits. Prerequisites: MUHL 1610 and MUTH 1110 with grade of C- or better. Second required music history course for Music majors. A survey of Western art music from antiquity through the eighteenth century, including Medieval, Renaissance, and Baroque periods.

3020 History of Western Art Music II. Three credits. Prerequisites: MUHL 1610 and MUTH 1110 with grade of C- or better. Third required music history course for music majors. A survey of Western art music of the eighteenth through twenty-first century, including Classical, Romantic, Modern, and Postmodern periods.

3120 Masterworks of Classical Music. Three credits. Selected great works from the Western classical tradition. Listening, watching, reading, and concert attendance.

3140 History of Rock ' $\mathbf{n}$ ' Roll. Three credits. A historical and cultural examination of rock ' n ' roll music from its origins to the present.

3150 Musics of the South. Three credits. A cultural and historical examination of the musical traditions of the southern United States from the colonial era to the present.

3670 History of Popular Music in America. Three credits. Chronological study of American popular music from the colonial period to the present. Formulation of perspectives of the role of popular music in American culture.

4060 Survey of Guitar Literature. Three credits. Basic literature for the guitar from the Renaissance to the present. Analysis, listening, research, and performance.

4130 Survey of World Music. Three credits. Selected music cultures from around the world and here at home. Listening, watching, reading, and concert attendance.

4140 Music of the Middle East. Three credits. Examines various Middle Eastern cultural soundscapes from an ethnomusicological perspective, including the relationship between folk, classical, and popular musical traditions and music's role in religious experience.

4530 History of Jazz. Three credits. Study of the history and literature of jazz music including African roots, developments and aspects of style periods, and the contemporary state of jazz. Listening and analysis.

4630 Seventeenth- and Eighteenth-Century Music. Three credits. Prerequisite: Permission of instructor. A survey of Western classical music during the Baroque and Classic periods; emphasis on topics selected by instructor.

4640 Nineteenth-Century Music. Three credits. Prerequisite: Permission of instructor. A survey of Western classical music during the Romantic period; emphasis on topics selected by instructor.

4650 Twentieth-Century Music. Three credits. Prerequisite: Permission of instructor. A survey of twentieth century Western art music; emphasis on topics selected by instructor. Examines the major developments of music during the late Romantic, Modern, and Postmodern eras.

4660 American Music. Three credits. Prerequisite: Permission of instructor. A survey of American music from the colonial era to the present; added emphasis on topics selected by the instructor. Examines folk, popular, art, sacred, and secular traditions within their cultural and historical contexts.

4680 Choral Literature. Two credits. Prerequisite: Permission of instructor. Examination of choral literature from the Renaissance to the present. Program selection. Analysis of choral pieces.

4690 Piano Literature. Three credits. Prerequisite: Permission of instructor. Survey of the basic literature of the harpsichord and the piano from the eighteenth century to the present. Live performance, analysis, and research.

4710 Vocal Literature. Three credits. Prerequisite: Permission of instructor. Basic repertory of Italian airs, German lieder, French art songs, and solo vocal works of other nationalistic schools, as well as English and American song literature.

4720 Organ Literature. Two credits. Prerequisite: Permission of instructor. A chronological study of organ literature from the Medieval period to the present. Objectives include knowledge of the repertoire and composers and historical perspective of styles and organ building.

4730 Brass Literature. Two credits. Prerequisite: Permission of instructor. A chronological study of brass literature from the Renaissance period to the present. Objectives include knowledge of the repertoire and composers and historical perspective of styles, types, and common performance practice.

4740 Percussion Literature. Two credits. Prerequisite: Permission of instructor. A chronological study of percussion literature from the nineteenth century to the present. Objectives include knowledge of the repertoire and composers and historical perspective of styles, types, and common performance practice.

4750 String Literature. Two credits. Prerequisite: Permission of instructor. A chronological study of string literature from the nineteenth century to the present. Objectives include knowledge of the repertoire and its composers and historical perspective of styles, types, and common performance practice.

4760 Woodwind Literature. Two credits. Prerequisite: Permission of instructor. A chronological study of woodwind literature from the Renaissance period to the present. Objectives include knowledge of the repertoire and composers and historical perspective of styles, types, and common performance practice.

4790 Orchestral and Wind Ensemble Literature. Two credits. Prerequisite: Permission of instructor. An in-depth study of orchestral and wind ensemble repertoire.

4800 Art Music and African Americans. Two credits. A chronological and topical overview of African American musicians and composers and the primary genres of African American art music from slavery to the present.

## Music Pedagogy [MUPD]

2180 Diction for Singers I (English and Latin). Two credits. Lecture demonstration course for familiarization of the International Phonetic Alphabet and correct pronunciation of texts in English and Latin.

2190 Diction for Singers II (Italian). Two credits. Prerequisite: MUPD 2180. Lecture demonstration course for familiarization of the In-
ternational Phonetic Alphabet and correct pronunciation of texts in Italian.

2200 Diction for Singers III (German). Two credits. Prerequisite: MUPD 2180. Lecture demonstration course for the familiarization of the International Phonetic Alphabet and correct pronunciation of texts in German.

2210 Diction for Singers IV (French). Two credits. Prerequisite: MUPD 2180. Lecture demonstration course for familiarization of the International Phonetic Alphabet and correct pronunciation of texts in French.

3050 Jazz Pedagogy. Two credits. Prerequisite: Permission of instructor. Techniques and methods of teaching jazz studies including the training of jazz ensembles and combos.

4110 Advanced Brass Pedagogy. Two credits. Prerequisite: Permission of instructor. Advanced study of conceptual, physiological, acoustical, and pedagogical methods and materials used in the teaching of beginning, intermediate, and advanced brass students.

4120 Advanced Percussion Pedagogy. Two credits. Prerequisite: Permission of instructor. Advanced study of conceptual, physiological, acoustical, and pedagogical methods and materials used in the teaching of beginning, intermediate, and advanced percussion students.

4130 Advanced String Pedagogy. Two credits. Prerequisite: Permission of instructor. Advanced study of conceptual, physiological, acoustical, and pedagogical methods and materials used in the teaching of beginning, intermediate, and advanced string students.

4140 Advanced Woodwind Pedagogy. Two credits. Prerequisite: Permission of instructor. Advanced study of conceptual, physiological, acoustical, and pedagogical methods and materials used in the teaching of beginning, intermediate, and advanced woodwind students.

4310 Vocal Pedagogy. Two credits. Prerequisite: Permission of instructor. Techniques for teaching the fundamentals of singing. Vocalises and repertoire. Physical aspects of singing.

4320 Piano Pedagogy. Two credits. Prerequisite: Permission of instructor. The various technical and philosophical approaches in teaching piano. Examination of teaching repertory through intermediate level. Supervised teaching through intermediate level.

4330 Organ Pedagogy. Two credits. Prerequisite: Permission of instructor. Instruction in the principles of teaching organ-(1) manual and pedal techniques, (2) organ methods, and (3) organ repertoire of varying degrees of difficulty and of all period styles from pre-Bach through twentieth century.

4350 Guitar Pedagogy. Two credits. Prerequisite: Permission of instructor. Study of the theoretical and practical basis of teaching guitar.

## Music Theory [MUTH]

1000 Elements of Music. Three credits. For those needing remedial work before enrolling in Theory 1110. Topics covered include music reading in G and F clefs, intervals, major and minor scales; rhythm.

1110 Theory and Aural Skills I. Four credits. Prerequisite: MUTH 1000 with grade of C - or higher or satisfactory score on theory diagnostic exam. Harmonic tonality and fixed-do solfège through chorale analysis and harmonizations of given bass lines. Major and minor
scales and harmonizations through secondary function. Meets for five hours per week.

1120 Theory and Aural Skills II. Four credits. Prerequisite: MUTH 1110. Harmonic tonality and fixed-do solfège through chorale analysis and harmonizations of given bass lines. Modal scales, harmonization, and analysis through the augmented sixth. Meets for five hours per week.

2110 Theory and Aural Skills III. Three credits. Prerequisite: MUTH 1120. Harmonic tonality and twentieth-century vocabularies. Nineteenth-century chromaticism. Meets for four hours per week.

2120 Theory and Aural Skills IV. Three credits. Prerequisite: MUTH 2110. Continued study of harmonic tonality and twentieth-century vocabularies. Twentieth-century practices. Meets for four hours per week.

3020 Commercial Songwriting. Three credits. (Same as RIM 3020.) Prerequisites: RI majors - admission to candidacy and RIM 1230 or MUTH 1110 or permission of instructor; others - permission of instructor. Organization of ideas, words, and music into the writing of popular songs. Analysis of songwriting trends. Students will be expected to play guitar or piano and sing.

3110 Counterpoint. Three credits. Prerequisite: MUTH 2120 with Cor better. Review and continuation of contrapuntal techniques. Canon, imitation, various contrapuntal devices, inventions, and beginning fugue. Analysis and some degree of original work.

3160 Jazz Theory I. Three credits. Prerequisite: MUTH 1120. Exploration of the harmonic syntax, melodic construction, and song forms in jazz music. Analysis, listening, original composition, and practice hearing jazz chords and progressions.

3170 Jazz Theory II. Three credits. Prerequisite MUTH 3160. Further study of jazz harmonic and melodic language, including nonfunctional harmony, modal progressions, and other post-bebop developments. Analysis, ear training, and much original composition.

4110 Form and Analysis. Two credits. Prerequisite: MUTH 2120. Binary and tenary forms, simple rondos and sonatinas progressing to sonata form, large rondos, theme and variations, art song, and free forms. Stylistic analysis and study of devices and materials from early to contemporary periods.

4130 Orchestration and Arranging. Two credits. Prerequisite: MUTH 2120. Compass and tonal qualities of band and orchestra instruments; transposition. Fundamentals of arranging for various instrumental groupings.

4170 Jazz Arranging. Two credits. Prerequisite: MUTH 3160 or permission of instructor. Fundamental considerations in arranging music for small jazz ensembles. Stylistic elements of melody, harmony, rhythm, texture, and form; notation, score preparation, and layout. Students will complete an arrangement for five horns and rhythm section.

4180 Improvisation I. Two credits. Prerequisite: MUTH 1120 or permission of instructor. Basic tools of jazz improvisation including chord/scale relationships, melodic construction, and practice techniques. In-class playing over blues, rhythm changes, and other standard jazz progressions. Elements of the bebop style. Preparation of playing exercises and several solo transcriptions.

4190 Introduction to MIDI and Sound Synthesis. Three credits. (Same as RIM 4190.) Prerequisites: RI majors - admission to candidacy and RIM 1230 or MUTH 1110; others-RIM 3010, RIM 1230,
or MUTH 1110 or permission of instructor. An introduction to synthesizer programming and the Musical Instrument Digital Interface (MIDI) with emphasis on history, theory, and application. Hands-on activities include synthesizer programming with virtual instruments and MIDI sequencing using a digital audio workstation. Laboratory required.

4270 Choral Arranging. Two credits. The fundamentals of arranging musical works for vocal ensembles of various sizes, combinations, and skill levels.

4280 Jazz Arranging II. Three credits. Prerequisite: MUTH 4170. Advanced analyzing and arranging of various combinations of instruments and voice for small and large jazz ensembles; periods, performance practices, stylistic features, and artists.

4290 MIDI Sequencing and Virtual Instruments. Three credits. (Same as RIM 4290). Prerequisites: RI majors - admission to candidacy and RIM/MUTH 4910; others - RIM/MUTH 4190 or permission of instructor. An advanced hands-on course with an emphasis on MIDI sequencing and virtual instruments within Pro Tools, Reason, and other music production software. Drum machines, synthesizers, samplers, and other electronic instruments used to create a commercial music track. Laboratory required.

4380 Improvisation II. Two credits. Prerequisite: MUTH 4180. Continuation and expansion of materials covered in MUTH 4180. Application of advanced scales and construction of more chromatic melodies. Elements of post-bebop styles. In-class playing of exercises, transcriptions, and improvised solos.

4590 Computer-based Scoring for Visual Media. Three credits. (Same as RIM 4590.) Prerequisites: RI majors - admission to candidacy, RIM/MUTH 4190 and either RIM 4200 or RIM/MUTH 4290; others - RIM/MUTH 4190 and either RIM 4200 or RIM/MUTH 4290 or permission of instructor. Writing music for visual media using the capabilities of a computer workstation. Introduces compositional techniques utilizing Macintosh sequencing software and QuickTime video playback in combination with synthesizers and sample playback programs. Concepts include synchronization of music to picture, tempo selection, sound source selection/ manipulation, and analysis of the dramatic content of a scene. Laboratory required.

## Nursing [NURS]

3000 Professionalism in Nursing. One credit. Exposes the novice nursing student to the profession of nursing. Concept of professionalism explored and related to nursing. Includes a brief historical review of nursing and nursing theories. Professional values, practice standards, and communications with health care professional introduced. Legal implications for nursing explored.

3010 Pathophysiology. Three credits. (Same as BIOL 3340.) Prerequisites: BIOL 2010/2011, 2020/2021, and 2230/2231. Basic mechanisms of disease processes and their role in disrupting normal physiology. Three hours lecture.

3030 Health Assessment. Two credits. Prerequisites: BIOL 2010/2011 and 2020/2021; accepted into upper-division nursing. Corequisite: NURS 3040. Principles and techniques required for the assessment and analysis of data (diagnosis). Normal assessment findings and selected abnormal findings studied. Cultural variations and assessment variations across the lifespan explored.

3040 Health Assessment Laboratory. One credit. Prerequisites: BIOL 2010/2011 and 2020/2021; accepted into upper-division nursing. Corequisite: NURS 3030. Opportunity to practice the basic principles and techniques required for the assessment and analysis
of data (diagnosis). Normal assessment findings in the adult as well as selected abnormal findings studied. Cultural variations and assessment variations across the lifespan explored. Two-hour laboratory.

3111 Professional Role Development. Three credits. Socializes the returning R.N. into the role of a baccalaureate nurse. Professionalism in nursing, role transition, history of nursing education, and issues pertinent to returning adult learners.

3170 Pharmacological Requisites for Nurse Agency. Three credits. Prerequisites: General Education Natural Science; BIOL 2230/2231, 2010/2011, 2020/2021; NURS 3000, 3010, 3030, 3040, 3370. Knowledge and responsibility necessary for the assessment and monitoring of clients receiving pharmacotherapeutics. Three hours lecture.

3350 Introduction to Nursing Practice. Five credits. Prerequisites: NURS 3000, 3010, 3030, 3040, and 3370. Corequisites: NURS 3170 and 3360. Introduces nursing care concepts necessary to support basic care of clients across the lifespan; foundation for subsequent nursing courses. Five hours lecture.

3360 Introduction to Nursing Practice-Clinical. Three credits. Prerequisites: NURS 3000, 3010, 3030, 3040, and 3370. Corequisites: NURS 3170 and 3350. Nursing practice applied in laboratory and clinical settings. Eight hours laboratory per week for duration of course.

3370 Health and Gerontology. Three credits. Focuses on the normal aging process and related health care issues from an interdisciplinary perspective. Incorporates concepts of health promotion, prevention, and adaptation for those who are aging and their families. Three hours lecture.

3530 Caring for Adult Clients I. Five credits. Prerequisites: NURS 3170, 3350, 3360, and 3570. Corequisite: NURS 3540. Professional nursing care in a variety of settings for the adult client with simple and chronic health problems. Five hours lecture.

3540 Caring for Adult Clients I-Clinical. Four credits. Prerequisites: NURS 3170, 3350, 3360, 3570. Corequisite: NURS 3530. Applying the nursing process in a clinical setting with the adult client experiencing acute and chronic health deviations. Twenty hours clinical/lab per week for duration of course.

3550 Caring for the Childbearing Family. Three credits. Prerequisites: NURS 3170, 3350, 3360, and 3570. Corequisite: NURS 3560. Incorporates the nursing process and critical thinking skills into the professional nursing care of the childbearing female and the family. Focuses on health promotion, prevention, and adaptation for the childbearing client. Three hours lecture.

3560 Caring for the Childbearing Family-Clinical. Two credits. Prerequisites: NURS 3170, 3350, 3360, and 3570. Corequisite: NURS 3550. Nursing process for applying the clinical application and principles of nursing and family theory to childbearing families. Focuses on health promotion, prevention, and adaptation for childbearing families. Sixteen hours clinical/lab per week for duration of course.

3570 Health Care Research. Three credits. Prerequisites: NURS 3000, 3010, 3030, 3040, and 3370; MATH 1530; or permission of the director of the School of Nursing. Utilizes systematic inquiry and analysis by reinforcing the problem-solving method. Utilization of research in the improvement of health care practice to affect positive client outcomes examined. Attention given to a thorough search and critique of current research literature related to a problem area selected by the student. Three hours lecture.

4005 Independent Health Care Study. One to three credits. Prerequisites: Admission to the upper division of the nursing program and permission of instructor. Allows the student to pursue individual interests in nursing by contracting with an instructor and documenting the plan of learning as well as its fulfillment. One to three lectures or two to six laboratory hours.

4035 Special Topics in Nursing. Three credits. Explores selected nursing topics in depth. Specified topic offered each semester according to student interest and faculty availability. Can be taken for a maximum of nine hours.

4036 Nursing's Image in the Media. Three credits. Explores the variety of images that the public, the media, and nurses hold of nurses and the nursing profession. Examines personal beliefs regarding these images and the influence these beliefs can play in major health care issues.

4037 End-of-Life Care. Three credits. Focuses on the role of the nurse in end-of-life care across the lifespan and among cultures. Covers a wide range of topics and issues, incorporating a holistic perspective. Students explore their personal values, beliefs, and practices related to end-of-life.

4038 Medical/Surgical Practicum. Three credits. Prerequisites: Admission to upper division nursing program; NURS 3530 and 3540; and permission of instructor. Allows students to pursue individual interests in nursing by contracting with an instructor and documenting the plan of learning as well as its fulfillment. Six laboratory hours.

4039 Health Care Issues and Trends. Three credits. Online course provides opportunities for examination and critical evaluation of significant issues and trends in the current health care environment.

4055 Informatics for the Health Care Professional. Three credits. Theoretical foundations of informatics for health care professionals. Examines information technology and tools on the Internet. Emphasis on impact of automated data management through information systems in health care.

4210 Health Care Research. Three credits. Prerequisites: MATH 1530. The research process in developing a research proposal for a student-identified problem in the health care delivery system. Discussion and critique of related research findings and research proposals of peers. Three hours lecture.

4330 Caring for Adult Clients II. Five credits. Prerequisites: NURS 3530, 3540, 3550, and 3560. Corequisite: NURS 4340. Incorporates the nursing process and critical thinking skills into the professional nursing care of the adult client experiencing complex, multi-system illness, failure, and trauma. Opportunities for the nursing student to combine acquired knowledge from previous nursing courses and courses from other disciplines with new phenomena encountered in a variety of high acuity care settings. Five hours lecture.

4340 Caring for Adult Clients II-Clinical. Four credits. Prerequisites: NURS 3530, 3540, 3550, and 3560. Corequisite: NURS 4330. Opportunity for nursing students to integrate didactic and empirical knowledge and skills for clients with critical needs into the acute care setting. Understanding of complex, multi-system illness, failure, and trauma in providing nursing care. Twenty hours clinical/lab for duration of course.

4350 Caring for Children and Teen Clients. Three credits. Prerequisites: NURS 3530, 3540, 3550, and 3560. Corequisite: NURS 4360. Incorporates the nursing process and critical thinking skills into the professional nursing care of children, adolescents, and
their families. Principles of growth and development and familycentered care. Three hours lecture.

4360 Caring for Children and Teen Clients-Clinical. Two credits. Prerequisites: NURS 3530, 3540, 3550, and 3560. Corequisite: NURS 4350. Provides assistance in transferring knowledge to the implementation of nursing care of children, adolescents, teens, and their families in a variety of clinical settings. Sixteen hours clinical/lab per week for duration of course.

4530 Caring for the Community as Client. Three credits. Prerequisites: NURS 4330, 4340, 4350, 4360. Corequisites: NURS 4550 and 4560. Opportunity for students to learn theoretical concepts and epidemiological principles related to health promotion and preventive services. Primary, secondary, and tertiary levels of prevention covered. Focuses on the work of an interdisciplinary health care team and concepts of nursing and public health when working with the individual, family, group, and community as client. Three hours lecture.

4540 Licensure Exam Preparation. One credit. Prerequisites: NURS 4330, 4340, 4350, and 4360. Offers preparation for writing the National Council for Licensing Examination for Registered Nurses (NCLEX-RN).

4550 Caring for Clients with Mental Health Alterations. Three credits. Prerequisites: NURS 4330, 4340, 4350, and 4360. Corequisites: NURS 4530, 4560. Opportunity for students to learn theoretical concepts relating to mental health and psychiatric nursing. Interpersonal and group communication, psychopathology, and legal and ethical issues explored. Methods used in providing nursing care for clients with alterations in mental health presented. Interdisciplinary health care team and its function in the psychiatric setting explored. Three hours lecture.

4560 Nursing Care of Vulnerable Aggregates Clinical. Three credits. Prerequisites: NURS 4330, 4340, 4350, and 4360. Corequisites: NURS 4530 and 4550 . Familiarizes the undergraduate nursing student with ways to care for aggregates. Emphasis on clients in the community and in in-patient psychiatric facilities. Sixteen hours clinical/lab per week for duration of class.

4570 Professional Practice and Leadership. Three credits. Prerequisites: NURS 4330, 4340, 4350, and 4360. Corequisite: NURS 4580. Opportunity for students to learn theoretical concepts relating to leadership in nursing. Theories of leadership and management including legal and ethical issues explored. Three hours lecture.

4580 Professional Practice and Leadership Clinical. Three credits. Prerequisites: NURS 4330, 4340, 4350, 4360. Corequisite: NURS 4570. Clinical application of professional practice and leadership principles. Provides independence in the management of nursing systems in various health care institutions. Sixteen hours clinical/ lab per week for duration of course.

## Nutrition and Food Sciences [NFS]

1240 Principles of Nutrition. Three credits. Fundamentals of normal nutrition and its relationship to health and physical fitness with emphasis on the scientific, psychological, sociological, and economic aspects of nutrition. (Credit not allowed for Nutrition and Food Sciences major.)

2220 Nutrition for the Health Sciences. Three credits. Elements of scientific, psychological, sociological bases of nutrition and its relationship to prevention and treatment of degenerative diseases. Emphasis on fostering communication between health care practitioners in assessment and implementation of nutrition care.

3100 Food and Culture in the United States. Three credits. Online course traces development of foods in regions of the U.S. by immigration of ethnic groups or as native to areas. Influence of immigrant cultures and customs on the introduction and development of regional foods. Concepts include food production, supply, and food processing over the last 150 years and the impact on diet.

3200 Food Principles. Three credits. Basic physical and chemical principles, techniques, skills, sanitation, and economics involved in quality food selection, composition, and preparation. Five hours per week. Offered fall only.

3201 Food Principles Lab. Zero credits.
3210 Meal Management. Three credits. Functions of management applied to serving nutritionally adequate and aesthetically satisfying meals. Management of human and nonhuman resources in group situations. Five hours per week.

3260 Community Nutrition. Three credits. Prerequisite: NFS 1240 or 2220. Nutrition problems and practices in the community; nutrition programs of state and federal agencies; supervised field experiences; preparation of nutrition education materials.

3280 Nutrition in Health Promotion. Three credits. Prerequisite: NFS 1240 or 2220. Nutrition education resources and skills for individuals working in health promotion and wellness areas including methods for weight management, evaluating popular nutrition fads, dietary assessment, sports nutrition, dietary fat, and cholesterol programs.

4090 Field Experience in Foods and Nutrition. Three credits. Prerequisites: NFS 1240 or 2220, 4200, 4220; permission of instructor; 2.25 GPA. Directed and supervised experience in a specialized area of dietetics or food management. Includes a minimum of 150 hours at the work site.

4210 Nutrition in Aging. Three credits. Prerequisite: NFS 1240 or 2220. Nutritional needs of elderly individuals and how these requirements are affected by physiological, pathological, and socioeconomic changes associated with aging. Emphasis placed on assessment, nutrition counseling skills, and resources to assist elderly individuals with adequate nutrient intake.

4220 Food Systems Management. Three credits. Prerequisites: NFS 3200 and HSC 4430. Corequisite: NFS 4221. Principles and production of quantity foods. Emphasis on menu planning and evaluation, production planning, quality control, facilities and equipment, safety, and sanitation. Five hours per week.

4221 Food Systems Management Lab. Zero credits. Corequisite: NFS 4220.

4222 Nutrition and Food Service Management. Three credits. Prerequisite: HSC 4430. Roles and responsibilities of food and nutrition professionals. Emphasis on marketing food and nutrition services, financial management, facilities planning and design, human resource management, work improvement and productivity. Offered spring only.

4240 Experimental Food Study. Three credits. Prerequisites: NFS 3200 and CHEM 2030/2031 or permission of instructor. Chemical and physical factors affecting the flavor, texture, color, and appearance of food. Emphasis placed on evaluation of sensory qualities of food, using subjective and objective measurements and new food product development. Offered spring only.

4250 Maternal and Child Nutrition. Three credits. Prerequisite: NFS 1240 or 2220 . Nutritional needs during pregnancy, infancy, and
childhood related to physical and mental development. Emphasis on cultural, social, and psychological aspects of the development of food patterns and nutrition education resources.

4251 Nutrition for the Young Child. Three credits. Fundamentals of nutrition with emphasis on its relationship to growth, development, and health during the prenatal period, infancy, and childhood. Geared to Early Childhood Education and Child Development and Family Studies majors.

4260 Food Safety Issues from Production to Consumption. Three credits. Issues impacting food production, food storage and transportation, food processing, and food consumption within food production facilities, the home, and food service facilities. Consumer concerns evaluated based on risk theory and scientific evaluation of safety, including decision-making through critical thinking. Food standards and regulations designed to improve safety of the food supply discussed.

4270 Advanced Nutrition. Three credits. Prerequisite: NFS 2220. Advanced study of nutrients, standards for determination of nutrient needs and metabolism of nutrients in the body. Offered spring only.

4300 Medical Nutrition Therapy I. Three credits. Prerequisites: BIOL 2030/2031 and NFS 4270. Modification of diets in pathological and special conditions. Diseases affecting the cardiac, hepatic, pancreatic, and gastrointestinal systems emphasized. Practice in applying strategies in medical nutrition therapy provided through structured case study format. Offered fall only.

4310 Medical Nutrition Therapy II. Three credits. Prerequisites: BIOL 2030/2031; NFS 4270 and 4300. Modification of diets in pathological and special conditions. Diseases affecting the renal system as well as cancer, diabetes, and metabolic stress emphasized. Practice in applying strategies in medical nutrition therapy provided through case study format. Offered spring only.

4400 Dietetic Practicum. Six credits. Prerequisites: NFS 4220, 4300, and 4310. Practical preparation in the field of clinical dietetics. Clinical experience provided with the cooperation of Middle Tennessee Medical Center and other facilities. For senior dietetics students only. Offered summer only.

## Organizational Communication [ORCO]

3240 Introduction to Organizational Communication. Three credits. Theories and processes of communication within organizations.

3245 Women, Leadership, and Communication. Three credits. (Same as LEST 3245.) Prerequisites: COMM 2300 3340, and 3225; ORCO 3240. Communication behaviors and issues unique to women in leadership positions. Students exposed to various activities and discussions designed to develop critical-thinking skills, broaden perspectives, adapt decision-making skills to the professional environment, and create professional relationships.

3250 Organizational Communication in Communities. Three credits. Theories and techniques involving communication between organizations and their constituencies. Identification and analysis of communication involving corporate philanthropy and fundraising, fundraising events, volunteers, image, and ethical considerations.

3500 Strategic Communication in Organizations. Three credits. Prerequisite: Junior standing or permission of instructor. Organizational communication and its relationship to employees, leadership, corporate culture, diversity, change, and innovation.

3650 Conflict and Organizations. Three credits. Prerequisite: Junior standing or permission of instructor. The role of communication in conflict management/resolution between or among individuals and groups. Examines workplace violence, fraud, mediation, grievances, substance abuse, and discrimination.

3750 Organizational Communication Analysis. Three credits. Prerequisite: Junior standing or permission of instructor. Critical analysis of organizational communication using survey research and other methods including studies of content, readability, readership, information dissemination, and organizational effectiveness.

3800 Introduction to Arts Management. Three credits. (Same as THEA 3800.) Prerequisite: Junior standing or permission of instructor. Management of a not-for-profit arts organization. Topics include organizational design, strategic planning, budgeting, marketing, and fundraising within the context of a visual or performing arts organization. Guest lecturers from regional arts organizations. Projects and discussion for individual interests in various arts disciplines. Laboratory hours required and/or crew requirement.

4000 Topics in Organizational Communication. Three credits. Prerequisite: Completion of 60 credit hours. An in-depth study of a special topic which is significant in organizational communication literature and/or practice.

4200 Multinational Organizations. Three credits. Prerequisites: ORCO 3240 and completion of 60 credit hours. A critical study of nonprofit multinational organizations and expatriate employees, including analysis of organizational preparation and training.

4220 Internship in Organizational Communication. One to three credits. Prerequisites: ORCO 3240, permission of department, and completion of 60 hours. Practical experience in applying coursework to actual situations and projects in organizations, both on and off campus, in a supervised internship program. May be repeated for a maximum of six credits.

4450 Directed Study in Organizational Communication. Three credits. Prerequisites: ORCO 3240, permission of instructor, and completion of 60 credit hours. Intensive, independent study to pursue research in a specified area which is significant in organizational communication literature and/or practice.

4500 Senior Capstone in Organizational Communication. Three credits. Prerequisite: Senior standing or permission of instructor. Capstone course combines tools learned in both statistical methods and research methods courses with theory from other courses in the major. Addresses broader issues such as consulting ethics and social responsibility.

4850 Development for Arts Organizations. Three credits. (Same as THEA 4850.) Prerequisite: Junior standing or permission of instructor. Development of not-for-profit arts organizations. Focuses on comprehensive approaches to fundraising. Includes not-for-profit arts organizations, board structures, and the terminology and tools of the fundraising profession. Ideal for future artist, not-for-profit manager, or those interested in fundraising. Laboratory hours required.

## Paralegal Studies [PLEG]

3010 Litigation. Three credits. Prerequisites: PS 2010 and 2440. Legal procedures required for introducing and pursuing cases in the judicial system.

3410 Family Law. Three credits. Prerequisites: PS 2010 and 2440. The law of marriage, divorce, child custody and support, adoption, paternity, and related issues.

3420 Torts. Three credits. Prerequisites: PS 2010 and 2440. The law of injury to legally protected interests in personal safety, liberty, and property.

4010 Internship. Three credits. Supervised work in a law office or agency as a paralegal assistant.

## Photo Communication [PHOT]

2050 Basic Black and White Photography. Three credits. Black and white processing and printing; principles and procedures combined with theories of visual perception. Laboratory required. Lecture/lab, three-six contact hours per week.

3040 History of Photography. Three credits. Evolution of photographic imagery from the invention through contemporary work. The movements, themes, and genres developed by individual photographers.

3110 Intermediate Photography I. Three credits. Prerequisite: PHOT 2050. Further investigation into the exposure and development controls of black and white photography as a method of expression and communication. Laboratory required. Lecture/lab, three-six contact hours per week.

3120 Intermediate Photography II. Three credits. Prerequisites: PHOT 3110 and ART 1610. A continuation of 3110. Laboratory required. Lecture/lab, three-six contact hours per week.

3200 Still Digital Imaging. Three credits. (Same as EMC 3200.) Prerequisites: Admission to candidacy; PHOT 2050 and instructor approval; must have some working knowledge of the Macintosh computer system. Computerization of traditional film images and use of digital cameras allows students to use different software programs to manipulate photographic images. Ethics and law discussed along with techniques and hands-on analysis of this new medium. Lecture/lab, three-six contact hours per week.

3580 Photography Practicum. One to three credits. Prerequisites: Admission to candidacy; junior standing and permission of instructor. Practical experience in an on-campus photography setting. A minimum of 75 hours work for each hour of credit. Note: Total university credit for internship, practicum, and individual problems courses cannot exceed 6 credits. Pass/Fail.

3810 Color Photo Communication I. Three credits. Prerequisites: Admission to candidacy; ART 1610 and PHOT 3110 or consent of instructor. The making of color images using transparencies and color print materials. Laboratory required. Lecture/lab, three-six contact hours per week.

4000 Photography Internship. One to three credits. Prerequisites: Admission to candidacy; senior standing and permission of department chair or instructor. Practical experience for advanced students in a professional setting. A minimum of 75 hours work plus other assignments will be required for each hour of credit. Note: Total university credit for internship, practicum, and individual problems courses cannot exceed $\mathbf{6}$ credits. Pass/Fail.

4040 Color Photo Communication II. Three credits. Prerequisites: Admission to candidacy; PHOT 3040 and 3810 or consent of instructor. A continuation of 3810. Laboratory required. Lecture/ lab, three-six contact hours per week.

4060 Photojournalism. Three credits. (Same as EMC 4060.) Prerequisites: Admission to candidacy; PHOT 3120 and 3810 or consent of instructor. Principles and practices of photography, including documentary, news and feature portraiture, photo stories and essays, and photo layout. Emphasis on newspaper assignments, participation in campus publications, portfolio editing and production, and internship preparation. Laboratory required. Lecture/ lab, three-six contact hours per week.

4190 Ethics and Law for Visual Communicators. Three credits. Prerequisites: Admission to candidacy; junior status with declared major. Background in ethics and law for the visual communicator. Focus on ethical philosophies, ethics case studies, and solutions to ethical dilemmas; copyright, privacy, and libel law.

4220 Advanced Photojournalism. Three credits. Prerequisites: Admission to candidacy; PHOT 4060 and/or consent of instructor. Builds on the basic information given in PHOT 4060. Advanced photographic techniques, including digital imaging, information on ethics and law as they pertain to the image maker, along with an examination of different styles of photojournalism addressed by classroom demonstration, lecture, and practical assignments. Laboratory required. Lecture/lab, three-six contact hours per week.

4270 Photo Illustration. Three credits. Prerequisites: Admission to candidacy; PHOT 4280. Studio illustration with food, fragrance, beverage, jewelry, glass, and flatware with an emphasis on tabletop. Introduction to large-format view camera and studio lighting. Problems in advertising photography including responsibilities under truth in advertising. Laboratory required. Lecture/lab, three-six contact hours per week.

4280 Editorial Photography. Three credits. Prerequisites: Admission to candidacy; PHOT 3040, 3120, and 3810. Editorial illustration for fashion, corporate, annual report, home, and garden with emphasis on location lighting. Exploration of various career opportunities and business practices open to the professional photographer. Laboratory required. Lecture/lab, three-six contact hours per week.

4290 Documentary Photography. Three credits. Prerequisites: PHOT 3120 and 3810 . Those students using color print material must be enrolled in or have taken PHOT 4040. Students will photograph several short-term photo essays and picture stories in addition to a long-term project in a documentary style. Research on the aspects of and photographers practicing contemporary documentary photography. Laboratory required. Lecture/lab, three-six contact hours per week.

## Physical Education [PHED]

The physical education activity courses are designed to prepare students for future participation in these activities by developing basic competencies in the fundamental skills of each activity. Opportunities for the improvement of skill and the learning of new skills are provided through intermediate and advanced level courses in certain activities.

## 1000 Team Games and Conditioning. One credit.

1010 Beginning Folk and Square Dance. One credit.
1020 Beginning Social Dance. One credit.
1040 Beginning Tennis. One credit.
1050, 1060 Adapted Physical Activity. One credit each.
1080 Beginning Bowling. One credit. Fee required.
1100 Beginning Karate. One credit.
1110 Casting and Fishing Techniques. One credit.
1120 Backpacking and Hiking. One credit.
1130 Beginning Bicycling. One credit.
1140 Gymnastics. One credit.

1150 Beginning Badminton. One credit.
1160 Beginning Archery. One credit.
1170 Beginning Racquetball. One credit.
1180 Aerobic Walking. One credit.
1190 Aerobic Dance. One credit.
1200 Beginning Weight Training. One credit.
1210 Beginning Basketball. One credit.
1220 Beginning Soccer. One credit.
1230 Team Handball. One credit.
1240 Water Aerobics. One credit. No swimming skills required.
1250 Self Defense. One credit.
1260 Intermediate Bicycling. One credit.
1270 Yoga. One credit.
1280 Beginning Pilates. One credit. Series of floor exercises developed by Joseph H. Pilates designed to increase strength, flexibility, stamina, and concentration. Focus on postural alignment and body mechanics; facilitates enhancement of kinesthetic sense overall and increases body awareness.

1290 Tai Chi. One credit. All 56 postures of Chen-style tai chi taught in one semester. Includes an overview of the history, philosophy, principles, and benefits of tai chi.

1300 Personal Conditioning. One credit. Basic concepts, techniques, and activities needed to design an individual conditioning program. Basic nutrition also covered.

1310 Beginning Rugby. One credit. Introduces the basics of the game of rugby. Coed, non-contact play coupled with classroom analysis.

1320 Intermediate Rugby. One credit. Continued study of the continuous game. Principles of play with additional emphasis on coaching, officiating, and the laws and strategies of Rugby.

1330 Intermediate Tai Chi. One credit. Prerequisite: PHED 1290 with a minimum grade of $B$ or permission of instructor. All 40 postures of Yang International Competition Style Tai Chi taught in one semester. Explores history, philosophy, principles, and benefits of tai chi.

1340 Qigong (Ch'i Kung). One credit. Involves the coordination of different breathing patterns with various physical postures and motions of the body. Research benefits: stress reduction, decreased blood pressure, improved health.

2000 Beginning Wrestling. One credit.
2010 Beginning Modern Dance. One credit.
2020 Beginning Golf. One credit. Fee required.
2030 Tumbling and Trampoline. One credit.
2040 Beginning Swimming. One credit.
2050, 2060 Adapted Physical Activity. One credit each.

2070 Intermediate Swimming. One credit.
2071 Fitness Swimming. One credit. Refining swimming strokes so students can swim with more ease, efficiency, and power. Offers information needed to design workout for using swimming as a fitness activity.

2080 Intermediate Modern Dance. One credit.
2090 Intermediate Tennis. One credit.
2110 Basic Horsemanship-Equitation. One credit.
2120 Scuba Diving. Two credits. Prerequisite: PHED 2070. Students must pass a swimming proficiency test.

2121 Advanced Scuba Diving I. Two credits. Prerequisite: Open water certification; not a prerequisite for PHED 2124. Exposes divers to scuba equipment maintenance, navigation skills, ability to safely participate in night and limited visibility diving, and basic seamanship skills.

2123 First Aid for Scuba Divers. Three credits. Prerequisite: PHED 2120. Provides knowledge and skills necessary for certification in CPR for the professional rescuer. Covers blood-borne pathogens, oxygen administration, and first aid for scuba divers.

2124 Advanced Scuba Diving II. Two credits. Prerequisite: Open water certification; can be taken before PHED 2121. Offers training to prevent, recognize, and handle in-water problems and diving emergencies; search and recovery; oxygen administration; CPR; and to utilize enriched air nitrox as a breathing medium.

2130 Basic River Canoeing. One credit. Prerequisite: PHED 2070. Students must pass a swimming proficiency test.

2140 Basic Lifeguarding. Two credits. Includes lifeguard training, automated external defibrillation, professional rescuer oxygen administration, and preventing disease transmission.

2150 Synchronized Swimming. One credit. Prerequisite: PHED 2070.
2160 Ballet-Primary. One credit.
2170 Ballet—Intermediate. One credit.
2180 Beginning Jazz Dance. One credit.
2190 Beginning Tap Dance. One credit.
2200 Modern Gymnastics. One credit.
2240 Beginning Roller Skating. One credit. Fee required.
2250 Intermediate Bowling. One credit. Fee required.
2260 Basic Rock Climbing. One credit.
2270 Beginning Volleyball. One credit.
2280 Intermediate Tap Dancing. One credit.
2290 Intermediate Roller Skating. One credit.
2300 Beginning Handball. One credit.
2320 Advanced Weight Training. One credit.
2330 Advanced Karate. One credit.

2340 Aquatic Instructor Certification. One credit.
2350 Intermediate Badminton. One credit.
2360 Intermediate Wrestling. One credit.
2380 Intermediate Jazz Dance. One credit.
2400 Intermediate Handball. One credit.
2410 Beginning Softball. One credit.
2420 Intermediate Golf. One credit.
2430 Advanced Volleyball. One credit.
2440 Advanced Swimming. One credit.
2450 Advanced Tennis. One credit.
3250 Workshops and Instructional Methods in Health Education. Three credits. (Same as HLTH 3250.) Preparation for conducting workshops in a variety of professional settings.

3300 First Aid and Safety Education. Three credits. (Same as HLTH 3300.) Deals with first aid measures, accident prevention, and cardiopulmonary resuscitation. Addresses issues related to drug use/abuse and related acts of violence. Satisfactory completion of the course qualifies the student for American Red Cross Standard and CPR certificates.

3430 Skill Themes: Games, Gymnastics, Rhythms. Two credits. Fundamental areas of educational gymnastics, educational games, and educational/creative dance/rhythms. How movement education relates to an individual child's personal development-intellectually, emotionally, socially, and physically. Activities suitable for the needs, abilities, and interests of children and developmentally appropriate practices.

3500 Physical Education for Early Childhood. Four credits. Principles, teaching strategies, and curriculum activities for young children. Planning age-appropriate physical activities and designing developmentally appropriate motor skill experiences for young children. Extensive practicum experiences in teaching. Two onehour lectures and two one-hour labs per week.

3720 Fitness Education K-12. Three credits. Planning, teaching, and participating in individual and group fitness programs for $\mathrm{K}-12$. Offers preparation to administer and interpret assessment of related components with the understanding of physiological principles related to exercise in the K-12 student. Major lifetime wellness activities covered.

3730 Skills and Techniques of Teaching Tumbling, Stunts, and Gymnastics. Three credits. Objectives, materials, and techniques for teaching tumbling and gymnastics. Laboratory and field experiences required.

3740 Skills and Techniques of Teaching Individual and Dual Sports. Three credits. Knowledge of skills, methods, and materials necessary for teaching activities-archery, badminton, golf, tennis, and bowling-which will contribute to lifetime wellness. Laboratory and field experiences required.

3750 Skills and Techniques of Teaching Team Games. Three credits. Skills, methods, and concepts in basketball, soccer, volleyball, softball, and team handball that would allow participants to engage in physical fitness activities into middle adult years. Laboratory and field experiences required.

3760 Water Safety Instructor. Three credits. Prerequisite: Permission of instructor. Designed to teach students how to be water safety instructors according to the guidelines issues by the American Red Cross. Provides knowledge and skills needed to teach the Red Cross Swimming and Water Safety Program in a logical progression for aquatic skill development and to be certified as an American Red Cross Water Safety Instructor.

3800 Teaching Physical Education. Three credits. Opportunity to observe the art of teaching and the act of learning in physical education and health classes at the elementary, middle, and high school levels. Students will use observation tools in public school settings designed to help them recognize the varied responsibilities and skills needed in teaching physical education.

3810 Directing Intramurals. Two credits. The organization and administration of intramural programs. The student experiences actual participation in developing and supervising intramural activities.

3850 Foundations of Physical Education. Three credits. Lectures, discussion, and reports introduce students to the importance of physical activity and nutritional values as they relate to lifetime wellness. Study of physical education through its history, philosophy, leadership, and organization including related principles from biology, physiology, sociology, and psychology.

3900 Adapted Physical Education. Three credits. For physical education teacher candidates interested in improving the quality of physical education programs for students with disabilities. Includes best practices and approaches to planning and implementing physical education instruction for the inclusion of children and adults with disabilities in the educational, recreational, and physical fitness process and placement in the least restrictive environments and community programs. Addresses the unique needs of future physical education teachers.

3910 Officiating. Two credits. Technique and practice in officiating major sports.

3930 Concepts and Tactics of Teaching Games. Three credits. Introduces the tactical approach to teaching games in physical education. Striking, fielding, and target games emphasized.

4250 Internship. Twelve credits. Prerequisites: PHED 3250, 4240, 4810, 4830, 4910; HLTH 3300; BIOL 2030/2031; NFS 1240. On-site practical experience in an exercise science/health promotion program.

4290 Corrective Therapy-Clinical Training Program. Nine credits. Provides trainee-students clinical training in a paramedical specialty in order to treat illness and injury. Program is affiliated with the Veterans Administration Hospital, Murfreesboro.

4340 Fitness Education for the Adult. Three credits. (Same as HLTH/ REC 4340.) Planning, teaching, and participating in individual and group fitness programs for the adult. Offers preparation for administering and interpreting assessments of related components with understanding of physiological principles related to exercise in the adult. Major lifetime wellness activities covered.

4400 Motor Behavior. Three credits. Processes related to the learning, control, and coordination of movement. Principles in motor learning, motor development, and motor control addressed in relation to movement and skill acquisition. Examines the major behavioral and control processes underlying the learning and performance of motor skills.

4470 Educational Rhythms for Teachers. Three credits. Educational rhythms for teaching physical education. Rhythmic skills, pro-
gressive movement, and creative physical activities explored and utilized for the student's understanding of educational rhythms. Explores educational rhythms as an academic discipline as well as an art form and as a lifelong social/recreational activity.

4600 Technology Applications. One credit. Prerequisite: An introductory course in computer literacy or equivalent with instructor permission; corequisite: PHED 4601. Understanding and competency using a variety of technology applications related to the profession. Students required to enroll in corresponding lab during the same semester.

4601 Technology Applications Lab. Two credits. Corequisite: PHED 4600. Investigation and application of profession-specific software and hardware applications.

4700 Skills and Techniques of Teaching Rhythmic Activities. Three credits. Skills in various dance forms, methods and materials, evaluative procedures, experiences in teaching all forms of dance to students at the K-12 level. Lab required.

4710 Authentic Assessment in Teaching Physical Education. Three credits. Authentic assessment techniques used in teaching physical education. Matching appropriate assessment to different types of assessment instruments and to the objectives of the physical education curriculum. Computer applications related to assessment in physical education used.

4780 Curriculum in Physical Education. Three credits. For physical education teacher candidates interested in improving the quality of physical education programs for students with and without disabilities. Reviews best practices and approaches to planning and implementing instruction, as well as the curriculum models of physical education. Addresses unique needs of future physical education teachers.

4800 Elementary Physical Education Teaching Methods. Three credits. Prerequisite: Admission to teacher education program. Planning, implementing, and evaluating the teaching-learning process at the elementary school level. Requires field experience in teaching physical education at an area elementary school.

4801 Teaching Elementary Physical Education Practicum. One credit. Practicum experiences in teaching physical education to children with special emphasis on lesson planning, management, assessment, task presentation, and content development.

4900 Secondary Physical Education Teaching Methods. Three credits. Prerequisite: Admission to teacher education. Opportunity to observe the art of teaching and the act of learning in physical education classes at the secondary level. Advanced study and practice of effective teaching and learning theory in secondary physical education related to classroom, gymnasium, and field situations.

4901 Teaching Secondary Physical Education Practicum. One credit. Practicum experiences in teaching physical education to middle and high school learners with special emphasis on lesson planning, management, assessment, task presentation, and content development.

4910 Applied Kinesiology and Biomechanics. Three credits. Study of the analysis of human movement based on the anatomical, physiological, and mechanical principles of human activities. Laboratory experiences included.

4920 Independent Study. One, two, or three credits. (Same as ATHT/ EXSC/HLTH/REC 4920.) Independent study topics based on a study plan prepared in cooperation with a faculty supervisor.

Culminates in a formal paper and/or comprehensive examination. Application forms must be completed and approved prior to enrollment. A maximum of three credit hours may be applied toward degree.

4930 Concepts and Tactics of Teaching Territory Games. Three credits. Games and skills associated with a variety of territory games. Includes basketball, soccer, flag football, lacrosse, field hockey, etc. Emphasis on planning and applying developmentally appropriate activities for all learners.

4940 Concepts and Tactics of Teaching Net/Wall Games. Three credits. Games and skills associated with a variety of net/wall games, including volleyball, tennis, badminton, table tennis, racquetball, etc. Emphasis placed on planning and applying developmentally appropriate activities for all learners.

4990 Seminar in Teaching Physical Education. Three credits. Prerequisites: PHED 3800 and 3900 . A comprehensive review of the organization and management of physical education, presenting students with skills and strategies for becoming effective beginning teachers and administrators. Crucial issues and trends affecting the fields of physical education and sport discussed, including issues of advocacy, legal liability, alternative teaching strategies, ethics and professionalism, diversity, classroom management, and career planning.

## Philosophy [PHIL]

1030 Introduction to Philosophy. Three credits. Basic philosophical problems suggested by everyday experience integrated into a coherent philosophy of life through comparison with solutions offered by prominent philosophers.

2110 Elementary Logic and Critical Thinking. Three credits. Principles of deductive and inductive reasoning, problem solving, and the analysis of arguments in everyday language.

3150 Ethics. Three credits. Major ethical theories, the moral nature of human beings, the meaning of good and right.

3200 Asian Thought. Three credits. The origins, development, essence, and implications of leading philosophical-religious traditions originating in Asia.

3300 Philosophy of Religion. Three credits. Examines issues of religious experience, religious knowledge, faith and reason, the existence and nature of God, evil, religious diversity, life after death.

3400 Symbolic Logic. Three credits. (Same as MATH 3400.)
3500 Philosophy and the African American Experience. Three credits. Examines sociopolitical and existential concerns of African Americans, especially in respect to issues of justice, equality, and the very meaning of life in a world of anti-black racism, against the backdrop of "enlightenment" philosophical discourse on race and personhood.

3600 Philosophy and Film. Three credits. Examination of the cinematic expression of philosophical issues and development of philosophical issues in cinema.

3690 Social Philosophy. Three credits. The main problems of social philosophy are surveyed: the distinctive nature of social reality and the nature of social knowledge and how they relate to value theory.

4010 History of Ancient and Medieval Philosophy. Three credits. Prerequisite: PHIL 1030 or permission of instructor. The development of philosophical thought from Thales to Occam.

4020 History of Modern Philosophy. Three credits. The development of philosophical thought from Hobbes to Hegel.

4050 Nineteenth-Century Philosophy. Three credits. Emphasis on movements such as German idealism, the rise of the philosophy of the social sciences, historical materialism, utilitarianism, and early critiques of modernism.

4100 Aesthetics. Three credits. The nature of art, aesthetic experience, and artistic creation.

4150 Formal Logic. Three credits. The nature and methods of formal deductive logic, truth functional logic, quantification theory, identity relations, propositional calculus.

4200 Existentialism. Three credits. The nature, significance, and application of the teachings of several outstanding existential thinkers.

4240 Recent Continental Philosophy. Three credits. The critical examination of various movements and key figures in recent European philosophy.

4300 American Philosophy. Three credits. Development of American thought with emphasis on naturalism, idealism, and pragmatism.

4350 Philosophy of Language. Three credits. Prerequisite: PHIL 2110 recommended. Introduces students to the most influential analyses of meaning, reference, and truth of early twentieth-century Anglo-American philosophy; explores how the work of Ludwig Wittgenstein transforms canonical accounts of language; considers the role of metaphor in human communication and understanding.

4400 Analytic Philosophy. Three credits. Examines twentieth-century analytic movement including logical atomism, logical positivism, indeterminacy semantics, ordinary language philosophy.

4450 Marx and Marxism. Three credits. An examination of the development of Marxist philosophy up to and including the present.

4500 Philosophy of Science. Three credits. The methods, problems, and presuppositions of scientific inquiry.

4550 Philosophy of Mind. Three credits. Classical philosophy of mind (emphases: the mind-body problem, theories of consciousness) and contemporary applications of philosophy to psychology (emphases: logic and cognition, emotion and reason, artificial intelligence).

4560 Philosophy of Music. Three credits. Examines issues in both traditional philosophies of music and contemporary philosophies of music making and musical perception.

4600 Philosophy of History. Three credits. Nature of historical knowledge and problems of historical inquiry; meaning and value of history; reality of the past; historical determinism and human freedom.

4800 Readings in Philosophy. Three credits. Prerequisite: Permission of instructor. Directed study concerning a particular philosophical problem or thinker.

## Physical Science (General) [PSCI]

1030 Topics in Physical Science. Four credits. Corequisite: PSCI 1031. Language, development, structure, and role of physical science (physics, chemistry, astronomy, and geology) as it relates to the knowledge and activities of the educated person. For nonscience majors. Three hours lecture and one two-hour laboratory. (A General Education course [Nat Sci]. Does not count toward any major or minor.)

1031 Topics in Physical Science Lab. Zero credits. Corequisite: PSCI 1030.

3890 Physical Science Instruction Internship. One credit. Prerequisite: Successful completion of the target course (PSCI 1030/1031) or one semester of chemistry and one semester of physics and permission of instructor. Opportunity to refine thinking, communication, and interpersonal skills through exposure to on-the-spot technical questions and a laboratory teaching experience as an assistant in an introductory physical science laboratory. Course credits will not count toward a major or minor in Chemistry or General Science. May be repeated for up to three credits.

4030 Experimental Physical Science. Four credits. Prerequisite: PSCI 1030/1031. Basic concepts, laws, and principles of astronomy, chemistry, geology, and physics with particular emphasis on the utilization of equipment available or easily improvised in actual school situations to illustrate these concepts, laws, and principles.

4080 Problems in Physical Science. Four credits. Prerequisite: Consent of instructor. A problem from chemistry, physics, or other physical science appropriate to the student's background and interest. A formal written report must be submitted and approved by the instructor to receive credit for this course.

## Physics [PHYS]

1110 Discovering Physics. Four credits. Prerequisite: MATH 1710, 1730 , or 1630 . Uncovers the fundamental concepts of physics in a hands-on approach that involves observations, measurements, forming hypotheses, and validation of ideas in groups of students' peers. Combined lecture/laboratory sessions.

1130 Contemporary Issues in Science. Zero credits. (Same as CHEM 1130.) Corequisite: PHYS 1131. Lecture emphasizing the application of basic concepts in science to topics of contemporary interest to the general citizenry. Covers basic science related to selected topics. Specific topics will vary.

1131 Activities for Contemporary Issues in Science. Four credits. (Same as CHEM 1131.) Corequisite: PHYS 1130. Laboratory emphasizing the application of basic concepts in science to topics of contemporary interest to the general citizenry. Includes laboratory activities, group-oriented problem-solving using computers, and class discussion of selected contemporary issues in science. Two two-hour laboratory sessions.

1600 Physics of Music. Three credits. Prerequisite: MATH 1710 or consent of instructor. The physics of music, acoustics, and sound for students without prior physics background.

2010 Non-Calculus-Based Physics I. Zero credit. Prerequisite: MATH 1710 or 1730 . Required corequisite: PHYS 2011. Web-based discussion class to be taken in conjunction with cooperative-learning based problems lab PHYS 2011. Classical mechanics traditionally covered in a first-semester college physics course. Kinematics, forces, momentum, angular motion, calorimetry, and sound waves. Class time used for discussion of the Web-lecture material and for the administration of exams.

2011 Physics Problems Laboratory I. Four credits. Prerequisite: MATH 1710 or 1730. Required corequisite: PHYS 2010. Group-oriented problems course taken in conjunction with the Web-based discussion class PHYS 2010. Students work in groups with the topics presented in the PHYS 2010 discussion class. Covers kinematics, forces, momentum, angular motion, calorimetry, and sound waves. Skills associated with the development of experimental investigations including graphical analysis and estimation of uncertainties emphasized. Two two-and-one-half-hour laboratory sessions.

2020 Non-Calculus-Based Physics II. Zero credit. Prerequisites: PHYS 2011. Required corequisite: PHYS 2021. Web-based discussion class taken in conjunction with the cooperative-learning based problems lab PHYS 2021. Fundamentals of optics, modern physics, and electronics traditionally covered in a second-semester college physics course. Reflection and refraction, vision, diffraction effects, quantum mechanics, atomic and nuclear physics, and analog and digital electronics. Scheduled class time is used for discussions of the Web-lecture material and for the administration of exams.

2021 Physics Problems Laboratory II. Four credits. Prerequisites: PHYS 2011. Required corequisite: PHYS 2020. Group-oriented problems course to be taken in conjunction with the Web-based discussion class PHYS 2020. Students work in groups with the topics presented and in the PHYS 2020 discussion class. Optics, modern physics, and electronics traditionally covered in a secondsemester college physics course. Reflection and refraction, vision, diffraction effects, quantum mechanics, atomic and nuclear physics, and analog and digital electronics. The skills associated with the development of experimental investigations including graphical analysis and estimation of uncertainties emphasized. Two two-and-one-half-hour laboratory sessions.

2110 Calculus-Based Physics I. Three credits. Prerequisite: MATH 1910. Corequisite: PHYS 2111. A calculus-based introduction to mechanics and wave motion.

2111 University Physics Laboratory I. One credit. Prerequisite: MATH 1910. Corequisite: PHYS 2110. Laboratory course to accompany PHYS 2110. Experiments in mechanics, waves, and thermodynamics. Data reduction, error analysis, and report writing. One three-hour laboratory.

2120 Calculus-Based Physics II. Three credits. Prerequisites: PHYS 2110; MATH 1920. Corequisite: PHYS 2121. A continuation of PHYS 2110. Electricity, magnetism, circuit analysis, and optics.

2121 University Physics Laboratory II. One credit. Prerequisites: PHYS 2110 and 2111. Corequisite: PHYS 2120. Laboratory course to accompany PHYS 2120. A continuation of PHYS 2111. Experiments in electricity, magnetism, optics, and modern physics. Data reduction, error analysis, and report writing. One three-hour laboratory.

3000 Acoustics and Signal Analysis. Three credits. Prerequisites: PHYS 1600 and MATH 1910. Detailed overview of acoustics including an introduction to digital signals and their analysis. Application areas include architectural, musical, and environmental acoustics. Intended for students interested in the technical side of the music industry.

3050 Directed Study in Physics. One to four credits. Prerequisites: PHYS 2021 or 2120 and approval of department chair. Individualized intensive study of a specific topic in physics not normally covered to the extent desired in the standard curriculum. Arrangements must be made with an approved faculty member prior to registration.

3070 Concepts in Modern Physics I. Three credits. Prerequisites: PHYS 2021 or 2120 and MATH 1920. Introduction to the concepts of
twentieth-century physics. Discusses fundamental concepts of modern physics including relativity, atomic physics, wave optics, and quantum mechanics. Not intended to prepare students for graduate school in physics.

3080 Concepts in Modern Physics II. Three credits. Prerequisite: PHYS 3070 or 3100 . Introduction to the concepts of twentieth-century physics. Discusses the fundamental concepts of modern physics including molecular physics, statistical distributions, solid state physics, and nuclear particle physics. Not intended to prepare students for graduate school in physics.

3100 Modern Physics I. Three credits. Prerequisites: PHYS 2021 or 2120 and MATH 1920. Introduction to the fundamental principles of modern physics (special relativity and quantum mechanics) and their application to atomic physics.

3110 Modern Physics II. Three credits. Prerequisite: PHYS 3100. Survey of major topics including molecular physics, statistical physics, solid state physics and solid state devices, nuclear models, nuclear decay and reaction, and elementary particle physics.

3111 Modern Physics Laboratory. One credit. Prerequisite or corequisite: PHYS 3110. Concepts and ideas which formed the basis for an understanding of the atom and atomic phenomena. One three-hour laboratory.

3150 Topics and Methods of Theoretical Physics I. Three credits. Prerequisites: PHYS 2021 or 2120 and MATH 1920. Theoretical techniques used for problem solving in physics. Reference frames and coordinate systems, approximation techniques, solution of electrical circuits and mechanical systems, simple harmonic motion and wave motion, Maxwell's equations.

3160 Topics and Methods of Theoretical Physics II. Three credits. Prerequisite: PHYS 3150. A continuation of PHYS 3150. The Schroedinger equation, heat flow, diffusion, the Lagrangian description of motion.

3200 Scientific Modeling and Problem Solving. One credit. Prerequisites: One year of physics and MATH 1920 or consent of instructor. Techniques of computational physics as applied to the solution of scientific problems.

3300 Classical Mechanics. Three credits. Prerequisite: PHYS 3150 (or PHYS 2110 and MATH 3120). Mechanics (including statics and dynamics) of particles in three dimensions using vector analysis, motion of rigid bodies, Lagrangian mechanics, and Hamilton's equations.

3310 Concepts and Applications of Digital Electronics. Three credits. Prerequisite: PHYS 2021 or 2121 or ET 3610. Investigates applications of modern digital technology. Fundamentals of logic gates and programmable devices examined along with contemporary integrated circuits for use in data acquisition and the control of scientific experiments. Sound cards, alarm systems, and laboratory measurement circuits typify projects constructed in the hands-on laboratory. Two hours lecture and one three-hour laboratory.

3330 Health Physics and Radiation Protection. Three credits. Prerequisites: PHYS 2021 or 2120. Radiation protection methods, dosimetry techniques, and survey instruments. Practical knowledge of the methodology for paramedical personnel, industrial workers, and others who deal with radioisotopes and X -ray equipment. Two hours lecture and one three-hour laboratory.

3340 Semiconductor Device Physics. Three credits. Prerequisites: One year physics and MATH 1910. Operation principles of diodes, transistors, and photonic devices. Fundamental band structure investigated to learn how important performance characteristics
are related to physical principles. Modern designs include JFET, Bipolar, MOSFET, MODFET, and HEMT transistors.

3350 Concepts and Applications of Analog Electronics. Four credits. Prerequisite: PHYS 2021 or 2121 or ET 3610. Introduction to contemporary analog electronics utilizing integrated circuits to treat traditional circuits, power supplies, operational amplifiers, comparators, and multivibrators. Conversion of analog to digital signal for interfacing to microcomputers. Emphasis on practical applications. Three hours lecture and one three-hour laboratory.

3500 Lasers and Fiber Optics. Three credits. Prerequisites: One year physics and MATH 1910. Operation of fiber optic communication systems; how semiconductor lasers, modulators, and photodetectors work and how they are used in modern communication systems. Hands-on demonstrations and class projects will use lasers and optical components to illustrate basic principles.

3510 Concepts in Thermodynamics and Statistical Mechanics. Three credits. Prerequisite: PHYS 3080 or 3110. Introduction to the concepts of thermodynamics and statistical mechanics. Discusses the fundamentals of thermodynamics from both the macroscopic and microscopic points of view including entropy, enthalpy, heat engines, Helmholtz and Gibbs free energy, the partition function, and quantum statistics. Not intended to prepare students for graduate school in physics.

3600 Radiation Oncology Physics. Three credits. Prerequisites: MATH 1910 and a one-year introductory sequence in physics. Introduction to the field of radiation oncology physics, including a discussion of the fundamental physics and techniques associated with the diagnosis and treatment of cancer using electromagnetic radiation and particle beams. Includes experiences in a radiation oncology clinic and interactions with practicing medical physicists.

3601 Medical Physics Practicum. One credit. Prerequisite or corequisite: PHYS 3600. Real-world/clinical applications of concepts and theory from PHYS 3600, especially those associated with detectors and dosimetry. May include hands-on activities at the Vanderbilt-Ingram Cancer Center.

3610 Thermodynamics. Three credits. Prerequisite: PHYS 3110 and 3150 or consent of instructor. Introduction to statistical physics, kinetic theory, and thermodynamics from a unified microscopic point of view. Selected applications to various systems of interest presented.

3800 Physics Seminar. One credit. Prerequisite: PHYS 3100. Develops and refines inquiry, communication, and presentation skills through exposure to new developments in physics, technical brief writing, and resume and job interview preparations.

3900 Physics Practicum. One credit. Prerequisites: PHYS 3100 and consent of instructor. Refines thinking, communication, and interpersonal skills through exposure to on-the-spot technical questions and a laboratory teaching experience as an assistant in an introductory physics laboratory.

3910, 3920 Advanced Physics Laboratory. One credit each. Prerequisites: PHYS 2021 or 2120 and 2121. The skills, art, and physics important in pursuing independent research. Experiments dealing with mechanical, optical, or thermodynamical principles explored. Report writing, literature research, and the use of analysis tools emphasized.

4310 Electricity and Magnetism. Three credits. Prerequisite: PHYS 3160. Topics including electric and magnetic fields, electrostatic potential, and potential energy and fields in matter, discussed in a mathematically rigorous manner. A variety of good applications of mathematical methods in physics.

4330 Electricity and Magnetism II. Three credits. Prerequisite: PHYS 4310. Topics include theory of electromagnetic radiation, production and propagation of electromagnetic waves, and the solution of boundary-value problems with applications to optics, wave guides, and lasers.

4380 Introduction to Quantum Mechanics. Three credits. Prerequisites: PHYS 3110 and 3160. Topics include both one- and threedimensional solutions to the Schroedinger equation, including the infinite square-well, finite square-well, tunneling, the harmonic oscillator, and the hydrogen atom with a discussion of angular momentum at a mathematically rigorous undergraduate level.

4600 Topics in Medical Physics. Three credits. Prerequisites: PHYS 3110 and 3160 . Topics in medical physics at an advanced undergraduate level. Possible topics include charged-particle interactions and equilibrium in matter, cavity theory, dosimetry, CTs, and MRIs.

4630 Principles of the Solid State. Three credits. Prerequisites: PHYS 3110 and 3150. Includes crystal structures, lattice dynamics, statistics of conductors and semiconductors, thermal properties, the metallic state, free electron theory, band theory of solids, dielectric and magnetic properties of solids, and the low temperature behavior of matter, particularly solids. Three hours lecture.

4800- Special Topics in Physics. Three credits each. Prerequisites: An 4810 extensive physics background and permission of instructor. Detailed study of a selected topic of current interest in physics not normally covered in the regular undergraduate physics curriculum. Possible topics include advanced atomic physics, high-energy physics (nuclear and elementary particles), scattering theory, astrophysics, and general relativity.
4800 Special Topics A
4810 Special Topics B
4850- Physics Research. Two credits each. Prerequisite: Consent of 4860 instructor. Independent study of a selected research problem in physics. Includes experimental and/or theoretical investigation of an important, yet unexplored, problem. Includes literature research, experiment design/problem formulation and execution, resulting in oral and written presentation of results suitable for submission for publication in a suitable journal.

4900 Physics Senior Thesis. Two credits. Prerequisites: PHYS 4850 and consent of department chair. Brings undergraduate experience to focus on a specific research problem; chosen with the consent of the thesis committee and with the potential for original discovery or for creative development of a tool or technique applicable to scientific research. Independent pursuit of research objectives outlined in a research proposal results in a written thesis whose approval will include an oral defense.

## Political Science [PS]

Courses marked with an asterisk (*) are offered infrequently.
1010 Foundations of Government. Three credits. Meets part of the General Education Social/Behavioral Sciences requirement. Comparative theories and institutions of government. Law, constitutions, power, political socialization, ideologies, and the media.

2010 American Government and Politics. Three credits. Constitutional principles, functions, and administration of American federal government; Congress, the presidency, and the Supreme Court. A General Education Social/Behavioral Sciences course.

2020 State and Local Government. Three credits. Prerequisite: PS 2010. Politics and administration at the state and local level. Legislative, judicial, and administrative structures and processes; major issues and problems.

2100 Legal Courtroom Procedure. One credit. For students interested in developing trial advocacy skills; practical course offering preparation for mock trial competition. May be repeated for up to four hours credit. Pass/Fail.

2105 Introduction to Latin American Studies. Three credits. (Same as SPAN 2105, SOC 2105, ART 2105, ANTH 2105, GEOG 2105.) A multidisciplinary, team-taught introduction to Latin America. Covers the cultures and societies of the region: pre-history, history, geography, politics, art, languages, and literatures. Required course for all Latin American Studies minors.

2120 Mediation Procedure. One credit. Prerequisite: PS 2440 or permission of department chair. For students interested in developing skills as mediators and advocates in mediation settings. Practical application of theories, methods, and ethical components of mediation. Participation in intercollegiate mediation competition. May be repeated for up to four hours of credit. Pass/Fail.

2130 Model United Nations/Crisis Simulation. One credit. For students interested in developing skills in negotiation and conflict resolution involving international issues. A practical application of negotiating skills, policy process, and understanding of international conflicts and problems through participation in intercollegiate MUN/crisis simulation competition. Course may be repeated for up to 4 hours of credit. Pass/Fail.

2440 Law and the Legal System. Three credits. Prerequisite: PS 2010. A general introduction to American law and the American legal system; focus on the case system.

3010 Women and the Law. Three credits. Prerequisite: PS 1010 or 2010 or permission of the department chair. Analysis of the legal treatment of women in the home, school, and workplace. Examines development of law, relationship of law to political movements, and current state of law and legal theory on women's rights and gender equality.

3050 The U.S. Presidency. Three credits. Prerequisite: PS 1010 or permission of instructor. A comprehensive analysis of the presidency; includes origins of the presidency, political power, the nature of the institutionalized presidency, campaigns and elections, and a careful look at selected presidents.

3060 The U.S. Congress. Three credits. Prerequisite: PS 2010. An analysis of the United States Congress; its origins, political power, the nature of the institutionalized Congress, campaigns, and elections.

3100 Politics and Film. Three credits. Prerequisite: PS 1010 or 2010 or permission of instructor. Analysis of political ideas as expressed in motion pictures. Topics include leadership, political biographies, campaigns and elections, ideology, and war.

3160 American Public Policy. Three credits. Prerequisite: PS 1010 or 2010. Examines the public policy-making process in the United States, the stages of policy development and the problems inherent in policymaking. At least one substantive policy area examined in depth; examples: health care, environmental, welfare, agricultural, poverty, or budgetary policies.

3170 Civil Rights Policy and Politics. Three credits. Assesses the institutional impact-past and present-of the civil rights movement on American political institutions (the presidency, Congress, the courts, the executive cabinets, the administrative regulatory agencies, and the U.S. Commission on Civil Rights). Events and topics include the 1964 Civil Rights Act, the Voting Rights Act of 1965, the 1991 Civil Rights Act, voter dilution, felony disenfranchisement and sentencing disparities, campaign finance reform,
affirmative action, disability rights, gender discrimination, and majority-minority congressional districts.

3200 British Government and Films. Three credits. Prerequisite: PS 1010 or 2010 or permission of instructor. The evolution of parliamentary government in the United Kingdom and its current distinctive characteristics, processes, and functions in contrast to other parliamentary regimes.

3210 International Relations. Three credits. Prerequisite: PS 1010. The state system and national power, balance of power, balance of terror, game theory, psychological aspects of international conflict, decision making, diplomacy and negotiation, war, disarmament, and collective security.

3220 International and Comparative Politics in Theory and Practice. Three credits. Prerequisites: PS 1010 and 3210. A reading and discussion seminar; theoretical approaches to studying international relations and comparative politics. Offers preparation for upper-division international relations and comparative politics courses; helps in choice of career goals.

3250 Public Administration. Three credits. Prerequisite: PS 1010 or 2010. Fundamentals of public management-organization theory, leadership, policy making, planning, budgeting, personnel, administrative law, bureaucratic behavior.

3260 Applied Public Administration. Three credits. Prerequisite: PS 3250 or permission of instructor. Emphasizes selected issues, agencies, and problems. Normally entails the application of administrative concepts to administrative problems and learning by doing.

3320 Public Opinion. Three credits. Prerequisite: PS 1010 or 2010. The nature of public opinion and its role in the political and social process. How opinion is shaped, created, and measured.

3330 Political Parties. Three credits. Prerequisite: PS 1010 or 2010. The nature of democracy, politics, and political parties; party organization and role in government; campaigning; primaries, conventions, general elections; the Electoral College; voting behavior and pressure groups.

3340 Political Campaign Management. Three credits. Prerequisite: PS 1010 or 2010 or permission of instructor. An analysis of applied politics; how to plan and manage a modern political campaign. Readings, discussions, and hands-on projects; students will learn the strategies, tactics, and varied techniques of political campaigning.

3350 Interest Groups and Social Change. Three credits. Prerequisite: Upper-level standing required. Examines role of interest groups in American politics and the policymaking process, including the role of lobbyists, money, and politics, and case studies of several specific interest groups.

3370 American Constitutional Law. Three credits. Prerequisite: PS 2010; PS 2440 recommended. Analysis of theories of judicial decision making as well as the establishment of judicial review itself, followed by case studies of major Supreme Court decisions in federalism. Issues covered include commerce, contracts, police, and war powers as well as restrictions placed on state governments after the ratification of the Civil War Amendments.

3380 American Constitutional Law. Three credits. Prerequisite: PS 3370. The Supreme Court as a policy-making body in the governmental system. Focuses on case studies of major Supreme Court decisions dealing with civil liberties. Issues covered include racial and gender discrimination, freedom of speech and religion, as well as rights of the criminally accused and the right to privacy.

3400 Municipal Government. Three credits. Prerequisite: PS 1010 or 2010. Powers, functions, and politics of municipal governments from the standpoint of city management. Attention is given to problems related to the execution of municipal policy.*

3420 African American Politics. Three credits. Prerequisite: PS 2010 or permission of instructor. The unique history, content, and form of African American political participation; examines the nature of consequences of African American influence within, or exclusion from, the workings of various American political institutions; the nature and types of issues that influence contemporary discussions in American and African American politics related to the socioeconomic conditions of African Americans. Students who have taken PS 4390 Special Topics (Black Politics in America) may not take PS 3420 for credit.

3440 Governmental Budgeting and Finance Administration. Three credits. Prerequisite: PS 1010 or 2010; PS 3250 recommended. Analysis of the legal and social nature of government budgets emphasizing the procedures and administrative methods of fiscal control. Budget documents at state and local levels.*

3490 Alternative Dispute Resolution. Three credits. Prerequisite: PS 2440 or permission of the department chair. Theory, methods, and ethical components of alternative dispute resolution (ADR); emphasis on various forms of mediation, but including other ADR formats such as arbitration, negotiation, and summary jury trial.

3500 International Law. Three credits. Prerequisite: PS 1010 or 2010. General principles of modern international law taught by the case study method in a seminar format encouraging debate and discussion. Issues concerning the development of international law and human rights will be studied.

3510 International Political Economy. Three credits. Prerequisites: PS 1010 and 3210 or permission of instructor. The relation between politics and economics in international affairs and its implications for global peace, security, ecology, and social welfare.

3530 Legal Writing and Research. Three credits. Prerequisite: Junior status. A specialized composition course for the student planning to attend law school or paralegal school or to become a legal secretary. Practice in legal research, documentation, and a variety of legal problems.

3780 Study Abroad. Three or six credits. Prerequisite: PS 1010 or permission of instructor. Supervised study in a foreign country; familiarizes students with foreign cultures and political systems. Three to six hour classes may be repeated once if country of destination varies. No more than 6 hours may count toward a political science major. Pass/Fail.

3790 Eastern European Politics. Three credits. Prerequisite: PS 1010. Comparative study of Eastern Europe states and societies. Emphasis on post-Communist transition, democratization, and interethnic relations.

3910 International Organization. Three credits. Prerequisite: PS 1010; PS 3210 recommended. Development and prospects of the United Nations Organization and its major approaches to peace-pacific settlement, collective security, international law, arms control, trusteeship, preventive diplomacy, international conferences, functionalism.*

4000 Quantitative Methods of Research. Three credits. Prerequisite: 9 hours of political science. Fundamentals of quantitative methods in empirical research problems in the social sciences.

4020 Political Science Laboratory. Three credits. Prerequisite: PS 4000 or permission of instructor. Studies of a research, statistical, data
processing, or simulation nature as related to political and social questions.

4030 Human Rights. Three credits. Prerequisite: PS 1010. Fosters critical thinking about human rights by developing skills in weighing powerful but opposing arguments in complex moral situations. Familiarizes students with the role of both national and international organizations in global politics.

4040 Pre-Law Internship. Three credits. Prerequisites: Senior standing, competitive selection, PS 2440, or by permission of instructor. Familiarizes pre-law students with general law office procedures and an active law environment.

4050 Introduction to City and Regional Planning. Three credits. Prerequisite: PS 1010 or 2010; PS 2020 recommended. Analysis of the basis of particular forms in urban settlements and regions; introduction to planning history, theory, methods, processes, and current trends.

4070 Political Violence and Terrorism. Three credits. Prerequisite: PS 1010 or permission of instructor. Examines political violence, including assassination, terror, repression, and genocide, in comparative and international perspectives. Theoretical and case study approaches used to examine forms, goals of, tactics, and responses to political violence.

4110 Quantitative Methods of Research. Three credits. Prerequisite: PS 4000. Intermediate quantitative methods.

4120 Tennessee Government. Three credits. Prerequisite: PS 2010; PS 2020 recommended. Structure, functions, and processes of Tennessee's governmental and political institutions. Policy issues studied.

4126 Contemporary Issues in World Affairs. Three credits. Prerequisite: PS 1010; PS 3210 recommended or permission of instructor. Issue oriented; explores and analyzes the leading issues facing the international community and actions that various actors in world politics have employed to deal with the issues and with what results.

4180 African Politics. Three credits. (Same as AAS 3180.) Prerequisite: PS 1010. Comparative study of selected African political systems with different colonial traditions in the process of rapid change. The ideology and politics of development, political system forms and processes, modernization efforts, and the challenges of nation building.

4190 Middle East Politics. Three credits. Prerequisite: PS 1010. Emphasis on the Palestinian question, the Arab-Israeli wars, the role of the United Nations; conflicts between and among the Arab nations; the various peace initiatives that have been proposed.

4200 Problems in Government. Three credits. Prerequisites: PS 1010 or 2010 and at least 12 hours of PS classes. Work done under the close direction of a professor on a tutorial basis. Student expected to present a sound proposal for departmental consideration and acceptance before enrolling in this course.

4210 International Conflict: Causes, Consequences, and Responses. Three credits. Prerequisite: PS 1010; PS 3210 recommended. Theoretical and empirical approaches to understanding the causes of interstate war, intrastate war, and transnational terrorism as well as the social consequences of and policy responses to international conflict.

4220 World Politics. Three credits. Prerequisite: PS 1010; 3210 recommended. Experiencing contemporary international politics through
the medium of simulation. Particular focus areas include the U.S., F.S.U., People's Republic of China, the Middle East, South Asia, and Southern Africa.

4230 Classical Political Theory. Three credits. Prerequisite: PS 1010 or 2010. Western political theory from the ancient Greeks through the medieval Christians. Includes Sophocles, Aristophanes, Plato, Aristotle, stoicism, skepticism, Lucretius, Augustine, Thomas Aquinas, Thomas More.

4240 American Foreign Policy. Three credits. Prerequisite: PS 1010 or 2010; PS 3210 recommended. Foreign policies in the nuclear age from Kennan and Containment to the present with particular emphasis on contemporary problems and policies.

4250 U.S. National Security Policy. Three credits. Prerequisite: PS 1010 or 2010; PS 3210 recommended. The concept of national security, nature of the U.S. security experience, decision-making process, policymaking process, threats to security, and analysis of specific policy areas such as military and strategic doctrines, force postures, arms control, and budgetary decisions.

4260 The Political Status of Women in the World. Three credits. Prerequisite: PS 1010 or 2010 or WMST 2100. Comparative examination of the political, economic, and social status of women in the United States and abroad. Particular emphasis on women in developing countries, the relationship between economic and political power, and the impact of both conflict and globalization on the status of women.

4270 Political Campaign Internship. One to six credits. Prerequisites: Sophomore standing, PS 2010, and a 2.50 minimum GPA. Students work for a political campaign as an employee under the joint administration of the campaign and the department. Only six hours may count toward a political science major and three hours toward a political science minor. Arrangement for this course must be made in advance. Pass/Fail.

4280 The Washington Experience. Twelve credits. A cooperative program with the Washington Center that provides for student service with a governmental office in Washington, D.C., on a fulltime basis during the fall or spring semester. On-the-job training will be supplemented with lectures and other activities. Students selected on a competitive basis. Only six hours count toward a Political Science major or minor.

4290 Public Service Internship. One to twelve credits. Prerequisites: Junior standing and 2.50 minimum GPA. Student assigned to a public service agency as an employee under the joint administration of the agency and the department. Only six hours may count toward a political science major or minor. Arrangement for this course must be made in advance. Pass-Fail course.

4300 Comparative European Government. Three credits. Prerequisite: PS 1010. Comparative analysis of the governmental forms and practices of England, France, Germany, the European community, and others.

4310 Comparative Asian Government. Three credits. Prerequisite: PS 1010. Comparative analysis of the governmental forms and practices of China, Japan, India, and other governments in the region.

4360 Legislative Internship. Twelve credits. A cooperative program with the State of Tennessee that provides for student service with the legislature on a full-time basis during the spring semester. Students selected on a competitive basis. Only six hours may count toward a Political Science major or minor.

4390 Special Topics in Political Science. Three credits. Prerequisite: PS 1010 or 2010 or permission of the instructor. An in-depth study of a special topic significant in contemporary political developments or political science literature. May be taken more than once, as topics change, with up to six credit hours applied to a Political Science major.

4410 American Political Economy. Three credits. Prerequisite: PS 1010 or 2010. Interaction of politics and economics in the United States. Three primary topics: (1) the connection between the American political system and U.S. economic goals and performance; (2) the relationship between the American state and private economic interests in determining American economic and business policies; (3) the politics surrounding the major current economic issues facing America.

4590 Administrative Law. Three credits. Prerequisite: PS 2010; PS 3250 recommended. Procedural aspects, substantive issues, judicial review of the type of law concerned with the powers and procedures of government agencies and the rights of citizens affected by them.

4630 Personnel Management. Three credits. Prerequisite: PS 3250 or permission of instructor. Human resources administration in government agencies. Patterns of position classification, compensation, recruitment, selection, training, performance appraisal, promotion, discipline, separation, collective bargaining.*

4690 Comparative Foreign Policies and International Relations of the Middle East. Three credits. Prerequisite: PS 1010, 3210, 3190 or MES 2100. Examines framework within which to understand Middle East international relations. Includes Arab/Israeli conflict; oil and Middle East international relations; political Islam; the war on terror; and United States, European, Chinese, and Russian policies in the Middle East.

4700 American Political Thought. Three credits. Prerequisite: PS 2010. Major thinkers and movements in American political thought from colonial times to the twentieth century with special emphasis on the thoughts of the framers of the American Constitution and their contemporaries.

4770 Russian Politics. Three credits. Prerequisite: PS 1010. The formation and evolution of the Russian state from the pre-Communist to the Soviet (Communist) and post-Soviet stages of its development. Special attention given to the historical origins and the role of authoritarianism in the Russian political culture and to the ideological foundations, formation, evolution, and the reasons for decline of the Communist system.

4800 Senior Seminar. Three credits. Prerequisites: PS 1010, 2010, and senior standing. A reading and discussion seminar designed to integrate knowledge of the subfields of political science through critical reflection on politics, law, ideology, and culture from both a domestic and global perspective.

4900 Latin American Politics. Three credits. Prerequisite: PS 1010. Emphasis on the comparative analysis of structures, functions, and aspects of Latin American political cultures and systems.

4920 Modern Political Theory. Three credits. Prerequisite: PS 1010 or 2010. Western political theory from the Renaissance to the twentieth century. Includes Machiavelli, Hobbes, Locke, Rousseau, J.S. Mill, Marx and Engels, Kierkegaard, Nietzsche, facism, existentialism, Strauss, Arendt, and contemporary thought.

4930 Introduction to Contemporary Political Philosophy. Three credits. Prerequisite: PS 1010. Aims to foster critical thinking about contemporary political philosophy by introducing students
to four main approaches: Aristotelianism, Utilitarianism, Contractarian Liberalism, and Marxism. Familiarizes students with certain philosophical arguments about important issues in both national and global politics such as multiculturism, justice, democracy, and freedom.

Courses marked with an asterisk (*) are offered infrequently.

## Portuguese [PORT]

1010 Elementary Portuguese I. Three credits. Portuguese grammar with readings and oral exercises designed to improve the student's ability to understand the written and spoken language.

1020 Elementary Portuguese II. Three credits. Prerequisite: PORT 1010 or permission of instructor. Continuation of materials introduced in PORT 1010.

2010 Intermediate Portuguese I. Three credits. Prerequisite: PORT 1020 or permission of instructor. A review of Portuguese grammar with readings and oral exercises designed to improve the student's skills and understanding of Brazilian culture.

2020 Intermediate Portuguese II. Three credits. Prerequisite: PORT 2010 or permission of instructor. Continuation of PORT 2010.

3010 Advanced Portuguese I. Three credits. Prerequisite: PORT 2020 or permission of instructor. Advanced-level practice in language skills of listening, speaking, reading, and writing, including review of Portuguese grammar.

3020 Advanced Portuguese II. Three credits. Prerequisite: PORT 3010 or permission of instructor. A continuation of PORT 3010.

3070 Brazilian Popular Culture. Three credits. Provides the necessary context, critical analysis, and perspectives on contemporary culture studies and practices to prepare the student for a better understanding of popular culture in Brazil.

3990 Study Abroad. Three to twelve credits. Designed for students participating in Study Abroad courses for the existing consortium agreements. The credits depend on the number of hours of study in the foreign country (e.g., a four-week, six-week, or semester program).

## Professional Seminar [PRSE]

4900 Professional Seminar. One credit. Prerequisites: Sixty credits and consent of instructor. A professional development seminar for students who want to learn about doing research and prepare for graduate school. May be repeated for up to six credits total.

## Psychology [PSY]

1410 General Psychology. Three credits. Introductory survey course. Includes biological foundations, perception, principles of learning, intelligence, motivation, emotion, human development, personality, social psychology, behavior disorders, and psychotherapy.

1420 Psychology of Adjustment. Three credits. Processes of human adjustment, adaptation, and environmental influences. Development of self-understanding, constructive management of emotion and stress, and healthy interpersonal relationships.

2000 Seminar on Careers in Psychology. One credit. Prerequisite: PSY 1410. Required for Psychology majors in the first 21 hours of
psychology courses. Requirements needed for success in jobs or graduate school. Interest exploration and development of a career timeline and a resume/vita. Students who choose to complete assessment inventories will pay Testing Services an assessment fee of approximately $\$ 20$.

2180 Thinking: Intelligence and Creativity. Three credits. Psychological approaches to the study of information processing, thinking, and knowing, with emphasis on cognitive style, problem solving, and creative thinking.

2190 Human Brain, Behavior, and Consciousness. Three credits. Introduction to the involvement of the brain in behavior and conscious experiences. Altered states of consciousness, mental illness, drug-induced states, sleep, learning, memory, and language. No biology background required.

2210 Psychology of Social Behavior. Three credits. Prerequisite: PSY 1410 recommended but not required. Systematic study of social behavior. Includes interaction between people, perception of others, interpersonal attraction, aggression, altruism, conformity, attitudes, and group behavior.

2300 Developmental Psychology. Three credits. Broad survey of the biological and environmental factors influencing physical, cognitive, and social development from conception until death. Emphasis on current research and theory. Will not substitute for SOC 3150 or CDFS 3340.

3020 Basic Statistics for Behavioral Science. Three credits. Prerequisite: 3 credit hours of college-level mathematics. PSY 3030 may be required. (See online schedule.) Elementary descriptive and inferential statistics and their applications.

3030 Laboratory in Psychology. One credit.
3070 Research Methods. Three credits. Prerequisite: PSY 3020. Corequisite: PSY 3071. Analysis of methodological issues in psychological research. Designed to teach skills in the formulation, execution, interpretation, and presentation of psychological investigations. Three hours lecture and one one-hour laboratory.

3071 Research Methods Lab. One credit. Corequisite: PSY 3070.
3230 Abnormal Psychology. Three credits. Prerequisite: PSY 1410. Patterns of maladaptive behavior, including anxiety, depression, schizophrenia, and antisocial behavior.

3240 Abnormal Child Psychology. Three credits. Prerequisite: PSY 1410. Emotional and behavioral disorders in childhood and adolescence including autism and depression and child maltreatment.

3250 Perspectives on Black Psychology. Three credits. Application of psychological principles to the personality development and behavior patterns of African Americans, in light of cultural heritage and contemporary events. Implications for assessment and counseling.

3320 Introduction to Industrial/Organizational Psychology. Three credits. Application of psychology to business and industry. Topics include employee selection, performance appraisal, training, leadership, motivation, job analysis, legal issues, job satisfaction, work teams, and occupational health.

3590 Personality. Three credits. Historical and contemporary personality theory and research, including the trait, cognitive, and motivational approaches. Topics include personality development, the unconscious, the self, goals, emotions, coping, disorders, and personality change.

3750 Introduction to Clinical Psychology. Three credits. Reviews the historical background, roles, and responsibilities of clinical psychologists and differentiates their duties from other mental health professionals. Introduction to assessment and clinical interventions.

3990 Research in Psychology. One to three credits. Prerequisites: 6 hours of psychology recommended but not required. Supervised research in current topics in psychology. Contact individual faculty members for research possibilities and requirements. May be repeated. (Students majoring in Psychology or the Pre-graduate School concentration may apply up to 6 hours of credit to the major. Students majoring in I/O Psychology may apply up to 4 hours of credit to the major. Students minoring in Psychology may apply up to 6 hours of credit to the minor.)

4010 Laboratory in Psychology: Honors. One credit. May be repeated. Prerequisite: PSY 3020. Supervised laboratory in an area of psychology related to a content course. The laboratory can only be taken during the semester the student is enrolled in the content course.

4030 Psychology of Sensation and Perception. Three credits. Prerequisite: PSY 1410 or permission of instructor. Perceptual and physiological (sensory) mechanisms involved in vision, hearing, taste, smell, and touch. Perceptual consequences of central nervous system events. Historical perspectives.

4040 Introduction to Cognitive Psychology. Three credits. Information processing approach to the study of cognitive processes: attention, perception, memory, language, reasoning, problem solving, and decision making.

4050 Applied Psychopharmacology. Three credits. Reviews current information on the action and uses of the most important groups of psychoactive drugs. Clinical, legal, and ethical aspects.

4060 Sport Psychology. Three credits. Prerequisite: PSY 1410 or consent of instructor. Application of psychological principles, motivational research, and social/psychological findings to the arena of sports. Theory and application of performance enhancement and teamwork in sports. See ATHC 4060.

4070 Advanced Statistics for the Behavioral Sciences. Three credits. Prerequisites: Grade of B- or higher in PSY 3020 or equivalent course. Topics include multiple regression, factorial anova, repeated measures ANOVA, ANCOVA, and categorical data analysis. Offers preparation for graduate-level statistics courses often required in master's and doctoral level programs as well as for employment positions in business and government.

4080 Advanced Research Methods. Three credits. Prerequisites: Grade of B- or higher in PSY 3070 or equivalent training (POD) and PSY 4070. Design, conduct, analyze, and report psychological research. Advanced research conducted individually or in small groups. Offers preparation for graduate-level research required in master's and doctoral programs and for research applications in business and government settings.

4110 Issues and Ethics in Mental Health Services. Three credits. Prerequisites: PSY 1410 and 3230. Overview of mental health services that can be provided by the bachelor's graduate. Offers training necessary for entry-level positions in mental health agencies, emphasizing ethical guidelines and legal issues.

4120 Psychology of Criminal Behavior. Three credits. Survey of theory and research pertaining to criminal behavior, covering topics such as mental illness and crime, criminal homicide, assault, and sex offenses.

4130 Laboratory in Psychology (Sensation and Perception). One credit.

4140 Laboratory in Psychology (Cognitive). One credit.
4150 Laboratory in Psychology (Behavioral Neuroscience). One credit.

4180 Laboratory in Psychology. One credit.
4190 Child Psychology. Three credits. Prerequisite: PSY 2300 recommended but not required. Intensive research-based overview of child development from conception to puberty, including experiences in observation and/or interaction with children. Cognitive development, language development, peer interaction, moral development, and the contexts of child development.

4210 Adolescent Psychology. Three credits. Prerequisite: PSY 2300 recommended but not required. Physiological, emotional, mental, and social characteristics of adolescent development, including primary factors of influence.

4220 Correctional Psychology. Three credits. Legal, law enforcement, delinquency, and criminal psychology, including psychological evaluation, classification, therapy, and rehabilitation. Special classifications. Field problems. Preventive implications.

4240 Behavioral Neuroscience. Three credits. The role of the brain in those areas which are typically considered by psychology, such as sensory and motor functions, motivation, higher mental functions, and mental disorders.

4250 Psychology of Exceptional Children. Three credits. Identification and etiology of patterns of exceptionality, with consideration given to behavioral manifestations and preventive and correctional programs.

4260 Introduction to Psychological Testing. Three credits. Modern practices in test construction, selection, and application to a variety of situations such as schools, clinics, and businesses.

4270 Personnel Selection and Placement. Three credits. Survey of test, interview, and other variables relating to applicant evaluation, placement, selection, and promotion.

4290 Wage and Salary Administration. Three credits. Analysis of theory and practice in the administration of compensation. Practices and issues related to job evaluation, salary market data, pay for performance, and legal considerations.

4320 Psychology Labs. One credit.
4330 Industrial/Organizational Training and Development. Three credits. Examination of training and development methods for industrial and other organizational use. Includes both managerial and worker training. Includes learning, needs assessment, program development, and program evaluation.

4340 Human Factors Psychology. Three credits. Prerequisite: PSY 3320 or consent of instructor. The process of designing for human use. Considers individual differences, visual, auditory, and tactile displays, anthropometry, illumination, noise, humans in motion, and space and environmental studies.

4350 Safety Psychology. Three credits. Survey of basic theories of accident causation, safety research literature, methods of accident prevention, and industrial hygiene.

4360 Organizational Psychology. Three credits. Prerequisite: PSY 1410. Application to human interaction, group processes, and leadership.

4370 Motivation and Work Attitudes. Three credits. Motivation theories and applications to workplace. Emotions, attitudes, e.g., job satisfaction, organizational commitment, work-family balance. Performance effects.

4380 Group Dynamics. Three credits. The functioning of groups. Includes development of group structure, group conflict, cohesion, social influence, leadership, group productivity, group decision making, and growth groups.

4390 Persuasion. Three credits. Prerequisite: PSY 1410. Survey and analysis of theory and research on interpersonal influence. Applications of findings to various areas of human experience.

4400 Behavioral Modification. Three credits. The application of behavioral change principles and evaluation strategies to the solution of individual, classroom, institutional, and organizational behavior problems.

4440 Social Psychology of Close Relationships. Three credits. Prerequisite: PSY 1410. Theoretical and empirical issues in the scientific study of adult, close relationships from a social psychological perspective: initial attraction, relationship formation, maintenance, and dissolution. (Not a course in the broad area of marriage and the family: See CDFS 3320 Family Relations and SOC 2500 Marriage and Family.)

4460 Psychology of Happiness and Well-Being. Three credits. Prerequisite: PSY 1410; PSY 2210 and 3230 recommended. Survey of theoretical and research literature in the areas of subjective well-being, happiness, life satisfaction, stress-resistant personality styles, and self-actualization.

4470 Theories of Counseling. Three credits. Integration of the major theories of counseling and psychotherapy and their application.

4480 Learning Theories. Three credits. Survey of research and major theories of learning with emphasis on classical and instrumental conditioning and related topics.

4490 Operant Conditioning. Three credits. Prerequisite: PSY 1410. Philosophy of B.F. Skinner's behaviorism explored in his writings and those of his followers and critics. Current applications of behaviorism in all areas of psychology (child, marriage and family, animal conditioning, mental health, addictions, etc.) also examined.

4510 Science and Pseudoscience. Three credits. Provides a definition of science and explores issues related to that definition. Explores psychology as a science. Evaluation of topics in psychology in the context of the class discussion of science.

4600 Psychosexual Adjustment. Three credits. Psychological, cultural, and biological facets of the human sexual experience. Attitudes and behaviors, variances and dysfunctions, implications and strategies for treatment.

4610 Adult Psychology and Aging. Three credits. Prerequisite: PSY 2300 recommended but not required. A survey of the research on adult development with emphasis on old age. Examines the physical, intellectual, social, vocational, and personality changes during the adult years.

4620 Psychology of Women. Three credits. Psychological impact of the culture on women's attitudes, roles, aspirations, problems, and personality development.

4630 Death and Dying. Three credits. An experiential course covering the folklore of thanatology, the funeral industry, handling grief, counseling the bereaved, and the hospice concept. Objectives include an attempt to view death with equanimity and personal growth from confronting death.

4650 Health Psychology. Three credits. Prerequisite: PSY 1410 or consent of instructor. Psychological factors and principles involved in the study of correlates of health and illness, disease prevention, therapeutic interventions, and rehabilitative strategies.

4655 Foundations of Mental Health Counseling. Three credits. Prerequisites: PSY 1410 and 3230 or equivalent. History, roles, and duties of the professional mental health counselor. Managed care and third party reimbursement issues, administration and supervision of mental health services, and other salient issues relating to the role of the professional mental health counselor. Preparation for graduate-level training in mental health counseling.

4660- Psychology Seminar. One credit each. Representative and in-
4680 tegrative study of scientific journals of field. May be taken for a total of three credits.
4660 Industrial-Social
4670 Clinical-Personality 4680 General-Experimental

4700 History and Systems of Psychology. Three credits. Prerequisites: Upper-division status; PSY 1410 recommended but not required. A survey of the history of psychology and an intensive study of current systems of psychology.

4720 Multicultural Perspectives in Psychology and Education. Three credits. Theories and research relative to the education of multiethnic/racial minorities. Relation of culture and socialization to learning styles, assessment practices, and counseling considerations.

4730- Apprenticeship. One to three credits. Supervised practical ex-
4760 perience utilizing psychological principles and tools in an established organization.
4730 Industrial. Three credits. (must be taken for 3 credits) 4740 Child. One to three credits.
4750 Pre-clinical. One to three credits.
4760 Adolescent. One to three credits.
4780 Human Neuropsychology. Three credits. Prerequisite: PSY 4240 or consent of instructor. Organization and function of specific brain areas and the behavioral deficits and changes resulting from focal and diffuse brain damage.

4820 Psychology of Language. Three credits. Prerequisite: PSY 1410. A cognitive approach to how people learn and use language to communicate. Covers basic psycholinguistics (production, perception, comprehension, and mental representation), language acquisition, and applied psycholinguistics (bilingualism, language disorders, and machine language).

## Public Relations [PR]

3040 Public Relations Principles. Three credits. Practice of public relations, including its fundamental concepts and theories, historical development, and current issues.

3360 Public Relations Communication. Three credits. Prerequisite: Admission to candidacy. Techniques of creating and writing, including the planning and development of corporate, public service, and other persuasive messages.

3380 Public Relations Publications. Three credits. Prerequisites: Admission to candidacy; GRAF 2010. Effective print-design techniques with emphasis on organizational publications.

3400 Case Studies in Public Relations. Three credits. Prerequisite: PR 3040. Practical methods of handling problems in public relations with emphasis on fact-finding, planning, promoting, and evaluating. Possible topics include media relations for healthcare, international public relations, government relations and public relations, sports public relations, public relations in the publishing industry, public relations administration and management, and public relations for the small business entrepreneur.

4740 Public Relations Campaigns. Three credits. Prerequisites: Admission to candidacy; PR 3360; PR 3380 or GRAF 2950; senior standing. Researching and planning public relations campaigns. An opportunity for senior-level students to synthesize and apply knowledge and skills from previous courses.

## Quantitative Methods [QM]

2610 Statistical Methods I. Three credits. Prerequisite: MATH 1630 or 1810. Identification, interpretation, and use of statistical data. Topics include measures of central tendency, variation, probability theory, point and interval estimation, and hypothesis testing. Computer applications emphasized.

3620 Statistical Methods II. Three credits. Prerequisites: QM 2610; junior standing. More advanced methods of statistical analysis including simple and multivariate tests of hypotheses, non-parametric methods, correlation, regression, and time-series analysis. Computer applications emphasized.

3640 Introduction to Operations Research. Three credits. Prerequisites: QM 3620; junior standing. Optimization techniques used in business decision making.

4010 Decision Science Techniques. Three credits. Prerequisites: QM 2610 and MGMT 3620; junior standing. Current topics of quantitative management decision analysis and modeling. Computer application emphasized.

## Reading [READ]

1000 Reading Skills Enrichment. Three credits. Prerequisite: Admission based on placement testing or permission of the instructor. Development of reading skills necessary for comprehending academic texts. Customized curriculum in laboratory setting. Does not count for General Education credit. Four instructional hours.

3340 Teaching Reading in the Secondary School. Three credits. Prerequisite: Admission to teacher education. Materials, methods, and techniques for teaching reading at the secondary level, including clinical laboratory experiences. Designed for teachers of language arts.

4015 Language and Literacy, K-6. Six credits. Prerequisites: Admission to teacher education; ELED 3050. Introduces various strategies and techniques for teaching reading and writing in the elementary school.

4035 Language and Literacy in the Middle Grades. Six credits. Prerequisites: Admission to teacher education; ELED 3070. Introduces various strategies and techniques for teaching and assessing literacy in the middle school.

4130 Corrective Reading. Three credits. Prerequisite: Admission to teacher education program; Interdisciplinary Studies majors must
also complete ELED 3050 or 3070 and READ 4015 or 4035. Diagnostic skills needed to identify specific reading problems found in typical K-8 classrooms and processes needed to resolve the difficulties.

4460 Teaching Reading in the Content Areas. Three credits. Prerequisite: Admission to teacher education. Emphasis on the teaching of reading in content subjects, such as mathematics, science, and social studies in upper elementary, middle, and secondary schools. Specific suggestions for activities and lesson strategies included.

## Recording Industry [RIM]

1020 American Media and Social Institutions. Three credits. (Same as JOUR/RIM 1020.) The power of the mass media and its effect on social institutions and practices. Develops skills of qualitative and quantitative social science research in the area of mass communication processes; examines media as social, cultural, and economic institutions that shape the values of American society, its political dialogues, its social practices, and institutions.

1230 Musicianship for Engineers. Three credits. Prerequisite: MATH 1710 or higher level math. A variety of music subjects explored within the context of commercial music as related to audio recording and production. Specific topics include music fundamentals, commercial music theory, commercial form and styles, and basic aural and keyboard skills. Students who have passed MUTH 1110 with a grade of C or better may not enroll in RIM 1230 for credit. Laboratory required.

3000 History of the Recording Industry. Three credits. Traces the development of the technology, business, major record labels, and the music recorded as well as significant individuals in these areas.

3010 Audio Fundamentals. Three credits. Prerequisite: MATH 1710 or higher level math. Examines theories and technologies used in audio production for music, radio, TV, and film. Provides the management-oriented student with a useful vocabulary covering the area of audio production and provides the production-oriented student with the basic theory upon which production skills can be built.

3020 Commercial Songwriting. Three credits. (Same as MUTH 3020.) Prerequisites: RI majors - admission to candidacy and RIM 1230 or MUTH 1110 or permission of instructor; others - permission of instructor. Organization of ideas, words, and music into the writing of popular songs. Analysis of songwriting trends. Students expected to play guitar or piano and sing.

3100 Music as Popular Culture. Three credits. (Same as JOUR 3100.) Prerequisites: RI majors - admission to candidacy; others - permission of instructor. Introduces range of scholarly approaches to the study of popular music. Encourages perspectives other than those of "producer" or "consumer." Requires application of analytic and critical methods in research paper assignments. Writing intensive.

3200 History of Country Music. Three credits. Prerequisite: Admission to candidacy. History and culture of American country music. Explores the historical progression of the genre and analyzes topics such as race and gender relations, material culture, generational conflict, and the role of "authenticity" in the creation and commodification of the music. Reading, writing, and listening intensive.

3450 Advanced Musicianship for Engineers. Three credits. Prerequisites: Admission to candidacy; RIM 1230 or MUTH 1110. (Not available to students enrolled in or who have completed MUTH 1120.) Continuation of RIM 1230. Furthering the application of
musical concepts previously learned to popular music. Topics include syncopation, modulation, two-handed accompaniment patterns, and selected secondary chords. Introduction to music notation software and the preparation of a lead sheet. Laboratory required.

3500 Lecture Series. One credit. Prerequisite: RI majors - admission to candidacy. Major executives, producers, and others in the recording industry speak to students about contemporary topics in the music business. May be taken only once for credit toward the major. Pass/Fail.

3580 RIM Practicum. One to three credits. Prerequisites: RI majors admission to candidacy, approval of instructor prior to enrollment, and approved application. On-campus experiences in and related to the recording industry. Course may be repeated up to three times, but no more than six total credits toward the major allowed for RIM 3580, 4000, and 4010. Pass/Fail.

3600 Survey of the Recording Industry. Three credits. Examination of the industry including, but not limited to, artist development, songwriting, publishing, record companies, record marketing and promotion, copyright, performance rights, and careers.

3650 Free Expression, Mass Media, and the American Public. Three credits. (Same as JOUR/EMC 3650.) A general introduction to the issues surrounding free expression and its relationship to mass media in contemporary America. A comprehensive analysis of the history, philosophies, cases, and controls associated with freedom of expression.

3700 Copyright Law. Three credits. Prerequisite: RI majors - admission to candidacy; others - RIM 3600. Examination of copyright law with particular reference to the music industry. Emphasis on understanding and applying the law to work in the industry.

3720 Artist Management. Three credits. Prerequisite: RI majors - admission to candidacy; others - RIM 3600 . Examines the role of recording artists' representatives. Topics include personal appearances, touring, unions, and contractual considerations.

3770 Publicity in the Recording Industry. Three credits. Prerequisites: RI majors - admission to candidacy and JOUR 2710; others - RIM 3600 and JOUR 2710. Experience in creating publicity materials and developing media relations, press releases, press kits, and publicity campaigns.

3780 Entertainment Reporting and Writing. Three credits. Prerequisites: RI majors - admission to candidacy and JOUR 2710; others - RIM 3600 and JOUR 2710. Theory and practice of the fundamentals of entertainment journalism, including music industry writing, feature stories, and CD and concert reviews.

3890 International Recording Industry. Three credits. Prerequisites: RI majors - admission to candidacy; others - RIM 3600. Cultural, media, business, and legal aspects of making and selling records on a worldwide basis. Specific studies in foreign record company operations, i.e., production, distribution, marketing, promotion, and licensing. Immigration, union, and tax implications of artists recording abroad.

3900 Music Publishing. Three credits. Prerequisites: RI majors - admission to candidacy and previous or concurrent enrollment in RIM 3700; others - RIM 3600 and 3700 . Operations and functions of music publishing industry including songwriter-publisher relations. Primary thrust is popular music publishing, but art, religious, and educational music also discussed.

4000 Recording Industry Internship: Business. One to six credits. Prerequisites: Admission to candidacy; 90 credit hours completed;

RIM 3700 and three of the following sub-core courses must be completed: RIM 3720, 3900, 4320, or 4620; approved internship application. Practical experience for advanced students in a professional recording industry setting. This course may be repeated for additional credit. No more than six hours toward the major are allowed for RIM 3580, 4000, and 4010. Pass/Fail.

4010 Recording Industry Internship: Technology. One to six credits. Prerequisites: Admission to candidacy; senior standing (90 hours), RIM 4190, RIM 4200, RIM 4400, and an approved internship application. Practical experience for advanced students in a professional recording industry setting. This course may be repeated for additional credit. No more than six hours toward the major are allowed for RIM 3580, 4000, and 4010. Pass/Fail.

4020 Advanced Songwriting. Three credits. Prerequisite: RIM/MUTH 3020. Builds on concepts learned in RIM 3020. Students will work closely with mentors from the songwriting and publishing community and cowrite with professional staff writers. New topics include concept and assignment writing and cowriting.

4190 Introduction to MIDI and Sound Synthesis. Three credits. (Same as MUTH 4190.) Prerequisites: RI majors - admission to candidacy and RIM 1230 or MUTH 1110; others - RIM 3010, RIM 1230, or MUTH 1110 or permission of instructor. An introduction to synthesizer programming and the Musical Instrument Digital Interface (MIDI) with emphasis on history, theory, and application. Hands-on activities include synthesizer programming with virtual instruments and MIDI sequencing using a digital audio workstation. Laboratory required.

4200 Digital Audio Technology. Three credits. Prerequisites: RI majors admission to candidacy and RIM 1230 or MUTH 1110; others permission of instructor. An overview of digital audio technology with an emphasis on computer technology related to music production, digital audio workstation hardware and software (e.g., Pro Tools), and digital audio theory. Laboratory required.

4210 Personal Desktop Music Production. Three credits. Prerequisites: RI majors - admission to candidacy; others - permission of instructor. Theory and application of audio hardware and software for personal desktop music production. For RIM Music Business and Commercial Songwriting majors and Music majors, specifically Music Education majors. Emphasis on application through hands-on instructional techniques. May not be used for credit by RIM Audio Production majors. Satisfies the music production component of the RIM Commercial Songwriting concentration. Laboratory required.

4290 MIDI Sequencing and Virtual Instruments. Three credits. (Same as MUTH 4290). Prerequisites: RI majors - admission to candidacy and RIM/MUTH 4910; others - RIM/MUTH 4190 or permission of instructor. An advanced hands-on course with an emphasis on MIDI sequencing and virtual instruments within Pro Tools, Reason, and other music production software. Drum machines, synthesizers, samplers, and other electronic instruments used to create a commercial music track. Laboratory required.

4300 Advanced Pro Tools Techniques. Three credits. Prerequisites: RI majors - admission to candidacy and RIM 4200; others - permission of instruction (POD). A detailed examination of digital audio workstation (DAW) techniques used in a variety of production environments. Comprehensive in-depth instruction in the use of Pro Tools hardware and software with emphasis on file management, stereo and multitrack editing, tuning, use of plug-ins, and delivery formats. Lab exercises to develop hands-on competency; hands-on proficiencies to assess abilities. Laboratory required.

4320 Concert Promotion and Touring. Three credits. Prerequisites: RI majors - admission to candidacy; others - RIM 3010 and 3600.

An in-depth study of the theoretical and practical aspects of presenting contemporary arts and entertainment performances. Topics include talent acquisition, contracts and riders, production, venues, budgeting, ticket services, and promotion.

4330 Sound Reinforcement. Three credits. Prerequisite RI majors admission to candidacy; others - RIM 3010. Current technologies and techniques involved in modern sound reinforcement. Topics include club venue and large concert systems. Field work required.

4400 Recording Studio Techniques. Three credits. Prerequisites: RI majors - admission to candidacy, RIM 1230 or MUTH 1110, and RIM 4200 or concurrent enrollment in RIM 4200 (corequisite); others - permission of instructor. Develops understanding of techniques and technology in modern multitrack recording and mixing. Extensive hands-on experience. Laboratory required.

4440 Critical Listening. Three credits. Prerequisites: RI majors - admission to candidacy and previous or concurrent enrollment in RIM 4400; others - permission of instructor. Ear-training and aesthetics for recording engineers. Class activities involve listening and analysis of master tape and disc formats. Sources include a wide variety of music genres as well as specialized technical ear-training materials. Development of a vocabulary for communication of aural impressions. Introduction to "high-end" audio.

4480 Mastering. Three credits. Prerequisites: RI majors - admission to candidacy and RIM 4200 and 4400; others - permission of instructor. An advanced hands-on approach to the principles and practices of mastering. Focuses on the use of digital audio workstations specially designed for audio mastering and related outboard equipment. Additional focus on surround mastering and DVD authoring. Laboratory required.

4510 Study Abroad. One to three credits. Prerequisite: Permission of department. Topics related to the recording industry in the country in course delivered. May be taken two times.

4570 The Art of Soundtrack Design. Three credits. Prerequisite: RI majors - admission to candidacy; others - permission of instructor. Examines the creative use of sound in film and theatre through critical listening to various soundtracks. The theory and practice of sound design analyzed and discussed in a lecture-oriented class.

4580 Sound for Picture. Three credits. Prerequisites: RI majors - admission to candidacy, RIM 4200 and 4400; others - permission of instructor. In-depth, interactive study of sound and its relationship to picture. Time code, synchronization, workflow, data interchange, sound recording and editing, ADR, Foley, routing structures, sound mixing, and delivery methods. Demonstrations and lab use digital audio workstations and controllers found in professional facilities. Laboratory required.

4590 Computer-based Scoring for Visual Media. Three credits. (Same as MUTH 4590.) Prerequisites: RI majors - admission to candidacy, RIM/MUTH 4190 and either RIM 4200 or RIM/MUTH 4290; others - RIM/MUTH 4190 and either RIM 4200 or RIM/ MUTH 4290 or permission of instructor. Writing music for visual media using the capabilities of a computer workstation. Introduces compositional techniques utilizing Macintosh sequencing software and QuickTime video playback in combination with synthesizers and sample playback programs. Concepts include synchronization of music to picture, tempo selection, sound source selection/ manipulation, and analysis of the dramatic content of a scene. Laboratory required.

4620 Marketing of Recordings. Three credits. Prerequisite: RI majors admission to candidacy; others - RIM 3600. Special emphasis on the particular structures and problems involved in the movement
of recordings from manufacturer to the buying public. Topics include product marketing, promotion, and distribution.

4630 Recording Industry Research. Three credits. Prerequisites: RI majors - admission to candidacy, RIM 4620 or MKT 3820, computer literacy, and permission of instructor. Provides hands-on experiences in research in the recording industry. Involvement in group projects to provide music and consumer research services to various clients in the industry. Workshop oriented.

4650 Multitrack Music Recording: Studio B. Three credits. Prerequisites: RI majors - RIM 4200 and 4400; others - permission of instructor. In-depth study of the technology and techniques of contemporary multitrack music recording. Lectures and labs focus on modern recording techniques, the analog and digital audio hardware/software installed in Studio B, systemic aspects of recording studios, and preparation for professional work in the studio environment. Laboratory required.

4651 Multitrack Music Recording: Studio A. Three credits. Prerequisites: RI majors - RIM 4200 and 4000; others - permission of instructor. In-depth study of the technology and techniques of contemporary multitrack music recording. Lectures and labs focus on modern recording techniques, the analog and digital audio hardware/software installed in Studio A, systemic aspects of recording studios, and preparation for professional work in the studio environment. Laboratory required.

4660 Advanced Music Engineering. Three credits. Prerequisites: RI majors - admission to candidacy and 4650 or 4651 ; others - permission of instructor; concurrent or previous completion of RIM 4300 recommended. Project-based class emphasizing creative and aesthetic aspects of multitrack music recording. Topics include microphone techniques, session protocols, incorporation of MIDI elements, sample replacement and augmentation, rough mixing, console automation techniques, signal processing, and ear-training for recording engineers. Laboratory required.

4670 Studio Production. Three credits. Prerequisites: RI majors - admission to candidacy and RIM 4300 or 4650 or 4651 ; others - permission of instructor. Laboratory experience and lectures in commercial music, recording techniques, and business designed to develop the abilities needed to become an independent producer of contemporary commercial recordings. Laboratory required.

4690 New Media for the Music Business. Three credits. Prerequisite: RIM 4620 or permission of the instructor. Applied theory on promoting the services and products of the recording industry through the Internet. Students will create interactive Web sites for companies associated with the recording industry.

4700 Contracts and Legal Issues. Three credits. Prerequisites: RI majorsadmission to candidacy and RIM 3700; others - RIM 3600 and 3700. An overview of legal problems encountered in the recording industry with specific attention to contractual considerations in recording and producing.

4720 Record Retail Operation. Three credits. Prerequisites: RI majorsadmission to candidacy and MKT 3820 or RIM 4620; others - RIM 3600 and MKT 3820. Problems and practices of recording industry retailers, including pricing, inventory control, advertising, operations, and retail locations for audio and video recordings and printed music.

4730 The A\&R Function. Three credits. Prerequisites: RI majors- completion of concentration sub-core. Role and responsibilities of a record company's artist and repertoire department. Emphasis on finding and guiding an artist as well as the administration of the production and marketing of a project.

4740 Studio Business Operations. Three credits. Prerequisite: RI majors - admission to candidacy; others - permission of instructor. Applications course involving the administrative functions of recording studio operations, including accounting, marketing, personnel, planning, and computer applications.

4800 Understanding the Nashville Music Business-Past and Future. Three credits. Prerequisites: Concurrent with or subsequent to RIM 4000 or RIM 4010. Acquaints interns and students working in the Nashville music industry with industry practices through a historic perspective and through conducting a research project.

4810 Topics in Recording Industry. One to three credits. Prerequisite: RI majors - admission to candidacy. Examination and critical evaluation of current issues related to the operation and function of various aspects of the recording industry. Subject matter varies. Course may be repeated one time for additional credit.

4820 Record Label Operations. Three credits. Prerequisites: RI majors admission to candidacy and RIM 4620 or MKT 3820; RIM 4620. Day-to-day marketing tasks conducted onsite for a record label offer students training on the practical application of the latest marketing software. Must be able to travel to Music Row and commit to 10 hours per week at a record label.

4830 Recording Studio Maintenance. Three credits. Prerequisites: RI majors - admission to candidacy, MATH 1710 or higher level math (MATH 1010 will not fulfill this requirement), or permission of instructor; others - permission of instructor. Focuses on studio maintenance and troubleshooting techniques. Includes soldering, wiring standards, machine alignment, and system architecture. Laboratory required.

4840 Music Publishing Administration. Three credits. Prerequisites: RIM 3600, 3900, or permission of instructor. Common relationships between music publishers and the community of the music industry as it relates to the licensing and protection of copyrighted materials.

4900 Individual Problems in the Recording Industry. One to three credits. Prerequisites: RI majors - admission to candidacy, approved application, and permission of department. Advanced project in production or music business. Students submit applications to production and technology or music business faculty committees. Once approved, a determination is made as to credit to be awarded. Project is reviewed by a panel of three faculty members to determine grade. No more than three credits toward the major are allowed.

4910 Advanced Production Seminar. Three credits. Prerequisites: RI majors - admission to candidacy and permission of instructor only. The conceptualization, management, and production of a specific program format integrating theory and skills from other EMC/RIM courses. Sports, music, and drama are probable topics. Topics will vary by semester offering.

## Recreation [REC]

3000 Leisure in Your Life. Three credits. Issues relative to choices an individual and society make when utilizing "free" time and resources. Increased understanding of the multibillion dollar leisure industry and its effect on our personal and collective lives.

3010 Introduction to Recreation and Leisure Services. Three credits. Development and basic concepts of the recreation and leisure services profession. History, definitions, theories, and social psychological concepts as well career opportunities and areas of service delivery.

3360 Camping and Camp Counseling. Three credits. Emphasis on the camp counselor, including discussion of techniques and skills appropriate in various camp settings. Day-to-day management of residential, trip/travel, and special emphasis camps examined. Some off-campus experience.

3370 Principles of Outdoor Recreation. Three credits. Concepts, principles, and practices in various types of park, recreation, and tourism settings. Emphasis on overall and critical subsystems of the outdoor recreation management system primarily in public land settings.

3371 Principles of Interpretation and Resource Education. Three credits. The study of natural, cultural, and historical interpretation and resource education concepts, principles, and practices applicable to various types of recreation and leisure service settings. Emphasis on interpretation and resource education, why and how to interpret and educate about resources, as well as how to effectively manage interpretation and resource education in varied settings.

3380 Introduction to Recreation for Persons with a Disability. Three credits. Explores issues surrounding recreation opportunities for persons with disabilities. Introduces important issues such as attitudes, advocacy, accessibility, legislation, and the broad range of opportunities in the provision of recreational services for persons with disabilities in our society.

3390 Tourism and Commercial Recreation. Three credits. Introduces the broad sector of recreation and leisure services profession which focuses on delivery of leisure travel and tourism-based recreation services and programs. Particular emphasis placed upon understanding the relationship between commercial recreation organizations and historical, cultural, and natural resources.

3520 Leadership and Group Processes in Recreation and Leisure Services. Three credits. Conceptual and human relationship skills required of effective professionals. Emphasis on understanding group dynamics and processes associated with leading activities, programs, and personnel in recreation and leisure settings. Key component will be field application of skills.

3530 Program Planning in Recreation and Parks. Three credits. The understanding of participant leisure behavior and needs, and ways organizations create services to respond to these leisure needs.

3540 Planning of Park and Recreation Areas and Facilities. Three credits. Prerequisite: REC 3010. Planning principles, techniques, and standards as they relate to the construction of park and recreation areas and facilities.

3560 Field Studies in Recreation and Parks. Three credits. Prerequisites: REC 3010 and 3530 . Provides an opportunity for supervised practical application of classroom theory in professional field work.

3570 Outdoor Pursuits Education. Three credits. Concentration on developing student's ability in adventure-based recreation and education. Emphasis placed on learning how to implement an outdoor pursuit experience for oneself and others. Both on- and off-campus experiences will be conducted and may involve day/ overnight camping, canoeing, kayaking, rock climbing, rappelling, caving, ropes courses, and orienteering.

4110 Youth Sport Programming and Administration. Three credits. Explores and examines youth sport history, philosophy, developmental stages of youth, administration and programming for youth, and current issues and events necessary to deliver youth sport activities within a variety of settings, agencies, and/or organizations. Addresses the various learning stages of youth sport and the impact these experiences can have on youth.

4340 Fitness Education for the Adult. Three credits. (Same as HLTH/ PHED 4340.) Planning, teaching, and participating in individual and group fitness programs for the adult. Offers preparation for administering and interpreting assessments of related components with understanding of physiological principles related to exercise in the adult. Major lifetime wellness activities covered.

4470 Leisure and Aging. Three credits. Aging relative to the individual, family, peers, and society with an emphasis on leisure. The holistic approach including physical, psychological, social, cultural, environmental, and cognitive aspects. Interdisciplinary approach makes this course ideal for the developing or practicing human service professional.

4480 Recreational Therapy Techniques. Three credits. Exploration of the many activity-based therapeutic interventions currently utilized to alleviate existing health-related problems, maintain current level of functioning, or to assist in overall rehabilitation efforts of the transdisciplinary treatment team.

4490 Campus Recreation. Three credits. For those wishing to acquire a specific and comprehensive knowledge of the recreational sports program and an understanding of its place and value in education and society.

4499 Therapeutic Terminology in Recreational Therapy. Three credits. Designed to provide students with an understanding of therapeutic terminology and the utilization of appropriate terminology for third party reimbursement, treatment teams, counseling, and medical documentation.

4500 Introduction to Recreational Therapy. Three credits. Explores the profession of recreational therapy, the wide range of disabilities, and the role of intervention in a variety of settings: clinical, community, and transitional. Topics include history, philosophy, professional development/certification, systemic program design, and implementation.

4510 Recreational Therapy in Clinical Settings. Three credits. Increases understanding of recreational therapy in clinical settings, working with persons with health-related issues and/or disability. Concepts of disease and disability, holistic approach, interdisciplinary treatment, assessment, intervention planning and implementation, evaluation, documentation, and third party reimbursement explored.

4520 Transitional and Community Recreational Therapy. Three credits. Addresses issues clients may face when leaving institutions and returning to their communities. Examines the role and provision of recreational therapy services in transitional and community-based settings.

4540 Organization and Administration of Recreation. Three credits. Prerequisites: REC 3010 and nine additional hours of recreation coursework. Provides an opportunity for understanding the duties and responsibilities of an administrator and for developing the ability to perform these in recreation and leisure settings.

4550 Business Applications in Leisure Services. Three credits. Explores the application of public relations, customer service, marketing principles, and financial management of leisure service delivery systems, including procedures for developing marketing and budget plans for leisure services. Emphasizes public and customer relations, budgeting, and organizing and analyzing the marketing strategies in leisure service organizations.

4570 Outdoor Recreation Workshop. Three credits. An off-campus course that provides materials and experiences unobtainable in the traditional classroom. Exposure to issues, trends, and concerns
relevant to outdoor recreation, resource management, and the delivery of programs and services in outdoor environments. Public, private non-profits, and commercial agencies will be experienced through a series of field trips, talks, groups exercises, and other experiential-based activities.

4580 Seminar: Outdoor Recreation and Environmental Issues. Three credits. Increases awareness of the importance of environmental considerations when planning, managing, or administering outdoor recreation programs. Includes environmental issues and methods of seeking solutions to environmental problems.

4590 Readings in Parks and Recreation. Three credits. In-depth reading; preparation of an annotated bibliography and report. Arrangements for course should be made with the instructor prior to registration.

4600 Technology Applications. One credit. Corequisite: REC 4601. Understanding and competency using a variety of technology applications related to the profession. Students required to enroll in corresponding lab during the same semester.

4601 Technology Applications Lab. Two credits. Corequisite: REC 4600. Investigation and application of profession-specific software and hardware applications.

4660 Evaluation of Recreation and Leisure Services. Three credits. Research and evaluation procedures and techniques applicable to assessing recreation and leisure service programs, participants, administrative structures, and resources. Emphasis on beginning and completing a "real-world" evaluation project.

4700 Challenge Course Facilitation. Three credits. A systematic approach to the fundamentals of group management in an experiential ropes course setting. Focuses on both interpersonal and technical facilitation skills. Several on- and off-campus experiential, demonstration, and practical application sessions required.

4790 Sport and Society. Three credits. (Same as SOC 4790.) A behavioral approach to the sport and leisure phenomena from the related perspectives of sociology and anthropology.

4850 Cross-Cultural Perspectives in Leisure and Tourism. Three credits. An in-depth study of the leisure experience in other (nonU.S.) cultures through onsite observations; visits to cultural/historic sites; and interactions with managers and staff at selected parks, museums, attractions, and world heritage sites.

4890 Pre-Internship Seminar. One credit. Prerequisites: REC 3010 and junior standing. Review of philosophy and professional ethics of recreation and leisure services. Self assessment of student's strengths, limitations, and career aspirations. Preparation of reference files, letters, and resumes. Identification of, application to, and acceptance by department-approved agencies for completion of internship. Pass/Fail.

4900 Internship in Therapeutic Recreation. Six or twelve credits. Prerequisites: Departmental approval; minimum 2.25 GPA; REC 3010, 3530, 3540, 4540, and 4890; additional prerequisites: REC 4500, 4510, and 4480 or 4520 . Provides practical experience. Student assigned to a field experience to spend an entire semester or two summer sessions in on-the-job training with a recreational agency.

4901 Internship in Outdoor Recreation. Six or twelve credits. Prerequisites: Departmental approval; minimum 2.25 GPA; REC 3010, 3530, 3540, 4540, and 4890. Provides practical experience. Student assigned to a field experience to spend an entire semester or two summer sessions in on-the-job training with a recreational agency.

4902 Internship in Recreation. Six or twelve credits. Prerequisites: Departmental approval; minimum 2.25 GPA; REC 3010, 3530, 3540, 4540, and 4890. Provides practical experience. Student assigned to a field experience to spend an entire semester or two summer sessions in on-the-job training with a recreational agency.

4920 Independent Study. One, two, or three credits. (Same as ATHT/ EXSC/HLTH/PHED 4920.) Independent study topics based on a study plan prepared in cooperation with a faculty supervisor. Culminates in a formal paper and/or comprehensive examination. Application forms must be completed and approved prior to enrollment. A maximum of three credit hours may be applied toward degree.

4965 Aquatic Exercise and Therapeutic Rehabilitation Techniques. Three credits. (Same as ATHT/EXSC 4965.) Examines the various uses of the aquatic environment to develop, maintain, and improve physical performance with practical development of skills and techniques and aquatic exercise programming. Combines both didactic and laboratory activities in an experiential learning environment.

## Religious Studies [RS]

3010 The Bible: Its Origin and Content. Three credits. How the Bible came into being, including the origin of manuscripts, principles of textual criticism, inspiration, inerrancy, history, and translations. An introduction to the individual books of the Bible.

3020 Comparative Religion. Three credits. The meaning of religion in life, both ancient and modern. The impact of intellectual and emotional commitment upon conduct is emphasized through a study of world religions.

3040 The History of Christianity. Three credits. Main developments in the doctrinal affirmations of the Christian church and their Biblical background.

4020 Jesus of Nazareth. Three credits. The life of Jesus presented against the historical, religious, geographical, and archaeological background of the world of the first century A.D. and in light of recent discussions, movements, and books.

4050 Judaism, Christianity, and Islam. Three credits. Historical development of the idea of one God through Judaism, Christianity, and Islam; their relation to other religions of the world.

4800 Readings in Religious Studies. Three credits. Directed study concerning a particular problem or thinker within religious studies.

## Russian [RUSS]

1010 Elementary Russian I. Three credits. A beginning course in written and spoken Russian. Special emphasis on noun declension and verbal aspects.

1020 Elementary Russian II. Second semester. Three credits. Prerequisite: RUSS 1010 or advanced placement. A continuation of RUSS 1010.

2010 Intermediate Russian I. Three credits. Prerequisite: RUSS 1020 or equivalent.

2020 Intermediate Russian II. Second semester. Three credits. Prerequisite: RUSS 2010 or equivalent.

## Safety [SAFE]

4320 Principles of Accident Control. Three credits. Basic course on principles, concepts, and methodology of the safety movement. Introductory experiences dealing with accident prevention and control efforts recommended for various social institutions and agencies.

4350 Automotive Transportation Safety Programs. Three credits. Safety elements of automotive and other forms of transportation. Federal, state, and local legislation concerning transportation control and design.

4850 Driver and Traffic Safety Fundamentals. Three credits. Prerequisite: Valid driver's license. Introduction to driver and traffic safety education. Primary focus on current concepts related to safe driving.

4870 Teaching Driver and Traffic Safety. Three credits. Prerequisite: SAFE 4850. Designed to develop teaching techniques for laboratory instruction including on-street, driving simulator, and multiple-car-range programs.

## Social Work [SW]

2570 Introduction to Social Work. Three credits. The methods, history, philosophy, and present organization of the social work profession.

2630 Interviewing Skills for Social Work Practice. Three credits. An introduction to principles and processes of social work practice including interviewing and developing relationships.

3000 Social Policy. Three credits. Prerequisite: SW 2570. Emphasis on recurring themes in social welfare policy development processes, historical turning points; societal ethics; causal relationship-social problems, social change, and social welfare policy analytical frameworks for assessing social welfare policy and programs.

3050 Women and Poverty. Three credits. (Same as WMST 3050.) Prerequisite: WMST 2100 or SW 2570. Predominant theories, policies, and programs dealing with poverty among women. Explores the effects of poverty on women in addition to a general knowledge of poverty; ageism, sexism, and racism in relation to poverty; historical treatment of women and views of poverty.

3100 International Social Work. Three credits. International dimensions of social work. Explores the impact of globalization on social work problems. Includes status of women, aging populations, family breakdown, drug addiction, child abuse and neglect, poverty, and emerging problems such as civil strife, ethnic cleansing, resettlement, and AIDS.

3110 Research Methods for Social Work Practice. Three credits. Prerequisite: SW 2570. Research processes; includes information about values for research, knowledge of methods, and opportunities for skill development.

3120 Data Analysis for Social Work Practice. Three credits. Prerequisite: SW 3110. Data analysis and interpretation. Opportunities for skill development in the use of statistical procedures and knowledge of the meaning of results of such procedures. Instruction in computer use for data entry and data analysis, including the development of programming skills using the SPSS-X software package on the University computer system.

3160 Human Behavior and the Social Environment I: Individuals and Families. Three credits. Major theories of human development across the life span and life course; useful for entry-level social
work practice. Ecological relationship of diverse individuals and families with other systems in the social environment described with focus on biological, psychological, and social context and content.

3161 Human Behavior and the Social Environment II: Groups, Organizations, and Communities. Three credits. Prerequisites: SW 3160. Builds on concepts learned in SW 3160. Presents theories on and about the development, structure, and function of small groups, organizations, and communities and how they interrelate eco-systemically with individuals and families.

3170 Family Caregiving Across the Life Span. Three credits. Caregiv-ers-gender roles, cost of caregiving, managing stress, respite care, finding recourses, financial and legal matters, establishing support groups, differential caregiving tips for various illnesses and disabilities from infancy to old age, emerging trends, and long distance caregiving.

3200 Cultural Diversity: Competency for Practice. Three credits. (Same as AAS 3200.) An examination of culturally appropriate practice issues that are essential considerations for effective service delivery, including African American families and ethnic subcultures predominant in the U.S.

3250 School Social Work. Three credits. Prerequisites: SW 2570 and 2630. Introduces social work students to practice in school settings. Examines various roles of social workers in school systems and the specifics of practicing with students from 3-21 years of age in individual, group, and organizational level interventions.

4150 Topics in Social Work. Three credits. Selected topics important in current social work practice but too specialized to be taught as regularly scheduled courses.

4200 Creativity and Personal Growth. Three credits. Prerequisites: Junior standing, including 18 hours in the arts, social work, and/or social or behavior sciences, or permission of instructor. Introduces the creative process and the use of that process in the development of self-awareness and empathetic relationships with others. Assignments include the creation of individual and group projects and the facilitation of a creative project in a community agency or school.

4430 Social Work with the Terminally III. Three credits. Factors and principles involved with the terminally ill which should stimulate students to learn and think about what he/she values and anticipates experiencing in the area of medical social work.

4440 Social Work with the Disabled Individual. Three credits. The effects of disability on the individual, the family, and society. An examination of a variety of intervention strategies from a social work perspective.

4480 Social Work with Groups. Three credits. Prerequisites: SW 2570, 2630, and 4580. Group process and group techniques as they apply to social work practice, including both treatment and task groups (Must be admitted to Social Work program.)

4580 Social Work: Practice I. Three credits. Prerequisites: SW 2570, 2630, 3000, and 3160. Theories and related techniques for beginning-level social work. (Must be admitted to Social Work program.)

4590 Field Instruction I. Six credits. Prerequisites: SW 2570, 2630, 3000, 3110, 3160, 3161, 4580; completion of all General Education requirements; and senior standing. Student is assigned to a social agency under the joint supervision of agency and instructor with concurrent seminar. Application must be made the preceding semester. (Must be admitted to Social Work program.)

4620 Child Welfare Services. Three credits. The contemporary child welfare system and services designed to strengthen families. Historical trends, policy issues, and child advocacy.

4640 Health: Organizations, Policy, and Ethics. Three credits. (Same as SOC 4640.) A resource allocation assessment of U.S. health care systems. Applied ethics topics (i.e., justice, virtue, and informed consent) included.

4650 Social Work: Practice II. Three credits. Prerequisites: SW 3110, 3120, 4580, and senior standing. Theories and related techniques for advanced-level social work practice. (Must be admitted to Social Work program.)

4680 Field Instruction II. Nine credits. Prerequisites: SW 4580, 4590, senior standing, and all other major requirements. Second field placement for social work majors. Application must be made the preceding semester. (Must be admitted to Social Work program.) Pass/Fail.

4690 Integrative Seminar in Social Work. Three credits. Prerequisites: SW 4650 and 4680 or concurrent enrollment. An opportunity for the student, with instructor and peers, to explore the knowledge, values, and skills gained from academic and field experiences and to synthesize and integrate theory and practice. (Must be admitted to Social Work program.)

4720 Crisis Intervention. Three credits. The basis of crisis theory applied to intervention services for suicide, rape, natural disasters, and other crises.

4800 Special Projects. One to six credits. Field experiences or reading courses through which special interests or needs of the student may be pursued under individual supervision. Arrangements must be made with an instructor prior to registration.

## School Personnel Services Education [SPSE]

3220 Technology in Teaching. Three credits. Prerequisite: Admission to teacher education program. Enables teachers to use technology to deliver curriculum, prepare course materials, and keep student records. Key concepts and skills include preparation of lesson plans and unit plans; development of an e-portfolio and Web page; and the integration of technology to teaching, learning, and assessment.

4100 Counseling and Leadership Seminar in Student Affairs. Three credits. Prerequisite: Permission of Student Affairs personnel. Offers student leaders in Student Affairs opportunities to learn and practice skills to help them be more effective leaders. Credit for this class may not be counted toward the student's major or minor.

4210 General Methods Including Audio-Visual. Three credits. Methods and teaching strategies generally applicable to the secondary school: instructional planning, classroom management, and the effective utilization of learning materials and audio/visual aids.

4260 Problems in Education. One to three credits. An opportunity for individuals or groups to work on problems related to their needs. Topic and credit to be determined at the time of scheduling. Maximum of six semester hours credit may be applied toward a degree.

## Sociology [SOC]

1010 Introductory Sociology. Three credits. Counts toward General Education Social/Behavioral Sciences requirement. Covers the central concepts, theories, and methods of sociology. Focuses on social processes and institutions in modern societies. Assists students in understanding and applying this knowledge in their everyday lives.

2010 Social Problems. Three credits. A survey of issues defined as problems by society; examines programs and agencies that address them. Problems addressed include poverty, crime, environment, energy, health, etc.

2105 Introduction to Latin American Studies. Three credits. (Same as SPAN 2105, PS 2105, ART 2105, ANTH 2105, GEOG 2105.) A multidisciplinary, team-taught introduction to Latin America. Covers the cultures and societies of the region: prehistory, history, geography, politics, art, languages, and literatures. Required course for all Latin American Studies minors.

2500 Marriage and Family. Three credits. Social, cultural, and personal factors relating to mate selection, intimate relationships, and family life with an emphasis on families in the United States.

2600 Introduction to Gerontology. Three credits. (Same as GERO 2600.) Basic concepts, overview of the field, illustrations of problems, and applications for an aging America.

2930, 2940, 3970, 3980 Cooperative Education. Three credits each. Each course may be taken for one, two, or three credits after consultation with instructor. Courses must be taken in sequence.

3040 Research Methods. Three credits. (Same as ANTH 3040.) Issues and strategies used by sociologists in their scientific studies and in their applied work in society.

3050 Data Analysis. Four credits. (Same as ANTH 3050.) Analysis, interpretation, and reporting of social science data. Incorporates the use of a statistical package such as SPSS or SAS. Offers fundamental applied research skills for the job market. Laboratory required.

3060 Sociological Theory. Three credits. Theoretical foundations of sociology with emphasis on the major theories in sociology and their development. Addresses diverse intellectual traditions in both classical and contemporary theory.

3150 Life Cycle and the Social Environment. Three credits. Prerequisites: PSY 1410 or SOC 1010 or 2010 or BIOL 1010/1011. Overview of life course structure and processes examining physical, cognitive, social, and personality development including the role of institutions.

3210 Drugs and Alcohol. Three credits. Prerequisite: SOC 1010, 2010, or permission of instructor. Sociological, historical, politicaleconomic, and cultural dimensions of drugs and alcohol in society.

3250 Social Deviance. Three credits. A general survey and theoretical review of the definitions, causes, and consequences of deviance and social control. Analyzes drugs, panics, sex, media violence, and emotions in society.

3320 Public Opinion and Propaganda. Three credits. Nature of public opinion and its role in the political and social process; myths, symbols, and other instruments and techniques of propaganda in opinion formation.

3400 Gender and Society. Three credits. Prerequisite: SOC 1010 or WMST 2100. A sociohistorical and cultural exploration of the
socialization patterns, relationships, expectations, influences, organizational, institutional, and aging experiences of women and men in American society.

3950 Social Organizations and Institutions. Three credits. Prerequisite: SOC 1010 or 2010. Theory, analysis, and public policy applications for contemporary organizations (corporations and social agencies) and institutions (family, education, health, media.)

4010 Social Inequality. Three credits. The origins, variations, and consequences of class, status, and power in society. Individual and group economic interests, social prestige, ideology, market and institutional inequality.

4020 Sociology of Aging. Three credits. Demographic, social, and cultural aspects of aging with particular emphasis on the types of problems encountered by older persons in American society.

4030 Topics in Gerontology. Three credits. (Same as GERO 4030.) An opportunity to integrate gerontological theory and research techniques with the practical problems of older persons.

4040 Health Care Delivery Issues. Three credits. An assessment of critical issues with special emphasis on policies, procedures, and intervention strategies in long-term care settings.

4050 Sociology of Families. Three credits. Analysis of the family as a social institution with an emphasis on contemporary trends and diversity.

4090 Health Care Management. Three credits. Details of the technical aspects of health care management with an emphasis on long-term care settings.

4100 Sociology of Work. Three credits. Comparative analysis of work structure and processes in organizational contexts, including study of management and employee organizations and legal environments regarding workplace relations.

4140 Violence in the Family. Three credits. (Same as CDFS 4140.) The causes, dynamics, and consequences of violence in the family. Includes a discussion of violence toward children, spouses, dating partners, siblings, and elders. Emphasizes the social conditions that lead to these types of violence.

4150 Topics in Sociology. Three credits each. An in-depth study of a special topic which is significant in current sociological literature.

4160 Sociology of Gangs. Three credits. Prerequisite: SOC 1010. History of gangs in the United States, the factors that account for their formation and perpetuation, and current empirical data on gang composition, demographics, and culture. Policy strategies for prevention, law enforcement, and nonlegal intervention assessed.

4170 The Social Context of Southern Music. Three credits. A sociohistorical analysis of Southern music providing a framework for examining the relationship between culture and popular culture, the production of popular culture, and popular culture as a vehicle for examining social issues of the Southern region.

4200 African American Film, Theater, and Television Images. Three credits. (Same as AAS 4200.) Prerequisite: SOC 1010 or PSY 1410. Survey of African American film, theater, and television images in relation to social movements and social policy. Human behavior theory application and sociological paradigm application required.

4240 Race and Ethnic Relations. Three credits. The dynamics of race and ethnic relations in the United States from a sociohistoric perspective.

4300 Criminology. Three credits. Theories of the causes of criminal behavior and coverage of its development and incidence; punishment and methods of control and rehabilitation.

4360 Medical Sociology. Three credits. Sociological analysis of health care delivery including problems, policies, and issues faced by recipients and providers of care. Focuses on the U.S., role theory, and demographics.

4361 Contemporary Issues in Women's Health. Three credits. Examines the social and cultural issues that shape women's health-related experiences and disparities in health and illness in contemporary culture. Critically analyzes problems associated with medicalization, technological favoritism, and for-profit intrusion. Explores issues and experiences among women by race/ethnicity, socioeconomic class, age, sexual orientation, and abilities.

4500 Social Psychology. Three credits. Individual behavior in social contexts and symbolic interaction in groups. Includes social influences on perception, conformity, attitudes, communication, group structure, leadership, and role behavior.

4510 Social Movements and Social Change. Three credits. Study of the major sociological theories of revolutions, rebellions, civil wars, and protest movements of the past and present and their relationship to significant social changes.

4520 Population and Society. Three credits. Prerequisite: SOC 1010 or 2010 or permission of instructor. Examination of world and U.S. population trends and the impact of social forces on such demographic variables as births, deaths, migration, age, sex, education, and marital status and how these impact social conditions.

4540 Juvenile Delinquency. Three credits. Social factors related to delinquency including family, peer-group, school, and community. Includes juvenile justice system and its agents.

4550 Sociology of Religion. Three credits. Religion as social process and institution. An ideological, structural, and functional analysis. Specific U.S. religions examined in detail.

4560 Organizational Structures and Processes. Three credits. Analysis of structure and processes of change, organizational environments, modes of power, ideologies, forms of control and resistance including alternatives to bureaucracy.

4640 Health: Organizations, Policy, and Ethics. Three credits. (Same as SW 4640.)

4660 Urban and Community Studies. Three credits. Prerequisite: SOC 1010. Focuses on the concept of community as a core idea in the historical development of sociology, concentrating on theories and historical trends of urbanization and current urban problems and policies.

4790 Sport and Society. Three credits. (Same as REC 4790.) Behavioral approach to sport and leisure from the related perspectives of sociology and anthropology.

4800 Special Projects. One to six credits. (Same as AS 4800.) Field experiences or reading courses through which special interests or needs of the student may be pursued under individual supervision. No more than three hours may be used in the major. Arrangements must be made with an instructor prior to registration.

4900 Sociology Internship. Three to six credits. Supervised independent study in which student is placed in an organization on a contractual basis as a means of applying the principles of his/her training in preparation for eventual employment. Arrangements should be made with the intern supervisor prior to registration.

4980 Senior Seminar in Sociology. Three credits. Prerequisites: At least 18 hours of sociology, including SOC 1010, 3040, 3050, 3060, and senior standing. Integrates coursework in the major through coverage of theory and method, analysis of critical issues, and applications to modern society.

## Spanish [SPAN]

1010 Elementary Spanish I. Three credits. A foundation course in reading, writing, speaking Spanish with an emphasis on conversation.

1020 Elementary Spanish II. Second semester. Three credits. Prerequisite: SPAN 1010 or advanced placement. A continuation of materials introduced in 1010.

2010 Intermediate Spanish I. Three credits . Prerequisites: SPAN 1020 or advanced placement. A review of Spanish grammar with reading and oral exercises designed to improve the ability to understand the written and spoken language.

2020 Intermediate Spanish II. Second semester. Three credits. Prerequisite: SPAN 2010 or advanced placement. A continuation of 2010.

2105 Introduction to Latin American Studies. Three credits. (Same as PS 2105, SOC 2105, ART 2105, ANTH 2105, GEOG 2105.) A multidisciplinary, team-taught introduction to Latin America. Covers the cultures and societies of the region: pre-history, history, geography, politics, art, languages, and literatures. Required course for all Latin American Studies minors. Does not count for Spanish major or minor.

3000 Group Conversational Spanish. One credit. Prerequisite: SPAN 2010 or permission of instructor. Conducted entirely in Spanish by a native speaker and designed to improve students' ability to converse fluently. Graded Pass/Fail. May be repeated for a maximum of 3 hours credit for the major; does not count for the minor.

3010, 3020 Advanced Spanish. Three credits each. Prerequisite: SPAN 2020 or equivalent. Advanced-level practice in language skills of listening, speaking, reading, and writing, including review of Spanish grammar. Native Spanish speakers should consult with instructors before enrolling.

3015 Contemporary Cuba. Three credits. Prerequisite: Permission of instructor. Taught in Cuba. Explores Cuban life and culture through history, education, health, economics, politics, art, society, music, and language. Credit may not be applied toward the major or minor in Spanish but may be counted toward the minor in Latin American Studies.

3030 Business Spanish. Three credits. Prerequisite: SPAN 2020 or equivalent. Native speakers should consult with instructor. The linguistic and cultural skills necessary to conduct business in a Spanish-speaking setting.

3040 Intensive Conversational Spanish. Three credits. Prerequisite: SPAN 2020 or permission of instructor. Intensive conversation practice in simulated and real-life situations.

3050 Introduction to Hispanic Studies. Three credits. Prerequisite: SPAN 2020 or permission of instructor. Introduction to specialized study in three areas of Hispanic studies: language, culture, and literature.

3060 Introduction to Hispanic Culture. Three credits. Prerequisite: SPAN 2020 or permission of instructor. Peninsular Spanish culture
focusing on the geography, history, social institutions, values, and beliefs.

3070 Introduction to Latin American Civilizations and Cultures. Three credits. Prerequisite: SPAN 3010 or permission of instructor. Historical and cultural overview of Latin America from its early pre-Columbian origins to this region's dynamic realities in the twenty-first century.

3080 Introduction to Hispanic Literature. Three credits. Prerequisite: SPAN 3020 or permission of instructor. Acquaints students with a basic knowledge of literary criticism and theory through the study of representative works from both Spanish and Spanish-American literature.

3120 Spanish Phonetics and Pronunciation. Three credits. Prerequisite: SPAN 2020 or equivalent or instructor permission. A practical introduction to phonetic principles involved in achieving native-sounding Spanish pronunciation, including sounds, stress, intonation, and smooth speech styles. Native Spanish speakers or students with native-like Spanish pronunciation may not take this course for credit without instructor permission.

3130 Spanish Grammar and Composition. Three credits. Prerequisite: SPAN 3010, 3020, or permission of instructor. Review of major concepts of Spanish grammar and intensive practice of writing in Spanish.

3970, 3980 Cooperative Education. Three credits. Provides students with opportunities for on-the-job training in conjunction with on-campus academic experiences. Students will participate in professional growth seminars. Requirements of the department must be completed to receive credit.

3990 Study Abroad. Three to twelve credits. Prerequisites: One to two years of language study depending on the program or approval of the instructor. Students will spend at least four weeks in a Spanish-speaking country studying Spanish language, literature, and culture. Students may earn credits in study abroad programs approved by the Department of Foreign Languages and Literatures.

4010 History of the Spanish Language. Three credits. Prerequisite: SPAN 3010 completed or currently enrolled. Traces the historical development of Spanish from Latin. Students also become familiar with the characteristics of Old Spanish.

4015 Advanced Spanish Grammar. Three credits. Prerequisites: SPAN 3010 and 3020 and one other 3000-level course or permission of instructor. An in-depth study of problematic grammar structures.

4020 Spanish Literature I. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Spanish literature from its beginnings to 1700; emphasis on literary history, styles, and themes. Prose fiction and nonfiction, poetry, and drama included.

4030 Spanish Literature II. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Spanish literature from the eighteenth century to the present.

4040 Latin American Literature I. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Latin American literature from pre-Columbian times through Romanticism. Prose fiction and nonfiction, poetry, and drama included.

4045 Topics in Hispanic Cinema. Three credits. Prerequisite: SPAN 3020 or permission of the instructor. A cultural study of the peoples and societies of Latin America and Spain through film.

4050 Latin American Literature II. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Major works of Latin American literature from the late nineteenth century to the present.

4055 Cervantes' Don Quixote. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Don Quixote in the social, historical, and cultural context of Spanish Renaissance literature.

4060 Special Topics in Hispanic Studies. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Topics selected from specialized fields of language, culture, or literature.

4065 Studies in Hispanic Popular Culture. Three credits. Prerequisites: SPAN 3010 and/or 3020 or permission of instructor. Context, critical analysis, and perspectives on contemporary culture studies and practices. Offers preparation for a better understanding of popular culture in Hispanic countries.

4070 Special Topics in Spanish Literature or Culture. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Topics selected from specialized areas of peninsular Spanish literature or culture.

4080 Theory and Practice of Spanish Drama. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Drama theory and participation in a theatrical production.

4090 Special Topics in Latin American Literature or Culture. Three credits. Prerequisite: SPAN 3080 or permission of instructor. Topics selected from specialized areas of Latin American literature or culture.

4900 Directed Readings in Spanish Literature and Culture. One to six credits. Prerequisites: 15 hours of Spanish or permission of instructor. Individualized intensive reading in primary and secondary sources relating to a specific topic in Spanish literature or culture.

4910 Directed Readings in Latin American Literature and Culture. One to six credits. Prerequisites: 15 hours of Spanish or permission of instructor. Individualized intensive reading in primary and secondary sources relating to a specific topic in Latin American literature or culture.

## Special Education [SPED]

3010 Characteristics and Teaching of Diverse Learners. Three credits. A study of learners with disabilities as they deviate from the norm in physical, emotional, cognitive, or social characteristics. Includes meeting the needs of these learners through differentiated instruction in the least restrictive environment. (Required of all individuals who major or minor in education for state licensure.)

3210 Practicum in Special Education (Modified). Three credits. Prerequisites: Admission to teacher education; SPED 3010. Participation in a variety of educational settings with learners with high incidence disabilities. Directed laboratory experiences for a minimum of five hours per week with a weekly seminar required.

3220 Practicum in Special Education (Comprehensive). Three credits. Prerequisites: Admission to teacher education; SPED 3010. Participation in a variety of educational settings with learners with low incidence disabilities. Directed laboratory experiences for a minimum of five hours per week with a weekly seminar required.

3430 Characteristics of High Incidence Populations (Modified). Three credits. Prerequisites: Admission to teacher education; SPED 3010. In -depth study of characteristics, needs, and etiology of learners with high incidence disabilities in appropriate classroom settings.

3440 Characteristics of Low Incidence Populations (Comprehensive). Three credits. Prerequisites: Admission to teacher education; SPED 3010. In-depth study of characteristics, needs, and etiology of learners with low incidence disabilities in appropriate classroom settings.

4000 Teaching Reading to Diverse Learners. Three credits. Prerequisite: Admission to teacher education program or permission of the department. Opportunity for classroom teachers to better meet the needs of struggling readers in a variety of settings.

4120 Curriculum, Methods, and Materials for Special Education (Comprehensive). Three credits. Prerequisites: Admission to teacher education program; SPED 3440. Corequisite: SPED 4140. Development of skills in planning and implementing programs for learners with low incidence disabilities including techniques and strategies in practical applications.

4140 Techniques and Strategies for Instruction in Special Education (Comprehensive). Three credits. Prerequisites: Admission to teacher education; SPED 3440. Corequisite: SPED 4120. A practical application of techniques and strategies for teaching learners with low incidence disabilities. Includes teaching technique, theories and approaches, data collection, and environmental management.

4150 Techniques, Methods, and Materials in Special Education (Modified). Three credits. Prerequisites: Admission to teacher education; SPED 3430. The practical application of special education techniques and methods for teaching learners with low incidence disabilities. Includes curriculum planning, methods and materials, data collection, and environmental management for learners with low incidence disabilities.

4160 Educational Assessment of Exceptional Learners. Three credits. Prerequisites: Admission to teacher education; SPED 3430 or 3440. Selection and administration of standardized tests and subtests for the specific purpose of planning an effective instructional program. Includes information gathering techniques, evaluation of this information in selection of tests, and interpretation of information and test scores.

4170 Strategic Teaching and Learning in Secondary Special Education (Modified). Three credits. Prerequisites: SPED 3010, 3430; admission to teacher education program. Learning strategies instruction and the use of content enhancement routines in inclusive settings with diverse learning populations. Includes metacognitive strategies, development, and application of strategic instruction.

4240 Methods and Techniques of Behavior Management. Three credits. Prerequisites: Admission to teacher education; SPED 3010. An overview of various approaches to behavior management and their application in a variety of environments.

4250 Education in the Affective Domain. Three credits. Prerequisites: Admission to teacher education program or permission of department; SPED 3010 and 3430. Origins of emotional/social problems in learners with disabilities and strategies for promoting positive social/emotional outcomes for these learners in schools.

4260 Problems in Special Education. One to three credits. A problemoriented course, on or off campus, planned and designed for individuals, a school faculty, school system, or other professional groups. Will provide opportunities for pre-or in-service education related to assessed needs.

4280 Assistive Technology in Special Education. Three credits. Prerequisites: SPED 3010, 3430 or 3440 , and admission to teacher education program or permission of department. Technology-low
tech and high—and how it applies to the needs of school-aged learners with disabilities. Assessing and supporting these needs through the delivery of assistive technology.

4320 Directed Teaching in Special Education (Comprehensive). Twelve credits. Full-day supervised teaching experience of 15 weeks duration in a public school setting. Pass/Fail.

4350 Directed Teaching in Special Education (Modified). Twelve credits. Full-day supervised teaching experience of 15 weeks duration in a public school setting. Pass/Fail.

4360 Directed Teaching in Special Education (Speech and Hearing). Twelve credits. Full-day supervised teaching experience of 15 weeks duration in a public school setting. Pass/Fail.

4380 Collaboration/Consultation. Three credits. Prerequisites: SPED 3010, 3430, 3440; admission to teacher education program. Examines ways the special educator/consultant interacts with general educators, educational systems, communities, families, and learners to create appropriate educational services for exceptional learners. Examines group processes, human behavior related to interaction, and the provision of skills and knowledge critical to effective collaboration and consultation with others about the education of learners with special needs.

4510 Teaching Internship, Special Education. Nine credits. Supervised teaching available only for those with at least one year of paid teaching experience in the major in which endorsement is sought. Applicants must meet all prerequisites for student teaching in Special Education. Pass/Fail.

## Statistics [STAT]

3150 Mathematical Statistics I. Three credits. Prerequisite: Two semesters of calculus. Probability theory including basic probability laws, properties of distributions, mathematical expectation, special discrete and continuous distributions, functions of random variables, and selected applications.

4190 Mathematical Statistics II. Three credits. Prerequisite: STAT 3150 or equivalent. Theory of statistical inference. Topics include sampling distributions, decision theory, estimation, test of hypothesis, regression analysis, analysis of variance, and selected applications.

4200 Statistical Methods for Forecasting. Three credits. Prerequisite: STAT 4190. Topics include application of regression models in forecasting and exponential smoothing methods to forecast nonseasonal time-series, seasonal series, and globally constant seasonal models; stochastic time series models; and forecast evaluation.

4280 Undergraduate Research. One to four credits. Prerequisite: Permission of department. Independent investigation of a selected research problem under the guidance of a faculty member resulting in an oral and written report of results. May be repeated for a maximum of four credits.

4320 Probability and Stochastic Processes. Three credits. Prerequisites: Two semesters of calculus and STAT 3150 (or MATH 2050) or consent of instructor. Theoretical basis for stochastic processes and their use as models of real-world phenomena. Topics include Markov chains, Poisson processes, Brownian motion and stationary processes. Applications include Gambler's Ruin, birth and death models, hitting times, stock option pricing, and the Black-Scholes model.

4360 Regression Analysis. Three credits. Prerequisite: MATH 2050 or QM 3620. Theory and application of regression models. Ap-
proaches to model building and data analysis. Computation and interpretation of results facilitated through the use of statistical software packages.

4370 Nonparametric Statistics. Three credits. Prerequisite: MATH 2050 or equivalent. Statistical tests that require no assertions about parameters or about the form of the population from which the samples are drawn. A wide range of practical problems studied.

4380 Experimental Design. Three credits. Prerequisite: MATH 2050 or QM 3620. Topics include one-way analysis of variances, multiple comparison, multifactor analysis of variance, and various practical issues in experimental design. Computation and interpretation of results facilitated through the use of statistical software packages.

4600 Problems in Statistics. One to six credits. Prerequisites: Senior standing and consent of instructor. Students wishing to enroll must submit a written course/topic proposal to the department prior to the semester in which STAT 4600 is taken. Proposal must be approved prior to taking the course. At the conclusion, each enrollee must submit a written report to the department.

## Textiles, Merchandising, and Design [TXMD]

1110 Basic Design. Three credits. Experience in design fundamentals and problem solving. Analysis, experiments, and application of the elements and principles of design as they relate to the fashion industry. Five contact hours per week.

1170 Introduction to the Fashion Industry. Three credits. How the fashion world operates from planning stages to consumer. Emphasis on production and distribution of fashion goods, current trends, and technological developments.

2110 Fashion Forecasting. Three credits. Prerequisites: TXMD 1110 and 1170. Explores forecasting frameworks and theories for explaining fashion dynamics. Application of forecasting techniques to project future change.

2170 Clothing I. Three credits. Prerequisites: TXMD 1110 and 1170. Fundamental clothing construction processes necessary for advanced work in clothing, including sewing machine operation. Basic garment construction from a commercial pattern and quality standards. Five contact hours per week. Offered once a year.

2180 Textiles I. Three credits. Prerequisites: TXMD 1110 and 1170. An overview of the textile industry including fibers, yarns, fabric construction, dyeing/printing techniques, and finishes. Emphasis placed on the selection of textile products in relation to end use. Includes labwork involving physical testing. Four contact hours per week.

2181 Textiles I Lab. Zero credits.
2320 Clothing II. Three credits. Prerequisite: TXMD 1110, 1170, 2170. Poses fashion problems to be solved with an emphasis on fitting and finishing. A series of half-scale sample exercise projects will be completed, as well as full-scale garments. Explores use of and development of wearable art as an aid in developing design concepts. Five contact hours per week. Offered once a year.

3110 Fashion Promotion. Three credits. Prerequisites: TXMD 1110 and 1170. An overview of the sales promotion process in relation to the fashion industry; emphasis on advertising, visual merchandising, special events, and fashion show production. Offered once per year.

3120 Textiles II. Three credits. Prerequisites: TXMD 1110, 1170, 2180/2181. An overview of quality control using state-of-the-
art textile testing equipment. Analysis of fibers and fabrics with emphasis on labwork involving chemical and physical testing. Correlation of test results in predicting fabric performance in relation to end use. Four contact hours per week.

3150 Apparel Selection and Evaluation. Three credits. Prerequisites: TXMD 1110, 1170, and 2180/2181. An overview of the apparel industry structure and the functions of each division. Emphasis on recognizing quality in relation to fabrication, construction, and design of garments. No construction involved.

3170 Fashion Branding. Three credits. Prerequisite: TXMD 1110 and 1170. Principles underlying the fashion process and the study of fashion branding. Special emphasis on the dissemination of fashion throughout the world market and to the fashion designers and business leaders in the fashion world today.

3220 Patternmaking I. Three credits. Prerequisites: TXMD 1110, 1170, 2170, and 2320. Adaptation of commercial sloper patterns to individual proportions, pattern designing and application of principles of design to apparel designing. Five contact hours per week. Offered once a year.

3320 Patternmaking II. Three credits. Prerequisites: TXMD 1110, 1170, 2170, 2320, 3220. Advanced apparel design techniques including patterning, draping, drafting, grading, and marker development via manual and computerized techniques. Five contact hours per week. Offered once a year.

3370 Fashion Illustration. Three credits. Prerequisites: TXMD 1110, 1170, 2180/2181, and either 3150 or 3220 . An overview of fashion illustration techniques allowing skill development of the fashion croquis and garments using various media techniques to communicate fashion ideas, moods, and details. Five contact hours per week. Offered once a year.

4140 Apparel Manufacturing and Sourcing. Three credits. Prerequisites: TXMD 1110, 1170, 2180/2181, and 3150. Overview of textiles/apparel industry processes from raw material to consumption for apparel and other consumer products. Examines production and marketing of products, technological developments, domestic and global market strategies, and environmental practices via field trips.

4150 Fashion Buying. Three credits. Prerequisite: TXMD 1110, 1170. Principles of marketing, retailing, and sales as they apply to the merchandising of fashion goods. Special emphasis on fashion buying, planning, control, and computer applications for apparel businesses.

4170 Social Aspects of Clothing. Three credits. Prerequisites: TXMD 1110 and 1170. The interaction of sociological, psychological, economic, and cultural implications of clothing and textiles.

4180 History of Fashion. Three credits. Survey of clothing and design from ancient to modern periods; consideration given to social, economic, and cultural conditions reflected in dress and the application to today's fashion industry.

4220 Computer-Aided Apparel Design I. Three credits. Prerequisites: TXMD 1110, 1170, 2180/2181, 3200, and 3370. Computer-aided design applications related to the apparel and textile industries. Design problem identification; development and application of design problem solving processes. Uses Adobe Photoshop and Illustrator. Five contact hours per week. Offered once a year.

4320 Computer-Aided Apparel Design II. Three credits. Prerequisites: TXMD 1110, 1170, 2180/2181, 3220, 3370, and 4220. Provides opportunity to develop advanced skills using state-of-the-art CAD software. Focuses on developing textile and apparel activities ap-
plicable within the industry today. Students will investigate career opportunities and develop a portfolio containing applicable design projects and business forms. Five contact hours per week. Offered once a year.

4370 Advanced Fashion Illustration. Three credits. Prerequisite: TXMD 3370. Further exploration of the color rendering begun in TXMD 3370. Students use markers and colored pencils for graphic depiction of garment silhouette, textiles, details, and mood. Five contact hours per week.

## Theatre [THEA]

1030 Theatre Appreciation. Three credits. Overview of theatre as an art form. Appreciation and understanding of the production process. Can be used to satisfy part of the General Education Humanities and/or Fine Arts requirement.

1900 Production Practicum I. One credit. Prerequisite: Permission of instructor. Specific area of study in relation to a particular theatrical event or production during a given semester. Topics range from the performance to technical crews. Students may take up to four times, but only one hour will count towards graduation.

1910 Production Practicum for the Governor's School for the Arts. Three credits. Prerequisite: Permission of instructor. For students involved with the Tennessee Governor's School for the Arts. Designed to give experience in specific areas of theatre study while students prepare for the Finale production. Topics range from performance to technical crews.

2100 Introduction to Production Practices. Three credits. Prerequisite: Theatre majors. Corequisite: THEA 2900. Lectures and seminars in the techniques of planning, building, painting, and handling all types of scenery; knowledge of theatre architecture and how sets are mounted, shifted, and run. Laboratory hours and/or crew required.

2110 Stagecraft. Three credits. Lectures and practical experience in the techniques of planning, building, painting, and handling all types of scenery; knowledge of theatre architecture and how sets are mounted, shifted, and run. Laboratory hours and/or crew required.

2500 Fundamentals of Acting. Three credits. The mechanics of acting in terms of physical movement body control and character-building techniques.

2900 Production Lab. One credit. Corequisite: THEA 2100. Examines the execution of the various scenic elements covered in THEA 2100 as well as the safety requirements of the scene shop and its equipment.

3000 Sound Design for Arts and Entertainment. Three credits. Theory and practice of theatrical sound designers conducted through classroom lecture and practical project. Utilizes tools, equipment, and techniques of sound designers with emphasis on design process and critical methods of study. Technical performance production component expected. Laboratory hours required.

3100 Make-Up Techniques for Performers. Three credits. Application of make-up techniques and concepts for performers in theatre, television, film, dance, opera, and other performing arts. Laboratory hours and/or crew requirement.

3200 Introduction to Costume for Arts and Entertainment. Three credits. Overview of costume in the arts and entertainment; an orientation to costume, design, management, technology, wardrobe practices, and costume critique methods through projects
developed through research, problem-solving, and documentation; focus on student career and portfolio development. Laboratory hours and/or crew requirement.

3300 Scene Design. Three credits. Prerequisite: THEA 2110 or permission of instructor. Lectures and practical experience in planning and designing settings for the stage. Emphasis on forms and styles of scenery, historical period research designers, and new theatrical materials, methods, and techniques. Major projects in set design. Laboratory hours and/or crew requirement.

3310 Technical Drawing for Arts and Entertainment. Three credits. Prerequisite: THEA 2110 or permission of instructor. Lectures and projects in all phases of technical drawing for the theatre and related arts and entertainment disciplines. Developing technical drawing skills needed for scenic, lighting, and technical direction areas using both manual and CAD techniques. Purchase of supplies necessary.

3400 Introduction to Lighting for Arts and Entertainment. Three credits. Prerequisite: THEA 2110 or permission of instructor. Lectures and practical experience in the methods and techniques of lighting for the stage. Emphasis on developing plots through knowledge of electricity, circuitry, instrumentation, and control equipment. Major projects in lighting design. Laboratory hours and/or crew requirement.

3500 Stage Movement. Three credits. A theoretical and practical study of stage movement. Styles and techniques for physical realization of character and performance.

3510 Scene Preparation. Three credits. Prerequisite: THEA 2500 or permission of instructor. Provides opportunity for advanced study in acting with emphasis on techniques, analysis, and methods of developing a character through scene preparation while utilizing various genres of theatre.

3520 Voice for the Actor. Three credits. Development of vocal technique for acting. Integrates exercises to develop an awareness of the vocal instrument and physicality required for producing a healthy vocal sound. Examines common vocabulary for discussion of vocal technique used with directors, coaches, teachers, and other actors. Involves a significant component of physical activity.

3600 Child Drama. Three credits. Methodology for using theatre and theatre techniques for teaching children in various venues. Motivational, self-directed learning through creative drama, improvisation, role-playing, and theatre games.

3700 Fundamentals of Play Directing. Three credits. Prerequisite: THEA 2500 or permission of instructor. Director as literary analyst and production critic. Play analysis, production concepts, staging, theory and techniques; rehearsal methods and procedures. Scene work.

3800 Introduction to Arts Management. Three credits. (Same as ORCO 3800.) Prerequisite: Junior standing or permission of instructor. Management of a not-for-profit arts organization. Topics include organizational design, strategic planning, budgeting, marketing, and fundraising within the context of a visual or performing arts organization. Guest lecturers from regional arts organizations. Projects and discussion for individual interests in various arts disciplines. Laboratory hours required and/or crew requirement.

3810 Stage Management. Three credits. Prerequisite: Junior standing or permission of instructor. Explores the role and function of the stage manager in creating live theatre. Focuses on the duties, terminology, and required skills and traits of an effective stage manager. Laboratory hours required and/or crew requirement.

3820 Script Analysis. Three credits. Analysis of plays for the purposes of directing, designing, or acting in productions. Theatre majors preferred

3870 Women in Theatre. Three credits. Women's representation and participation in Western theatre from ancient Greece to the present.

3900 Production Practicum III. One credit. Prerequisite: Permission of instructor. Specific area of study in relation to a particular theatrical event or production during a given semester. Topics range from the performance to technical crews. Students may take up to four times, but only two hours will count towards graduation.

3910 Internship in Theatre. One to three credits. Prerequisites: Minimum cumulative GPA of 2.5, successful completion of 15 credit hours (not including THEA 3900/4900), and permission of department. Students undertake supervised work experiences in a professional theatre setting and/or in arts education organizations. Experiences offered to enhance student's understanding and development of skills for work in the profession. Paper-based projects also required.

4000 Advanced Sound Design for Arts and Entertainment. Three credits. Prerequisite: THEA 3000. Advanced studies, theories, and practices of theatrical sound design with a strong emphasis on the design process and critical methods of study used in this specialized field. Additional focus placed on student career and portfolio development in this field.

4090 Topics in Sound for Arts and Entertainment. Three credits. Prerequisite: THEA 3000, 4000, or permission of instructor. Designed to meet individual needs for advanced study in sound for entertainment and the arts. Topic to be determined at time of scheduling. A maximum of 6 semester hours may be applied toward a degree.

4100 Special Effects Make-Up. Three credits. Prerequisite: THEA 3100 or permission of instructor. Orientation to special effects makeup design, techniques, and design realization through make-up projects and research for various performance venues with a focus on student career and portfolio development.

4110 Make-Up Design and Creation. Three credits. Prerequisites: THEA 3100 or permission of instructor. Designed to meet individual and group needs; an intensive application of make-up design incorporating all aspects of make-up in the performing arts focusing on in-depth historical research, advanced techniques, hair/wig design, creative problem-solving, and portfolio and resume development. Laboratory hours required.

4190 Topics in Make-up for Arts and Entertainment. Three credits. Prerequisites: THEA 3100, 4100, 4110, or permission of instructor. Designed to meet individual needs for advanced study in make-up for entertainment and the arts. Topics to be determined at time of scheduling. A maximum of 6 semester hours may be applied toward a degree.

4200 Costume Technology and Production. Three credits. Prerequisite: THEA 3200 or permission of instructor. Incorporates all aspects of costume production in the performing arts, focusing on research techniques, historical reproduction methods, construction design, resource management, problem-solving, and portfolio and resume development. Laboratory hours required.

4210 Advanced Costume Technology and Production. Three credits. Prerequisite: THEA 4200 or permission of instructor. Designed to meet individual and group needs; an intensive application of
costume technology in the performing arts focusing on in-depth research, methods, construction design, management, problemsolving, and portfolio and resume development. Laboratory hours required.

4220 Costume Design for Arts and Entertainment. Three credits. Prerequisite: THEA 3200 or permission of instructor. Costume design in the performing arts; an orientation to the costume application of design and development principles through costume design projects developed through research for various performance venues with a focus on student career and portfolio development.

4230 Advanced Costume Design for Arts and Entertainment. Three credits. Prerequisite: THEA 4220 or permission of instructor. Designed to meet individual and group needs for advanced study and principles in theatrical costume design. Projects developed through in-depth research for various performance venues with a focus on student career and portfolio development.

4280 Topics in Costume for Arts and Entertainment. Three credits. Prerequisites: THEA 3200, 4200, 4210, or permission of instructor. Designed to meet individual needs for advanced study in costume for entertainment and the arts. Topic to be determined at time of scheduling. A maximum of 6 semester hours may be applied toward a degree.

4290 Problems in Theatre. One to three credits. Prerequisite: Permission of instructor. Designed to meet individual and/or group needs in all aspects of theatre arts. Topic and credit to be determined at the time of scheduling. A maximum of 6 semester hours credit may be applied toward a degree.

4300 Advanced Scenic Design. Three credits. Prerequisites: THEA 2110 and 3300 or permission of instructor. Advanced methods and theories of scenic design. A strong emphasis on practical projects, the design process, and critical methods of study. Includes components on design history and theory/criticism.

4390 Topics in Scenography. One to three credits. Prerequisites: THEA 2110 and permission of instructor. Designed to meet individual and group needs for advanced study in theatre. Topic to be determined at time of scheduling. A maximum of 6 semester hours credit may be applied toward a degree.
4400 Intermediate Lighting for Arts and Entertainment. Three credits. Prerequisite: THEA 3400 or permission of instructor. Advanced methods and theories of lighting design. Strong emphasis on practical projects, design process, and critical methods of study. Includes components on design history and theory/criticism.

4480 Advanced Lighting Practicum for Arts and Entertainment. Three credits. Prerequisites: THEA 3400, 4400, or permission of instructor. Theory and practice of lighting design for arts and entertainment. Extensive practical and realized projects that utilize the tools, equipment, and techniques of the lighting designer with an emphasis on the design process and critical methods of study. Laboratory hours required.

4490 Topics in Lighting for Arts and Entertainment. Three credits. Prerequisite: THEA 3400, 4400, 4480, or permission of instructor. Designed to meet individual needs for advanced study in lighting for entertainment and the arts. Topic to be determined at time of scheduling. A maximum of 6 semester hours may be applied toward a degree.

4500 Character Development. Three credits. Prerequisite: THEA 2500 or permission of instructor. The development of advanced skills in the ability to analyze and interpret the more complex characters in drama. Study of classical acting styles.

4560 Auditioning. Three credits. Prerequisites: THEA 2500, 3510, and 4500 or permission of instructor. Students will prepare auditions from a variety of genres. Designed to help students understand, appreciate, and execute various types of auditions used in the profession.

4570 The Body Intelligent: A Study of the Alexander Technique. Three credits. (Same as MUS 4570.) For those interested in improving ease and freedom of movement, balance, support, flexibility, and coordination in daily activity.

4580 Styles of Acting. Three credits. Prerequisites: THEA 2500, 3510, and 4500 or permission of instructor. Various styles of acting throughout history. Topics to be determined at time of scheduling. A maximum of nine credit hours may be applied toward a degree.

4600 Storytelling. Three credits. Instruction and experience in the art of storytelling. Individually designed course requirements for educational, professional, corporate, and personal storytelling techniques.

4610 Theatre in Education. Three credits. For current and prospective teachers. Integration of drama across the curriculum. The creation, construction, performance, and touring of a play for elementary school children.

4620 Drama Across the Curriculum: Practicum. Three credits. Prerequisite: THEA 3600 and/or permission of department. Advanced techniques and methods for teaching core curriculum in upper elementary classes using drama and role-playing. Practicum experiences provided.

4690 International Studies in Theatre. Three credits. A short-term international theatre experience designed to broaden international and cultural awareness and to promote international theatrical exchanges. Class may be repeated for up to six credit hours if destination is the same country or up to a total of nine credit hours if the country designation varies.

4700 Advanced Play Directing. Three credits. Prerequisite: THEA 3700. Case studies and problem solving of rehearsals and production. Director's relationship with designers. Investigation of style. Rehearsal and presentation of a one-act play.

4800 Theatre History I: Greek Period to Restoration. Three credits. Prerequisite: Junior or senior standing or permission of instructor. The development of drama and the theatre; critical study of representative plays of the period.

4810 Theatre History II: Restoration to Present. Three credits. Prerequisite: Junior or senior standing or permission of instructor. The development of drama and the theatre; critical study of representative plays of the period.

4820 Playwriting. Three credits. Prerequisite: Permission of department. Theory and practice in the creation of original plays. Development and revision of original scripts while studying the methods and works of influential playwrights.

4830 Advanced Playwriting. Three credits. Prerequisite: THEA 4820. Further application of dramatic structure through writing, reading, responding, and revising workshop format.

4850 Development for Arts Organizations. Three credits. (Same as ORCO 4850.) Prerequisite: Junior standing or permission of instructor. Development of not-for-profit arts organizations. Focuses on comprehensive approaches to fundraising. Includes not-forprofit arts organizations, board structures, and the terminology and tools of the fundraising profession. Ideal for future artist, not-
for-profit manager, or those interested in fundraising. Laboratory hours required.

4890 Topics in Playwrights and Dramatic Theory. Three hours. Prerequisite: THEA 4800 or 4810 or permission of instructor. Selected major playwrights linked by theme or a particular genre of dramatic theory; an intensive examination of plays which either survey playwrights' careers or represent a significant portion of a genre's canon. May be repeated for credit once.

4900 Production Practicum IV. One credit. Prerequisite: Permission of instructor. Specific area of study in relation to a particular theatrical event or production during a given semester. Topics range from the performance to technical crews. Students may take up to four times, but only two hours will count towards graduation.

4950 Directed Studies. Three credits. Prerequisites: Available only to students in Speech and Theatre who have completed 50 percent of the coursework in the Theatre concentration and have an overall GPA of 3.2 for their last 30 hours of study; permission of department required. Proposals must be submitted and approved by theatre and dance faculty the semester prior to the beginning of the semester of enrollment. Individualized intensive instruction for students to pursue research and creative activity in a specialized area with faculty mentorship.

4990 Senior Seminar. Three credits. Prerequisite: Theatre majors only; successful completion of 75 credit hours and permission of department. A capstone to the Theatre major's undergraduate career and preparation for transition to the professional theatre or graduate study. Includes lectures, workshops, professional guest speakers, and discussion sessions. Students will complete various paper-based projects including a senior project, resume, and portfolio construction.

## Transportation [TRNS]

1610 Introduction to Transportation. Three credits. Transportation development, identification, and evaluation of the elements of the transportation system including historical, legislative, and trend analysis. Fall only.

2620 Transportation Freight Systems. Three credits. An overview of cargo systems and transportation freight rates. Includes an analysis of transportation issues and the relationship between the shipper, the modes of transportation, and the consumer. Spring only.

3630 Transportation Systems. Three credits. Prerequisite: TRNS 1610 or 2620 or permission of instructor. An overview of the structure and management of a logistics distribution system. Distribution logistics as a function area and as a strategic element of the total transportation system. Fall only.

4640 Topics in Transportation. Three credits. Prerequisites: TRNS 3630 and senior standing. Capstone course for students selecting the transportation management focus within Aerospace Administration. Individually directed course on a selected topic in transportation. Topics include regional, domestic, or global factors impacting the transportation industry. Covers the elements of a transportation system, historical development, legislation, and significant trends

## University Honors [UH]

3000 University Honors Lecture Series. One credit. A series of weekly one-hour lectures designed to stimulate thought and broaden the student's knowledge in a variety of fields. May be repeated for up to 3 hours credit. Pass/Fail.

3001 Honors Service Learning Practicum. One to three credits. Prerequisite: Permission of instructor. Opportunity to take part in service learning projects with community or on-campus partners. Pass/Fail. (May be repeated once for a total of three credits.)

3200 Visiting Artist's Seminar. One credit. Prerequisites: Sophomore standing and maintenance of a 3.25 GPA. An intensive workshop/ seminar in one artistic form. The instructor will be a visiting artist whose course topic will depend on his or her field of experience.

3500 Junior Interdisciplinary Seminar. Three credits. (May be taken more than one time as topics change.) Introduces students to the political, social, economic, scientific, artistic, and/or humanistic aspects of culture, using an interdisciplinary approach. See class schedule for current semester's topic.

4010 MTSU Institute of Leadership Excellence. Three credits. Prerequisites: Permission of instructor; 3.0 cumulative GPA; must have completed 60 credit hours by start of course. An intensive learning experience in leadership excellence. Involves significantly more clock hours than the typical three-credit-hour course but offers a remarkably unique experience. The institute has three primary objectives: academic study of leadership theory and practice, with an emphasis on application; extensive exposure to accomplished leaders; and completion of a substantial student project, a part of which will be a personal action plan for leadership growth. Participants must be prepared to attend morning, afternoon, and evening sessions for three weeks during May term.

4600 Senior Interdisciplinary Seminar. Three credits. (May be taken more than once as topics change.) Examines humanistic ideas. Reading materials drawn from literature, history, philosophy, science, art, and/or any other areas relevant to the semester topic. See online or RaiderMT class schedule for current semester's topic.

4900 Honors Thesis Tutorial. One credit. Designed to guide students and their advisors in the completion of an Honors thesis. Specific objectives include choosing and narrowing an appropriate topic, collecting a working bibliography, preliminary reading, and writing a thesis proposal. Pass/Fail.

4950 Honors Independent Research. Three to nine credits. (Only 3 credit hours may be counted toward the 31-hour requirement.) Interdisciplinary research for the advanced Honors student. Research proposals must be approved by the Honors Council the semester prior to the study.

## University Seminar [UNIV]

1000 English Language Seminar. One credit. Reserved for participants in the English Language School and not for degree-seeking students. Credits not applicable to a degree program; elective credit only. May repeat up to 6 hours. Pass/Fail.

1010 University Seminar. Three credits. Provides information to ease the transition to college during the first semester on campus. Helps student develop strategies for a successful college career.

2020 Successful Transitions. One credit. A seminar for transfer students. Facilitates successful transition to the University through group interaction and collaboration, goal setting, self-management, and accessing campus resources.

4010 MTSU Institute of Leadership Excellence. Three credits. Prerequisites: Permission of instructor; 3.0 cumulative GPA; must have completed 60 credit hours by start of course. An intensive learning experience in leadership excellence. Involves significantly more clock hours than the typical three-credit-hour course but offers
a remarkably unique experience. The institute has three primary objectives: academic study of leadership theory and practice, with an emphasis on application; extensive exposure to accomplished leaders; and completion of a substantial student project, a part of which will be a personal action plan for leadership growth. Participants must be prepared to attend morning, afternoon, and evening sessions for three weeks during S1-May Term.

4380 Independent Study. One to six credits.

## Women's Studies [WMST]

2100 Introduction to Women's Studies. Three credits. Designed to inform and enlighten students about the lives and history of diverse women and the social construction of gender. Areas of study may include work, the family, health, sexuality, violence in women's lives, images of women, and feminist activism. Required for all Women's and Gender Studies minors.

2500 Women and Leadership. Three credits. An exploration of the concepts of leadership and followership through historical, contemporary, and personal perspectives as they apply to women. Provides an opportunity to examine, evaluate, and enhance personal leadership skills. WMST 2100 is recommended as a prerequisite but not required.

3000 Women's Leadership Conference Practicum A. Three credits. Prerequisites: WMST 2100 and permission of instructor. WMST 2500 recommended but not required. Theory and concepts of women's leadership through participation in major women's conference. Provides an opportunity to engage in creative planning, decision-making, and collaborative and experiential learning and to assume significant responsibility for conference related to women's issues. No more than 6 hours of practicum and independent study may count toward the Women's and Gender Studies minor.

3001 Women's Leadership Conference Practicum B. Three credits. Prerequisites: WMST 2100, 3000, and permission of instructor. WMST 2500 recommended but not required. Theory and concepts of women's leadership through participation in major women's conference. Provides an opportunity to engage in creative planning, decision-making, and collaborative and experiential learning and to assume significant responsibility for conference related to women's issues. No more than 6 hours of practicum and independent study may count toward the Women's and Gender Studies minor.

3500 Women in the Media. Three credits. Prerequisites: WMST 2100 and 1000- and 2000-level English requirements or permission of instructor. Women in popular/mass media. Emphases include images of women in the media; women as producers and consumers of media; the intersections of gender, race, and class in the media; comparative global images and issues; and feminist approaches to media study.

3900 Women and Globalism. Three credits. Prerequisites: WMST 2100 and ENGL 1020 or ANTH 2010. Introduces the most relevant issues affecting women globally. Focused survey of the experiences of women around the world. Exposes students to transnational examples and critical ways of thinking about poverty, violence, and resistance. Seeks to further understanding of the global dimensions of gender, race, class, and sexuality.

4201-Symposium in Women's Studies. Three credits. Prerequisite: 4213 WMST 2100 or permission of instructor. Additional prerequisites may apply to individual courses within the series. A variable-content course highlighting contributions of women to various fields and disciplines and exploring special problems
which may be encountered by women. Specific courses include: 4201 Women and Spirituality
4202 Lesbian Studies
4204 Women and Television
4205 Women and Science
4206 Women and the Holocaust
4207 Women and the Social Construction of IIlness
4209 Desire in History and Literature
4210 Ecofeminism
4211 Asian-American Women's Literature and Culture
4212 Multicultural Women's Voices
4213 Gender and Horror
4500 Feminist Theory. Three credits. Prerequisites: WMST 2100 and junior standing or permission of instructor. Major voices, texts, and ideas in the field of feminist theory from the early seventeenth century through the present within the contexts of a variety of critical discourses and emergent critical fields. Intended as a capstone for the minor. Required for all Women's and Gender Studies minors.

4900 Independent Study. Three credits. Prerequisite: Permission of instructor. A variable-content course examining a topic within the study of women and gender not covered in depth in other Women's and Gender Studies courses. Student develops project, conducts research, and confers regularly with the instructor. Student must submit a formal project proposal to be approved by the Women's Studies Program's Independent Studies Committee at least one semester prior to enrolling for WMST 4900 (Not offered during Summer terms. Please consult the Women's Studies Web site for more information.) May be taken for credit no more than twice.

## Youth Education [YOED]

3500 Instructional Design for Critical Thinking. Three credits. Prerequisites: FOED 1110 and 2110; admission to teacher education program. Focuses on practical application, including some practice of multiple teaching strategies designed to foster critical thinking skills. Students will teach mini-lessons and engage in micro-teaching episodes. Teaching assignment in a public school required.

4000 Managing the Classroom for Instruction. Three credits. Prerequisite: Admission to teacher education program. Course will be taken in conjunction with YOED 4110/5110. Introduction, examination, and practice in multiple models and approaches to classroom management and discipline. Analysis and interpretation of related research. Application of principles and procedures in classroom management to school and classroom settings. Field experience in a public school required.

4110 Directed Teaching, Grades 7-12. Nine or twelve credits. Prerequisites: All required professional education courses; appropriate special methods course(s); senior standing, minimum grade point average of 2.50 overall and in the teaching major; admission to teacher education. A full-day, full-semester supervised teaching experience in a public school classroom. Pass/Fail.

4510 The Teaching Internship, Grades 7-12. Nine credits. Supervised teaching available only to those with at least one year of paid teaching experience in the major in which endorsement is sought. Applicants must meet all prerequisites for directed teaching.


FACULTY AND ADMINISTRATION SPRING 2009

This listing reflects the Spring 2009 faculty members and administrators. The date in parentheses is that of first appointment to a position at MTSU.

## McPhee, Sidney A., President

B.A., 1976, Prairie View A\&M University; M.S., 1979, University of Miami, Coral Gables; Ed.D., 1982, Oklahoma State University. (2001)

Abernathy, Elizabeth R., Instructor, Accounting
B.A., 1977, University of North Carolina; M.B.A., 1981, Vanderbilt University; C.P.A., 1983. (2008)

Abolins, Mark J., Associate Professor, Geosciences
B.A., 1992, University of California, Berkeley; M.S., 1996; Ph.D., 1999, California Institute of Technology. (1998)

Abundiz, Katie, Assistant Strength and Conditioning Coach, Athletics B.S., 2005; M.S., 2007, Appalachian State. (2007)

Adam, Nathan E., Assistant Professor, Recording Industry
B.B.A., 1999; M.B.A., 2000, Pittsburg State University; Ed.S., 2007, Middle Tennessee State University. (2005)

Adams, C. Nathan, Professor, Computer Information Systems
B.S., 1961, Abilene Christian College; M.S., 1963; Ph.D., 1975, University of Alabama; C.D.P., 1977. (1975)

Adams, Christy, Head Women's Golf Coach, Athletics
B.S., 1991, Kansas State University. (2008)

Adams, Cynthia L., Manager, Faculty Services, College of Continuing Education and Distance Learning
B.B.A., 1981; M.B.E., 1999, Middle Tennessee State University. (1990)

Adams, D. June, Academic Advisor, College of Education and Behavioral Science
B.S., 1980; M.Ed., 1982; Ed.S., 1985, Middle Tennessee State University. (2007)

Adamson, Carla J., Instructor, Mathematical Sciences B.S., 1997; M.S., 1999, Middle Tennessee State University. (2001)

Aday, Ronald H., Professor, Sociology and Anthropology
B.S., 1966, Oklahoma State University; M.S., 1971, Tulsa University; Ph.D., 1976, Oklahoma State University. (1980)

Aggarwal, Rajesh, Associate Professor, Computer Information Systems M.S., 1984; M.S., 1985; Ph.D., 1987, University of Texas, Arlington. (1990)

Akins, Joseph L., Assistant Professor, Recording Industry
B.M., 1989, University of Tennessee; M.A., 1991, Radford University; Ed.D., 2006, Tennessee State University. (2000)

Albakry, Judy, Academic Advisor, College of Liberal Arts
B.A., 2003; M.Ed., 2005, Northern Arizona University. (2006)

## Albakry, Mohammed A., Associate Professor, English

B.A., 1994; M.A., 1995, Alexandria University; M.A., 2001, University of Massachusetts; Ph.D., 2005, Northern Arizona University. (2005)

Alexander, Rebekah B., Assistant Professor, Elementary and Special Education
B.S., 1980; M.E., 1984; Ed.S., 1991, Middle Tennessee State University; Ed.D., 1997, Peabody College of Vanderbilt University. (1997)

Alexander, Suann C., Assistant Professor, Walker Library
B.S., 1993, Tennessee Technological University; M.S., 1997, University of Tennessee. (1998)

Aliquo, Don J., Associate Professor, Music
B.M., 1992; M.M., 1994, Duquesne University. (1999)

Allen, Harry William, Jr., Associate Professor, Aerospace
B.S., 1994; M.Ed., 1996; Ed.S., 2005, Middle Tennessee State University. (1996)

Allen, Jennifer, Development Director, College of Basic and Applied Sciences, Development Office
B.S., 2003, Middle Tennessee State University. (2007)

Allen, Michael D., Professor, Engineering Technology; Vice Provost for Research and Dean of the College of Graduate Studies
B.S., 1972; M.S., 1974, Texas A \& M University; Ph.D., 1983, University of California at Davis. (2007)

Allen, Tammie C., Director, Advancement Services
C.P.S., 1995; B.S., 2005, Middle Tennessee State University. (1992)

Alley, Vivian Morgan, Professor, Academic Enrichment Support Unit
B.S., 1983; M.S., 1985; Ed.S., 1992, Middle Tennessee State University; Ed.D., 1997, Tennessee State University. (1985)

Alleyne, Michael R., Associate Professor, Recording Industry
B.A., 1992; Ph.D., 1996, University of the West Indies. (2000)

Alligood, Stephen Leon, Assistant Professor, Journalism
A.B.J., 1975, University of Georgia; M.F.A., 2007, Goucher College. (2008)

## Allsbrook, Nancy Boone, Professor, Music

B.S., 1970, Tennessee Wesleyan College; M.S., 1975, University of Tennessee; Ed.D., 1988, University of Illinois. (1979)

Alverson, Shawn M., Manager, ID Office, Communication Support Services
(1999)

Amey, Foster K., Associate Professor, Sociology and Anthropology B.A., 1979, University of Cape Coast; M.A., 1994; Ph.D., 1997, Bowling Green State University. (1999)

Ammerman, Nancy S., Instructor, Speech and Theatre
B.A., 1985, Middle Tennessee State University. (2004)

Amuzu, Boniface, Manager for Operations, Murphy Center Complex B.S., 1999; M.B.A., 2001, Middle Tennessee State University. (2002)

Ananth, Priya, Assistant Professor, Foreign Languages and Literatures B.S., 1993, University of Delhi; M.A., 1999, Jawaharlal Nehru University; Ph.D., 2007, Ohio State University. (2008)

Anderson, Deborah K., Professor, Speech and Theatre
A.A., 1971, Santa Fe Community College; B.F.A., 1973; M.F.A., 1981, University of Florida. (1981)

Anderson, Warren Lee, Professor, Agribusiness and Agriscience B.S.A., 1971; M.S., 1974, University of Nebraska; Ph.D., 1978, University of Illinois. (1978)

Anfinson, Erin, Assistant Professor, Art
B.A., 2001, University of Northern lowa; M.F.A., 2003, University of Connecticut. (2006)

Angrosini, Val, Specialist, School of Music
B.M.E., 1973, Murray State University. (2009)

Anshel, Mark, Professor, Health and Human Performance
B.S., 1970, Illinois State University; M.S., 1976, McGill University; Ph.D., 1979, Florida State University. (2002)

Apigian, Charles H., Assistant Professor, Computer Information Systems; Academic Coordinator, McNair Scholars Program
B.S., 1995, Bowling Green State University; M.B.A., 1998, Wayne State University; Ph.D., 2002, University of Toledo. (2002)

## Applegate, Edward C., Professor, Journalism

A.A., 1973, University of Kentucky; A.B., 1975; M.A., 1976; M.H.Ed., 1976; Ed.S., 1981, Morehead State University; Ed.D., 1984, Oklahoma State University. (1984)

Arik, Murat, Associate Director, Business and Economic Research Center, Jennings A. Jones College of Business
B.A., 1989, Ankara University; M.A., 1994, Syracuse University; Ph.D., 2001, University of Connecticut. (2003)

Armstrong, Angela S., Instructor, Health and Human Performance
B.B.A., 1995; M.S., 1999, Middle Tennessee State University. (2001)

Arndt, Michael J., Assistant Professor, Music
B.M., 1995, University of Missouri; M.M., 1998, University of Minnesota; D.M.A., 2004, Arizona State University. (2002)

Arnold, Michelle G., Associate Director, Admissions
B.B.A., 2002; M.B.E., 2003; Ed.S., 2005, Middle Tennessee State University; Ed.D., 2009, Trevecca Nazarene University. (2003)

Arrington, Heather, Academic Advisor, Academic Support Center B.A., 2001, Meredith College; M.A., 2003, Appalachian State University. (2006)

Arrington, Troy, Area Coordinator, Housing and Residential Life B.S., 2000; M.Ed., 2003, Georgia Southern University. (2006)

## Ashok, Savitri, Associate Professor, English

B.A., 1971; M.A., 1973, Madurai Kamaraj University; M.A., 1988, Southern Illinois University-Carbondale; Ph.D., 2004, Middle Tennessee State University. (2005)

Asthana, Sanjay, Associate Professor, Journalism
B.A., 1985, Osmania University; M.A., 1992; M.A., 1993, University of Hyderabad; Ph.D., 2003, University of Minnesota. (2003)

Austin, Ernest E., Assistant Professor, Aerospace
B.S., 1970, Auburn University; M.S., 2005, Middle Tennessee State University. (2007)

Austin, Karen Morgan, Associate Director, Career Development Center
B.S., 1996; M.A., 2005, Middle Tennessee State University. (2001)

Austin, M. Jill, Professor, Management and Marketing; Department Chair
B.B.A., 1979; M.B.A., 1981, Delta State University; D.B.A., 1986, Mississippi State University. (1985)

Avent, Valerie, Assistant Director, Intercultural and Diversity Affairs B.S., 1979; M.Ed., 1996; Ed.S., 2005, Middle Tennessee State University. (1998)

Ayer, Amy R., Family Nurse Practitioner, Health Services
B.S.N., 1997, University of Tennessee, Chattanooga; M.S.N., 1998, Vanderbilt University. (2007)

Badger, David P., Professor, Journalism
B.A., 1971, Duke University; M.S.J., 1972, Northwestern University; Ph.D., 1987, University of Tennessee. (1980)

Badley, Bill John, Assistant Vice Provost; Director, General Education B.A., 1967, University of Iowa; M.Div., 1971, Southern Baptist Seminary; D.A., 1993, Middle Tennessee State University. (1985)

Badley, Linda C., Professor, English
B.A., 1966, Oklahoma Baptist University; M.A., 1967, University of lowa;

Ph.D., 1977, University of Louisville. (1979)

## Baggarly, Michael, Associate Professor, Art

B.F.A., 1999, Western Kentucky University; M.A., 2001; M.F.A., 2002, University of lowa. (2002)

## Bahmanziari, Tammy, Assistant Professor, Accounting

B.S., 1986, University of Tennessee, Martin; M.B.A., 1988, Murray State University; Ph.D., 2001, Southern Illinois University. (2006)

## Bailey, Donald, Instructor, Mathematical Sciences

B.S., 1975, Ball State University; M.Ed., 2006, Middle Tennessee State University. (2006)

## Bailey, Frank C., Associate Professor, Biology

B.S., 1987, Rhodes College; Ph.D., 1994, Clemson University. (1994)

Baily, Carol Ann, Director, Off-Campus Student Services Center B.A., 1969, Florida Presbyterian College; M.A., 1977; Ed.D., 1992, Vanderbilt University. (1993)

## Baines, Patricia, Instructor, English

B.S., 1999; M.A., 2003, Middle Tennessee State University. (2003)

Bakari, Adonijah, Associate Professor, History; Director, African American Studies
B.S., 1986, Tuskegee University; M.A., 1990, Northeastern Illinois University; Ph.D., 1999, Temple University. (1994)

## Baker, Grover C., III, Librarian, Center for Popular Music

B.M., 1992, Belmont University; M.C.M., 1995, Southern Baptist Theological Seminary; M.S., 2006, University of Tennessee. (2006)

## Bakoyema, Fagdeba, Assistant Professor, Walker Library

B.A., 1989, Universite' de Lome'; M.A., 1994, West Virginia University; M.A., 2001; M.I.S., 2005; M.L.S, 2005, Indiana University. (2007)

Balachandran, Martha E., Professor, Business Communication and Entrepreneurship
B.S., 1974; M.B.E., 1983, Middle Tennessee State University; Ed.D., 1991, University of Memphis. (1999)

Bales, William J., Vice President, Development and University Relations
B.S., 1981; M.S., 1986, University of Tennessee. (2002)

Barker, Gayle, Director of Payroll, Human Resource Services B.B.A., 1985; M.B.A., 1989, Middle Tennessee State University. (1985)

Barnet, Richard D., Professor, Recording Industry
B.M., 1971, Illinois State University; M.M., 1975, Ithaca College; Ph.D., 1986, Arizona State University. (1991)

Barnett, Claudia, Professor, English
B.A., 1988, Cornell University; M.A., 1990; Ph.D., 1994, Ohio State University. (1994)

Barnwal, Rajesh K., Associate Professor, Mathematical Sciences B.S., 1982; M.S., 1983, Indian Statistical Institute; M.S., 1991, University of Western Ontario; Ph.D., 1990, University of Windsor. (1994)

Barr, Marc J., Professor, Electronic Media Communication
B.A., 1974, State University College of New York, Oswego; M.F.A., 1978, Memphis State University. (1989)

Barsky, Marsha D., Assistant Professor, Speech and Theatre
B.F.A., 1999, Arizona State University; M.F.A., 2003, University of Colorado. (2007)

Bartley, Dianne A.R., Professor, Health and Human Performance; Department Chair
B.S., 1969, Howard University; M.Ed., 1970, Pennsylvania State University; Ph.D., 1983, University of Maryland. (1991)

Barts, Krista, Assistant Softball Coach, Athletics
B.S., 2007, Auburn University. (2007)

Bass, Alyson, Associate Professor, Elementary and Special Education
B.S., 1968, Louisiana State University; M.S., 1989, University of Houston; Ed.D., 2004, Peabody College of Vanderbilt University. (2005)

Batey, Lisa C., Director of Benefits, Human Resource Services
C.P.S., 1993; B.B.A., 2000; M.B.A., 2003, Middle Tennessee State University. (1990)

Batson, JoAnn, Administrative Systems Analyst, Administrative Information System Services
B.B.A., 1981, Middle Tennessee State University. (2001)

Bauder, Debbie, Assistant Director/Teacher, Project Help
B.S., 1978, University of Tennessee; M.Ed., 1994, Middle Tennessee State University. (2000)

Bauer, Richard H., Professor, Psychology
B.A., 1963, University of Montana; M.A., 1965; Ph.D., 1970, University of Washington. (1981)

Baum, Charles L., Associate Professor, Economics and Finance; Department Chair
B.A., 1995, Wake Forest University; Ph.D., 1999, University of North Carolina. (1999)

Beauchamp, Charles F., Assistant Professor, Economics and Finance B.S., 2000, University of Louisiana at Lafayette; M.S., 2002; Ph.D., 2006, Mississippi State University. (2007)

Beauchamp, Michelle B., Assistant Professor, Management and Marketing
M.S., 2002, Nicholls State University; Ph.D., 2007, Mississippi State University. (2007)

Beck, Michael, Associate Professor, Mathematical Sciences
B.S.Ed., 1972; M.M., 1977; Ph.D., 1985, University of Tennessee. (1987)

Beckman, Wendy S., Associate Professor, Aerospace
B.S., 1989, North Carolina State; M.S., 1991, University of Missouri; Ed.D., 1998, Saint Louis University. (2005)

Beemon, F. E., Professor, History
B.A., 1967, University of Mississippi; M.A., 1974, Mississippi College; Ph.D., 1988, University of Tennessee. (1989)

Bela, Marcin, Assistant Professor, Music
B. M., 2002, New England Conservatory of Music; M.A., 2004; D.M.A., 2007, University of Michigan. (2007)

Belcher, Deborah G., Associate Professor, Human Sciences
A.S., 1982, Young Harris College; B.S., 1984, Middle Tennessee State University; M.F.A., 1988, University of Georgia. (1991)

Belcher, Donald, Associate Professor, Health and Human Performance B.Ed., 1989, University of Saskatchewan; M.Sc., 1994, University of Wyoming; Ph.D., 2000, Louisiana State University. (2007)

Beller, Suzanne, Assistant Director, Student Financial Aid
B.B.A., 1985, Middle Tennessee State University. (1990)

Belsky, Janet K., Professor, Psychology
B.A., 1969, University of Pennsylvania; Ph.D., 1976, University of Chicago. (1991)

Belton, Frederick A., Instructor, Academic Enrichment Support Unit Support Unit
B.S., 1979, University of Tennessee; M.S., 1995, University of Memphis. (2001)

Beltz, Gary, Technical Support Specialist, Server, Classroom, and Desktop Services
A.S., 1986, Indiana Vocational Technical College. (2000)

Benson, Sandra, Assistant Professor, Accounting
B.A., 1982, Vanderbilt University; J.D., 1990, University of Georgia. (2006)

Benz, George, Professor, Biology
B.S., 1976; M.S., 1980, University of Connecticut; Ph.D., 1994, University of British Columbia. (2004)

Berg, Thomas R., Associate Professor, Electronic Media Communication
B.F.A., 1970, University of South Dakota, M.S., 1974, Iowa State University; Ph.D., 1988, University of Georgia. (1991)

Bergant, Sylvia T., Administrative Senior Systems Analyst, Administrative Information System Services
A.A., 1984, Okaloosa-Walton Community College; B.S., 1986, University of West Florida. (2004)

## Bergemann, Sarah E., Assistant Professor, Biology

B.S., 1996; M.A., 1998, Humboldt State University; Ph.D., 2002, University of Wyoming. (2007)

## Bernstein, Stuart E., Associate Professor, Psychology

B.A., 1988, University of Rochester; M.A., 1992; Ph.D., 1996, Michigan State University. (1998)

Berryman, Hugh, Research Professor, Sociology and Anthropology; Director, Forensic Institute for Research and Education B.A., 1973; M.A., 1975; Ph.D., 1981, University of Tennessee. (2006)

Bibee, David, Assistant Football Coach, Athletics
B.S., 1977, University of Tennessee. (2008)

Bickers, Andrew, Associate Director of Retention, Selection, and Staff Development, Housing and Residential Life
B.A., 1991, Northern Illinois University; M.S., 1998, Arizona State University. (2006)

Billings-Jones, Lucy, Coordinator, Career Development Center
B.S., 1998; M.S., 2000, Indiana State University. (2005)

Binkley, Helen, Associate Professor, Health and Human Performance B.S., 1985; M.S., 1988, University of Delaware; Ph.D., 1996, Temple University. (2004)

## Bizot, Caroline, Recruiter, Admissions

B.A., 2005, Middle Tennessee State University. (2009)

Black, William K., Professor, Walker Library
B.A., 1972, University of Redlands; M.L.S., 1975, University of Michigan. (1996)

Blackman, Robin, Assistant Professor, Computer Information Systems B.B.A., 1989; M.S., 1991, Middle Tennessee State University; Ph.D., 2003, University of Tennessee. (1993)

Blackwell, Aleka, Associate Professor, English
B.S., 1989, Northwestern University; M.A., 1991, University of Illinois; Ph.D., 1998, Boston University. (2001)

Blackwell, E. Michelle, Director, Transfer Student Services
B.A., 1990; M.S., 1996, University of Tennessee. (2007)

Blair, Robert B., Associate Professor, Business Communication and Entrepreneurship
B.S., 1986, Oral Roberts University; M.B.E., 1987, Middle Tennessee State University; Ph.D., 1993, Louisiana State University. (1996)

Blake, Kenneth, Associate Professor, Journalism
B.A., 1988; M.A., 1990, Marshall University; Ph.D., 1997, University of North Carolina, Chapel Hill. (1996)

Blasingame-Boike, Kay, Instructor, Business Communication and Entrepreneurship
B.S., 1973; M.B.A., 1980, Middle Tennessee State University. (1997)

## Blum, Kurt E., Professor, Biology

A.B., 1961, Hanover College; M.A., 1965, Indiana University; Ph.D., 1968, Florida State University. (1969)

Bobbitt, L. Michelle, Assistant Professor, Management and Marketing B.B.A., 1991; M.B.A., 1994, Middle Tennessee State University; Ph.D., 2004, University of Tennessee. (2008)

Boda, Patricia, Assistant Professor, Geosciences
B.A., 1993; M.A., 1996; Ph.D., 2007, University of Minnesota. (2008)

## Bodle, John V., Professor, Journalism

B.A., 1977, San Jose State University; M.S., 1992; Ph.D., 1993, Ohio University. (1993)

Boehm, Alan D., Associate Professor, Walker Library
M.A., 1981, University of Wisconsin; Ph.D., 1992, Indiana University; M.L.S., 1997, University of Missouri. (1999)

Boles, Walter W., Professor, Engineering Technology; Department Chair
B.S., 1977; M.S., 1978, Virginia Technological University, Blacksburg; Ph.D., 1990, University of Texas, Austin. (2001)

Bombardi, Ronald J., Professor, Philosophy; Department Chair
B.A., 1975, LeMoyne College; Ph.D., 1984, Marquette University. (1984)

## Bonicamp, Judith Madeline, Professor, Chemistry

A.B., 1969, University of Tennessee, Chattanooga; M.S., 1972, Tennessee Technological University; Ph.D., 1977, Emory University. (1982)

Bonner, Gloria L., Professor, Educational Leadership; Assistant to the President, Community Engagement and Support
B.S., 1972; M.Ed., 1974; Ed.S., 1977, Middle Tennessee State University; Ed.D., 1988, Tennessee State University. (1985)

Boraiko, Carol, Associate Professor, Engineering Technology
B.S., 1980, East Tennessee State University; M.P.H., 1987, University of South Florida; Ph.D., 2003, Temple University. (2006)

Boudreau, Kathryn B., Associate Professor, Educational Leadership A.B., 1970, University of Michigan, Ann Arbor; M.S., 1983, Long Island University, C.W. Post Campus. (1999)

Boulware, Beverly J., Associate Professor, Elementary and Special Education
B.S., 1977; M.S., 1980, Indiana University; Ed.D., 1994, Ball State University. (2007)

Boyd, Kay, Registered Nurse, Health Services
B.S., 1972, Memphis State University; AD Nursing, 1981, Middle Tennessee State University. (2009)

Boyd, Scott, Associate Professor, Speech and Theatre
B.A., 1985, Xavier University; M.F.A., 1988, University of North Carolina, Greensboro. (2004)

Boyer-Pennington, Michelle, Associate Professor, Psychology
B.A., 1990, Emory University; M.S., 1992; Ph.D., 1995, University of Florida. (1995)

Boyle, Mike, Dean, College of Continuing Education and Distance Learning
B.S., 1991; M.S., 1992, Abilene Christian University; Ph.D., 1994, Texas A\&M University. (2006)

Bradley, Celia S., Assistant Director, Student Financial Aid
B.B.A., 1981, Middle Tennessee State University. (1991)

Bradley, Patricia, Associate Professor, English
B.A., 1974, David Lipscomb College; M.A., 1992, Austin Peay State University; Ph.D., 2000, University of Tennessee. (2001)

Bragg, Nancy M., Assistant to the Dean, Jennings A. Jones College of Business
B.S., 1976, Middle Tennessee State University. (1999)

Brantley, Laura B., Assistant Professor, Psychology
B.A., 1993; M.A., 1997; Ph.D., 2000, University of South Florida. (2004)

Brantley, William, Professor, English
B.A., 1977; M.A., 1981, Georgia State University; Ph.D., 1991, University of Wisconsin, Madison. (1992)

Braswell, Jennifer, Coordinator, Pre-Professional Advising, Chemistry B.S., 1997; M.A., 2006, Middle Tennessee State University. (2003)

Bratten, L. Clare, Assistant Professor, Electronic Media Communication; Coordinator of Graduate Studies, College of Mass Communication
B.A., 1973, Rutgers; M.A., 1995, University of Texas, Austin; Ph.D., 2002, University of Wisconsin, Madison. (2000)

Bray, Robert, Professor, English
B.A., 1974; L.L.M., 1976, University of Southwestern Louisiana; Ph.D., 2002, University of Mississippi. (1994)

Brea, Maria R., Assistant Professor, Speech and Theatre
B.A., 1997; M.S., 1999, University of South Florida (2008)

Breault, Kevin D., Professor, Sociology and Anthropology
B.A., 1978, Reed College; M.A., 1983, University of Washington; Ph.D., 1986, University of Chicago. (1999)

Brewer, Gaylord, Professor, English
B.A., 1985, University of Louisville; M.A., 1988; Ph.D., 1992, Ohio State University. (1993)

Brewer, Jamie, Project Manager, Campus Planning
B.S., 2001, Middle Tennessee State University. (2008)

Brewer, Roy, Associate Director and Assistant Chief, Public Safety 1996, Northwestern University Traffic Institute, School of Police Staff and Command. (1987)

Brickey, Janis, Assistant Professor, Human Sciences
B.S., 1980, Virginia Polytechnic Institute and State University; M.S., 1994; Ph.D., 2002, University of Tennessee. (2006)

Bridges, Durant C., Instructor, Aerospace
B.S., 2005; M.Ed., 2007, Middle Tennessee State University. (2008)

Brink, M. Janine, Contract Review Manager, Business Office
B.B.A., 1982, Middle Tennessee State University. (1994)

Brinthaupt, Thomas M., Professor, Psychology
B.S., 1980, State University of New York; M.A., 1984, St. Bonaventure

University; Ph.D., 1989, University of Pittsburgh. (1990)
Brock, Brent, Assistant Football Coach, Athletics
B.S., 1982, Florida State University; M.S., 1989, Albany State University; Ed.S., 1992, Florida State University. (2006)

Brooks, Juanita G., Assistant Professor, Computer Information Systems B.B.A., 1993; M.B.S., 1994, University of Arkansas at Little Rock; Ph.D., 2005, University of Arkansas. (2008)

Browder, Douglas R., Assistant Professor, Speech and Theatre B.S., 1992, Middle Tennessee State University; M.F.A., 1999, University of Southern Mississippi; M.Ed., 2006, Middle Tennessee State University. (2008)

Brower, Andrew, V. Z., Associate Professor, Biology
B.A., 1985; M.E.S., 1987, Yale University; Ph.D., 1994, Cornell University. (2006)

Brown, Alan D., Instructor, Geosciences
B.S., 1997; M.S., 2002, Illinois State University. (2005)

Brown, Heather J., Associate Professor, Engineering Technology B.S., 1997; M.S., 1998; Ph.D., 2001, Tennessee Technological University. (2001)

Brown, Sara E., Music Librarian, School of Music
B.M., 1997, Midwestern State University; M.M.E., 2001; M.S., 2007, University of North Texas. (2008)

Brown, Tammie S., Assistant Professor, Educational Leadership B.S., 1984; M.Ed., 1989; Ed.D., 1992, University of Southern Mississippi. (2001)

Brown, Wendy D., Benefits Specialist, Human Resource Services C.P.S., 1997; B.B.A., 1992, Middle Tennessee State University. (1995)

Brown, William, Video and Game Analysis Coordinator, Athletics B.S., 2004, Benedict College. (2006)

Bryant, Layne, Manager, Resources, College of Continuing Education and Distance Learning
B.A., 1998, Appalachian State University; M.B.A., 2003, Middle Tennessee State University. (2000)

Bryant, Tammy Q., Advisor/Coordinator, Off-Campus Courses, College of Continuing Education and Distance Learning
A.A.S., 2001; B.A., 2001; M.Ed., 2004, Middle Tennessee State University. (1996)

Bucher, N. Rebecca, Instructor, Computer Science
B.Eng., 1994, Vanderbilt University; M.S., 1996, University of Memphis. (2005)

Buckner, Laura M., Coordinator/Instructor, Management and Marketing
B.S., 1984, Middle Tennessee State University; M.B.A., 2001, Vanderbilt University. (2003)

Buie, Luther, Academic Advisor, Academic Support Center
B.B.A., 1992; M.S.Ed., 1995, Mississippi State University. (2005)

Bullard, E. Dwight, Professor, Business Communication and Entrepreneurship; Associate Dean, Jennings A. Jones College of Business
B.S.E., 1964, University of Central Arkansas; M.B.E., 1965; Ed.D., 1971, University of Mississippi. (1965)

Bullington, Kimball E., Associate Professor, Management and Marketing
B.S., 1981, University of Oklahoma; M.S., 1989, Auburn University; Ph.D., 1996, Mississippi State University. (1998)

## Bundage, Raphael B., Professor, Music

B.M.E., 1975; B.M., 1976, Texas Christian University; M.M., 1983; D.M.A., 1986, Eastman School of Music. (1985)

Burchfield, John, Director, College of Continuing Education and Distance Learning
B.B.A., 1999; M.B.A., 2001, Delta State University. (2002)

Burden, D. Andrew, Associate Professor, Chemistry
B.S., 1987; M.S., 1989; Ph.D., 1993, University of Louisville. (1999)

Burg, Brian, Director of Men's Basketball Operations
B.S., 2003, Mount Mercy College; M.S.Ed., 2005, Lake Erie College. (2007)

Burk, Sonja R., Academic Advisor, College of Continuing Education and Distance Learning
B.S., 1986, Texas A\&M University; M.Ed., 1991, Colorado State University. (2002)

Burke, Beverly G., Associate Professor, Psychology
B.A., 1974; M.S., 1975, University of Southern Mississippi; M.S., 1981; Ph.D., 1994, Auburn University. (1991)

Burkhart, Brenda H., Director, Audit and Consulting Services
B.B.A., 1982, Austin Peay State University; C.P.A., 1986. (1986)

Burks, Amy B., Adaptive Technology Coordinator, Disabled Student Services
B.S., 1996; M.Ed., 2004, Middle Tennessee State University. (2002)

Burks, Darrell Callis, Graphic Designer, Publications and Graphics B.F.A., 2000, Middle Tennessee State University. (2001)

## Burleson, Matt, Instructor, English

B.A., 1993, Abilene Christian University; M.A., 2001, Vanderbilt University. (2001)

Burriss, Kathleen Glascott, Professor, Elementary and Special Education B.A., 1972, State University of New York, Fredonia; M.S., 1975, State University of New York, Buffalo; Ed.D., 1992, Arizona State University. (1992)

Burriss, Larry L., Professor, Journalism
B.A., 1971; M.A., 1972, Ohio State University; M.A. 1978, University of Oklahoma; Ph.D., 1983, Ohio University; J.D., 2006, Concord Law School. (1979)

Burton, E. James, Professor, Accounting; Executive Director, Jones Chairs of Excellence; Dean, Jennings A. Jones College of Business A.B., 1968, MacMurray College; M.B.A., 1969, Murray State University; C.P.A., 1975; Ph.D., 1976, University of Illinois; C.F.E., 1991. (1990)

Burton, Quintina, Manager, Event Coordination
B.S., 2001; M.S. 2003, Middle Tennessee State University. (2003)

Bush, James L., Jr., Associate Professor, Accounting
B.B.A., 1967, Georgia Southern College; M.Acc., 1968, University of Georgia; C.P.A., 1975; Ph.D., 1977, University of Arkansas. (1985)

Bussell, Becky R., Bursar, Business Office
B.B.A., 1991; B.B.A., 2001, Middle Tennessee State University. (1992)

Butler, Andrew, III, Instructor, Speech and Theatre
B.S.; M.S., 2003, Middle Tennessee State University. (2004)

Butler, James, Technical Support Specialist, Server, Classroom, and Desktop Services
A.S., 1984, Nashville State Tech. (2000)

Butler, Kyle, Assistant Professor, Educational Leadership
B.S., 1997; M.S., 2000, Eastern Illinois University; Ph.D., 2004, Southern Illinois University. (2004)

Butler, Ralph M., Professor, Computer Science
B.S., 1976, Tennessee Technological University; M.S., 1981; Ph.D., 1985, University of Missouri, Rolla. (2000)

Butler, William H., Jr., Assistant Professor, Biology
B.A., 1963, Fisk University; M.S., 1970, Tennessee State University. (1988)

Buxkamper, Barry B., Professor, Art
B.F.A., 1968, University of Texas, Austin; M.F.A., 1972, University of Illinois. (1989)

Bynum, Tommy L., Assistant Professor, History
B.S., 1993, Barton College; M.A., 1995, Clark Atlanta University; Ph.D., 2008, Georgia State. (2006)

Byrnes, Mark E., Professor, Political Science; Associate Dean, College of Liberal Arts
B.S., 1983, Middle Tennessee State University; M.A., 1986, Vanderbilt University; School Diploma, 1987, London School of Economics and Political Science; Ph.D., 1991, Vanderbilt University. (1991)

Cahoon, A. Bruce, Associate Professor, Biology
B.S., 1991; M.S., 1994, Virginia Commonwealth University; Ph.D., 2001, University of Virginia. (2003)

Cain, Jimmie E., Professor, English
B.A., 1979, Southeastern Louisiana University; M.A., 1982, University of Mississippi; Ph.D., 1996, Georgia State University. (1996)

Calahan, Paula, Academic Advisor, Jennings A. Jones College of Business
B.S., 1988; M.S., 1991; Middle Tennessee State University. (2004)

Calder, James E., Professor, Elementary and Special Education
B.S., 1968, Murray State University; M.Ed., 1971, University of Louisville; Ed.S., 1972, University of Florida; Ed.D., 1982, University of Alabama. (1991)

Callender, Mark. N. Assistant Professor, Aerospace
B.S., 1999, Middle Tennessee State University; M.S., 2003, University of Tennessee Space Institute. (2005)

Camp, Janet C., Supervisor of Educational Services, Center for the Study and Treatment of Dyslexia
B.S., 1963, Bucknell University; M.S., 1965, University of Wisconsin. (1997)

Campbell, A. Ann, Professor, Elementary and Special Education B.S., 1969; M.S., 1970, University of Tennessee; Ed.D., 1977, Memphis State University. (1981)

Campbell, Donald A., Associate Professor, Mathematical Sciences B.S., 1966, University of Montevallo; M.A., 1968; Ph.D., 1973, University of Alabama. (1986)

## Campbell, Mary Judy, Professor, Nursing

Diploma in Nursing, 1967, Baptist Hospital School of Nursing; B.S.N., 1969, University of Kentucky; M.S., 1973, University of Alabama, Birmingham; Ed.S., 1997; Ph.D., 2006, Middle Tennessee State University. (1988)

## Canak, William L., Professor, Sociology and Anthropology

B.A., 1970, University of Wisconsin, Milwaukee; M.S., 1975; Ph.D., 1981, University of Wisconsin, Madison. (1994)

## Cancryn, Dina, Associate Professor, Music

B.M., 1981, Eastman School of Music; M.M., 1988, Indiana University. (1989)

Cantrell, Barry, Web Specialist, Academic and Instructional Technology Services
B.S., 2007, Middle Tennessee State University. (2008)

Caputo, Jennifer L., Associate Professor, Health and Human Performance
B.A., 1994, Connecticut College; M.S., 1996; Ph.D., 2000, University of North Carolina, Greensboro. (2000)

Carleton, David E., Associate Professor, Political Science
B.A., 1981, University of Connecticut; M.A., 1983; Ph.D., 1986, Purdue University. (1994)

Carnicom, Scott A., Associate Professor, Psychology; Associate Dean, University Honors College
B.A., 1995, Ohio University; M.S., 1998; Ph.D., 2000, Stony Brook University. (2006)

Carroll, Deborah L., Athletic Academic Advisor, Student Athlete Enhancement Center
B.S., 1993; M.A., 2001, Middle Tennessee State University. (1997)

Carter, Alphonse, Jr., Professor, Engineering Technology
B.S., 1972, Jackson State University; M.S., 1977, Memphis State University; Ph.D., 1981, Southern Illinois University. (1981)

Carter, Jessica Gentry, Associate Professor, Agribusiness and

## Agriscience

B.S., 1996; M.S., 1998, Western Kentucky University; Ph.D., 2001, Texas Tech. (2002)

Carter, William Craig, Associate Professor, Sociology and Anthropology
B.A., 1994, William Penn College; M.A., 1996; Ph.D., 2000, Louisiana State University. (2003)

Caruthers, Charlotte, Administrative Systems Analyst, Administrative Information System Services
B.B.A., 2002, Middle Tennessee State University. (2002)

Casal, Elvira, Professor, English
B.A., 1976, Tulane University; M.A., 1977, University of Michigan; Ph.D., 1993, Vanderbilt University. (1996)

Case, Karen, Program Coordinator and College Advisor, College of Basic and Applied Sciences
B.A., 1970, Wilson College; M.A., 2000, Tennessee Technological University. (2002)

Case, Winn, Assistant Men's Basketball Coach, Athletics
B.S., 1987, University of Science and Arts. (2008)

## Casson, Flavis L., Instructor, English

B.A., 1990, Middle Tennessee State University; M.A., 1995, University of Tennessee, Chattanooga; Ed.S., 2005, Middle Tennessee State University. (1999)

Caudill, Gerald, Director, Building Maintenance/Construction Renovation
M.S., 1984, University of Tennessee, Chattanooga. (1999)

Cavender, Sandra, Instructor, English
B.S., 1976; M.S., 2003, Middle Tennessee State University. (2005)

Cavin, Drew, Assistant Professor, Health and Human Performance B.S., 2001, Texas A\&M University; M.S., 2004, Clemson University; Ph.D., 2008, Texas A\&M University. (2008)

Center, Susan G., R.N., Health Services
B.S.N., 1992, Middle Tennessee State University. (2002)

Chalmers, Jay, Foundation Accountant II, Accounting Services, Business Office
B.B.A., 1986, Georgia State; M.A., 1990, University of North Florida; C.P.A., 1991. (2006)

Chambers, Amanda J., Academic Advisor, Jennings A. Jones College of Business
B.S., 2001; M.A., 2003, Tennessee Technological University. (2004)

Chambers, David, Associate Director, Student Financial Aid B.S., 1981, Middle Tennessee State University. (1992)

Chansuthus, Daryl, Assistant Professor, Social Work; Executive Director, Tennessee Center for Child Welfare
B.A., 1977, University of Tennessee; M.A., 1981, Middle Tennessee State University; M.S.S.W., 2002, University of Tennessee. (2007)

Chao, Yuan-ling, Associate Professor, History
B.A., 1981, Hong Kong Baptist College; M.A., 1983, University of California, Santa Barbara; Ph.D., 1995, University of California, Los Angeles. (1995)

Chapman, Carol, Instructor, English
B.A., 1993; M.S., 1998, Middle Tennessee State University. (1998)

Chapman, Richard L., Director, Health Services
B.S., 1989, Union University; M.S., 1991, University of Alabama, Birmingham. (2000)

Chappell, Michaele F., Professor, Mathematical Sciences
B.S., 1981; M.S.T., 1983, Georgia Southern College; Ph.D., 1991, Florida State University. (2001)

Chappell, Steven, Director, Student Publications
B.A., 1991; M.P.A., 1997, University of Alabama, Birmingham. (2006)

Chavis, Janie A., Manager, Student Loans, Business Office B.A., 1969, Central Washington State University. (1992)

Cheatham, Thomas J., Professor, Computer Science; Dean, College of Basic and Applied Sciences
B.S., 1966, Campbellsville College; M.S., 1968; Ph.D., 1971, University of Kentucky. (1990)

Chen, Chong, Professor, Engineering Technology
B.S., 1982, Hebei Institute of Technology; M.S., 1984, Tianjin University; Ph.D., 1990, University of Kentucky. (1990)

Choi, Jayoung L., Assistant Professor, Psychology
B.A., 1978, Yonsei University, Korea; M.S.S.A., Case Western Reserve University; Ph.D., The University of Akron, 2007. (2008)

Chong, Ngee Sing, Associate Professor, Chemistry
B.A., 1981, Hanover College; M.S., 1986, lowa State University; Ph.D., 1991, University of Georgia. (1998)

Choudhry, Wajid, Assistant Director, Desktop Microcomputer Support Services
B.B.A., 1993, University of lowa. (2008)

Church, Curtis K., Professor, Mathematical Sciences
B.A., 1974; M.A., 1976; Ph.D., 1978, University of South Florida. (1986)

Church, Russell T., Professor, Speech and Theatre
B.A., 1968, Memphis State University; M.A., 1969, Southern Illinois University; Ph.D., 1977, Temple University. (1991)

Clark, Allison, Assistant Women's Basketball Coach, Athletics
B.S., 2002, Tennessee Technological University; M.S., 2005, University of Arkansas. (2005)

Clark, Bertha Smith, Professor, Speech and Theatre
B.S., 1964, Tennessee State University; M.A., 1965, George Peabody College for Teachers; Ph.D., 1982, Vanderbilt University. (1987)

Clark, Carol A., Director of Employment/Employee Relations, Human Resource Services
B.S., 1973, Illinois State University; M.B.A., 1986, George Williams College. (2009)

Clark, Carol P., Professor, Computer Information Systems
B.S., 1983, Campbellsville College; M.S., 1985; Ph.D., 1990, Northwestern University. (1988)

Clark, Clayton J., Instructor, Mathematical Sciences
B.S., 2001; M.S., 2005, East Tennessee State University. (2007)

Clark, Eric W., Physician, Health Services
B.S., 1988, Tennessee Technological University; M.D., 1995, Louisiana State University. (2004)

Clark, Laura, Assistant Professor, Educational Leadership
B.A., 1973; M.Ed., 1999, University of Mississippi; Ed.D., 2005, Vanderbilt University. (2006)

Clark, Leigh Ann, Assistant Professor, Management and Marketing B.A., 1998, Mississippi State University; J.D., 1992, Emory University School of Law; Ph.D., 2007, Southern Illinois University. (2007)

Clark, Linda, Assistant Professor, Academic Enrichment Support Unit
B.S., 1995; M.S., 1997; Ed.S., 2001, Middle Tennessee State University; Ed.D., 2006, Vanderbilt University. (1998)

Clark, Suma Maupin, Director, Publications and Graphics
B.A., 1970; M.A., 1977, Middle Tennessee State University. (1978)

Clark, W. Jeff, Professor, Computer Information Systems
B.A., 1975; M.A., 1977, Scarritt College; M.B.A., 1983, Northern Illinois University; Ph.D., 1989, Northwestern University. (1988)

Clark, W. Randall, Assistant Professor, Management and Marketing B.S., 1991, Middle Tennessee State University; M.M.R., 1992, University of Georgia; Ph.D., 2002, Georgia State University. (2005)

## Clayton, Maria, Associate Professor, English

B.A., 1973, North Carolina State University; M.A., 1979, California State University; D.A., 1998, Middle Tennessee State University. (1995)

Clinton, Trina, Coordinator, Human Resource Services
B.S., 1974, Middle Tennessee State University. (1996)

Clippard, Laura, Academic Advisor, University Honors College B.S., 1988, East Tennessee State University; M.S., 1999, University of Tennessee. (2002)

Clippard, Steven, Coordinator of Microcomputers, Housing and Residential Life
(2001)

Cobb, Vincent A., Professor, Biology
B.A., 1987, University of Tennessee; M.S., 1989, University of Texas at Tyler; Ph.D., 1994, Idaho State University. (2002)

## Cochran, Molly, Assistant Director, Alumni Relations

B.S., 1997; M.S., 1999, Murray State University. (2006)

Cockrell, Lucinda P., Coordinator, Research Collections, Center for Popular Music
B.S., 1979, Middle Tennessee State University; M.A., 1986, College of William and Mary. (2001)

Colclough, Scott H., Professor, Health and Human Performance
B.S., 1971, Campbell University; M.A.E., 1972, East Carolina University; D.A., 1986, Middle Tennessee State University. (1998)

Cole, Rebecca W., Associate Vice President for Academic Resources, Academic Affairs
B.S., 1975; M.Ed., 1994, Middle Tennessee State University. (1991)

Coleman, Sharon S., Associate Professor, Human Sciences
B.S., 1978, Mississippi State University; M.S., 1983, University of Alabama. (1983)

Colflesh, Peggy, Assistant Manager, Walker Library
B.S., 1977, Middle Tennessee State University. (2005)

Collette, Paul, Systems Programmer, Server, Classroom, and Desktop Services
(2008)

Collier, Cosette R., Professor, Recording Industry
B.F.A., 1985; M.A., 1992, Memphis State University. (1993)

Collins, Laura R., Instructor, Geosciences
A.S., 1994, Tri-County Technical College; B.S., 1998, Middle Tennessee

State University; M.S., 2005, Mississippi State University. (2005)
Collins, Melanie, Scholarship Coordinator, Student Financial Aid B.S., 1983, Middle Tennessee State University. (2005)

Collins, Phillip, Local Service Provider, Jones College of Business, Server, Classroom, and Desktop Services
1995, Indiana Law Enforcement Academy. (2008)
Colson, Janet, Professor, Human Sciences
B.S.Ed., 1978, Mississippi College; M.S., 1978, University of Southern Mississippi; Ph.D., 1990, Florida State University. (1990)

Colvard, Robert G., Professor, Accounting
B.B.A., 1959; C.P.A., 1964; M.B.A., 1968, Memphis State University; Ph.D., 1981, University of Georgia; C.F.P., 1993. (1978)

Colvin, Fred, Professor, History
B.A., 1965; M.A., 1968, Louisiana Polytechnic Institute; Ph.D., 1974, University of Georgia. (1969)

Coman, Benjamin, Microcomputer Specialist, Public Safety
B.S., 1998, Middle Tennessee State University. (1998)

Comas, James N., Associate Professor, English
B.A., 1975, University of Utah; M.S., 1981; Ph.D., 1987, University of Southern California. (2006)

Compton, William C., Professor, Psychology
B.A., 1977, Northern Illinois University; M.A., 1982, University of Nebraska, Omaha; Ph.D., 1987, George Peabody College of Vanderbilt University. (1989)

Conard, Rebecca A., Professor, History
B.S., 1973, California State Polytechnic University; M.A., 1976, University of California, Los Angeles; Ph.D., 1984, University of California, Santa Barbara. (1998)

Conley, Patrick C., Assistant Professor, Foreign Languages and Literatures
A.B., 1969; A.M., 1974, Indiana University; M.A., 1980; Ph.D., 1995, University of Tennessee. (1986)

Conroy, Erin S., Counselor, Student Support Services
B.A., 2004; Ed.M., 2005, Temple University. (2006)

Conway, Carl R., Assistant Professor, Academic Enrichment Support Unit
B.S., 1968, David Lipscomb College; M.S., 1972, Middle Tennessee State University. (2002)

Conway, Charles L., College Computing Director, College of Basic and Applied Sciences
B.S., 1988, Columbia College. (1990)

Cook, James M., Professor, Physics and Astronomy
B.S., 1962, Western Kentucky State University; Ph.D., 1967, Vanderbilt University. (1966)

## Cooper, Cathy, Associate Professor, Nursing

B.S.N., 1975, Indiana State University, Terre Haute; M.S.N., 1988, Indiana University, Purdue; Ed.D., 2008, University of St. Thomas. (2008)

Coppinger, Jennifer M., Assistant Director, Budget Office
B.B.A., 1984, Middle Tennessee State University; C.P.A., 1985, "Inactive." (1993)

Coppola, Alba C., R.N., Health Services
Diploma Degree, 1976, Flushing Hospital School of Nursing. (2004)
Corlew, Beverly, Instructor, Health and Human Performance
B.A., 1988; M.S., 2005, Middle Tennessee State University. (2006)

Cornish, Craig S., Associate Professor, Music
B.M., 1980; M.M., 1991, University of Kentucky. (2002)

Coronel, Carlos M., Director, Computer Lab, Jennings A. Jones College of Business
B.S., 1986, Polytechnic University; M.S., 1990, Middle Tennessee State University. (1990)

Cothern, John W., Senior Vice President
B.S., 1970; J.D., 1973, Memphis State University. (2003)

Counts, Wynnifred L., Associate Director, Student-Athlete Enhancement

## Center

B.S., 1973; M.Ed., 1980, Middle Tennessee State University. (1992)

## Cox, Bené Scanlon, Professor, English

B.A., 1972; M.A., 1976, University of Alabama; Ph.D., 1980, Vanderbilt University. (1976)

## Cox, Carol, Assistant Professor, Accounting

B.S., 1990, University of Connecticut; Ph.D., 2003, Virginia Commonwealth University. (2006)

Crabtree, William, Assistant Professor, Recording Industry
B.S., 1990, Middle Tennessee State University; M.E., 2004, Cambridge College. (2006)

Craig, Dorothy Valcarcel, Professor, Educational Leadership
B.S., 1986; M.A.Ed., 1988, East Carolina University; Ed.S., 1995, Middle Tennessee State University; Ed.D., 1997, Tennessee State University, Postdoctoral Studies in ESL, University of Memphis. (1996)

Craig, J. Donald, Associate Professor; Dean, Walker Library B.A., 1967, David Lipscomb College; M.L.S., 1968, George Peabody College. (1972)

Craig, Paul A., Professor, Aerospace
B.S., 1979; M.Ed., 1980; Ed.S., 1995, Middle Tennessee State University; Ed.D., 1998, Tennessee State University. (1993)

Craig-Unkefer, Lesley A., Associate Professor, Elementary and Special Education
B.A., 1990; M.Ed., 1992, University of Memphis; Ed.D., 1999, Vanderbilt University. (2008)

Crawford, Frederic M., Jr., Professor, History
B.A., 1953; M.A., 1958, University of North Carolina; Ph.D., 1969, University of Kentucky. (1964).

Craze, Jennifer Vanessa, Instructor, Health and Human Performance
B.S., 1994; M.S., 1995, Middle Tennessee State University. (2004)

Creek, Lana L., Educational Specialist, MTSU Educational Talent Search Program, College of Basic and Applied Sciences
A.S., 2000, Motlow State Community College; B.S., 2002, Tennessee Wesleyan College. (2003)

## Cribb, Joshua Warner, Professor, Geosciences

B.S., 1983, Vanderbilt University; M.S., 1986, George Washington University; Ph.D., 1993, Ohio State University. (1993)

Cripps, Alfred H., Professor, Computer Science
B.S., 1974; M.S., 1975, Middle Tennessee State University; Ph.D., 1980, University of Tennessee. (1981)

Crooks, Catherine E., Assistant Professor, Psychology
B.S., 1981, Baylor College of Dentistry; M.Ed., 1985, University of Houston, Baylor; Ph.D., 1990, University of Tennessee. (1993)

Cross, Zelia Woods, Compensation Analyst, Human Resource Services
B.B.A., 2001, Middle Tennessee State University; M.S.O., 2005, Cumberland University. (2006)

Crouch, Jenny Tenpenny, Marketing and Accessibility Program Coordinator, Student Recreation Center
B.S., 1977; M.A., 2004, Middle Tennessee State University. (1989)

## Crowder, Donald E., Associate Professor, Aerospace

B.S., 1965, Middle Tennessee State University; M.S., 1978, University of Northern Colorado; Ed.S., 1988, Troy State University. (1987)

Culbreath, Molly, Coordinator, College of Continuing Education and Distance Learning
B.S., 1975, University of Tennessee, Martin; M.Ed., 1976, University of Memphis. (2001)

Cunningham, Peter H., Professor, Health and Human Performance; Associate Dean, College of Graduate Studies
B.S., 1976, Austin Peay State University; M.A., 1977, Murray State University; Re.D., 1985, Indiana University. (1991)

Currie, Bruce J., Director, Tennessee Miller Coliseum
B.S., 1987, Western Kentucky University. (1988)

Curry, Curt, Senior Systems Analyst, Academic and Instructional Technology Services
B.S., 1993; M.A., 1995, Middle Tennessee State University. (1998)

Da, Jun, Associate Professor, Foreign Languages and Literatures B.S., 1985, Shanghai Jiano Tong University; M.A., 1993, Ohio University; Ph.D., 2000, University of Texas. (2000)

Dahan, Charles, Associate Professor, Recording Industry
B.A., 1992, University of North Carolina at Chapel Hill; M.M., 2000, Purchase College. (2007)

Daigle, Ashlie, Area Coordinator, Housing and Residential Life B.A., 2004, Centenary College; M.A., 2008, Michigan State University. (2008)

Daigle, Douglas J., Spirit Coordinator
B.S., 2003; M.Ed., 2007, Stephen F. Austin State University. (2007)

Daniel, Lara A., Professor, Accounting
B.S., 1979, Middle Tennessee State University; J.D., 1983, University of Tennessee; M.B.A., 1991, Middle Tennessee State University. (1986)

Dansby, Virginia S., Professor, Psychology
B.A., 1969, Davis and Elkins College; A.M., 1973; M.A., 1982; Ed.D., 1989, West Virginia University. (1989)

Danylo, Jennifer L., Academic Advisor, College of Basic and Applied Sciences
B.S., 1997; M.A., 2000, University of Northern Alabama. (2000)

Darby, Kathleen, Assistant Professor, Social Work
B.S.W., 2002, Middle Tennessee State University; M.S.S.W., 2003; Ph.D., 2007, University of Tennessee. (2007)

Davila, Gerardo, Professor, Music
B.M.E., 1979, Corpus Christi State University; M.M., 1987, North Texas State University. (1987)

Davis, Debbie A., Microcomputer Specialist, Server, Classroom, and Desktop Services
A.A.S., 1989, Roane State Community College; B.B.A., 1991, Middle Tennessee State University. (2003)

Davis, Jane M., Associate Professor, Walker Library
B.S., 1997, Middle Tennessee State University; M.L.S., 2000, University of Tennessee. (2002)

Davis, John Kermit, Jr., Head Men's Basketball Coach, Athletics
B.S., 1982; M.Ed., 1984, Mississippi State University. (2002)

Davis, Monica E., Instructor, Accounting
B.S., 1986; M.A.C., 1987, Auburn University. (2005)

Davis, Teresa L., Professor, Psychology
B.B.A., 1981, University of Richmond; M.S., 1988; Ph.D., 1992, University of Florida. (1993)

Dawson, Andrea, Assistant Professor, Music
B.A., B.M. 1993, Oberlin College; M.M., 1996; D.M.A., 1999, Eastman School of Music. (2007)

Dawson, Carol W., Assistant Professor, Academic Enrichment Support Unit
B.A., 1968, David Lipscomb College; M.A.T., 1970, Vanderbilt University; Ed.S., 1995, Middle Tennessee State University. (1989)

Dayton, Jan G., Instructor, English
B.A., 1994; M.A. 1996, Middle Tennessee State University. (1999)

Deboer, Edward, Event Coordinator, Event Coordination
B.S., 1987, Middle Tennessee State University. (2001)

DeBoer, Angela, Assistant Professor, Music
B.M., 1997, DePaul University; M.M. 2001, Northwestern University. (2007)

Delametter, Catherine A., Coordinator, Business and Industry, College of Continuing Education and Distance Learning
B.S., 1975, Arkansas Tech University; M.B.A., 1983; M.Mgt., 1992, University of Dallas. (2004)

Dell, Brian S., Project Manager, Campus Planning
B.S., 1995, University of Wisconsin, Milwaukee; M.Arch., 1998; M.U.P., 1998, University of Illinois, Urbana-Champaign. (2001)

Demé, Mamit, Assistant Professor, Economics and Finance
B.B.A., 1974, Western Illinois University; M.P.P.A., 1979; M.A., 1980, Jackson State University; Ph.D., 1990, University of Texas, Austin. (1990)

Dennis, Georgia, Event Coordinator, University Honors College B.S., 2000, Middle Tennessee State University. (1978)

Dent, Cedric, Professor, Music
B.M., 1985, University of Michigan; M.M., 1987, University of Alabama; Ph.D., 1997, University of Maryland. (2004)

## DePrince, Albert E., Jr., Professor, Economics and Finance

B.A., 1963, Bucknell University; M.A., 1965, University of Michigan; Ph.D., 1978, New York University. (1991)

## DeSalvo, Ramona P., Assistant Professor, Recording Industry

A.B., 1976; University of California, Berkeley; B.A., 1979, University of San Francisco Law School; J.D., 1980, University of Cincinnati College of Law. (2007)

Detmer, Carol M., Associate Professor, Human Sciences
B.S., 1969, University of Wisconsin; M.A., 1981, Western Kentucky University; Ed.D., 1985, East Texas State University. (1998)

Detmer, Richard C., Professor, Computer Science; Department Chair
B.S., 1966, University of Kentucky; M.A., 1970; Ph.D., 1972, University of Wisconsin, Madison. (1998)

Diaz, Manny, Assistant Football Coach, Athletics
B.S., 1995, Florida State University. (2006)

Diaz-Ortiz, Oscar A., Professor, Foreign Languages and Literatures
B.A., 1986, Universidad Incca de Colombia; M.A., 1994, Kansas State University; Ph.D., 1997, Arizona State University. (1998)

Ding, Wandi, Assistant Professor, Mathematical Sciences
B.S., 1998; M.S., 2001, Qingdao University; Ph.D., 2006, University of Tennessee. (2007)

## DiPaolo, Amanda, Assistant Professor, Political Science

B.A., 2001, St. Thomas University; M.A., 2004; Ph.D., 2007, Syracuse University. (2008)

DiVincenzo, John P., Professor, Chemistry
B.A., 1987; M.S., 1993; Ph.D., 1996, University of Delaware. (1996)

Dixon II, Michael A., Assistant Director, Marketing, College of Continuing Education and Distance Learning
B.B.A., 2003, Kennesaw State University. (2009)

Doman, Craig M., Associate Director, Student Unions and Programming B.S., 1991, Middle Tennessee State University. (1993)

Dong, Zhijhiang, Assistant Professor, Computer Science
B.S., 1994; M.S., 1997, Huazong University of Science and Technology; Ph.D., 2006, Florida International University. (2006)

Donnell, Virginia Ann, Professor, Speech and Theatre
B.S., 1981, Middle Tennessee State University; M.F.A., 1983, Florida State University; Ed.D., 2004, Tennessee State University. (1984)

Donovan, Ellen, Professor, English
B.A., 1978; M.A., 1980, Portland State University; Ph.D., 1988, University of Wisconsin, Madison. (1990)

Donovan, John P., Assistant Professor, Art
B.F.A., 1994, Loyola University; M.A., 1996; M.F.A., 1997, Stephen F. Austin State University. (2006)

Donovan, Kevin, Professor, English
B.A., 1978, Boston College; M.A., 1980; Ph.D., 1987, University of Wisconsin, Madison. (1989)

Dooley, Jennifer L., Associate Professor, Mathematical Sciences B.A., 1972, Western Kentucky University; M.A., 1974, University of Kentucky; Ed.S., 1995, Middle Tennessee State University; Ed.D., 2000, Tennessee State University. (1989)

Dornan, Wayne A., Associate Professor, Aerospace; Department Chair
B.A., 1982, Concordia University; M.S., 1985; Ph.D., 1989, University of Newfoundland. (2003)

Dorris, Terry E., Associate Professor, Aerospace
A.S., 1987, Volunteer State Community College; B.S., 1987; M.Ed., 1991; Ed.S., 1994, Middle Tennessee State University. (1989)

Dorse, Shandora A., Physician's Assistant-Certified, Health Services B.S., 1988, Trevecca Nazarene University; M.S., 1999, University of Nebraska Medical Center. (1996)

Dougan, John M., Associate Professor, Recording Industry
B.A., 1994, Westfield State College; M.A., 1990; Ph.D., 2001, College of William and Mary. (2001)

Dougherty, Lisa, Assistant Director, Admissions
B.L.S., 1996, Purdue University. (2006)

Dowdy, Jacqueline, Assistant Professor, Walker Library
B.A., 1983; M.A., 1985, University of South Carolina. (2000)

Downs, Kevin M., Associate Professor, Agribusiness and Agriscience
B.S., 1995; M.S., 1997, University of Florida; Ph.D., 2000, Auburn University. (2000)

Draude, Barbara J., Assistant Professor, Nursing; Assistant Vice President, Academic and Instructional Technology
B.S.N., 1981, Pennsylvania State University; M.S., 1986, Medical College of Virginia. (1986)

Dubek, Laura, Associate Professor, English
B.A., 1990; M.A., 1993, University of Nebraska-Omaha; Ph.D., 2001, University of lowa. (2002)

DuBois, John D., Professor, Biology
B.S., 1978, Baldwin-Wallace College; M.S., 1980; Ph.D., 1983, Miami University. (1989)

Dummons, Kimberly D., Assistant Professor, Art
B.A., 1995, Xavier University of Louisiana; M.F.A., 2001, University of New Orleans. (2004)

Duncan, Matthew D., Instructor, Academic Enrichment Support Unit
B.S., 2005; M.S., 2007, Jacksonville State University. (2007)

## Dunlap, Norma K., Professor, Chemistry

B.S., 1977, Eastern College, Pennsylvania; Ph.D., 1985, University of Wyoming. (1998)

Durham, Justin B., Manager, Tucker Theatre, Speech and Theatre B.S., 2007, Middle Tennessee State University. (2008)

Dye, Meredith H., Assistant Professor, Sociology and Anthropology B.S., 1999, Erskine College; M.A., 2001, University of North Carolina, Greensboro; Ph.D., 2008, University of Georgia (2008)

Eaker, Robert E., Professor, Educational Leadership
B.S., 1968, University of Chattanooga; M.Ed., 1970, University of Tennessee, Chattanooga; Ed.D., 1972, University of Tennessee. (1972)

Eason, David L., Professor, Journalism
B.S., 1969, Lambuth College; M.A., 1972, State University of New York, Albany; Ph.D., 1977, Southern Illinois University. (1991)

Eastham, Vicki, Project Manager/Interior Designer, Campus Planning B.S., 1996, Middle Tennessee State University. (1996)

Edgar, Kimberly S., Executive Assistant, Office of the President A.S., 1985, Jackson State Community College; B.S., 1987, University of Memphis. (2001)

Edlin, Maria L., Assistant Director, Center for Economic Education B.S., 1985; M.A., 1998, Middle Tennessee State University. (2000)

Edmondson, Diane R., Assistant Professor, Management and Marketing B.S., 2000; M.B.A., 2002; Ph.D., 2008, University of South Florida. (2008)

Edwards, M. Jo Geren, Professor, Health and Human Performance; Chairholder, Adams Chair of Excellence in Health Care Services B.S., 1972, University of Alabama; M.Ed., 1975, Memphis State University; Ed.D., 1982, University of Florida, Gainesville. (1992)

Edwards, Steven A., Assistant Professor, Biology
B.A., 1973; Ph.D., 1980, University of San Diego. (2006)

Eff, E. Anthon, Associate Professor, Economics and Finance
B.A., 1981, University of Louisville; Ph.D., 1989, University of Texas, Austin. (1990)

Eller, Jackie L., Professor, Sociology and Anthropology; Interim Department Chair
B.S., 1974, Phillips University; M.S., 1977; Ph.D., 1978, Oklahoma State University. (1985)

Ellis, Cheryl Slaughter, Professor, Health and Human Performance B.S., 1974; M.S.T., 1975, Jackson State University; M.S., 1980, University of Southern Mississippi; Ph.D., 1982, University of Tennessee. (1985)

Ellis, Steve, Assistant Football Coach, Athletics
B.S., 2003, Nicholls State. (2009)

Elrod-Erickson, Matthew J., Associate Professor, Biology
B.S., 1991, University of Texas, Austin; Ph.D., 1998, Massachusetts Institute of Technology. (2000)

## Emery, Beth C., Professor, Human Sciences

B.S., 1975, University of Maine; M.S., 1983; Ph.D., 1987, Oregon State University. (1985)

## Emore, Travis W., Manager, Tennessee Livestock Center

B.S., 1997, Middle Tennessee State University. (2003)

Enderson, Mary C., Professor, Mathematical Sciences
B.S., 1985; M.S., 1990, Old Dominion University; Ph.D., 1995, University of Georgia. (1999)

England, Susan D., Payroll Supervisor, Human Resource Services
B.S., 1978; M.S., 1979, Middle Tennessee State University. (1990)

## England, Vicky L., Registered Nurse, Health Services

B.S.N., 1987, University of North Alabama; AD Nursing, 1983, Columbia State Community College. (2007)

Erenso, Daniel B., Assistant Professor, Physics and Astronomy
B.Sc., 1990; M.S., 1997, Addis Ababa University; M.S., 2002; Ph.D., 2003, University of Arkansas. (2003)

## Erice Calvo Sotelo, Leopoldo, Assistant Professor, Music

Título de Professor Superior de Musíca, 1999, Real Conservatorio Superior de Musíca; M.M., 2004, Indiana University; D.M.A., 2008, State University of New York at Stonybrook. (2007)

## Ervin, M. Gore, Professor, Biology

B.S., 1976; M.S., 1978, Middle Tennessee State University; Ph.D., 1982, Mississippi State University. (1997)

Eveland-Sayers, Brandi, Assistant Professor, Health and Human Performance
B.S., 2000; M.S., 2001, University of North Alabama; Ph.D., 2006, Middle Tennessee State University. (2006)

Evins, Mary, Associate Professor, History
B.A., 1971; M.A.T., 1973, Vanderbilt University; A.M., 1981; Ph.D., 1998, University of Chicago. (2005)

Fann, Gina, Editor, News and Public Affairs
B.S., 1984, Middle Tennessee State University. (2004)

Farley, Alan, Assistant Athletic Director, Blue Raider Athletic Association
B.S., 1992, Middle Tennessee State University. (2004)

Farley, Richard S., Associate Professor, Health and Human Performance
B.A., 1984; M.S., 1990, Western Kentucky University; Ph.D. 1999, University of Alabama. (2000)

Farmer, Larry E., Professor, Accounting
B.S., 1971, University of Arkansas; M.B.A., 1972, Mississippi State University; D.B.A., 1975, Louisiana Tech University; C.P.A., 1976; C.M.A., 1982; C.I.A., 1990. (1980)

Farone, Anthony L., Professor, Biology
B.S., 1984, Pennsylvania State University; M.S., 1988; Ph.D., 1992, Miami University. (1995)

Farone, Mary B., Associate Professor, Biology
B.S., 1986, Thomas More College; M.S., 1989; Ph.D., 1993, Miami University. (1998)

Farwell, Tricia M., Assistant Professor, Journalism
B.A., 1994; M.A., 1998; Ph.D., 2004, Arizona State University. (2008)

Fayissa, Bichaka, Professor, Economics and Finance; Director, INROADS
B.S., 1971, Haile Selassie I University; M.S., 1976; M.A., 1981; Ph.D., 1982, University of Tennessee. (1980)

Fedak, Gail B., Director, Media Resources, Instructional Technology Support Center
B.S., 1975; M.A., 1996, Middle Tennessee State University. (1975)

Feiling, Gregory, Coordinator, Student Unions and Programming
B.A., 2003, Middle Tennessee State University. (2005)

## Ferrara, Ronald J., Professor, Aerospace

B.A., 1968, University of Connecticut; A.S., 1979, Western Kentucky University; M.S., 1982; Ed.D., 1992, University of Kentucky. (1985)

Festervand, Troy A., Professor, Management and Marketing; Associate Dean and Director for Executive Education, Jennings A. Jones College of Business
B.B.A., 1976; M.B.A., 1977, Stephen F. Austin State University; Ph.D., 1980, University of Arkansas. (1990)

Field, Kathy M., Assistant Professor, Walker Library
B.A., 1977, David Lipscomb College; M.L.S., 1984, University of Tennessee. (1988)

Fischer, Paul D., Professor, Recording Industry
B.S., 1979, Northwestern University; M.A., 1981; Ph.D., 1995, Bowling Green State University. (1996)

Fischer, Rebecca M., Associate Professor, Speech and Theatre; Department Chair
B.A., 1973, Trinity University; M.S., 1981, McGill University; Ph.D., 1990, Vanderbilt University. (1995)

Fishback, Myra, Assistant Athletic Director, Compliance and Game Operations, Athletics
B.S., 1985; M.A., 1989, Tennessee Technological University. (2005)

Fisher, Lawanna, Assistant Professor, Academic Enrichment Support Unit
B.S., 1979; M.S., 1981; Ed.S., 2000, Middle Tennessee State University. (1993)

Fisher, W. Martin, Manager, Recorded Media Collections, Center for Popular Music
B.S., 1987, University of Tennessee, Martin. (2005)

Fisher, William R., Senior Editor/Writer, Publications and Graphics B.S., 1980, Middle Tennessee State University. (2002)

Fitch, Gene, Associate Vice President for Student Affairs and Dean of Student Life
B.S., 1987; M.Ed., 1989, Arkansas Technical University; Ed.D., 1997, University of Arkansas. (1997)

Flanigan, Cheryl L., Assistant Professor, English
B.S., 1976; M.A., 1979; Ed.S., 1995, Middle Tennessee State University. (1989)

Fleming, Michael S., Assistant Professor, Recording Industry B.A., 1994, Carlton College; M.M., 2001, McGill University. (2004)

Fletcher, Bill, Director, Career Development Center
B.B.A., 1987, University of Mississippi; M.Ed., 1993, Ohio University. (2007)

Floyd, James C., University Counsel to the President
B.S., 1990, University of Alabama; J.D., 1993, Tulane University. (2003)

Floyd, Reginald S., Director, Energy Management
B.S., 1975; M.B.A., 1996, Tennessee State University. (1991)

Foglia, Matthew M., Associate Professor, Recording Industry
B.S., 1994, University of North Carolina at Asheville; M.M., 1996, New York University. (2008)

Fogus, Judith, Assistant Director, Student Financial Aid
B.S., 1995; M.A., 1998, Middle Tennessee State University. (2000)

Foley, Sean Ezra, Assistant Professor, History
B.A., 1996; M.A., 2000; Ph.D., 2005, Georgetown University. (2006)

Fontanesi-Seime, Margaret A., Professor, Social Work
A.B., 1978, West Virginia University; M.A., 1982, Duquesne University;
M.P.H., 1988; Ph.D., 1992, University of Pittsburgh. (1994)

Foote, David A., Associate Professor, Management and Marketing
B.A., 1975, Roberts Wesleyan College; M.B.A., 1993; Ph.D., 1999, University of Kentucky. (1999)

Foote, Rebecca, Instructor, Accounting
B.S., 1982, Ohio State University; M.S., 2005, Middle Tennessee State University. (2006)

Footit, Pamela C., Coordinator, Aquatics, Student Recreation Center
B.S., 1973; M.S., 1977, Indiana University; Ed.D., 2002, Northern IIlinois University. (2003)

Ford, Janaruth H., Instructor, Physics and Astronomy
B.A., 1977, Vanderbilt University; M.S., 2004, University of Western Sydney, Australia. (2004)

Ford, William F., Professor, Economics and Finance; Chairholder, Weatherford Chair of Finance
B.A., 1961, University of Texas, Austin; M.A., 1962; Ph.D., 1966, University of Michigan. (1991)

Foroudastan, Saeed, Professor, Engineering Technology; Associate Dean, College of Basic and Applied Sciences
B.S., 1980; M.S., 1981; Ph.D., 1987, Tennessee Technological University. (1996)

Forsythe, Regina G., Coordinator, Media Library Services, Instructional Media Resources, Instructional Technology Support Center B.S., 1993, Middle Tennessee State University. (2001)

Foss, Katherine A., Assistant Professor, Journalism
B.A., 2002, Gustavus Adolphus College; M.A., 2004, University of Minnesota; Ph.D., 2008, University of Minnesota. (2008)

Foster, David, Director, Marketing, College of Continuing Education and Distance Learning
B.A., 1980, Abilene Christian University. (2007)

## Foster, James, Director, Database Administration Services

B.B.A., 1992; M.B.A., 1998, Middle Tennessee State University. (2007)

Foster, Martha, Associate Professor, History
B.A., 1967, Colorado State University; M.A., 1991, Montana State Uni-
versity; Ph.D., 2000, University of California, Los Angeles (2001)
Foster, Paul S., Assistant Professor, Psychology
B.S., 1993; B.S., 1994, Kennesaw State University; M.S., 1996, Georgia

Southern University; Ph.D., 2004, Virginia Tech. (2007)
Fowler, Stuart J., Associate Professor, Economics and Finance
B.A., 1992, University of Arizona; M.A., 1994; Ph.D., 1999, Southern Methodist University. (2000)

Fraley, Dianna, Instructor, History
B.A., 1991, Middle Tennessee State University; M.A., 1995, Arkansas

State University. (2008)
Franklin, Sekou M., Assistant Professor, Political Science
B.S., 1994, Santa Clara University; M.A., 1996, San Francisco State University; Ph.D., 2001, Howard University. (2003)

Franklin, Tony, Offensive Coordinator, Football
B.S., 1979; M.A., 1989, Murray State. (2009)

Freeman, Ginger C., Director, Alumni Relations
B.B.A., 1989; M.Ed., 1992, Middle Tennessee State University. (1990)

Freeman, Gordon L., Jr., Associate Professor, Computer Information Systems
B.S., 1973; M.S., 1979, Tennessee Technological University; M.S., 1985,

Middle Tennessee State University; C.D.P., 1985; C.C.P., 1985; Ph.D., 2003, Vanderbilt University. (1980)

Friedli, Andrienne C., Professor, Chemistry
B.A., 1984, Rice University; M.S., 1986, Yale University; Ph.D., 1992, University of Texas. (1993)

Frisby, Debbie, Coordinator, MTSU Educational Talent Search Program, College of Basic and Applied Sciences
B.S., 2000; M.A., 2002, University of Alabama. (2004)

Frisby, Derek W., Assistant Professor, History
B.A., 1994, Middle Tennessee State University, M.A., 1997; M.A., 1999; Ph.D., 2004, University of Alabama. (2005)

Friz, Edward A., Instructor, Management and Marketing
B.S., 1999; M.B.A., 2003, Middle Tennessee State University. (2003)

Fromuth, Mary Ellen, Professor, Psychology
B.A., 1976, West Chester State College; M.S., 1978; Ph.D., 1983, Auburn University. (1989)

## Frost, Charles H., Professor, Social Work

B.A., 1960; M.S.S.W., 1966, California State University; D.S.W., 1984, University of California. (1997)

Fulks, Joseph, Associate Professor, Engineering Technology
B.S., 1969, University of Tennessee, Martin; M.S., 1971, Murray State. (2003)

Fuller, Dana K., Professor, Psychology
B.A., 1988, Northeastern State University-Oklahoma; M.S., 1991; Ph.D., 1994, University of Oklahoma. (1994)

Funkhouser, Ann, Assistant Manager, Walker Library
B.F.A., 1979, West Virginia University; M.B.A., 1991, Middle Tennessee State University. (2004)

Gaitely, Patricia, Assistant Professor, English
B.A., 1995, Lancaster University; M.S., 1997, University of Alabama-

Tuscaloosa; Ph.D., 2003, University of Louisiana-Lafayette. (2006)
Galbato, Linda, Instructor, Psychology
B.A., 1983, Indiana University; M.S., 1985, Purdue University School of Science. (2007)

Gambill, Stanley E., Professor, Computer Information Systems; Department Chair
B.S., 1983; M.I.S., 1983, Arkansas State University; Ph.D., 1992, Memphis State University. (1992)

## Garbharran, Hari P., Professor, Geosciences

B.A., 1972; B.A., 1976, (Honors) University of Durham, Westville (South

Africa); M.A., 1981, University of Natal (South Africa); Ph.D., 1989,
Southern Illinois University, Carbondale. (1994)
Gardner, Jackquelynn, Instructor, English
B.A., 1992; M.A., 2002, Middle Tennessee State University. (2001)

Gardner, Justin, Assistant Professor, Agribusiness and Agriscience B.S., 1996, University of Tennessee, Martin; M.S., 2002, University of Tennessee; Ph.D., 2007, University of Illinois at Urbana-Champaign. (2007)

Garner, Thomas A., Renovations Plans Coordinator, Facilities Services Registered Architect. (1993)

## Garrard, Kay R., Professor, Speech and Theatre

B.S., 1964, Mississippi University for Women; M.A., 1966, University of Alabama; Ph.D., 1982, University of California. (1983)

Garrett, Rebecca M., University Withdrawal Coordinator
B.S., 1991; M.Ed., 1997, Middle Tennessee State University. (2002)

Garrison, Ellen B., Associate Professor, History
B.A., 1965, Queens College; M.A., 1966; Ph.D., 1981, Stanford University. (1989)

Garrison, Ollie, Data Communications Technician, Network Services
A.A., 1962, St. John's River Junior College. (1993)

Gavin, Michael T., Preservation Specialist, Center for Historic Preservation
B.A., 1968, Rutgers University; M.A., 1995, Middle Tennessee State University. (1999)

Gebert, Kaylene A., Professor, Speech and Theatre; Executive Vice President and Provost
B.A., 1966, Hanover College; M.A., 1968, Cornell University; Ph.D., 1980, Indiana University. (2003)

## Geckle, Beverly, Assistant Professor, Walker Library

B.A., 1990; M.A., 1996; M.L.S., 2000, University of Maryland. (2006)

Geho, Patrick R., Associate Professor, Business Communication and Entrepreneurship; Executive Director, Tennessee Small Business Development Center (Lead Center)
B.S., 1975, Saint Leo College; J.D., 1985, Nashville School of Law. (1995)

Gentry, Deborah S., Associate Professor, English
B.A., 1972; M.A., 1975; D.A., 1992, Middle Tennessee State University. (1993)

## Gentry, William L., Professor, English

B.A., 1961, David Lipscomb College; M.A., 1963; Ph.D., 1972, Vanderbilt University. (1968)

George, Sherry Wiser, Graphic Designer, Publications and Graphics A.D., 1995, Nashville State Technical Institute. (2005)

Georgiou, Andrea M., Assistant Professor, Aerospace
B.S., 2003; M.Ed., 2006, Middle Tennessee State University. (2008)

Gibson, Jeffrey S., Assistant Professor, Speech and Theatre
B.S., 1993, Middle Tennessee State University; M.F.A., 2001, University of Alabama. (1997)

Gibson, Meichelle G., Senior Academy Coordinator, Institutional Diversity
B.S., 1993, Thomas Moore College; M.A., 1994, Morehead State University. (2004)

Gilbert, Jacqueline, Professor, Management and Marketing
B.B.A., 1983, University of Texas, Austin; M.B.A., 1991; Ph.D., 1995, University of Houston. (1996)

Gilbert, Linda Arms, Associate Professor, Educational Leadership B.S., 1972; M.A.T., 1979; Ed.S., 1991, Middle Tennessee State University; Ed.D., 1997, Tennessee State University. (2004)

Gill, William Warren, Professor, Agribusiness and Agriscience; School Director
B.S., 1973; M.S., 1975, University of Tennessee; Ph.D., 1981, University of Kentucky. (2007)

Givens, Gregory E., Assistant Professor, Economics and Finance B.S., 2000, Wake Forest University; Ph.D., 2005, University of North Carolina. (2005)

Gleason, Helen Wooten, Academic Advisor, School of Nursing B.S., 1970, David Lipscomb; M.Ed., 1998, Middle Tennessee State University. (1998)

Gober, R. Wayne, Professor, Computer Information Systems
B.S., 1962; M.S., 1963; Ph.D., 1967, University of Alabama; C.D.P., 1978. (1975)

Goldberg, Nancy S., Professor, Foreign Languages and Literatures B.A., 1971; M.S., 1973, University of Wisconsin, Madison; M.A., 1985; Ph.D., 1987, Vanderbilt University. (1988)

Golden, Angela M., Local Service Provider, College of Mass Communication, Server, Classroom, and Desktop Services
B.B.A., 1993; M.S., 1996, Middle Tennessee State University. (2004)

Goodin, Terry, Assistant Professor, Educational Leadership
B.G.S., 1995, Western Kentucky University; M.Ed., 1997, David Lipscomb University; Ed.D., 2003, Vanderbilt University. (2006)

Gordon, Lynne T., Classification Compensation Analyst, Human Resource Services
B.S., 2000, Middle Tennessee State University. (1995)

Gordon, Robert, Assistant Professor, Electronic Media Communication
B.F.A., 1975; M.B.A., 1977, University of Cincinnati. (2008)

Gore, David W., Associate Professor, Engineering Technology B.S., 1967, Georgia Institute of Technology; M.S., 1970, Florida Institute of Technology. (2000)

Gossett, Stephen Lee, Associate Professor, Aerospace
B.S., 1990; M.Ed., 1994; Ed.S., 1995, Middle Tennessee State University. (1992)

Gotcher, David. J., Director, Academic Outreach and Distance Learning, College of Continuing Education and Distance Learning
B.A., 1973, Abilene Christian University; M.A, 1993, University of Memphis; Ph.D., 2000, Texas A\&M University. (2009)

Govan, Sally H., Publications Editor/Designer, Business and Economic Research Center, Jennings A. Jones College of Business B.F.A., 1981, University of Tennessee. (1997)

Govan, William Pat, Coordinator, Tennessee Center for the Advancement of Mathematics, Science, and Technology Education
B.S., 1982, Middle Tennessee State University; M.S., 1992, University of Tennessee. (1996)

Gower, Diane S., Associate Professor, Elementary and Special Education
B.A., 1966; M.A.E., 1967, Northwestern State University; Ed.D., 1977, University of Tennessee. (1991)

Gower, Michael E., Associate Vice President, Business and Finance B.S., 1971; M.S., 1980, University of Tennessee, (1999)

Graddy, Duane B., Professor, Economics and Finance
B.S., 1964; M.S., 1965, University of Tennessee; M.A., 1969; Ph.D., 1974, Lehigh University. (1972)

## Graeff, Timothy R., Professor, Management and Marketing

B.S., 1985; M.B.A., 1986, Florida State University; Ph.D., 1992, Pennsylvania State University. (1992)

Graham, Stacey R., Assistant Professor, History; Research Professor, Center for Historic Preservation
B.A., 1998, University of Michigan, Ann Arbor; M.A., 2001; Ph.D., 2005, University of California, Los Angeles. (2007)

Gray, David W., Assistant Vice President, Facilities Services B.S., 1976, East Tennessee State University. (1994)

Gray, Helen, Assistant Professor, Health and Human Performance
B.S., 1996, Averett University; M.S., 2000, North Carolina State University; Ph.D., 2006, Indiana University. (2006)

Gray, Lewis, Coordinator, Career Development Center
B.S., 1976, Middle Tennessee State University; M.P.H., 1979, University of Tennessee. (2000)

Gray, Melissa N., R.N., Health Services
A.D.N., 1986, University of Kentucky. (2005)

Green, K. Nicole, Coordinator, Career Development Center B.S., 2002, University of Tennessee. (2005)

Green, Lisa A., Associate Professor, Mathematical Sciences
B.A., 1994, Goucher College; M.S., 1996; Ph.D., 2000, Georgia Institute of Technology. (2001)

Greer, Timothy H., Associate Professor, Computer Information

## Systems

B.S., 1990, Southwest Missouri State University; M.S., 1992, Murray State University; Ph.D., 1999, University of Mississippi. (1999)

Gregory, Charles K., Director, Student Recreation Center
B.S., 1983; M.S., 1986, Middle Tennessee State University. (1989)

Gritton, Jeffrey A., Instructor, Physics and Astronomy
B.S., 2006, Kent State University; M.S., 2008, Ball State University. (2008)

Gross, Judith M., Professor, Chemistry
B.S., 1981; M.S., 1984; University of Maryland; Ph.D., 1990, University of South Carolina. (1996)

Groves, Christy A., Assistant Professor, Walker Library
B.A., 1993; M.S.L.S., 1995, University of Tennessee. (2008)

Gwyn, Marion, Local Service Provider, College of Liberal Arts, Server, Classroom, and Desktop Services
(2008)

Haas, Louis B., Professor, History
B.A., 1979, University of Southern Indiana; M.A., 1982, Ohio State University; Ph.D., 1990, University of Illinois. (2001)

Haffner, John, Assistant Professor, Agribusiness and Agriscience B.S., 1979; D.V.M., 1982, University of Tennessee. (2003)

Hagberg, Connie, Employment Development Manager, Facilities Services
B.B.A., 1982, Middle Tennessee State University. (1995)

Hague, Angela, Professor, English
B.A., 1972, Florida State University; M.A., 1975, University of Florida; Ph.D., 1979, Florida State University; M.A., 1981, University of Sussex. (1981)

Halladay, Jette, Professor, Speech and Theatre
B.A., 1982, Brigham Young University; Ph.D., 1994, University of Utah. (1994)

Hamilton, Gary, Instructor, Speech and Theatre
B.A., 1970, Point Loma College; M.A., 1978, Marshall University. (2006)

Hamilton, Gloria J., Professor, Psychology
B.A., 1968; M.A., 1971, Middle Tennessee State University; Ph.D., 1985, George Peabody College of Vanderbilt University. (1991)

Hamilton, Jacqueline, Pre-School Teacher II, Human Sciences
B.S., 1990; M.S., 1992, Middle Tennessee State University. (2007)

Hamilton, Lady L., Nurse Practitioner, Health Services
B.S., 1998, University of Alabama; M.S.N., 2006, Vanderbilt University. (2007)

Hamlett, Sara Beth, Assistant Textbook Manager, Phillips Bookstore B.S., 2000, Middle Tennessee State University. (2003)

Hamm, Jeffrey L., Professor, Accounting; Department Chair B.S., 1973, Michigan State University; Ph.D., 1995, Texas Tech University; C.P.A., 1980. (2007)

Hampton, Lynn, Assistant Professor, Sociology and Anthropology
B.A., 1992, Wellesley College; M.A., 1998; Ph.D., 2006, Vanderbilt University. (2004)

Handy, Scott T., Associate Professor, Chemistry
B.S., 1991, University of Iowa; Ph.D., 1996, Indiana University. (2005)

Hankins, Caneta Skelley, Deputy Director, Center for Historic Preservation
B.A., 1973; M.A., 1977, Middle Tennessee State University. (1984)

Hankins, Judith A., Professor, Computer Science
B.A., 1970; M.A., 1971, Murray State University; Ph.D., 1980, University of Missouri, Rolla. (1979)

Hannah, Matthew, Assistant Director, Admissions
B.S., 2001, Middle Tennessee State University. (2006)

## Hannah, Richard L., Professor, Economics and Finance

B.A., 1973, University of Tennessee, Chattanooga; B.A., 1974; M.A., 1976, Middle Tennessee State University; Ph.D., 1981, University of Utah. (1992)

Hansen, Richard A., Associate Professor, Speech and Theatre B.A., 1974, Valparaiso University; M.A., 1976, Miami University; Ph.D., 1990, University of Missouri, Columbia. (1999)

## Hanson, Susan, Library Specialist, Walker Library

B.A., 1980, Bethel College; M.A., 1982, University of Maine; M.A., 1988, Indiana University. (2003)

Harper, Betty S., Professor, Accounting
B.S., 1969; M.Ed., 1970, Middle Tennessee State University; Ed.S., 1972;

Ed.D., 1976, Mississippi State University; C.P.A., 1985. (1972)
Harper, Emily B., Voice Mail Coordinator, Telecommunications Services
B.B.A., 1998, Middle Tennessee State University. (2000)

## Harper, J. Phillip, Associate Professor, Accounting

B.S., 1965, Austin Peay State University; M.B.A., 1966, Memphis State University; C.P.A., J.D., 1970, Nashville School of Law; Graduate Study, Mississippi State University. (1966)

Harrington, Jeannie J., Associate Professor, Accounting
B.S., 1983, Murray State University; C.P.A., 1980; М.B.A., 1988; Middle Tennessee State University; Ph.D., 1995, University of Kentucky. (1988)

## Harris, Caleb, Assistant Professor, Music

B.M., 2002, Oklahoma Baptist University; M.M., 2004, Eastman School of Music. (2005)

Harris, Christopher R., Professor, Electronic Media Communication B.F.A., 1969, Rochester Institute of Technology; M.A., 1991, University of Alabama. (1991)

Harris, Clayton D., Associate Professor, Geosciences
B.A., 1981, Indiana University, Bloomington; M.S., 1987, Southern Illinois University, Carbondale; Ph.D., 1992, Indiana University, Bloomington. (1994)

## Harris, Janice F., Assistant Professor, Nursing

A.N.S., 1981, John C. Calhoun Community College; B.S.N., 1999, Florida Atlantic University; M.S.N., 2000, University of Phoenix. (2002)

## Harris, John Lee, Director, Disabled Student Services

B.S., 1979; M.S., 1990, Middle Tennessee State University. (1985)

Harris, K. Watson, Director, Academic Technology Planning and Projects/ADA Campus Coordinator, Academic Affairs
B.S., 1986, Athens State College; CEBS, 1991; M.B.A., 1992, University of Tennessee, Chattanooga; C.P.A., 1994; Ed.D., 2003, Vanderbilt University. (1994)

Harrison, Jason R., Supervisor, COMPASS Testing, Academic Enrichment Support Unit
A.S., 1990, Jackson State Community College; B.S., 1992, Lambuth University; M.S.T., 1995, Middle Tennessee State University. (1998)

Hart, James B., Associate Professor, Mathematical Sciences
B.A., 1986, Hendrix College; M.S., 1988; Ph.D., 1991, Vanderbilt University. (1991)

Haseleu, Christian L., Professor, Recording Industry; Department Chair
B.A., 1972, University of the Pacific; M.A., 1976, San Francisco State University. (1978)

Haskew, Barbara S., Distinguished Professor of Economics, Economics and Finance
B.S., 1962; Ph.D., 1969, University of Tennessee. (1978)

Hatfield, Carla G., Academic Advisor, Academic Support Center
B.A., 1987, Mars Hill College; M.A., 1994, Tennessee Technological University; Ed.S., 2000, Middle Tennessee State University; Ed.D., 2004, Tennessee State University. (1995)

Hatfield, David M., Professor, Engineering Technology
B.S., 1969, Austin Peay State University; M.A.E., 1975, Tennessee State University; Ed.D., 1988, University of Tennessee. (1981)

Hausler, Joel W., Professor, Educational Leadership
B.S., 1976; M.Ed., 1981, University of Tennessee, Chattanooga; Ed.D., 1985, Oklahoma State University. (1981)

Havener, Albert G., Associate Professor, Mathematical Sciences B.S., 1967, University of Wyoming; M.S., 1969, U.S. Air Force Institute of Technology; Ph.D., 1983, University of Dayton. (2007)

Hawkins, Joseph C., Assistant Professor, Aerospace
B.S., 1999; M.Ed., 2003, Middle Tennessee State University. (2004)

Hayes, Emma F., Financial Analyst II, Grant Accounting, Business Office
(1991)

Hays, John David, Assistant University Counsel
B.S., 1975; M.A., 1978, Tennessee Technological University; J.D., 1986, Nashville School of Law; Ed.D., 1996, Vanderbilt University. (1981)

Head, Khajida, Assistant Women's Basketball Coach, Athletics B.A., 2003, Murray State; M.S., 2005, Slippery Rock University. (2007)

Hedgepeth, Sonja, Professor, Foreign Languages and Literatures
B.A., 1974, University of Texas, Austin; M.A.T., 1978, Southwest Texas State University; Ph.D., 1991, Pennsylvania State University. (1985)

Heffington, J. Douglas, Professor, History; Director, Global Studies
B.A., 1978, University of Arkansas; M.A., 1987; Ph.D., 1992, University of Oklahoma. (1992)

Heidt, Andrew D., Photographer/Digital Imaging Specialist, Photographic Services
B.S., 2001, Ball State University. (2007)

Heigle, K. Jacqueline, Assistant Professor, Electronic Media Communication
B.S., 1983, University of Colorado, Boulder; M.F.A., 1995, University of Memphis. (2003)

Hein, Michael B., Professor, Psychology
B.A., 1984, University of Northern Iowa; M.S., 1989; Ph.D., 1990, Georgia Institute of Technology. (1990)

Heine, Thomas, Associate Professor, Foreign Languages and Literatures; Interim Chair
A.B., 1975, University of California, Santa Cruz; M.A., 1978; Ph.D., 1980, University of Virginia. (2000)

Heinrich, Roger W., Associate Professor, Electronic Media Communication
B.A., 1992; M.A., 1996, Arizona State University; Ph.D., 2001, University of Tennessee. (2001)

Helford, Elyce Rae, Professor, English
B.A., 1984, Lake Forest College; M.A., 1990; Ph.D., 1992, University of lowa. (1992)

Hemby-Grubb, K. Virginia, Professor, Business Communication and Entrepreneurship
B.S., 1991; M.Ed., 1992; Ph.D., 1995, University of Southern Mississippi. (2004)

Henderson, Ronald H., Associate Professor, Physics and Astronomy; Interim Department Chair
B.S.E.E., 1989, University of Tennessee; M.S., 1991, Duke University; Ph.D., 1996, University of Virginia. (1996)

Henderson, Ronda G., Assistant Professor, Business Communication and Entrepreneurship
B.S., 1995, North Carolina Agricultural and Technical State University; M.S., 1996, University of North Carolina, Greensboro; Ph.D., 2005, Virginia Polytechnic Institute and State University. (2006)

Hendrichovsky, Amy, Assistant Volleyball Coach, Athletics
B.S., 2002, University of Tennessee. (2005)

Hennington, Amy H., Assistant Professor, Computer Information Systems
B.A., 1998, Mississippi University for Women; M.A., 2000, Louisiana State University; M.S., 2004, Middle Tennessee State University; Ph.D., 2008, University of Memphis. (2007)

## Henry, James A., Professor, Geosciences

B.A., 1971, University of California, Los Angeles; M.A., 1974, California State University, Long Beach; Ph.D., 1978, University of Kansas. (1998)

Hensley, Barbara L., Academic Advisor, Academic Support Center B.A., 1984; M.A., 1987, University of Alabama. (1993)

Henson, Tyler W., Academic Advisor, Academic Support Center B.S., 2004; M.Ed., 2008, Middle Tennessee State University. (2008)

Herlihy, Christopher R., Assistant Professor, Biology
B.S., 1997, McMaster University; Ph.D., 2004, Queen's University. (2008)

Herrin, Les, Assistant Football Coach, Athletics
B.S., 1970; M.S., 1972, Western Carolina University. (2006)

Hibbard, Allen Eugene, Professor, English; Director, Middle East Studies/Center
B.A., 1978, American University; M.A., 1982; Ph.D., 1989, University of Washington. (1990)

Higgenbotham, Casie, Instructor, Health and Human Performance B.S., 1998; M.S., 2006, Middle Tennessee State University. (2006)

Higgins, Charles A., Associate Professor, Physics and Astronomy B.S., 1988, University of Alabama, Huntsville; M.S., 1993; Ph.D., 1996, University of Florida. (2001)

## Higgins, Janet, Professor, Art

B.S., 1970; M.A., 1971; M.F.A., 1973, University of Wisconsin, Madison. (1976)

Higgs, Meredith Anne, Assistant Professor, Academic Enrichment Support Unit
B.S., 1994, Vanderbilt University; M.Ed., 1997; Ed.S., 2000; M.Ed., 2001, Middle Tennessee State University; Ed.D., 2006, Vanderbilt University. (1997)

Hight, Julie-Anne, Assistant to the Dean of the Library, Walker Library B.B.A., 1982; M.B.A., 1993, Middle Tennessee State University. (1994)

## Hill, Gerald L., Associate Professor, Aerospace

B.S., 1967, Texas A\&I; M.Ed., 1974, Middle Tennessee State University. (1991)

Hill, John, Professor, Recording Industry
B.M., 1980, Wilfred Laurier University; M.M.U., 1991, McGill University. (1992)

Hill, Vanessa, Registration Coordinator, Scheduling Center
B.S., 1986, Western Kentucky University. (2008)

Hinote, Brian P., Assistant Professor, Sociology and Anthropology B.A., 2000; M.A., 2003; Ph.D., 2007, University of Alabama at Birmingham. (2007)

## Hinton, Marcie, Assistant Professor, Journalism

B.A., 1991, Samford University; M.A., 1995, Murray State University; Ph.D., 2000, University of Tennessee. (2004)

Hinz, Jana, Summer School Director, College of Continuing Education and Distance Learning
A.S., 1976, Emporia State University; B.G.S., 1988, University of Kansas. (1994)

Hinz, Michael R., Associate Professor, Philosophy
B.A., 1981; M.A., 1985; M.Phil., 1989; Ph.D., 1992, University of Kansas. (1990)

Hitchcock, Cheryl J., Assistant Professor, Human Sciences
B.S., 1990; M.A., 2005; Ph.D., 2008, Tennessee Technological University. (2007)

Hix, Carolyn, Assistant Professor, Nursing
A.D.N., 1967, Union University; B.S.N., 1981, University of Tennessee; M.S.N., 1987, University of Texas Health Science Center; D.N.D., 2007, University of Tennessee Health Science Center. (2006)

Hixon, Martha, Associate Professor, English
B.A., 1977; M.A., 1980, Northeast Louisiana University; Ph.D., 1997, University of Southwestern Louisiana. (1999)

Hodge, Shannon C., Assistant Professor, Sociology and Anthropology B.A., 1991, University of Kansas; M.A., 1998; Ph.D., 2005, Tulane University. (2004)

Hodges, Tom, Assistant Woman's Basketball Coach, Athletics
B.S., 2004, Tennessee Technological University. (2005)

## Hoeschst-Jackson, Jeanne, Counselor, Counseling Services

B.A., 1976, Berry College; M. of Divinity, 1981, Columbia Theological Seminary. (1998)

Hoffman, Rhonda, Associate Professor, Agribusiness and Agriscience B.S., 1992, Truman State University; M.S., 1994; Ph.D., 1997, Virginia Polytechnic Institute and State University. (2003)

## Hoffschwelle, Mary S., Professor, History

B.A., 1977, Chatham College; M.A., 1980, College of William and Mary; Ph.D., 1993, Vanderbilt University. (1992)

Holder, Laura Stewart, Specialist, Tennessee Civil War National Heritage Area, Center for Historic Preservation
B.A., 1995, University of Kansas; M.A., 2005, Middle Tennessee State University. (2005)

Holder, Pamela G., Professor, Nursing
B.S.N., 1974; M.S.N., 1979; D.S.N., 1988, University of Alabama, Birmingham. (1999)

## Hollings, Marion, Professor, English

B.S., 1978, Tulane University; M.A., 1984, University of Montana; Ph.D., 1994, University of Arizona. (1994)

Hollman, Kenneth W., Professor, Economics and Finance; Chairholder, Martin Chair of Insurance
B.S., 1965, Middle Tennessee State University; M.B.A., 1966; Ph.D., 1970, University of Alabama; C.L.U., 1984; Ch.F.C., 1985; C.I.C., 1988. (1982)

## Holloway, Phillipa E., Associate Professor, History

B.A., 1990, University of North Carolina, Chapel Hill; M.A., 1994, University of North Carolina, Greensboro; Ph.D., 1999, Ohio State University. (1999)

Hollowell, Denise Colson, Director, Accounting Services, Business Office
B.B.A., 1989, Middle Tennessee State University, C.P.A., 1993, "Inactive." (2000)

Holmes, Judy D., Associate Professor, Computer Information Systems B.A., 1974, Vanderbilt University; M.B.A., 1977, University of Tennessee; Ph.D., 1988, Clemson University. (1998)

Holt, Aimee, Assistant Professor, Psychology
B.S., 1992, Lambuth University; M.A., 1998, Middle Tennessee State University; Ph.D., 2006, University of Memphis. (2002)

Holtzclaw, Robert, Professor, English
B.S., 1981; M.A., 1985; Ph.D., 1991, University of Tennessee. (1992)

Homaifar, Ghassem, Professor, Economics and Finance
B.A., 1975, Tehran University (Iran); M.S., 1978, State University of New York; M.A., 1982; Ph.D., 1982, University of Alabama. (1982)

Hong, Don, Professor, Mathematical Sciences
B.S., 1982, Zheijiang Normal University at Ningbo; M.S., 1987, Zheijiang University; Ph.D., 1993, Texas A\&M University. (2005)

Hooks, Dustin, Director, Ticket Operations
B.S., 2005, University of Tennessee. (2006)

Hopkirk, Susan, Assistant Professor, English
B.A., 1993, McMaster University; Ph.D., 2002, University of Alberta. (2004)

Hopper, Carolyn H., Professor, English
B.A., 1967, Lambuth College; M.A., 1980; D.A., 1985, Middle Tennessee State University. (1986)

Houghton, Sisavanh, Associate Professor, Art
B.F.A., 1999, University of Kansas; M.F.A., 2003, Southern Illinois University. (2003)

Houp, George W., Assistant Professor, English
B.A., 1992, Asbury College; M.A., 1993, Eastern Kentucky University; Ph.D., 2006, Indiana University of Pennsylvania. (2008)

Howard, James C., Professor, Chemistry
B.S., 1966, Purdue University; Ph.D., 1977, Cornell University. (1981)

## Howard, R. Stephen, Professor, Biology

B.S., 1985; M.S., 1987, Eastern Kentucky University; Ph.D., 1994, Indiana University. (1994)

Huddleston, Connie, Coordinator, College of Liberal Arts B.S., 2003, Middle Tennessee State University. (1984)

Huddleston Sherian S., Associate Vice Provost for Enrollment Services
B.S., 1972; M.Ed., 1980, Middle Tennessee State University; J.D., 1989, Nashville School of Law. (1977)

Huffman, James O., Professor, Educational Leadership; Department Chair
B.S., 1966; M.S., 1969; Ed.D., 1972, University of Tennessee. (1974)

Hugh, Joe, Assistant Vice President, Procurement Services
B.B.A., 1978, Middle Tennessee State University. (1987)

Hunt, M. Crosby, Professor, Speech and Theatre
B.A., 1976, University of Massachusetts; M.A., 1985; D.A., 1993, Middle Tennessee State University. (1985)

Hunt, Robert, Professor, History
A.B., 1974, University of Northern Colorado; M.A., 1979, University of Wyoming; Ph.D., 1988, University of Missouri, Columbia. (1989)

Hurt, Jeffrey Scott, Assistant Director, Admissions
B.S., 2000, Middle Tennessee State University. (2001)

Hutchens, K. Shawn, Facility Supervisor, Student Recreation Center B.S., 2003, Middle Tennessee State University. (2003)

Hutchison, Thomas W., Professor, Recording Industry
B.S., 1974; M.S., 1991; Ph.D., 1995, Florida State University. (1993)

Hutton, David L., Director, Student Financial Aid
B.B.A., 1978; M.S., 1985, Middle Tennessee State University. (1993)

Ikard, William L., Director, College of Continuing Education and Distance Learning
B.A., 1971, University of the South; M.A., 1974, Middle Tennessee State University. (2004)

Ilsley, William H., Professor, Chemistry
B.A., 1972, Millikin University; M.S., 1974, Xavier University; Ph.D., 1978, Wayne State University; M.S., 1995; M.S., 2003, Middle Tennessee State University. (1984)

Insell, Rick, Head Women's Basketball Coach, Athletics
B.S., 1977, Middle Tennessee State University. (2005)

Intintoli, James A., Photographer/Digital Imaging Specialist, Photographic Services
B.S., 1996, Middle Tennessee State University. (2003)

Isley-Farmer, Ada Christine, Professor, Music
B.M., 1968; M.M., 1972, University of North Carolina, Greensboro; D.M.A., 1992, University of Illinois, Urbana-Champaign. (1985)

Ivy, Mark, Associate Professor, Health and Human Performance B.S., 1987, Humboldt State University; M.S., 1990, Texas A\&M University; Ph.D., 2001, North Carolina University.

## Jackson, Jacquelyn, Professor, English

B.S., 1958, Tennessee State University; M.A., 1971; Ph.D., 1983, University of Kentucky. (1985)

Jackson, Mark Allan, Assistant Professor, English
B.A., 1988, Hendrix College; M.A., 1995, University of Arkansas; Ph.D., 2002, Louisiana State University. (2008)

Jackson, Patrick, Director of Television, Audio/Visual Services, Instructional Technology Support Center
(1984)

James, Kevin L., Associate Professor, Accounting
B.B.A., 1991; M.B.A., 1996, Middle Tennessee State University; CPA, 1993; Ph.D., 2000, University of Tennessee. (2000)

James, Nancy M., Director, Day Care Lab
B.S., 1981; M.S., 1984, Middle Tennessee State University. (1989)

James, Steven W., Local Service Provider, College of Education and Behavioral Science, Server, Classroom, and Desktop Services
B.A., 2004, Middle Tennessee State University. (2005)

Jared, Evelyn, Program Director, Tennessee Center for Child Welfare
(1977)

Jernigan, Dala U., Coordinator, Testing Services
B.Univ.S., 2003, Middle Tennessee State University. (1986)

Jetton, Amy E., Associate Professor, Biology
B.A., 1983, University of Tennessee; Ph.D., 1991, Northwestern University. (1994)

Jih, Wen-Jang, Professor, Computer Information Systems
B.S., 1974, National Central University; M.B.A., 1977, National ChengChi University; Ph.D., 1985, University of North Texas. (2003)

Jimison, Thomas P., Professor, Electronic Media Communication
B.F.A., 1971, Maryland Institute College of Art; M.A., 1972; M.F.A., 1973, University of lowa. (1991)

Johns, Horace E., Professor, Accounting
B.A., 1967; J.D., 1970, Vanderbilt University; M.A., 1976; Ph.D., 1982,

George Peabody College; M.B.A., 1987, Syracuse University. (1983)
Johnson, Clarence Shole, Professor, Philosophy
B.A., 1975, Fourah Bay College, University of Sierra Leone; M.A., 1978, Dalhousie University; Ph.D., 1986, McGill University. (1998)

Johnson, Jason D., Assistant Professor, Mathematical Sciences
B.S., 1999, University of Central Florida; M.S., 2001, Nova Southeastern University; Ph.D., 2005, Florida State University. (2005)

Johnson, Jerden E., Assistant Professor, Psychology
B.A., 1972, Memphis State University; M.A., 1976, Middle Tennessee State University; Ph.D., 1983, University of Wisconsin, Milwaukee. (1989)

Johnson, Jon Seth, Associate Professor, Art
B.F.A., 1999, Jacksonville State University; M.F.A., 2002, University of Tennessee. (2003)

Johnson, Michael A., Assistant Director, Counseling Services
B.S., 1978; M.S., 1981; Graduate Study, Tennessee State University. (1989)

Johnson, Michael Anthony, Associate Professor, Electronic Media Communication
B.S., 1984, Tennessee State University; M.A., 1992, Austin Peay State University. (1991)

Johnson, Newtona (Tina), Professor, English; Director, Women's Studies Program
B.A., 1979, Foruah Bay College, University of Sierra Leone; M.A., 1982, Dalhousie University; M.A., 1986, Concordia University; Ph.D., 1997, Emory University. (1998)

Johnson, Sandra L., Associate Professor, Biology
B.A., 1973, University of Pennsylvania; M.A., 1976, Teachers College, Columbia University; Ph.D., 1996, University of South Carolina. (1998)

Johnson, Shelley, Academic Advisor, Academic Support Center
B.S., 2001; M.S., 2003; Ed.S., 2006, Middle Tennessee State University. (2003)

Johnson, Susan, Counselor, Student Support Services
B.A., 1989, Mars Hill College. (2002)

Johnson, Terri, Director, June Anderson Women's Center B.S., 1991; M.L.S., 1994, Eastern Michigan University. (2006)

Johnson, Tonjanita L., Associate Vice President, Marketing and Communications
B.A., 1991; M.A., 1996, University of Alabama; Ph.D., 2006, Jackson State University. (2008)

Johnson, Troy, Football Equipment Manager, Athletics
B.S., 2004, Clemson University. (2007)

Johnson, Y. Faye, Associate Professor, Sociology and Anthropology; Assistant to Executive Vice President and Provost
B.S., 1965; M.A.T., 1969, Middle Tennessee State University; M.A., 1977, Vanderbilt University. (1969)

Johnston, Tony V., Professor, Agribusiness and Agriscience B.S., 1980; M.S., 1986; Ph.D., 1995, University of Arkansas. (1995)

Jones, Benjamin W., Manager, Grants and Contracts, Accounting Services, Business Office
B.B.A., 2000; M.B.A., 2002, Middle Tennessee State University; C.P.A., 2004. (2002)

Jones, Carla K., Instructor, Computer Information Systems
B.S., 1986, Tennessee State University; M.S., 1998, Middle Tennessee State University. (1999)

Jones, Connie A., Professor, Elementary and Special Education; Department Chair
B.A., 1975, Fisk University; M.A., 1979; Ed.D., 1988, Tennessee State University. (1988)

Jones, Eve H., Administrative Senior Systems Analyst, Administrative Information System Services
B.B.A., 1987, Mississippi State University. (1992)

Jones, Gia, Academic Advisor, Academic Support Center
B.A., 2003, Gannon University; M.A., 2008, Middle Tennessee State University. (2009)

Jones, Karen M., Supervisor of Clinical Services, Center for the Study and Treatment of Dyslexia
B.S., 1999; M.A., 2001; Ed.S., 2002, Middle Tennessee State University. (2002)

Jones, Lisa K., Payroll Supervisor, Human Resource Services
B.B.A., 1989, Middle Tennessee State University. (1994)

## Jones, Robert B., Professor, History

A.B., 1964, University of Virginia; M.A., 1968; Ph.D., 1972, Vanderbilt University. (1970)

Jones, Robin C., Director, Communication Support Services (1993)

Jones, Steven D., Associate Professor, Psychology
B.A., 1969, University of the South; M.A., 1974, University of Tennessee; Ph.D., 1985, University of Houston. (1993)

Jordan, Linda F., Director, Academic Affairs Administrative Systems Support
B.S., 1982, David Lipscomb College; M.Ed., 1998, Middle Tennessee State University. (1989)

Jordan, Linda M., Coordinator, Facilities Services
B.S., 1980; M.S. 1993, Middle Tennessee State University. (1985)

Jorgensen, Michael, Instructor, Music
B.M., 2003, Eastman School of Music; M.M., 2004, Guildhall School of Music and Drama. (2006)

Josey, Shannon, Instructor, Health and Human Performance B.S., 1997; M.S., 2000, Middle Tennessee State University. (2008)

Jubenville, Colby, Associate Professor, Health and Human Performance
B.A., 1994, Millsaps College; M.S., 1995; Ph.D., 1999, University of Southern Mississippi. (2001)

Juliano, Nikki, Assistant Director of Marketing
B.A., 2007, University of Tampa. (2008)

Justice-Lowe, Vickie G., Associate Director for Finance and Administration, Housing and Residential Life
B.A., 1974, University of Tennessee; M.A., 1980; Ed.S., 1993, Middle Tennessee State University. (1982)

Kalwinsky, Robert K., Associate Professor, Electronic Media Communication
B.A., 1974, Temple University; M.A., 1993, San Diego State University; Ph.D., 2001, University of Iowa. (2000)

Kang, Minsoo, Assistant Professor, Health and Human Performance B.A., 1995; M.Ed., 1997, Seoul National University; Ph.D., 2004, University of Illinois, Urbana-Champaign. (2004)

Kates, Jennifer, Assistant Professor, English
B.A., 1991, Rhodes College; M.A., 1993, University of Southern Mississippi; Ph.D., 2000, Georgia State University. (2007)

Kates, Ron, Associate Professor, English
B.A., 1989, Emory University; M.A., 1991, Miami University; Ph.D., 1997, Georgia State University. (1997)

Kayser, Jean-Patrick R., Associate Professor, Agribusiness and Agriscience
B.S., 1988; M.S., 1991, Colorado State University; Ph.D., 2001, Kansas State University. (2007)

Keedy, Priscilla P., Instructor, Computer Information Systems B.S., 1983; M.S., 1999, Middle Tennessee State University. (1999)

Keel, Beverly J., Professor, Recording Industry
B.S., 1988, Middle Tennessee State University; M.S., 1989, Columbia University. (1995)

Keene, Kristen C., Financial Management Analyst, Academic Affairs B.A., 2001, Middle Tennessee State University. (2002)

Keil, Margaret, Assistant Professor, Nursing
A.S., 1990, Victor Valley College; B.S., 1992, California State University, San Bernadino; M.N.E., 1999, University of Phoenix. (2008)

Kelker, Nancy L., Professor, Art
B.F.A., 1974; M.A., 1976, University of Oklahoma; Ph.D., 1985, University of Texas. (1999)

Kelley, Danny Ray, Associate Dean for Student Involvement and Leadership
B.A., 1988, Wright State University; M.S., 1993, University of Dayton; Ph.D., 2006, American University. (2008)

## Kelly, David B., Associate Professor, Psychology

A.B., 1972, Georgetown University; M.S., 1977, Oklahoma State University; Ph.D., 1984, Texas Technological University. (1985)

Kelly, J. Padgett, Professor, Biology; Co-Director, Center for Environmental Education
B.S., 1967; M.S., 1970, Middle Tennessee State University; Ph.D., 1975, Mississippi State University. (1991)

Kemp, Katie J., Assistant Professor, Management and Marketing B.S.B., 1976, Murray State University; M.B.A., 1981, Austin Peay State University; D.B.A., 1991, Mississippi State University. (1987)

Kempf, DeAnna S., Associate Professor, Management and Marketing B.S., 1984; M.B.A., 1989; Ph.D., 1995, Indiana University. (2002)

Kendrick, Donald F., Professor, Psychology
B.A., 1978, Eastern Washington University; M.A., 1980; Ph.D., 1982, Michigan State University. (1983)

Kennedy, Martin, Assistant Professor, Economics and Finance B.A., 1986, Villanova University; M.A., 1990, Temple University; Ph.D., 2005, University of Delaware. (2006)

Kerr, Brenda, Instructional Technology Specialist, Academic and Instructional Technology Services
B.M.E., 1979, Drake University; M.S., 1995, Iowa State University. (1998)

Kerr, Meredith, Coordinator of Annual Giving, Development Office B.S., 2004, Middle Tennessee State University. (2007)

Kerr, Robert, Assistant Track Coach, Athletics
B.S., 1963; M.S., 1965, University of Iowa; Ph.D., 1973, Purdue University. (1998)

Kerrick, George, Professor, English
A.B., 1964, Florida Southern University; M.A., 1965, Ohio State Univer-
sity; Ph.D., 1971, University of North Carolina. (1970)
Kershaw, Richard W., Director, Student Unions and Programming B.S., 1988, Western Oregon State; M.A., 1993, Michigan State University. (2004)

Kethley, R. Bryan, Professor, Management and Marketing
B.S., 1981, Southern Illinois University at Carbondale; M.S., 1988, University of Arkansas; Ph.D., 1997, University of Mississippi. (1997)

Khaliq, Abdul Q., Professor, Mathematical Sciences
M.S., 1977, Quaid-I-Azam University; M.S., 1980; Ph.D., 1983, Brunel University. (2005)

Khan, Zaf, Assistant Professor, Elementary and Special Education B.A., 1989 ; H.D.E., 1990; B.Ed., 1992, University of Durban-Westville Natal; M.S.S.E., 1993, Minot State University; Ed.D., University of South Dakota. (2006)

Kile, Charles O., Jr., Assistant Professor, Accounting
B.M.E., 1982, Lee University; M.B.A., 1984, Regent University; M.S.B.A., 1990; Ph.D., 1993, Washington University-St. Louis. (2003)

Kilpatrick, Robyn, Development Director, College of Liberal Arts; Development Office
B.A., 1992, Vanderbilt University. (2000)

## Kim, Jwa Keun, Professor, Psychology

B.Ed., 1980; M.Ed., 1982, Kyungpook National University; Ph.D., 1989, University of Oklahoma. (1989)

## Kim, Kihan, Assistant Professor, Journalism

B.A., 1996, Seoul National University; M.A., 2001, University of Mis-souri-Columbia; Ph.D., 2006, University of Texas-Austin. (2008)

Kim, Yang Soo, Assistant Professor, Speech and Theatre
B.A., 1984, Hankuk University of Foreign Studies; MACOMM, 1995; M.D.V., 1997, Southwestern Baptist Theological Seminary; Ph.D., 2003, University of Oklahoma. (2003)

Kimbrell, Edward M., Professor
B.S.J., 1961; M.S.J., 1967, Northwestern University; Ph.D., 1972, University of Missouri. (1971)

Kimbrell, Sally F., Senior Nurse, Health Services
R.N., 1961, Springfield Memorial Hospital; B.S., 1989, College of St. Francis. (1978)

Kimmins, Dovie L., Professor, Mathematical Sciences
B.S., 1980, David Lipscomb College; M.S., 1983, Middle Tennessee State University; Ed.D., 1994, University of Tennessee. (1983)

King, Christopher, Assistant Director of Technical Systems, College of Mass Communication
B.S., 2003, Middle Tennessee State University. (2005)

King, Rebecca, Associate Professor, English
B.A., 1972, Hendrix College; B.S.N., 1976, University of Tennessee Center for Health Sciences; M.A., 1991, Middle Tennessee State University; Ph.D., 1997, University of Tennessee. (1995)

Kirchner, Cathy, Assistant Director, Scheduling Center
B.S., 1978, Western Kentucky University. (1994)

Kirk, Jennifer A., Assistant Director of Student Unions and Programming
B.S., 2003; M.B.A, 2006, Middle Tennessee State University. (2006)

Kirk, Rachel A., Associate Professor, Walker Library
B.A., 1989, Wake Forest University; M.A., 1991, University of North Carolina; M.S., 2002, University of Tennessee. (2002)

Kirkman, Kathy, Instructor, English
B.A., 1988; M.A., 1996, Middle Tennessee State University. (1998)

Kissinger, Lori, Instructor, Speech and Theatre
B.S., 1984, Southern Indiana University; M.L.S., 1989, Indiana University; M.A., 2001, Indiana State University. (2003)

Kitzler, Phyllis A., Administrative Senior Systems Analyst, Administrative Information System Services
B.S., 1986, Middle Tennessee State University. (1989)

Klein, Christopher C., Associate Professor, Economics and Finance A.B., 1976, University of Alabama; Ph.D., 1980, University of North Carolina. (2002)

## Klerlein, Jacob T., Assistant Professor, Mathematical Sciences

B.S., 1994, Appalachian State University; M.Ed., 2002; Ph.D., 2006, University of Georgia. (2007)

## Kline, Paul C., Professor, Chemistry

B.S., 1979, Christian Brothers College; M.S., 1983, Georgia Institute of Technology; Ph.D., 1992, University of Notre Dame. (1994)

Klukowski, Matthew, Associate Professor, Biology
B.S., 1993, Loyola University, Chicago; Ph.D., 1998, Indiana University. (1999)

Klumpe, Eric W., Associate Professor, Physics and Astronomy
A.A., 1977, Pasadena City College; B.S., 1980, California Institute of Technology; M.S., 1981, Stanford University; M.S., 1991, University of Memphis; M.A., 1996; Ph.D., 1999, University of Texas. (1999)

Knight, La Tonda R., Academic Advisor, Academic Support Center B.S., 2001; M.A., 2004, University of Detroit Mercy. (2006)

Knight, Marcus L., Assistant Professor, Engineering Technology B.S., 1995; M.S., 1998, Tennessee Technological University. (2005)

## Knox, Alvin, Instructor, English

B.A., 1996, Tennessee Technological University; M.F.A., 1999, Vermont College. (2001)

Koritsanszky, Tibor S., Professor, Chemistry
M.Sc., 1979, Eotvos Lorand University; Ph.D., 1992, Free University of Berlin. (2002)

Korobkov, Andrei V., Associate Professor, Political Science
B.S.; M.A., 1982, Moscow State University; Ph.D. (Economics), 1988, Russian Academy of Sciences; Ph.D., (Political Science), 1999, University of Alabama. (2000)

Korstange, Amy B., Associate Director, Housing and Residential Life
B.A., 1998, Taylor University; M.A.R., Trinity International. (2008)

Korzaan, Melinda L., Assistant Professor, Computer Information Systems
B.S., 1991; M.S., 1998, Southwest Missouri State University; Ph.D., 2004, University of Arkansas. (2004)

Koski, Timothy R., Professor, Accounting
B.S., 1982, Arizona State University; M.S., 1986, Southern Methodist University; C.P.A., 1989; Ph.D., 1998, University of Missouri. (2002)

## Kostkowska, Justyna, Associate Professor, English

M.A., 1986, University of Maria Curie-Sklodowska; Ph.D., 1995, University of Delaware. (1996)

## Krishnamani, Vatsala, Professor, Mathematical Sciences

B.S., 1965, Madras University, India; M.S., 1967, Indian Institute of Technology, India; Ph.D., 1986, Southern Illinois University. (1986)

Krishnan, Lakshmi, Advancement Computing Support Specialist, Information Technology Division
B.S., 1998, Cochin University; M.S., 2002, Eastern Michigan University. (2006)

Kwon, Hyun Ju (Jasmin), Assistant Professor, Human Sciences B.S., 1994; M.S., 2000; Ph.D., 2004, Kyungpook National University. (2007)

Lahde, Karen E., Facilities Inventory Coordinator, Campus Planning B.S., 1990, Middle Tennessee State University. (2003)

Lamb, Jeri, Advertising Manager, Sidelines
A.S., 1979, Columbia State Community College; M.A.T., 1981, Belmont University. (2002)

Lambert, Bradley, Specialist, Athletic Web Site, Athletics
B.S., 2003, Middle Tennessee State University. (2005)

Lambright, Spencer, Assistant Professor, Music
B.M., 1999, University of Oregon; M.M., 2001, Yale University School of Music; D.M.A., 2008, Cornell University. (2006)

Lancaster, Kenneth G., Associate Professor, Social Work
B.S., 1971; M.A., 1975, Austin Peay State University; M.S.S.W., 1979, University of Tennessee; Ph.D., 1994, University of Wisconsin, Milwaukee. (1998)

## Langenbach, Lisa, Associate Professor, Political Science

B.A., 1980, Mary Washington College; M.A., 1982; Ph.D., 1986, Purdue University. (1993)

Langham, Jerry, Assistant Director, Healthy Lifestyles, Student Recreation Center
B.S., 1995; M.S., 1997, Middle Tennessee State University. (2000)

Langley, Carol, Assistant Coordinator, Distance Learning Student Services, College of Continuing Education and Distance Learning B.Unv.S., 2000, Middle Tennessee State University. (2001)

Langston, William E., Professor, Psychology
B.A., 1989, University of Houston; Ph.D., 1994, University of Wisconsin, Madison. (1997)

Langworthy, Lucy, Academic Advisor, College of Liberal Arts
B.A., 1978; M.A., 1982, Mississippi College; Ph.D., 1989, Oklahoma State University. (2006)

## Lavender, Mary Jane, Assistant Professor, Nursing

R.N., 1966, Methodist Hospital School of Nursing; B.S.N., 1970, Indiana University; M.S.Ed., 1974, University of Central Arkansas; Ed.S., 1999, Middle Tennessee State University. (1992)

Lavery, David, Professor, English
B.S., 1971, Clarion University; M.A., 1973, St. Cloud University; Ph.D., 1978, University of Florida. (1993)

Lawrence, Robert, Instructor, English
B.A., 1998; M.A., 2002, Middle Tennessee State University. (2002)

Laws, Robert C., Director, Tennessee Center for Labor-Management Relations
B.A., 1958; J.D., 1962, Vanderbilt University. (2000)

Lawson, Marlene G., Assistant to the Dean, College of Basic and Applied Sciences
B.Unv.S., 1997, Middle Tennessee State University. (1973)

Lea, Lucinda T., Vice President for Information Technology and Chief Information Officer
B.S., 1967, Tennessee Technological University; M.S., 1974, Middle Tennessee State University. (1973)

Leblond, Jeffrey D., Associate Professor, Biology
B.S., 1993, University of Massachusetts, Amherst; Ph.D., 1997, University of Tennessee. (2000)

Ledford, Lucas, Specialist-Library Systems, Walker Library
B.A., 2004, Middle Tennessee State University. (2004)

Lee, Jeong Hwa, Associate Professor, English
B.A., 1979, Korea University; M.A., 1982, State University of New York, Albany; Ph.D., 1994, University of Kansas. (1994)

Lee, Jong-Sung, Associate Professor, Computer Information Systems
B.S., 1977, Yeungnam University; M.B.A., 1983, Central Missouri State University; D.B.A., 1988, Mississippi State University. (1987)

Lee, Leslie Robin, Associate Professor, Psychology
B.A., 1990; M.Ed., 1993, Delta State University; Ph.D., 1997, Mississippi State University. (2006)

Lee, Paul D., Professor, Physics and Astronomy
B.S., 1963; M.S., 1965; Ph.D., 1968, University of Illinois. (1994)

Lee, Terrence A., Associate Professor, Chemistry
B.S., 1979, Florida Institute of Technology; M.S., 1986; Ph.D., 1990, University of Akron. (1991)

Leggett, Ida F., Associate Professor, Sociology and Anthropology
B.A., 1990, Bryn Mawr College; M.A., 1995, Northern Illinois University; Ph.D., 2003, University of Illinois, Urbana-Champaign (2002)

Leggett, William, Assistant Professor, Sociology and Anthropology
B.A., 1990, University of Tennessee; M.A., 1994, Northern Illinois University; Ph.D., 2003, University of Illinois, Urbana-Champaign. (2006)

Lemauu', Alicia, Director of Volleyball Operations
B.A., 2008, Middle Tennessee State University. (2008)

Leming, Gretchen R., Program Coordinator and Academic Advisor, Jennings A. Jones College of Business
B.A., 1994; M.S., 1996, University of Tennessee. (1999)

Leone, Janice M., Professor, History
B.A., 1971, College of St. Scholastica; B.S., 1977; M.A., 1979, Mankato

State University; Ph.D., 1989, Ohio State University. (1989)
Lester, Donald L., Associate Professor, Management and Marketing B.A., 1976; M.B.A., 1990; Ph.D., 1994, University of Memphis. (2005)

Levine, William, Associate Professor, English
B.A., 1980, State University of New York, Stony Brook; Ph.D., 1989, Indiana University. (1998)

Lewis, Carroll C., Manager, Financial Services and Compliance, Business Office
B.S., 1998, University of Tennessee, Martin (2007)

Lewis, Stephen D., Professor, Business Communication and Entrepreneurship; Department Chair
B.S., 1974, Tennessee Technological University; M.Ed., 1975, Memphis

State University; Ph.D., 1977, University of North Dakota; C.D.P., 1987. (1977)

Li, Cen, Associate Professor, Computer Science
B.S., 1993, Middle Tennessee State University; M.S., 1995; Ph.D., 2000, Vanderbilt University. (1999)

Li, Jinjia, Assistant Professor, Mathematical Sciences
B.S., 1999, University of Science and Technology, China; M.S., 2001; Ph.D., 2006, University of Illinois. (2008)

Li, Liu, Accountant I, Accounting Services, Business Office
B.S., 1999, Beijing Institute of Technology; M.S., 2005, Middle Tennessee State University. (2006)

Lightsy, Byron, Coordinator, Greek Affairs
B.A., 1996; M.Ed., 2000, Western Kentucky University. (2005)

Lim, Joon Soo, Assistant Professor, Journalism
B.A., 1994; M.A., 1996, Korea University; Ph.D., 2006, University of Florida. (2006)

Lin, Anhua, Assistant Professor, Mathematical Sciences
B.S., 1997, University of Science and Technology; M.S., 1999; M.S., 2002; Ph.D., 2003, Johns Hopkins University. (2004)

Lindsey, Brandi, Assistant Professor, Nursing
B.S.N., 2003, Bryan College; M.S.N., 2004, Vanderbilt University. (2009)

## Linton, Michael R., Professor, Music

B.M., 1974, Wheaton College; M.M., 1977, University of Cincinnati; M.A., 1980, Yale University; Ph.D., 1988, New York University. (1994)

Linville, Rebecca C., Concrete Industry Management Marketing and Recruitment Coordinator, Engineering Technology
B.S., 1975, University of Tennessee; M.Ed., 2003; Ed.S., 2005, Middle Tennessee State University. (2006)

Litchy, Paul, Associate Professor, Engineering Technology
B.S., 1973, University of Wisconsin, Milwaukee; M.S., 2007, Vanderbilt University. (2007)

Little, Deanna, Associate Professor, Music
B.M., 1991, University of Northern Iowa; M.M., 1995, Indiana University; D. Mus., 2006, Indiana University. (2000)

Littlepage, Glenn E., Professor, Psychology
B.A., 1969, University of New Mexico; M.S., 1971; Ph.D., 1974, Kansas State University. (1973)

Livingston, James Randall, Assistant Professor, Journalism
B.F.A., 1990, Middle Tennessee State University; M.F.A., 1992, University of Georgia. (2004)

Livingston, Steven Greene, Professor, Political Science; Editor, Global Commerce, Business and Economic Research Center, Jennings A. Jones College of Business
B.A., 1976, Pacific Lutheran College; A.M., 1978; Ph.D., 1986, Harvard University. (1994)

Lobegeier, Melissa K., Assistant Professor, Geosciences
B.S., 1995, University of Queensland; Ph.D., 2001, James Cook University. (2006)

Logan, Terry L., Coordinator of Safety, Construction Administration and Environmental Health and Safety Services
B.A., 1982, McNeese State University; M.S., 1994, Middle Tennessee State University. (1990)

## Logue, Gina, Producer, News and Public Affairs

 (2001)Lombardi, Christopher, Systems Programmer, Server, Classroom, and Desktop Services
B.S., 1997, University of Pittsburgh. (2008)

Long, Lynette, Associate Professor, Speech and Theatre
B.A.C., 1991, Bowling Green State University; M.A., 1993, Ohio

University; Ph.D., 1997, University of Georgia. (2004)
Lorson, Noel, Assistant Professor, Art
B.F.A., 1995, Kurtztown University; M.F.A., 2001, Tyler School of Art, Temple University. (2004)

Loubere, Philip, Assistant Professor, Journalism
B.F.A., 1986, SUNY College at Buffalo; M.A., 1987, Eastern Illinois University; M.F.A., 1990, University of Wisconsin at Madison. (2008)

Loucky, David L., Professor, Music
B.A., 1982, Wesleyan University; M.M., 1984, Yale University, D.M.A., 1987, State University of New York, Stony Brook. (1989)

Lower, Catherine, Associate Director, Admissions
B.S., 1990, Eastern Michigan University. (2006)

Lucas, Marva S., Associate Professor, Mathematical Sciences; Interim Director, Academic Enrichment Support Unit
B.A., 1977, Fisk University; M.S., 1993; Ed.S., 1996, Middle Tennessee State University; Ed.D., 1999, Tennessee State University. (1993)

## Ludwig, Julie F., Assistant Professor, Nursing

A.D.N., 1997; B.S.N., 2000, Tennessee State University; M.S.N., 2008, Middle Tennessee State University. (2008)

## Luo, Rong, Associate Professor, Mathematical Sciences

B.S., 1996; M.S., 1998, University of Science and Technology; Ph.D., 2002, West Virginia University. (2002)

## Lutz, Alfred, Professor, English

B.A., 1982, Tubingen University (FRG); M.A., 1987; Ph.D., 1993, University of Colorado, Boulder. (1998)

Lynch, John C., Jr., Director, Marketing Technologies, News and Public Affairs
B.A., 1969, University of the South; M.A., 1973, Memphis State University. (1991)

Lynn, Alyson Muenzer, Instructor, English
B.A., 1998, University of Tennessee; M.A., 2001, Middle Tennessee

State University. (2001)
Lyons, Leah, Assistant Professor, Foreign Languages and Literatures B.A., 1995, Middle Tennessee State University; M.A., 1997, Vanderbilt University. (2001)

Lyons, Pierrecia L., Coordinator of Field Placements, Collage of Education and Behavioral Science
B.A., 1998, Middle Tennessee State University; J.D., 2001, University of Tennessee. (2007)

MacDougall, Preston J., Professor, Chemistry
B.Sc.(Hons), 1983; Ph.D., 1989, McMaster University. (1994)

MacEachin, Elizabeth, Area Coordinator, Housing and Residential Life
B.A., 1993, Suffolk University; M.S., 2001, Capella University. (2007)

Mackin, Randal, Assistant Professor, English
B.S., 1980; M.A., 1988, Austin Peay State University; D.A., 2002, Middle Tennessee State University. (1997)

MacLean, Victoria Marie, Professor, Sociology and Anthropology
B.S., 1981, University of Tulsa; M.A., 1984; Ph.D., 1992, Duke University. (2003)

Macon, Tommy, Associate Professor, Speech and Theatre
B.A., 1993, University of Alabama; M.F.A., 1996, University of Tennessee. (2006)

Macy, Amy S., Associate Professor, Recording Industry
B.M., 1986; M.B.A., 1995, Belmont University. (1999)

Magada-Ward, Mary, Professor, Philosophy
B.A., 1975, LeMoyne College; M.A., 1990; Ph.D., 1993, Southern IIlinois University. (1993)

Magill, Elizabeth, Event Coordinator, Murphy Center Complex B.A., 1977, Carson-Newman College; M.S., 1979, University or Tennessee. (2007)

Magne, Cyrille, Assistant Professor, Psychology
B.S., 2000; M.S., 2001; Ph.D., 2005, Universite Paul Cezanne, AixMarseille III. (2007)

Maier, J. Lee, Professor, Computer Information Systems
B.S., 1969, University of Tennessee; M.S., 1974, Colorado State University; Ph.D., 1992, Auburn University. (1992)

Maisonneuve, Rita M., Assistant Professor, Foreign Languages and Literatures
B.A., 1980; M.A., 1982, Carleton University. (1987)

Malone, Ron, Assistant Vice President, Events and Transportation B.S., 1988, Middle Tennessee State University. (1989)

Mangrum, Valerie, Assistant Professor, Walker Library
B.A., 2000, Harding University; M.L.S., 2003, University of Southern Mississippi. (2006)

Manning, Christopher B., Assistant Professor, Biology
B.S., 1996; M.S., 1998, Middle Tennessee Sate University; Ph.D., 2004, University of Vermont. (2006)

Maples-Vaught, Anne, Project Coordinator, Campus Planning
B.S., 1988; B.S., 1999, Middle Tennessee State University. (2000)

Marcellus, Jane Berry, Associate Professor, Journalism
B.A., 1980, Wesleyan University; M.S.J., 1982, Northwestern University;
M.A., 1993, University of Arizona; Ph.D., 2004, University of Oregon. (2003)

Marchant, Jennifer, Associate Professor, English
B.S., 1985, State University of New York, Brockport; M.S., 1993, State University of New York, Buffalo; M.A., 1996, Tulsa University; Ph.D., 2003, Illinois State University. (2003)

## Marquart, Sheila M., Assistant Professor, Nursing

B.S.N., 1974, University of Akron; M.S.N., 1991, University of Alabama, Huntsville; Ed.S., 1999, Middle Tennessee State University. (1994)

Martin, C. Brendan, Professor, History
B.A., 1989; M.A., 1991, Middle Tennessee State University; Ph.D., 1997, University of Tennessee. (2001)

Martin, Joseph, Assistant Director, Classroom Technology Support Services
A.A.S., 1991, Art Institute of Ft. Lauderdale; B.S., 1997, University of Phoenix; M.A.Ed., 2006, Austin Peay State University. (2007)

Martin, Mary B., Professor, Mathematical Sciences
B.S., 1979, Middle Tennessee State University; M.S., 1981; Ph.D., 1984, University of North Carolina. (1998)

Massaquoi, Momolu W., Assistant Professor, Walker Library
B.A., 1973, Cuttington College-Liberia; M.L.S., 1977, George Peabody College. (1982)

## Massaro, Chris, Director of Athletics

B.S., 1983, University of Northern Colorado; M.S., 1986, Ohio University. (2005)

## Massengill, Amy, Instructor, Biology

B.S., 1993, Stetson University; D.V.M., 1997, University of Florida. (1998)

Mathis, Mary K., Associate Professor, Engineering Technology
B.S.C.E., 1972, Tennessee Technological University; M.A., 1982; Ed.S., 1988, Middle Tennessee State University; Ed.D., 1993, Tennessee State University. (1988)

Matthews, Brandi, Area Coordinator, Housing and Residential Life B.S., 2001, Ball State University; M.S., 2004, Missouri State University. (2008)

Matthews, Mary P., Instructor, Biology
B.S., 1992; M.S., 2002, Middle Tennessee State University. (2002)

Matusek, Chris, Director of Football Operations
B.S., 2002, Middle Tennessee State University. (2003)

Mauldin, John, Assistant Professor, Speech and Theatre
B.S., 1997, Middle Tennessee State University; M.F.A., 2001, Florida Atlantic University. (2003)

May, Rosa, Coordinator of Custodial Services and Maintenance, Housing and Residential Life (1997)

Mayberry, Leslie, Mechanical Systems Coordinator, Facilities Services
B.S., 1986, Tennessee State University. (1994)

Maynor, John, Associate Professor, Political Science
B.A., 1990, Millsaps College; M.A., 1992, George Washington University; D.Phil., 2000, University of York, England. (2004)

McBee, Dennis, Manager, Distribution Services
B.S., 1989, Middle Tennessee State University. (1995)

McBreen, Theresa M., Assosicate Professor, Foreign Languages and Literatures
B.A., 1990, Iona College; M.A., 1992; Ph.D., 1999, Purdue University. (2001)

McBride, Ronald E., Professor, Engineering Technology
B.S., 1968, University of Arkansas; M.S., 1973; Ed.D., 1980, East Texas State University. (1986)

McCarthy, Patrick, Associate Professor, Psychology
B.A., 1987, Drake University; M.A., 1993; Ph.D., 1997, George Mason University. (1999)

McCarty, Bonnie A., Assistant Director, Scholarships, Student Financial Aid
B.S., 1999, Campbellsville University. (2004)

McCauley, Tracey, Assistant Professor, Nursing
B.S.N., 1997, Middle Tennessee State University; M.S., 2005, University of South Alabama. (2006)

McClain, Neal W., Director, Computer Science and Mathematical Sciences Lab, Computer Science
B.S., 2001, Middle Tennessee State University. (1998)

McCloud, Stanton E., Specialist, Scheduling Center
B.S., 2007, Middle Tennessee State University. (2007)

McClure-Wade, Lori, Instructor, English
B.A., 1995; M.A., 2000, Middle Tennessee State University. (2000)

McCluskey, Peter, Associate Professor, English
B.A., 1987, Hendrix College; M.A., 1988, Indiana University; Ph.D., 1998, University of Arkansas. (1999)

McConnell, Susan M., R.N., Health Services
B.S.N., 1985, Tennessee Technological University. (2005)

McCormack, M. Dawn, Assistant Professor, History
B.A., 1997; Ph.D., 2008, University of Pennsylvania. (2008)

McCormick, Janet K., Associate Professor, Speech and Theatre
B.A., 1987; M.A., 1988, Eastern Illinois University; Ed.D., 1994, Southern Illinois University-Carbondale. (2002)

McCormick, Nancy J. Brien, Associate Professor, Mathematical Sciences B.S., 1986; M.A., 1987, Murray State University; Ed.S., 1994, Middle Tennessee State University; Ed.D., 1998, Tennessee State University. (1989)

McCree, Margaret, Assistant Professor, Speech and Theatre
B.A., 1969; M.A., 1971, Colorado State University. (1999)

McCullough, Ann, Assistant Professor, Foreign Languages and Literatures
B.A., 1995, George Washington University; M.A., 1997, Florida State University; Ph.D., 2005, Emory University. (2008)

McCusker, Kristine M., Associate Professor, History
B.A., 1987, University of Massachusetts; M.A., 1994, University of Kansas; Ph.D., 2000, Indiana University. (2000)

McDaniel, J. Michelle, Assistant Director, Institutional Diversity B.S., 2000, University of Tennessee, Martin; M.B.A., 2002, University of Tennessee, Chattanooga; Ed.S., 2006, Middle Tennessee State University. (2005).

McDaniel, John N., Professor, English; Dean, College of Liberal Arts B.A., 1963, Hampden-Sydney College; M.A.T., 1964, Johns Hopkins University; Ph.D., 1972, Florida State University. (1970)

## McDaniel, Rhonda, Associate Professor, English

A.A., 1983, Miami-Dade Community College; B.M.T., 1986, Shenandoah Conservatory of Music; M.A., 2001, University of Tennessee, Chattanooga; Ph.D., 2003, Western Michigan University. (2003)

McDaniel Robb, Associate Professor, Political Science
B.A., 1990, Davidson College; Ph.D., 1998, Vanderbilt University. (1998)

McDaniel, Scott N., Assistant Professor, Academic Enrichment Support Unit
B.S., 1992; M.S., 1995; Ed.S., 2000, Middle Tennessee State University; Ed.D., 2003, Tennessee State University. (1995)

McGhee, Charles R., Professor, Biology
B.S., 1962; M.S., 1963, Middle Tennessee State University; Ph.D., 1970, Virginia Polytechnic Institute. (1969)

McGrew, Linda G., Professor, Business Communication and Entrepreneurship
B.S., 1972; M.B.E., 1975, Middle Tennessee State University; C.P.S., 1984; Ed.D., 1987, Vanderbilt University. (1979)

McGuire, James R., Assistant Baseball Coach, Athletics
A.S., 1983, Rend Lake College; B.S., 1985, Cumberland University. (1992)

McInnis, Leigh Ann, Associate Professor, Nursing
B.S.N., 1987; M.S.N., 1989, Vanderbilt University; Ph.D., 2005, Touro University. (2005)

McIntyre, Rebecca, Assistant Professor, History
B.A., 1985, University of Maryland; M.S., 1994, Troy State University; Ph.D., 2004, University of Alabama. (2004)

McKinnie, Douglas, Assistant Professor, Recording Industry
B.A., 1988, Case Western Reserve University; M.M.U., 1996, McGill University; Ph.D., 2004, University of Surrey. (2006)

McKissack, Chris P., Director, Career and Technical Education, College of Continuing Education and Distance Learning B.S., 1995; M.Ed., 2001, Middle Tennessee State University. (1998)

McLaury, Mike, Assistant Baseball Coach, Athletics
B.S., 1994; M.S., 1998, Middle Tennessee State University. (2005)

McMahan, Jeffery W., Systems Programmer, Server, Classroom, and Desktop Services
B.S., 1981; M.S., 1996, Middle Tennessee State University. (2006)

McNamara, David, Head Men's Tennis Coach, Athletics
B.A., 2003; M.S., 2005, Middle Tennessee State University. (2002)

McWatters, D. Lorne, Professor, History
B.A., 1970, Simon Fraser College; M.A., 1972, University of Calgary; Ph.D., 1979, University of Florida. (1993)

McWhirter, Jamila, Assistant Professor, Music
B.M., 1989, Southwest Baptist University; M.A., 1995, Central Missouri State University; Ph.D., 2005, University of Missouri. (2005)

Meacham, Debbie Beasley, Supervisor of Clinical Studies, Center for the Study and Treatment of Dyslexia
B.S., 1983; M.A., 2000, Middle Tennessee State University. (2000)

Means, H. Willis, II, Associate Professor, Elementary and Special Education
B.A., 1969, David Lipscomb College; M.Ed., 1979, University of Cincinnati; M.S., 1986, University of Evansville; Ed.D., 1997, Texas Technological University. (1996)

Melnikov, Yuri A., Professor, Mathematical Sciences
B.S., 1964; M.S., 1965; Ph.D., 1971, Dnepropetrovsk State University; D.Sc., 1983, Moscow Institute of Civil Engineering. (1992)

## Melton, Angie Carla, Associate Director, Admissions

B.S., 1992; M.Ed., 2004, Middle Tennessee State University. (1996)

Melton, Tammy J., Professor, Chemistry
B.S., 1982, Murray State University; Ph.D., 1986, Texas A\&M University. (1999)

Merchant III, John Holt, Assistant Professor, Recording Industry
B.A., 1989, University of Miami; M.F.A., 2008, Middle Tennessee State University. (2009)

Mertig, Angela, Professor, Sociology and Anthropology
B.A., 1987, Ripon College; M.A., 1990; Ph.D., 1995, Washington State University. (2004)

Mewbourne, Roy, Coordinator, BRAA, Athletics
B.S., 1967; M.S., 1971, Florida State University. (2002)

Michello, Franklin A., Associate Professor, Economics and Finance B.S., 1985; M.S., 1987, Middle Tennessee State University; M.A., 1998; Ph.D., 1999, University of Alabama. (1987)

Michels-Clark, Tara M., Instructor, Academic Enrichment Support Unit
B.A., 1999, King College; M.S., 2003, East Tennessee State University. (2006)

## Middleton, Kenneth, Associate Professor, Walker Library

A.B., 1986, University of Georgia; M.L.S., 1992, University of Tennessee; M.A., 2000, Middle Tennessee State University. (1993)

Miller, Brian T., Professor, Biology
B.S., 1980; M.A., 1983, University of Missouri; Ph.D., 1989, Washington State University. (1989)

Miller, Dana Keeling, Associate Professor, Human Sciences
B.S., 1977; M.S., 1978, Eastern Kentucky University. (1992)

Miller, James R., Assistant Director, Student Unions
B.S., 2003, Middle Tennessee State University. (2004)

Miller, L. Diane, Professor, Mathematical Sciences; Vice Provost, Academic Affairs; Director, McNair Program
B.S., 1973, University of Tennessee; M.S., 1977, Memphis State University; Ph.D., 1986, University of Missouri. (1993)

Miller, Patricia S., Assistant Vice President/Architect, Campus Planning Mus.B., 1975, Boston University; M.Arch., 1980, Washington University. (1992)

Miller, Tracy L., Assistant Professor, English
B.S., 1990, Middle Tennessee State University; M.A., 1994, University of Louisville; Ph.D., 2005, University of Texas-Dallas. (2002)

Millsaps, Martha A., Senior Graphic Designer, Publications and Graphics
B.S., 1980, Middle Tennessee State University. (1981)

Milstead, Karen D., Benefits Specialist, Human Resource Services B.B.A., 1985; B.S., 2004, Middle Tennessee State University; C.P.S., 1997; A.A.I., 1999. (1995)

Minichillo, John, Assistant Professor, English
B.A., 1990, Loyola University of Chicago; M.F.A., 1995, Western Michigan University; Ph.D., 1999, University of Southern Mississippi. (2003)

Mistron, Deborah, Professor, Foreign Languages and Literatures B.A., 1972, State University of New York; M.A., 1975, Purdue University; Ph.D., 1982, Indiana University. (2000)

Mitchell, John R., Development Director, Jennings A. Jones College of Business, Development Office
B. S., 1987, University of the Cumberlands. (2007)

Mitchell, Joseph L., Instructor, English
B.A., 1997; M.A., 2003, Middle Tennessee State University. (2006)

Miyakawa, Felicia, Assistant Professor, Music
B.A., 1993, Linfield College; M.A., 1997; Ph.D., 2003, Indiana University. (2004)

Mizell, Steven, Recruiter, Admissions
B.S., 2006, Middle Tennessee State University. (2006)

Moffett III, Richard G., Associate Professor, Psychology; Director, Center for Organizational and Human Resource Effectiveness
B.A., 1977, University of South Florida; M.S., 1979, Valdosta State College; Ph.D., 1996, Auburn University. (1991)

Mogensen, Robert, Assistant Director, Production Services
B.S., 1996, Middle Tennessee State University. (1997)

Molina, Alexandra, Assistant Director, Admissions
B.S., 2004, Universidad Pontificia Bolivariana; M.S., 2007, Florida International University. (2008)

Montgomery, E. Yvonne, Staff Nurse, Health Services
A.A., 1982, Middle Tennessee State University. (1999)

Montemayor, Victor J., Professor, Physics and Astronomy
B.S., 1979, Bucknell University; Ph.D., 1986, University of Toledo. (1990)

Moore, Elizabeth Hays, Fieldwork Coordinator, Center for Historic Preservation
B.A., 2003, Vanderbilt University; M.Ar.H., 2005, University of Virginia Graduate School of Architecture. (2006)

## Moore, Lisa, Instructor, Speech and Theatre

B.A., 1978, Middle Tennessee State University; M.S., 1981, Auburn University. (1998)

Moore, Roy L., Professor, Journalism; Dean, College of Mass Communication
B.A., 1969, Berea College; M.A., 1970, University of Kentucky; Ph.D., University of Wisconsin at Madison; J.D., 1986, Georgia State University. (2008)

Morgan, Don W., Professor, Health and Human Performance
B.M.E., 1975, Northwestern University; M.S., 1981, University of Tennessee; Ph.D., 1988, Arizona State University. (2004)

Morrell, Daniel L., Assistant Professor, Management and Marketing B.B.A., 1992; M.B.A., 2003, Western Illinois University; Ph.D., 2008, University of South Carolina. (2008)

Morris, Pamela D., Assistant Professor, Economics and Finance
B.S., 1989; M.S. 1991, Auburn University; M.A., 2005; Ph.D., 2008, Middle Tennessee State University. (2008)

Morris, Richard E., Associate Professor, Foreign Languages and Literatures
B.A., 1990, Cornell College; M.A., 1992; Ph.D., 1998, Ohio State University. (1998)

Morris, Steven A., Associate Professor, Computer Information Systems
B.A., 1989; Ph.D., 1999, Auburn University. (1999)

Morton, Gerald H., Associate Professor, Engineering Technology B.S., 1969, University of South Carolina; Ph.D., 1980, University of Georgia. (2008)

Moseley, Aubrey H., Professor, Educational Leadership
B.S., 1957, Troy State College; M.A., 1964; Ed.D., 1966, University of Alabama. (1966)

Moser, H. Ronald, Professor, Management and Marketing
B.S., 1962, Tennessee Technological University; M.B.A., 1971, Middle Tennessee State University; Ed.D., 1981, University of Tennessee. (1982)

Mosey, Paul T., Chief Flight Instructor, Aerospace
B.S., 2000, Delaware Valley College; M.Ed., 2000, Middle Tennessee State University. (2004)

Mpoyi, Richard T., Associate Professor, Management and Marketing
B.A., 1981, University of Kinshasa, Congo; M.B.A., 1991, Western Illinois University; D.B.A., 1997, Southern Illinois University. (1998)

Mukendi, Kabenga (Franck), Technical Support Specialist, Server, Classroom, and Desktop Services
(2000)

Mullane, John V., Associate Professor, Management and Marketing B.S., 1983, Wayne State College; Ph.D., 1993, Arizona State University. (1996)

Mullen, Dennis Michael, Professor, Biology
B.S., 1982, Oregon State University; M.S., 1985, University of Maine; Ph.D., 1991, Michigan State University. (1991)

Mullis, Christopher Chad, Director, Business and Finance, Technology Support Services, Business Office
B.S., 2002; M.S., 2004, Middle Tennessee State University. (2005)

Mulraine, Loran, Associate Professor, Recording Industry
B.A., 1985, University of Maryland; J.D., 1991, Howard University. (1998)

Munson, Dave, Senior Systems Analyst, Academic and Instructional Technology Services
M.S.E., 1976, University of Michigan, Ann Arbor. (2000)

Murdock, J. Angela, Assistant Professor, Mathematical Sciences
B.S., 1991, Indiana University; M.S., 1996, Middle Tennessee State University; Ph.D., 2006, University of Memphis. (2007)

Murphy, George G., Professor, Biology; Department Chair B.S., 1965, Austin Peay State College; M.S., 1967; Ph.D., 1970, Mississippi State University. (1969)

Murphy, Lucie, Development Director, Continuing Education and Distance Learning; College of Education and Behavioral Science, Development Office
B.S., 2003, Middle Tennessee State University. (2006)

Murtaza, Mirza B., Associate Professor, Computer Information Systems
B.S., 1981; LL.B., 1984, Lucknow University; M.B.A., 1989, California State University; Ph.D., 1993, University of Houston. (1999)

Musicant, Alan D., Associate Professor, Psychology
B.A., 1972; M.A., 1978, California State University; Ph.D., 1982, University of Chicago. (1992)

Musselman, Kathy I., Assistant Vice President for Human Resource Services
B.S., 1988, Jacksonville State University; C.P.A., 1993, "Inactive." (1996)

Musselman, Tim E., Coordinator of Facilities and Publicity, School of Music B.M., 1978, University of Alabama. (2000)

Myatt, Julie A., Assistant Professor, English
B.S., 2001; M.A., 2003, Tennessee Technological University; Ph.D., 2008, University of Louisville. (2008)

Myers-Shirk, Susan E., Professor, History
B.A., 1980, Messiah College; M.A., 1988; Ph.D., 1994, Pennsylvania State University. (1994)

Nagy, Jean, Associate Professor, Art; Department Chair
A.B., 1980, St. Michael's College; M.F.A., 1986, Pennsylvania State University. (1990)

Nasab, Ahad S., Professor, Engineering Technology
B.S., 1980, California State University, Northridge; M.S.M.E., 1981; Ph.D., 1987, Georgia Institute of Technology. (1991)

Nathan, Angel C., Assistant Director, Student Athlete Enhancement Center
B.A., 2003; M.E., 2004, University of Georgia. (2007)

Neal, Sandra, Professor, Health and Human Performance
B.S., 1976; M.Ed., 1977, Middle Tennessee State University; Ed.D., 1992, University of Tennessee. (1978)

Neely, Alanna L. Instructor, Agribusiness and Agriscience
B.S., 2003, Middle Tennessee State University; M.S., 2006, Tennessee Technological University. (2006)

Neely, Kari, Assistant Professor, Foreign Languages and Literatures B.A., 1995; M.A., 1998, University of Arkansas; M.A., 2000; Ph.D., 2008, University of Michigan. (2008)

## Nelson, Donald A., Professor, Mathematical Sciences

B.S., 1969, Mississippi College; M.A., 1973; Ph.D., 1974, Vanderbilt University. (1986)

## Nelson, Lynn A., Associate Professor, History

B.A., 1989, University of Chicago; M.A., 1991, University of Kansas; Ph.D., 1998, College of William and Mary. (1999)

Nelson, Millicent F., Assistant Professor, Management and Marketing B.S., 1977, Lane College; M.B.A., 1979; Ph.D., 2003, Oklahoma State University. (2004)

Ness, Alison J., Assistant Athletic Trainer, Athletics
B.S., 2000, Slippery Rock University; M.S., 2002, West Virginia University. (2003)

Neth, Michael James, Professor, English
B.A., 1980, Wichita State University; M.A., 1981; M.Phil, 1985; Ph.D., 1990, Columbia University. (1990)

Nevar, Sue, Head Softball Coach, Athletics
B.S., 1981, Indiana University. (2007)

Newman, Deborah W., Professor, Criminal Justice Administration; Department Chair
B.S., 1973, University of North Alabama; M.S., 1977; Ed.D., 1982, Mississippi State University; J.D., 1985, University of Alabama School of Law. (1990)

Newman, Harold, Assistant Professor, Recording Industry
B.S., 1966; M.E., 1970, Livingston State College. (1998)

Newsome, Anthony L., Professor, Biology
B.S., 1973; M.S., 1977, Eastern Kentucky University; Ph.D., 1982, Memphis State University. (1993)

Nichols, Jennifer, Academic Advisor, Nursing
B.S., 2004; M.Ed., 2005, Middle Tennessee State University. (2008)

Nichols, Mary Lynn, Professor, Electronic Media Communication B.S., 1982, Clarion State College; M.S., 1983, Clarion University of Pennsylvania; Ph.D., 1994, University of North Carolina, Chapel Hill. (1992)

Niemiller, Eric, Web Specialist, Academic and Instructional Technology Services
B.S., 1997, University of Evansville; M.B.A., 2003, Middle Tennessee State University. (2007)

Nies, Carol Reiner, Associate Professor, Music
B.M., 1979, University of Miami; M.M., 1981, Yale University; D.M.A., 2001, University of Cincinnati. (2001)

Nofsinger, Kim Neal, Professor, Speech and Theatre
B.S., 1983, University of Wisconsin, LaCrosse; M.F.A., 1991, Arizona State University. (2004)

Noggle, Chad A., Assistant Professor, Psychology
B.A., 2003, University of Illinois, Springfield; M.A., 2006, Ph.D., 2006, Ball State University. (2008)

Nogueira, Soraya, Associate Professor, Foreign Languages and Literatures
B.A., 1983, Catholic University of Mina Gerais, Brazil; B.A., 1986, Federal

University of Goias, Brazil; Ph.D., 1999, Vanderbilt University. (1999)
Nokes, Jeffery S., Director of Engineering, Audio/Visual Services, Instructional Technology Support Center
B.S., 1991, Middle Tennessee State University. (1998)

Nokes, Maureen, R.N., Director of Nurses, Health Services
Diploma Degree, 1980, Providence School of Nursing. (2001)
Nolan, Thomas J., Instructor; Director, Spatial Technology Lab, Geosciences
A.A.S., 1974; B.S., 1978, University of Kentucky; M.S., 1992, University of Southern Mississippi; Ph.D., 2007, Texas State University, San Marcos. (1994)

Norman, Janet R., Assistant Director, Disabled Student Services B.S., 2004, Trevecca Nazarene University. (2005)

## Norman, Myra K., Director, Research Services

B.S.Ed., 1970; M.A., 1972, Northwest Missouri State University; Ph.D., 1985, University of Missouri. (1992)

Norton, James R., Associate Professor, Electronic Media Communication
B.S., 1966, Middle Tennessee State University; M.F.A., 1973, Ohio University. (1974)

Norton, Sandra E., Academic Advisor, College of Education and Behavioral Science
B.S., 1983, Middle Tennessee State University. (1983)

Novella, Nuria, Associate Professor, Foreign Languages and Literatures M.A., 1988, Universidad de Murcia (Spain); Ph.D., 1998, Vanderbilt University. (1993)

Nuell, Elizabeth C., Professor, Art
B.A., 1972, State University of New York, Geneseo; M.F.A., 1980, University of Georgia. (1981)

O'Brien, Matthew C., Associate Professor, Recording Industry
B.A., 1980; J.D., 1984, University of Wisconsin. (1994)

O'Farrell, Paul J., Assistant Professor, Geosciences
B.S., 1967; M.S., 1974, East Tennessee State University. (1989)

## Ogden, Albert, Professor, Geosciences

B.S., 1972, Pennsylvania State University; Ph.D., 1976, West Virginia University. (1995)

Ojeda, Alison, Head Women's Tennis Coach, Athletics
B.S., 2002, University of Tennessee. (2005)

## O'Leary, Patricia Ann, Associate Professor, Nursing

Practical Nursing, 1969, Bellaire School of Practical Nursing; Diploma in Nursing, R.N., 1973, Mercy Hospital School of Nursing; B.S.N., 1978, West Liberty State College; M.S.N., 1980, Vanderbilt University; D.S.N., 1990, University of Alabama, Birmingham. (1990)

Oliver, James, Assistant Professor, Philosophy
A.B., 1980, University of Missouri, Columbia; Ph.D., 1998, Vanderbilt University. (2006)

Omachonu, John, Associate Dean and Professor, College of Mass Communication B.S., 1981; M.A., 1984; Ph.D., 1989, Howard University. (2004)

Oneal, Dennis J., Professor, Electronic Media Communication; Department Chair
B.S., 1966, Southern Illinois University; M.A., 1972, University of Arkansas, Fayetteville; Ph.D., 1979, University of Southern Mississippi. (1983)

Ooi, Beng Guat, Associate Professor, Chemistry
B.S., 1983; Ph.D., 1988, Monash University, Australia. (1999)

Orellana, Karee, M., Instructor, Elementary and Special Education B.S, 1997, Auburn University; M.Ed., 2003, Middle Tennessee State University. (2007)

Osburn, Melissa, Project Manager/Interior Designer, Campus Planning B.S., 1990, O'More College of Design. (1997)

Oshop, Glenda B., Senior Systems Analyst, Administrative Information System Services
B.B.A., 1994, Middle Tennessee State University. (2005)

Ostrowski, Carl, Associate Professor, English
B.A., 1990, Wayne State University; M.A., 1992, University of Tennessee; Ph.D., 1997, University of South Carolina. (1999)

Otter, Ryan, Assistant Professor, Biology
B.S., 2001; M.S., Michigan State University; Ph.D., 2006, Clemson University. (2007)

Otto, Sheila J., Associate Professor, English
B.S., 1980, Vanderbilt University; M.A., 1990; Ed.S., 1994, Middle Tennessee State University; Ph.D., 2001, Vanderbilt University. (1990)

Otts, David A., Professor, Academic Enrichment Support Unit A.B., 1973; M.A., 1977; Ed.D., 1985, University of Alabama. (1986)

Outlaw, Janet, Assistant Director of Clinical Services, Counseling Services
B.A., 1981, Loyola University; M.A., 2003, Trevecca Nazarene University. (2004)

Overton, Janina D., Web Specialist, Academic and Instructional Technology Services
B.B.A., 2006, Middle Tennessee State University. (2006)

Owens, Anne-Leslie, Manager, Center for Historic Preservation B.A., 1992, University of Kentucky; M.A., 1995, Middle Tennessee State University. (2001)

Owens, Mark F., Assistant Professor, Economics and Finance B.S., 2001, St. Vincent College; M.A., 2002; Ph.D., 2006, Ohio State University. (2006)

Owens, Mark R., Director, Media Relations, Sports Information B.S., 1989, Virginia Polytechnic Institute. (1998)

Owusu, Andrew, Assistant Professor, Health and Human Performance B.S., 1996, University of Alabama; M.S., 1998, Wayne State University; Ph.D., 2004, Middle Tennessee State University. (2004)

Oxford, Nancy, Assistant Professor, Human Sciences
B.S., 1978, University of Tennessee; M.S., 1981, University of North Carolina, Greensboro. (1988)

Pace, Richard B., Professor, Sociology and Anthropology
B.A., 1980, Indiana University; M.A., 1983; Ph.D., 1987, University of Florida. (1997)

Palmer, Lynn, Director, Admissions
B.B.A., 1987; M.Ed., 1991, Middle Tennessee State University. (1987)

Palmore, Elaine M., Director, Child Development Center, Human Sciences
B.S., 1996; M.A., 2002, Belmont University. (2008)

Panol, Maria Zenaida Sarabia, Professor, Journalism; Interim School Director
B.S., 1977, Silliman University; M.A., 1984, University of the PhillipinesDiliman; Ed.D., 1993, Oklahoma State University. (2003)

Papini, Dennis R., Professor, Psychology; Department Chair
B.S., 1979, Western Illinois University; M.A., 1982; Ph.D., 1984, West Virginia University. (2004)

Parente, Sharon C., Assistant Professor, Walker Library
B.A., 1982, Lynchburg College; M.L.S., 1983, University of Kentucky. (1984)

Parham, Fay, Executive Director, Institutional Effectiveness
B.S., 1977; M.B.A., 1987, University of Tennessee. (2003)

Parker, Brenda A., Associate Professor, Computer Science
B.S., 1969; M.S., 1982, Middle Tennessee State University; M.S., 1986, Vanderbilt University. (1982)

Parrish, Marc, Director of Technical Systems, Electronic Media Communication
A.A., 1977, Mississippi Junior College; B.S., 1979, Mississippi State University; B.S., 1993, Middle Tennessee State University. (1993)

Parsons, Lynn C., Professor, Nursing; School Director
B.S.N., 1979; M.S.N., 1987, Northern Michigan University; D.S.N., 1995, University of Alabama, Birmingham. (1995)

Patterson, C. Marie, Physician Assistant, Health Services
B.S., 2002, Freed Hardeman University; M.P.A.S., 2004, Trevecca

Nazarene University; D.H.S.C., 2007, Nova Southeastern University. (2007)

Patterson, Dwight J., Associate Professor, Chemistry
B.S., 1973, Western Kentucky University; M.S.E., 1983; Ph.D., 1985, Case Western Reserve University. (1996)

Patterson, John, Director, Administrative Information Systems Services
B.S., 1972, Middle Tennessee State University. (2000)

Patterson, L. Sumer, Academic Advisor, College of Continuing Education and Distance Learning
B.A., 2002, University of Tennessee; M.Ed., 2003; Ed.S., 2006, Middle Tennessee State University. (2005)

Patterson, Patricia M., Associate Professor, Chemistry
B.S., 1975, Virginia State University; M.S.E., 1982; Ph.D., 1985, Case Western Reserve University. (1996)

Patterson, Robert F., Coordinator, New Student and Family Programs
B.B.A., 2001; M.Ed., 2004, Middle Tennessee State University. (2005)

Patterson, Russell, Head Football Strength Coach, Athletics
B.S., 1992, Presbyterian College. (2006)

Patton, Barbara L, Assistant Director, Title VI Coordinator, Institutional Equity and Compliance
B.A., 1981, University of Tennessee, Chattanooga; M.Ed., 1998, Tennessee State University. (1991)

Payne, Ann H., Accounting Manager, Business Office
B.S., 1977, University of Tennessee, Martin. (2005)

## Pearson, Earl F., Professor, Chemistry; Department Chair

B.S., 1963; M.A., 1964, Western Kentucky University; Ph.D., 1969, Vanderbilt University. (1998)

Peaster, Carl S., Director and Chief Police, Public Safety
B.S., 1983, University of Georgia. (2006)

Peck, Matthew C., Head Women's Volleyball Coach, Athletics
B.A., 1980, University of Michigan; M.S., 1992, Wayne State University. (2004)

## Pedigo, Kathy, Associate Director, Records

A.A., 1988; B.S., 1994; M.B.A., 2004, Western Kentucky University. (2008)

Penn, David A., Associate Professor, Economics and Finance; Director, Business and Economic Research Center, Jennings A. Jones College of Business
B.A., 1976, Northeastern Oklahoma State University; M.A., 1978, University of Denver; Ph.D., 1984, University of Oklahoma. (2002)

Pennington, John, Professor, Psychology
B.S., 1989, University of Michigan; M.S., 1991; Ph.D., 1994, University of Florida. (1996)

Pepelea, Artie, Assistant Men's Basketball Coach, Athletics
B.S., 1994, University of Wisconsin-Parkside. (2006)

Peres Lemons, Tanya M., Assistant Professor, Sociology and Anthropology
B.A., 1995; M.A., 1997, Florida State University; Ph.D., 2001, University of Florida (2005)

Perez-Reilly, Mario, Professor, Political Science
A.B., 1960; Ph.D., 1974, University of Tennessee. (1966)

Perkins, Denise, Specialist, Tennessee Early Childhood Training AIliance
B.S., 2008, Middle Tennessee State University. (2008)

Perlick, Nicholas, J., Director of Development, Development Office B.A., 2000, Bethany College; M.S., 2002, Florida State University. (2009)

Perry, Charles H., Professor, Engineering Technology; Chairholder, Russell Chair of Manufacturing Excellence
B.S., 1966; M.S., 1969; Middle Tennessee State University; Ph.D., 1976, Vanderbilt University. (2004)

Perry, Tara L., Professor, Health and Human Performance
B.S., 1987; M.S., 1990, Georgia Southern University; Ph.D., 1994, Pennsylvania State University. (1999)

Petersen, Karen K., Assistant Professor, Political Science
B.S., 1998, Middle Tennessee State University; M.A., 2002; Ph.D., 2004, Vanderbilt University. (2005)

## Petersen, Robert C., Professor, English

B.A., 1966, State University of New York, Albany; M.A., 1968; Ph.D., 1980, Purdue University. (1984)

Peterson, Stephen J., Head Baseball Coach, Athletics; Health and Human Performance
B.S., 1973, Jacksonville State University; M.A., 1976, Middle Tennessee State University. (1984)

Pettey, Chrisila C., Professor, Computer Science
B.S., 1978, David Lipscomb College; M.S., 1981, Middle Tennessee State University; Ph.D., 1990, Vanderbilt University. (1991)

Peyton, Marvin L., Professor, Educational Leadership
B.A., 1971; M.S., 1974, Marshall University; Ed.D., 1989, University of Tennessee. (1990)

Pfeifer, Daniel, Professor, Recording Industry
B.M., 1983, Middle Tennessee State University; M.A., 1987, Memphis State University. (1991)

Phelps, Amy J., Professor, Chemistry
B.S., 1984, Berry College; M.S., 1988; Ph.D., 1990, Purdue University. (2001)

Phillips, Kristin Lynn, Instructor, Health and Human Performance B.S., 1997, University of Illinois, Urbana-Champaign; M.Ed, 1999, Auburn University. (2000)

Phillips, Mary E., Assistant Professor, Accounting
B.S., 1970, Texas Tech University; M.A., 1971, University of Rochester; M.B.A., 1993, Middle Tennessee State University. (2004)

Phillips, Melodie R., Associate Professor, Management and Marketing
B.A., 1984, University of South Florida; M.B.A., 1985, University of Miami; Ph.D., 1993, Louisiana State University. (1994)

Phillips, Nathan, Assistant Professor, Agribusiness and Agriscience B.S., 2002; Ph.D., 2007, Utah State University. (2007)

Phillips, Philip, Associate Professor, English
B.A., 1990, Belmont University; M.A., 1992; Ph.D., 1996, Vanderbilt University. (1999)

Piekarski, James L., Professor, Recording Industry
B.F.A., 1989, University of Wisconsin, Milwaukee; M.M., 1991; D.M.A., 1994, University of North Texas. (1994)

## Piety, J. Chris, Director, Network Services

A.S., 1983, Nashville State Technical Institute. (1990)

Pigg, Dewayne A., Professor, Music
B.M.E., 1973, George Peabody College; M.A., 1975, Fisk University. (1984)

Pimentel, Connie, Director, Student Support Services
B.A., 1992; M.Ed., 1995, Middle Tennessee State University. (1992)

Pinkins, Al, Assistant Men's Basketball Coach, Athletics
B.S., 1998, North Carolina State University. (2004)

Pisut, Gina R., Assistant Professor, Human Sciences
B.S., 1993; M.S., 1998, Auburn University; Ph.D., 2001, Auburn University. (2007)

Poff, Gina H., Director, New Student and Family Programs
B.S., 1990; M.Ed., 1994, Middle Tennessee State University. (1991)

Poirier, Sandra, Associate Professor, Human Sciences
B.S., 1968, Florida State University; M.S., 1978, University of Arizona; Ed.D., 1998, Florida International University. (2005)

Pointer, John, Assistant Director, Blue Raider Athletic Association, Athletics
B.S., 1980, Vanderbilt University. (2006)

Ponder, Sandy, Director, Regional Initiatives
B.A., 1993, University of Georgia. (2008)

Pondillo, Robert J., Associate Professor, Electronic Media Communication
B.S.C., 1973, Ohio University; M.A., 1998, University of Wisconsin, Milwaukee; Ph.D., 2003, University of Wisconsin, Madison. (2001)

Porth, Janice K., Instructor, English
B.S., 1972, Bowling Green State University; M.Ed., 1996, Northern Kentucky University. (2005)

Powell, Dennis D., Professor, Criminal Justice Administration
B.S., 1973, Indiana University; M.S., 1978, Southern Illinois University; Ph.D., 1980, Michigan State University. (1980)

Powers, Mark, Systems Analyst, Administrative Information Systems Services
B.S., 1976, Mississippi State University; M.C.S., 1990, Mississippi State University. (2007)

Powers, Marsha L., Coordinator, Special Projects and Publications, University Honors College
B.A., 1980, Mississippi College. (2004)

Poythress, Christine, Instructor, Music
B.M., 1996, Armstrong State University; M.M., 2002, Belmont University. (2004)

Pozzebon, Mary Ellen, Assistant Professor, Walker Library
B.A., 1999, California State University, M.L.S., 2003, San Jose State University. (2006)

Prater, Neil, Database Specialist, Database Administration Services B.S., 1987, Southeast Missouri State University. (2008)

Prather, Charles D., Associate Professor, Aerospace
B.S., 1994, Delta State University; M.P.A., 1997, Southern Illinois University. (2006)

Preston, James E., Jr., Media Engineer, Audio/Visual Services, Instructional Technology Support Center
B.S., 1990, Middle Tennessee State University. (2008)

Prichard, Stephen D., Director, Telecommunication Services
B.S., 1976, Jacksonville State University; C.P.A., 1982. (1985)

Principe, Michael A., Professor, Philosophy
A.B., 1978, University of Michigan; M.A., 1983; Ph.D., 1985, Vanderbilt University. (1987)

Pritchett, Will, Associate Director, Procurement and Auxiliary Services
B.B.A., 1976, University of Georgia; M.Ed., 2001; Ed.S., 2003, Middle Tennessee State University; Ed.D., 2006, Tennessee State University. (1989)

Pruett, David, Assistant Professor, Music
B.M., 1996, Appalachian State University; M.M., 2000; Ph.D., 2007, Florida State University. (2006)

Pruitt, Lisa J., Associate Professor, History
B.A., 1986, University of Texas, Dallas; M.L.S., 1988; M.A., 1988, University of Maryland; Ph.D., 1998, Vanderbilt University. (1999)

Puckett, Linda M., Associate Director, Admissions
B.B.A., 1975, Middle Tennessee State University. (1976)

Purcell, Jack A., Associate Professor, Philosophy
B.A., 1982; M.A., 1984, University of South Carolina; M.A., 1986; Ph.D., 1989, Purdue University. (1990)

## Purnell, Mary L., Assistant Professor, Nursing

B.S.N., 1984, University of Tennessee, Chattanooga; M.S.N., 1987, University of Tennessee; Ed.S., 2000, Middle Tennessee State University. (1992)

Quarles, Jan P., Professor, Electronic Media Communication B.A., 1972; Ph.D., 1986, University of Tennessee. (1994)

Quarto, Christopher J., Professor, Psychology
B.S., 1983; M.A., 1984; Central Michigan University; Ph.D., 1992, University of Illinois, Urbana-Champaign. (1997)

Quillin, Tee, Assistant Professor, Speech and Theatre
B.A., 1995, University of Alabama; M.F.A., 2001, Southern Methodist University. (2006)

Quinn, Terrance J., Professor, Mathematical Sciences; Department Chair
B.S., 1987; M.S., 1988; Ph.D., 1992, Dalhousie University. (2006)

Raffo, Deana M., Assistant Professor, Speech and Theatre
B.A., 1990, Marshall University; M.A., 1993, Middle Tennessee State University; Ed.D., 2003, Tennessee State University. (1994)

Ragland, Tabitha, Director of Pharmacy, Health Services
Pharm. D., 1994, University of Tennessee, Memphis. (2008)
Raines, Joan M., Assistant Professor, Academic Enrichment Support Unit
B.S., 1991; M.S., 1993, Ed.S., 2000, Middle Tennessee State University; Ed.D., 2004, Tennessee State University. (1994)

Ramos, Francisco J., Instructor, Health and Human Performance A.S., 1983, Carolina Regional College; B.A., 1988, University of Puerto Rico; M.S., 2000, Middle Tennessee State University. (1997)

Rawls, Wendell L., Professor, Journalism
B.A., 1970, Vanderbilt University. (1999)

Ray, Cyndee, Auditor, Audit and Consulting Services
B.S., 1999, Middle Tennessee State University; B.S., 2007, Lipscomb University. (2008)

Reagan, Jerry W., Associate Professor, Biology
B.S., 1984, Mars Hill College; Ph.D., 1990, Wake Forest University. (2005)

Reaves, Ann S., Assistant Director for Graduation, Records
A.A.S., 1999, Central Texas College; B.S., 1995, University of the State of New York. (2005)

Recchia, Marisa, Associate Professor, Art
B.A., 1981, State University of New York College at Oswego; M.F.A., 1985, Wichita State University. (1986)

Redd, Timothy E., Director, Farm Laboratories, School of Agribusiness and Agriscience
B.S., 1970, Middle Tennessee State University; M.S., 1972, University of Kentucky. (1980)

Redditt, Richard S., Professor, Engineering Technology
B.S., 1965; M.S., 1966, Northwest Louisiana State University; Ed.D., 1973, University of Tennessee. (1974)

Redmon, Charles Gary, Systems Programmer, Server, Classroom, and Desktop Services
B.S.E.E., 1977, Tennessee Technological University. (1996)

Reed, Arthur D., Jr., Project Manager, Campus Planning
B.A., 1979; B.Arch., 1983, University of Tennessee. (2004)

Reed, Chris, Facility Supervisor, Student Recreation Center
B.G.S., 2005, Simon Fraser University; M.S., 2007, Western Michigan University. (2007)

## Reed, Ryan, Instructor, English

B.A., 1997, B.A., 2000, M.A., 2006, Middle Tennessee State University. (2006)

Reese, Margaret Jean T., Coordinator of Collection Management, Instructional Media Resources, Instructional Technology Support

## Center

B.A., 1968, Furman University; M.A., 1972, University of Georgia; M.L.S., 1985, Vanderbilt University. (2003)

Reineke, Jason B., Assistant Professor, Journalism
B.S., 2002, Miami University; M.A., 2005; Ph.D., 2008, The Ohio State University. (2008)

Renfroe, Alicia M., Assistant Professor, English
B.A., 1991; M.A., 1997; Ph.D., 2002, University of Tennessee; J.D., 1994, University of Florida. (2005)

Renfrow, Matt, Instructor, Health and Human Performance
B.S., 2005, Belmont University; M.S., 2006, Middle Tennessee State University. (2008)

Rennhoff, Adam D., Assistant Professor, Economics and Finance B.A., 1998, Bucknell University; M.A., 2000; Ph.D., 2006, University of Virginia. (2007)

Respress, William, Training Manager, Human Resource Services B.S., 1985, Georgia State University; M.A., 1994, Tennessee Tech University; Ed.D., 1997, East
Tennessee State University. (2007)
Revell, Maria A., Professor, Nursing
B.S.N., 1973, Tuskegee Institute; M.S.N., 1985, University of Alabama, Huntsville; D.S.N., 1992, University of Alabama, Birmingham. (2000)

Reynolds, Daniel L., Professor, Accounting
B.S., 1967, Millikin University; M.S., 1968, University of Illinois; J.D., 1974, Oklahoma City University. (1974)

Rhoden, Aston G., Head Women's Soccer Coach, Athletics
B.S., 1998, University of Alabama, Huntsville. (2002)

Rhodes, Jean, Assistant Professor, English
B.A., 1988; M.A., 1999; Ph.D., 2006, Middle Tennessee State University. (2003)

Rice, Craig, Associate Professor, Elementary and Special Education B.A., 1991; M.A., 1995, California State University; Ed.D., 1999, University of Maine. (2006)

Rice, Michael, Associate Professor, Foreign Languages and Literatures
B.A., 1991, Eastern Kentucky University; M.A., 1994, University of lowa;

Ph.D., 2001, University of Cincinnati. (2006)

## Rice-See, Lynn, Professor, Music

B.M., 1977, Peabody Conservatory; M.M., 1979, The Julliard School; D.M.A., 1982, University of Southern California (2005)

Rich, Frances R., Administrative Assistant to the President C.P.S., 1993. (1963)

Rich, Jeremy McMaster, Assistant Professor, History
B.A., 1993; M.A., 1994; Ph.D., 2002, Indiana University. (2006)

Richards, Melinda, Associate Professor, Speech and Theatre
B.S., 1974, Tennessee Technological University; M.M., 1979, University of Tennessee; DOE Endorsement, 1990, Middle Tennessee State University; Master's Equivalent, 1992; Ph.D., 2001, University of Tennessee. (1997)

Ricketts, Samuel Clifton, Professor, Agribusiness and Agriscience B.S., 1970; M.S., 1973, University of Tennessee; Ph.D., 1982, Ohio State University. (1976)

Riddle, Katy Francisco, Coordinator, Career Development Center B.S., 1999; M.Ed., 2005, Middle Tennessee State University. (2007)

Ridgley, Robyn L., Assistant Professor, Human Sciences
B.S., 1994, Murray State University; M.Ed., 1999, Vanderbilt University; Ed.D., 2004, University of Kentucky. (2005)

Riggs, William, Technical Systems Coordinator, Financial Aid
B.B.A., 1985, Middle Tennessee State University. (1991)

Riley, Donald Madison, Assistant Athletic Director for Strength and Conditioning, Athletics
B.S., 1988, Middle Tennessee State University. (1993)

Ring, III, Harvey B., Instructor, Academic Enrichment Support Unit B.S., 1991, Tennessee Technological University; M.S., 1995, Georgia Institute of Technology. (2007)

Ring, Tracey R., Professor, Elementary and Special Education B.S., 1984; M.Ed., 1985, Middle Tennessee State University; Ed.D., 1992, Mississippi State University. (1992)

Riordan, George T., Professor, Music; Director, School of Music B.M., 1971, Michigan State University; M.M., 1975, Northwestern University; D.Mus., 1988, Florida State University. (2003)

Risinger, Shana A., Coordinator of Marketing and Promotion, Tennessee Miller Coliseum
B.S., 1999, Southern Illinois University. (2004)

Robbins, Rodney D., Manager, Student Services, College of Continuing Education and Distance Learning
A.S., 1995, Dyersburg State Community College; B.S., 1998, University of Tennessee, Martin; M.Ed., 2005, Middle Tennessee State University. (2001)

Roberts, Deborah D., Director, Administrative Services
B.B.A., 1987, Middle Tennessee State University; C.P.A., 1993, "Inactive." (1991)

Roberts, Sherry J., Assistant Professor, Business Communication and Entrepreneurship
B.S., 1976, Central Methodist College; M.S., 1988, Arkansas State University; Ph.D., 2003, University of Louisville. (2007)

Robertson, Stephen L., Assistant Professor, Political Science
B.A., 1981, Middle Tennessee State University. (1996)

Robertson, William M., Professor, Physics and Astronomy
B.Sc., 1980, Imperial College, University of London; M.S., 1982; Ph.D., 1988, Purdue University. (1995)

Robinson, David G., Associate Professor, Walker Library
B.A., 1981, University of Mississippi; M.L.S., 1983, University of Alabama. (1986)

Robinson, Teresa B., Professor, Human Sciences
B.S., 1978, Middle Tennessee State University; M.S., 1981; Ph.D., 1984, University of Tennessee. (1982)

Roeder, AI, Manager of Information, Network and Information Technology Security
B.S., 1999, Middle Tennessee State University. (2005)

Rogers, Lisa C., Assistant Vice President, Enterprise Resource Planning B.S., 1985, North Carolina State University; M.S., 1993, Middle Tennessee State University. (1985)

## Rogers, Robert D., Associate Professor, Criminal Justice Administra-

 tionB.A., 1972, University of Kentucky; M.A., 1975, University of Tennessee; M.S., 1978, Eastern Kentucky University; M.A., 1981; Ph.D., 1985, State University of New York, Albany. (1993)

Rollins, Lisa, Director, Broadcast Communications, News and Public Affairs
B.S., 1996, University of North Texas; M.S., 1998; Ed.S., 2000, Middle Tennessee State University. (1999)

Rollins, M. Wayne, Associate Professor, Business Communication and Entrepreneurship
B.S., 1975; M.B.E., 1976, Middle Tennessee State University; Ed.D., 1980, University of Georgia. (1976)

Rosenmuller, Christoph, Associate Professor, History
M.A., 1998, University of Hamburg; Ph.D., 2003, Tulane University. (2004)

Rosing, Wayne C., Professor, Biology
B.S., 1969, University of Wisconsin; Ph.D., 1975, University of Texas. (1980)

Ross, Georganne, Associate Professor, Elementary and Special Education
B.A., 1976, Sarah Lawrence College; M.A., 1984, Indiana University; Ph.D., 1989, University of Miami. (1989)

Ross, Jack, Director, Photographic Services
A.S., 1977, Polk Community College; B.S., 1977, Middle Tennessee State University. (1979)

## Rost, James, Director, Student Athlete Enhancement Center

B.A., 1994, Mid America Nazarene University; M.A., 1999, San Diego State University. (2006)

Rouse, Joseph E., Assistant Professor, Academic Enrichment Support Unit
B.A., 1970, Columbia University; M.S., 1971, Carnegie-Mellon University; M.A., 1980, Fuller Theological Seminary. (2000)

Rowe, David L., Professor, History
B.A., 1969, Ithaca College; M.A., 1972; Ph.D., 1974, University of Virginia. (1981)

Rowell, Ginger H., Professor, Mathematical Sciences
B.S., 1987, Birmingham-Southern College; M.A., 1991; Ph.D., 1995, University of Alabama. (2000)

Rowland, Jim, Assistant Manager, Miller Colliseum
B.S., 1975, Midle Tennessee State University.

Roy, Donald P., Associate Professor, Management and Marketing B.B.A., 1985, Mississippi State University; M.B.A., 1995, Mississippi College; Ph.D., 2000, University of Memphis. (2000)

## Rozell, Carol W., Director of Financial Services, Business Office

 B.S., 1982, David Lipscomb College; M.S., 1983, Middle Tennessee State University; C.P.A., 1986, "Inactive." (1995)
## Rucker, Robert Leslie, Associate Professor, Social Work

B.S., 1971, Middle Tennessee State University; M.S.W., 1973, Washington University. (1976)

Rupprecht, Nancy E., Professor, History
B.A., 1965; M.A., 1967, University of Missouri, Columbia; Ph.D., 1982, University of Michigan. (1985)

Rusciolelli, Judith, Professor, Foreign Languages and Literatures
A.B., 1962, University of Michigan, Ann Arbor; M.A., 1966, Middlebury College; Ph.D., 1981, University of California, Los Angeles. (1991)

Rushlow, Bonnie, Assistant Professor, Art
B.S., 1972, Middle Tennessee State University; M.A., 1985, University of South Carolina; Ed.D., 1992, University of Georgia. (2006)

Rushlow, Kenneth R., Assistant Professor, Elementary and Special Education
B.S., 1971, Middle Tennessee State University; M.Ed., 1978, Clemson University; Ed.D., 1999, Northwestern State University. (2004)

Rust, Dianna, Associate Dean, College of Continuing Education and Distance Learning
B.S., 1992; M.S., 1998; Ed.S., 2003, Middle Tennessee State University; Ed.D., 2006, Tennessee State University. (1991)

Rust, James O., Professor, Psychology
B.S., 1967, Lehigh University; M.A., 1969, University of Richmond; Ph.D., 1973, University of Virginia. (1973)

Rutland, Ann H., Accounting Manager, Business Office
B.S., 1977, University of Tennessee, Martin. (2005)

Rutledge, Michael L., Professor, Biology
B.S., 1985; M.S., 1988, Middle Tennessee State University; Ed.D., 1996, Ball State University. (1996)

Sadler, Kim C., Associate Professor, Biology
B.S., 1976; M.S., 1979; Ed.S., 1999, Middle Tennessee State University; Ed.D., 2002, Tennessee State University. (1996)

Saksena, Divya, Associate Professor, English
B.A., 1977; M.A., 1979, Delhi University; Ph.D., 2003, George Washington University. (2004)

Salman, Karim A., Associate Professor, Engineering Technology B.Sc., 1969, University of London; M.S., 1977; Ph.D., 1979, Brunel University. (2002)

Salter, Sean P., Assistant Professor, Economics and Finance B.S., 1996; M.S., 2000; Ph.D., 2001, University of Alabama. (2007)

Samsel, Amanda Newman, Coordinator, Judicial Affairs and Mediation Services
B.S., 2004; M.A., 2006, Middle Tennessee State University. (2006)

Sanborn, John W., Associate Professor, Social Work
B.A., 1967, Johns Hopkins University; M.S.W., 1969, University of Maryland. (1973)

## Sanders, John W., Professor, Educational Leadership

B.S., 1988; M.B.E., 1989; Ed.S., 1994, Middle Tennessee State University; Ed.D., 1996, Tennessee State University. (1994)

Sanderson, Zackie, Assistant Athletic Director of Business Operations, Athletics
B.S., 1982, Belmont University; C.P.A., "Inactive." (1998)

Sandman, Kim, Facility Supervisor, Student Recreation Center B.A., 1981, Concordia College. (2006)

Sanger, Michael, J., Professor, Chemistry
B.S., 1989, University of California, Davis; M.S., 1994; Ph.D., 1996, Iowa State University. (2002)

Sargent, Vicki, IT Specialist, Student Affairs
B.B.A., 1985, Middle Tennessee State University. (2007)

Sarkar, Medha S., Associate Professor, Computer Science
B.S., 1987; M.C.A., 1990, Sardar Patel University; M.S., 1993; Ph.D., 1999, Queen's University. (2002)

Sarver, F. Lee, Professor, Economics and Finance
B.A., 1974; B.A., 1976; M.A., 1984; Ph.D., 1987, University of Tennessee. (1991)

Sauls, Jenny L., Professor, Nursing
A.A., 1981, Middle Tennessee State University; B.S.N., 1984, Tennessee Technological University; M.S.N., 1988, Vanderbilt University; D.S.N., 2000, University of Alabama, Birmingham. (1992)

## Saunders, Steve R., Program Coordinator, McNair Program

B.A., 1971; M.A., 1981, Ohio State University. (2005)

Sawyer, Diane, Professor, Elementary and Special Education; Chairholder, Katherine Murfree Chair of Excellence in Dyslexic Studies B.S., 1960, Geneseo State College; M.S.E., 1963, Buffalo State College; M.A., 1965, Teacher's College Columbia; Ph.D., 1971, Cornell University. (1989)

Sayward, Amy L., Professor, History; Department Chair
B.A., 1991, St. Bonaventure University; M.A., 1993; Ph.D., 1998, Ohio State University. (1998)

Sayers, Adam, Assistant Women's Soccer Coach, Athletics B.A., 2000, Tusculum College; M.S., 2002, Eastern Kentucky; Ph.D., 2006, Middle Tennessee State University. (2006)

Sbenaty, Saleh M., Professor, Engineering Technology
B.S., 1980, Damascus University; M.S., 1985; Ph.D., 1991, Tennessee Technological University. (1993)

## Scannell, James W., Instructor, English

B.A., 1993, State University of New York at Buffalo; M.A., 1995, University of Connecticut. (2006)

Scarlett, Jon, Academic Advisor, Academic Support Center B.S., 1972; M.S., 1994, Middle Tennessee State University. (1996)

Schaffer, Greg, Assistant Vice President, Network and Information Technology Security
B.S., 1993, State University of New York, Buffalo. (1998)

Scherzer, Kenneth A., Professor, History
A.B., 1975, Columbia University; A.M., 1977; Ph.D., 1982, Harvard University. (1988)

Schmidt, Constance R., Director, Instructional Technology Support Center
B.A., 1976, University of Virginia; M.S., 1977; Ph.D., 1980, Purdue University. (1989)

Schmidt, Greg W., Associate Professor, Psychology
B.A., 1983, University of Denver; M.A., 1984; Ph.D., 1988, University of California, Los Angeles. (1989)

Schmidt, John, Assistant Director, Server, Classroom, and Desktop Services
B.S., 1985, Middle Tennessee State University. (1998)

Schmidt, John W., Instructor, Mathematical Sciences
B.S., 2004, Lipscomb University; M.S., 2007, Middle Tennessee State University. (2007)

Schmidt, Stephen R., Professor, Psychology
B.Ed., 1975, University of Virginia; M.S., 1977; Ph.D., 1980, Purdue University. (1988)

Schmitz, Kenneth T., Instructor, Economics and Finance
B.A., 1975, University of Minnesota, Duluth; M.A., 1986, Mankato State University. (2003)

Schmuhl, Aaron, Information Technology Security Specialist, Network Services and Information Technology Security
B.S., 2005, Middle Tennessee State University. (2008)

Scott, R. Neil, Associate Professor, Walker Library
B.A., 1975, University of South Florida; M.L.S., 1976, Florida State University; M.B.A., 1982, Stetson University. (2004)

Scott, Vonda F., Facility Supervisor, Student Recreation Center
B.A., 1993, University of Alabama, Birmingham; M.S., 1998, Middle Tennessee State University. (1999)

Seague, Todd, Tucker Theatre Technical Services Manager, Speech and Theatre
B.S., 1985; M.A., 1990, Eastern Michigan University. (2005)

Seipel, Scott J., Associate Professor, Computer Information Systems B.B.A., 1985; Ph.D., 1998, University of Texas. (2000)

Seipelt, Rebecca L., Associate Professor, Biology
B.A., 1991, Berea College; Ph.D., 1996, University of Kentucky. (1999)

Sells, Debra K., Vice President for Student Affairs and Vice Provost for Enrollment and Academic Services
B.A., 1981, Hope College; M.S.W., 1983, University of Michigan; Ed.D., 1996, Arizona State University. (1996)

Selva, Lance, Professor, Criminal Justice Administration
A.B., 1972; J.D., 1975, University of Alabama; M.S., 1977; Ph.D., 1985, Florida State University. (1979)

Semler, Duane, Manager, Classroom Technology Support Services
B.S., 1974, Iowa State University; M.A., 1978, University of Northern lowa. (2007)

Senior, David J., Assistant to the Director of Telecommunications for Telephone Systems, Telecommunications Services
B.B.A., 1989; M.Ed., 1997, Middle Tennessee State University. (1994)

Seo, Suk Jai, Associate Professor, Computer Science
B.A., 1976, Hankuk University of Foreign Studies; M.S., 1986; Ph.D., 2001, University of Alabama, Huntsville. (2002)

Seul, Rebecca, Academic Advisor, Academic Support Center B.S., 2006; M.S., 2008, Middle Tennessee State University. (2008)

Severson, Mariesa, Assistant Professor, Nursing
B.S.N., 1986; M.S. N., 1996, Arizona State University. (2008)

Sewak, Lynn M., Financial Management Analyst II
B.S., 2008, Middle Tennessee State University. (2000)

Seward, Linda G., Associate Professor, Speech and Theatre
B.A., 1978, North Texas State University; M.A., 1983, San Diego State University; Ph.D., 1991, Purdue University. (2002)

Shadrake, Bill, Network Support Specialist, Network Services and Information Technology Security
A.S., 1982, Nashville State Technical Institute. (2000)

Sharp, Vicki L., Local Service Provider, College of Basic and Applied Sciences, Server, Classroom, and Desktop Services B.B.A., 1987, Belmont University. (1998)

Shaw-McEwen, Sharon, Professor, Social Work; Chief Diversity Officer, Institutional Diversity
B.S., 1970, Bradley University; M.S.S.W., 1972, University of Tennessee; Ed.D., 1990, Vanderbilt University. (1991)

Shea, Drew, Head Athletic Trainer, Athletics
B.S., 1987; M.S., 1996, West Virginia University. (2005)

Shearon, Stephen, Professor, Music
B.M., 1977, Northwestern University; M.A., 1985; Ph.D., 1993, University of North Carolina, Chapel Hill. (1994)

Sheehan-Smith, Lisa M., Associate Professor, Human Sciences
B.S., 1981, Western Kentucky University; M.Ed., 1982; Ed.D., 2004, Vanderbilt University. (1997)

Shelar, Victoria Dawn, Professor, Health and Human Performance B.S., 1981, University of Florida; M.S., 1984, University of North Florida; Ph.D., 1988, University of Maryland. (1995)

## Sherman, Theodore, Professor, English

B.A., 1987, Covenant College; M.A., 1988, University of Central Florida; Ph.D., 1993, University of Southern Mississippi. (1993)

Shockley, Eve. A., Coordinator, Professional Development, College of Continuing Education and Distance Learning
B.B.A., 2008, Middle Tennessee State University. (2004)

Shook, Judith A., Assistant Director, Publications and Graphics B.S., 1967, Ball State University. (1974)

Short, Meredith, Event Coordinator, Event Coordination
B.S., 2004, Middle Tennessee State University. (2008)

Short, Rick, Professor, Psychology; Associate Dean, College of Education and Behavioral Science
B.A., 1975, University of Texas, Austin; M.Ed., 1977, Texas State University, San Marcos; Ph.D., 1984, University of North Carolina, Chapel Hill. (2005)

Shulman, William L., Associate Professor, Criminal Justice Administration
B.S., 1972; J.D., 1975, University of Tennessee. (1990)

Sickler-Voigt, Debrah, Associate Professor, Art
B.A., 1992, Florida State University; M.S., 1998, Florida International University; Ph.D., 2002, Florida State University. (2003)

Simerly, Greg, Director of Debate, Speech and Theatre
B.A., 1984, Middle Tennessee State University; M.S., 1986, Southern Illinois University. (2001)

Simmons, James R., Associate Professor, Music
B.M., 1994, University of Wisconsin; M.M., 2002, Eastman School of Music. (2002)

Simmons, Willie, Assistant Football Coach, Athletics
B.S., 2002, Clemson University. (2007)

Simpson, Daryl, Associate Athletic Director/Compliance, Atletics B.S., 2002, Northern Arizona University; M.S., 2005, Middle Tennessee State University. (2008)

Singer, Marc G., Professor, Management and Marketing
B.B.A., 1968, City College of New York; M.B.A., 1971, Baruch College of New York; Ph.D., 1973, University of Tennessee. (1990)

## Sinkala, Zachariah, Professor, Mathematical Sciences

B.S., 1981, University of Zambia; M.S., 1986, University of Michigan; Ph.D., 1989, University of South Florida. (1990)

Slicker, Ellen K., Professor, Psychology
B.S., 1969; M.S., 1970, University of Kansas; Ed.S., 1983, University of Northern Colorado; Ph.D., 1991, Texas A\&M University. (1992)

Smith, Allison, Professor, English
B.A., 1983; M.A., 1986, California State University; Ph.D., 1994, University of Illinois. (2002)

Smith, Brad, Assistant Athletic Director for Marketing and Promotions, Athletics
B.S., 2003, University of Southern Mississippi. (2005)

Smith, Elizabeth, Clinic Coordinator, Speech and Theatre
B.S., 1996, Middle Tennessee State University; M.A., 1998, University of Tennessee. (2001)

Smith, George Robert, Jr., Associate Professor, Accounting
B.S.B.A., 1974; M.Acc., 1982, University of Tennessee; CPA, 1982; Ph.D., 1995, Texas Tech University. (1999)

Smith, H. Stephen, Professor, Music
A.B., 1975, Davidson College; B.M., 1978; M.M., 1980, Eastman School of Music. (1998)

Smith, J. Garry, Assistant Professor, Management and Marketing B.B.A., 1975; M.B.A., 1997, University of North Texas; Ph.D., 2006, Texas A\&M University. (2006)

Smith, Kevin E., Professor, Sociology and Anthropology
B.A., 1986; M.A., 1990; Ph.D., 1992, Vanderbilt University. (1994)

Smith, Marsha O., Professor, Business Communication and Entrepreneurship
B.S., 1970; M.B.E., 1978, Middle Tennessee State University; Ed.D., 1993, Vanderbilt University. (1982)

Smith, Mary M., Administrative Senior Systems Analyst, Administrative Information System Services
B.B.A., 1987, Middle Tennessee State University. (1995)

Smith, Nathanael J., Assistant Professor, Physics and Astronomy B.S., 2001; Ph.D, 2006, Australian National University. (2008)

Smith, Philip H., Coordinator, Customer Service, Student Financial Aid
B.S., 2003, David Lipscomb University. (2006)

Smith, Rebecca M., Professor, Social Work; Department Chair
B.A., 1971, Southern Nazarene University; M.S.S.W., 1990; Ph.D., 1994, University of Texas-Arlington. (2006)

Smith, Richard, Jr., Associate Director for Facilities Management, Housing and Residential Life
B.S., 1983, Middle Tennessee State University. (1989)

Smith, Sharon S., Associate Professor, Speech and Theatre
B.S., 1972, East Tennessee State University; M.S., 1979, University of Tennessee; Ed.D., 1989, Vanderbilt University. (1983)

Smith, Vincent W., Professor, Business Communication and Entrepreneurship
B.S., 1984; M.B.E., 1985, Middle Tennessee State University; Ed.D., 1994, Vanderbilt University. (1985)

Smith-Walters, Cindi, Professor, Biology; Co-Director, Center for Environmental Education
B.S., 1978, East Central State University; M.S., 1984; Ph.D., 1988, Oklahoma State University. (1993)

Smothers, Richard W., Training Manager, Human Resource Services B.S., 1978, Murray State University; M.A., 1994, Tennessee Technological University. (2005)

Snapp, Robbie A., Assistant Director, Student Financial Aid
B.U.S., 1992; M.Ed., 1996; Ed.S., 2004, Middle Tennessee State University. (1981)

Snead, Donald, Associate Professor, Educational Leadership
B.S., 1975, Fort Valley State College; M.A.T., 1986, Western Kentucky University; Ed.D., 1999, University of Kentucky. (2000)

Sniderman, Michael D., Associate Professor, Speech and Theatre B.A., 1965, University of Michigan; M.A., 1972, Eastern Michigan University. (1980)

Snodgrass, Diane B., Assistant Director, Audit and Consulting Services B.B.A., 1983, Middle Tennessee State University; C.P.A., 1988. (1987)

Snook, Tony, Director, Printing Services
(1986)

Snyder, Olivia D., Auditor, Audit and Consulting Services
B.B.A., 2007, Middle Tennessee State University. (2008)

Sokoya, S. Kim, Professor, Management and Marketing
B.S., 1979; M.A., 1981; M.B.A., 1982, Eastern Illinois University; D.B.A., 1985, Mississippi State University. (1989)

Solley, Bobbie A., Professor, Elementary and Special Education B.S., 1979, David Lipscomb College; M.A.E., 1982, University of Alabama; Ed.D., 1989, University of Georgia. (1991)

Sosh-Lightsy, Laura J., Assistant Dean for Judicial Affairs and Mediation Services, Division of Student Affairs
B.A., 1995; M.Ed., 1999, Western Kentucky University. (2004)

Spangler, Pat W., Physician, Health Services
B.A., 1976, University of Virginia; D.O., 1980, West Virginia School of Osteopathic Medicine. (2001)

Spann, Jennifer L., Assistant Professor, Nursing
B.S.N., 1990; M.S.N., 1998, Tennessee State University. (2003)

Spires, Robert W., Professor, Electronic Media Communication
A.B., 1974, Western Kentucky University; M.M.A., 1978, University of

South Carolina; Ph.D., 1982, Florida State University. (1986)
Spray, Jason, Assistant Strength Coach, Athletics
B.S., 2002; M.S., 2005, Middle Tennessee State University. (2005)

Springfield, Jacqueline, Assistant Professor, Speech and Theatre B.S., 1997, Middle Tennessee State University; M.A., 1993, Ohio University; Ph.D., 1997, University of Georgia. (2004)

Sridhara, Basavapatna S., Professor, Engineering Technology
B.S.M.E., 1978, Bangalore University; M.S.M.E., 1980, Indian Institute of Science; M.S.M.E., 1983, Stevens Institute of Technology; Ph.D., 1991, Auburn University. (1991)

Srivastava, Rajesh V., Associate Professor, Management and Marketing
B.E., 1987, Saurashtra University; M.B.A., 1991; Ph.D., 1996, University of North Texas. (2005)

Stallings, Hilary, Manager, Recruitment and Resources, College of Liberal Arts
B.B.A., 1992, Texas Christian University; M.Ed., 1997, University of Texas, Austin; Ed.D., 2005, Vanderbilt University. (2002)

Stanley, Jennifer Clemans, Site Director, Evening Extended School Program
B.S., 1997, Middle Tennessee State University. (2000)

Stauffacher, Jessica, Assistant Director of Athletic Communications, Athletics
B.S., 2005; M.S., 2008, Troy University. (2007)

Stegall-Faulk, Teresa, Instructor, Biology
B.S., 1997; M.S., 2000, Middle Tennessee State University. (2000)

Stephens, David C., Assistant Professor, Mathematical Sciences B.S., 1999, Cumberland College; M.S., 2001; Ph.D., 2004, Vanderbilt University. (2004)

Stephens, Jimmie Ray, Assistant Football Coach, Athletics B.S., 1977, University of Florida. (2006)

Stepp, T. Michelle, Associate Director, Alumni Relations B.S., 1992, University of Kentucky. (1998)

Stevens, Jack D., Manager, Tennessee Miller Coliseum (1997)

Stevens, Michelle, Assistant Professor, Psychology
B.A., 2000, Bowling Green State University; M.Ed., 2004; Ph.D., 2009, Kent State University. (2008)

Stevenson, Theresa, Senior Systems Analyst, Information Technology Division
B.B.A., 1982, Middle Tennessee State University. (1983)

Stewart, Martin V., Associate Professor, Chemistry
A.A., 1964, Oxford College; B.S., 1966, Emory University; Ph.D., 1979, University of Georgia. (1979)

## Stewart, Robbie, Head Football Athletic Trainer, Athletics

B.A., 1998, Clemson University; M.S., 2000, Middle Tennessee State University. (2008)

Stewart, William C., Professor, Biology
B.S., 1987, North Carolina State University; Ph.D., 1994, East Carolina University. (1995)

Stinnett, Tony, Assistant Director, Media Relations; Athletics
B.S., 1990, Middle Tennessee State University. (2004)

Stockstill, Rick, Head Football Coach, Athletics
B.S., 1982, Florida State University. (2005)

Stogner, Catherine, Associate Professor, Human Sciences
A.S., 1971, East Tennessee State University; B.S., 1988, Columbus College; M.S., 1993; Ph.D., 1996, Utah State University. (1996)

Stogner, Horace N., Jr., Academic Advisor, Academic Support Center B.A., 1974, Brigham Young University. (1997)

Stokes, Ryan Keith, System Support Specialist, Business Office B.S., 2001, Wayland Baptist University; M.B.A., 2007, University of Phoenix. (2005)

Stone, Josh, Associate Director for Recreation Programs, Student Recreation Center
B.S., 2000; M.S., 2002, Middle Tennessee State University. (2006)

Stone, Judith E., Assistant Professor, Nursing
B.S.N., 1976, Vanderbilt University; M.S., 1989, University of California, San Francisco. (2008)

Stone, Maya, Assistant Professor, Music
B.M., 2001, State University of New York, Potsdam; M.M., 2003, Michigan State University. (2004)

Strawman, Thomas William, Professor, English; Department Chair B.S., 1973, Iowa State University; M.A., 1976, University of Kansas; Ph.D., 1986, University of Washington. (1989)

Stubblefield, Nancy, Coordinator, Career Development Center
B.S., 1988, Middle Tennessee State University. (2007)

## Sublette, Jason, Instructor, English

B.A., 1991, Truman State University; M.A., 1993, Northern Illinois University. (2004)

Sudak, Sarah E., Executive Director, Housing and Residential Life B.A., 1987; M.Ed., 1989, University of Oklahoma. (1998)

Sullivan, Debra, Assistant Professor, Nursing
A.D.N., 1992, Houston Baptist University; B.S.N., 2004, University of Texas Medical Branch; M.S.N. 2006, University of Texas at Tyler. (2006)

Sundeen, Terrence R., Associate Professor, Academic Enrichment Support Unit
B.S., 1978; M.S., 1984, Vanderbilt University; Ed.S., 1994, Middle Tennessee State University; Ed.D., 2000, Tennessee State University. (1988)

Sutarso, Toto, Statistical Software Consultant, Academic and Instructional Technology Services
B.S., 1981, Jakarta, Indonesia; M.S., 1990; Ph.D., 1995, University of Alabama. (1997)

Sutton, Catherine G., Assistant to the Director, Tennessee Center for Labor-Management Relations (1998)

Symonds, Andrew, Academic Advisor, College of Basic and Applied Sciences
B.A., 2003; M.S., 2005, Jacksonville State University. (2006)

Szul, Michael, Associate Athletic Director, Athletics
B.S., 1998, Robert Morris; M.S., 1999, Indiana University of Pennsylvania. (2005)

Tang, Thomas L., Professor, Management and Marketing
B.S., 1971, Chung Yuan University; M.A., 1977; Ph.D., 1981, Case Western Reserve University. (1983)

Tate, Anthony L., Computer Facilities Manager, Instructional Technology Support Center
(1991)

Tate, James C., Associate Professor, Psychology
B.S., 1982, College of Charleston; M.S., 1988; Ph.D., 1992, Auburn University. (1993)

Taylor, Mayo R., Assistant Professor, Walker Library
B.A., 1971, University of California, Berkeley; M.L.S., 1976, Peabody College. (1991)

Taylor, Pamela, Associate Professor, Nursing
B.S.N., 1977; M.Ed., 1982, University of Tennessee, Chattanooga; Ph.D., 1987, Columbia Pacific University; M.S.N., 1999, University of Tennessee, Chattanooga. (2007)

Taylor, Ramona R., Facility Services
B.S., 1980, University of Kentucky; C.P.A., 1984; M.B.A., 1991, Middle Tennessee State University. (1987)

Taylor, Rick A., Machinist Lab Technician, Engineering Technology B.S., 1982, Middle Tennessee State University. (2000)

Taylor, Starr, Microcomputer Specialist, Server, Classroom, and Desktop Services
A.A.S., 1999, State Technical Institute at Memphis; A.S., 2008, Southwest Tennessee Community College. (2009)

Taylor, Stephanie, Assistant Professor, Recording Industry
B.M., 1999; J.D., 2002, University of Nebraska; M.B.A., 2005, Belmont University. (2005)

Taylor, Susan T., Coordinator, Leadership Middle Tennessee, Jennings A. Jones College of Business
B.S., 1983, Middle Tennessee State University; C.P.S., 1986. (1981)

Templeton, Mark, Assistant Director, Academic Support Center B.S., 1987, University of Pittsburgh; M.A., 1988; M.A., 1989; Ph.D., 1993, University of Alabama. (2002)

Tenenholz, Sharon G., Assistant Professor, Psychology
B.Sc., 1996, University of Toronto; M.A., 1998; Ph.D., 2003, University of California, Los Angeles. (2005)

Tenpenny, Elaine I., Associate Professor, Mathematical Sciences B.A., 1981, David Lipscomb College; M.S., 1987; Ed.S., 1992, Middle Tennessee State University. (1987)

Tesi, Moses K., Professor, Political Science
B.A., 1977, Indiana University of Pennsylvania; M.A., 1978, University of Chicago; Ph.D., 1985, Vanderbilt University. (1990)

Tewell, Tanya, Professor, Art
B.S., 1982, Indiana State University; M.F.A., 1992, Arizona State University School of Art. (1994)

Tharp, Terri J., Instructor, Elementary and Special Education
B.S., 1982, Murray State University; M.Ed., 1987, University of Montevallo; Ed.S., 2001, Middle Tennessee State University. (1990)

Therrien, Kathleen M., Associate Professor, English
A.B., 1987, College of Holy Cross; M.A., 1989; Ph.D., 1997, University of Delaware. (1998)

Thetford, Sue S., Assistant Professor, Walker Library
B.S., 1965, Texas College of Arts and Industries; M.L.I.S., 1987, University of Oklahoma. (1993)

Thomas, Alan, Controller and Executive Director of Financial Technology and Compliance, Business Office
B.B.A., 1987; M.Ed., 1998, Middle Tennessee State University; CPA, 1991, "Inactive." (1990)

Thomas, Audrey M., Director, Tennessee Louis Stokes Alliance for Minority Participation, College of Basic and Applied Science
B.B.A., 1988; M.A., 1998, Middle Tennessee State University. (1995)

Thomas, Joe G., Professor, Management and Marketing
B.S., 1974; M.B.A., 1975, University of Missouri; Ph.D., 1983, Texas A\&M University. (1986)

Thomas, Paula B., Professor, Accounting
B.B.A., 1978; C.P.A., 1980; M.S., 1983, Middle Tennessee State University; C.M.A., 1984; D.B.A., 1987, Mississippi State University. (1983)

Thomas, Roy Earl, Professor, Management and Marketing
B.A., 1972; M.A.T., 1974, Middle Tennessee State University; Ed.D., 1984, Vanderbilt University. (1989)

Thomas, Raymond D., Professor, Director of Bands, Music
B.M., 1984; M.M., 1992, University of Utah; Ph.D., 1998, University of Minnesota. (2003)

Thomas, Shelley, Associate Professor, Foreign Languages and Literatures
B.A., 1976, Clemson University; M.A., 1984, University of South Carolina; Ph.D., 1991, Purdue University. (1991)

Thomas, Teresa, Director, Records
B.B.A., 1991; M.B.A., 1994, Middle Tennessee State University. (1991)

Thomason, Lisa, Director of Health Promotion, Health Services
B.S., 2002, Middle Tennessee State University; M.P.H., 2004, Western Kentucky University. (2008)

Thompson, Michael W., Assistant Professor, Biology
B.S., 1993, University of Louisville; Ph.D., 2000, University of Kentucky. (2004)

Thorup, Sherry, Instructional Technology Specialist, Academic and Instructional Technology Services
M.S., 1997, Nova Southeastern University. (2000)

Thurman, Kathy R., Director, Budget Office
B.S., 1976, David Lipscomb University; M.B.A., 1983, Tennessee Technological University. (1990)

Tillery, Kenneth R., Professor, Management and Marketing
B.S.I.M., 1967, Georgia Institute of Technology; M.B.A., 1972; Ph.D., 1985, Georgia State University. (1988)

Timmons, J. Douglas, Associate Professor, Economics and Finance B.S.B.A., 1973, Old Dominion University; M.B.A., 1975, College of William and Mary; Ph.D., 1986, University of Florida, Gainesville. (1996)

Tippett, David, Intramurals Coordinator, Student Recreation Center B.S., 2002, University of Tennessee; M.S., 2006, Middle Tennessee State University. (2006)

Tipps, M. Jane, Director, Counseling Services
B.A., 1968, Michigan State University; M.A., 1974, Middle Tennessee State University; Ph.D., 1977, University of Southern Mississippi. (1984)

Tipton, Travis, Recruiter, Admissions
B.S., 2006, Middle Tennessee State University. (2006)

Todd, Kiplynn F., Assistant Director, Annual Giving and Stewardship, Development Office
B.S., 1984, University of Tennessee. (1998)

Toghraie, Shahrzad, Assistant Professor, Chemistry
B.S., 1975, Tehran University; DIC, 1980, Imperial College; Ph.D., 1980, London University. (2005)

Tolbert, Denise, Voice Mail Coordinator, Telecommunication Services
B.B.A., 1993, Middle Tennessee State University. (1998)

Tormey, Warren, Assistant Professor, English
B.A., 1986, University of Pennsylvania; M.A., 1991, University of Arizona; Ph.D., 2008, Middle Tennessee State University. (1999)

Towe, Darrell, W., Director, Murphy Center Complex
B.S., Western Kentucky University. (1989)

Tozer, Tom, Director, News and Public Affairs
B.A., 1968, University of Indianapolis. (1993)

Tran, Thuhang T., Assistant Professor, Management and Marketing B.E.E., 1991, Georgia State University; M.B.A., 2003; Ph.D., 2003, University of Massachusetts, Amherst. (2003)

Traughber, Belinda, Professor, Psychology
B.S., 1976, Vanderbilt University; M.A., 1977, Middle Tennessee State University; Ph.D., 1982, University of Kansas. (1982)

Travis, Allen, Educational Specialist, MTSU Educational Talent Search Program, College of Basic and Applied Sciences
B.S., 2000, Middle Tennessee State University. (2008)

Traylor, Hattie W., Academic Advisor, College of Mass Communication B.A., 2002, Bowling Green State University; M.A., 2003, Middle Tennessee State University. (2004)

True, Charlene, Assistant Professor, Educational Leadership
B.S., 1969, Tennessee Technology University; M.A., 1974; Ed.S., 1975; Ed.S., 1981; Ed.D., 1982, University of Alabama. (2006)

Tucibat, Joseph Edward, Assistant Director, Academic Support Center B.S., 1983; M.S., 1986, Western Illinois University. (2000)

Turchyn, Danae C., Coordinator, Challenge Course, Student Recreation Center
B.S., 2006, Pfeiffer University; M.Ed., 2008, Georgia College State University. (2008)

Turnbow, Whit, Head Men's Golf Coach, Athletics
B.S., 2000, Middle Tennessee State University. (2004)

Turner, Alana, Communication Technology Analyst, Server, Classroom, and Desktop Services
A.A., 1994, City College San Francisco; B.A., 1994, San Francisco State University; M.S., 1999, Golden Gate University. (2008)

Turnham, Diane Cummings, Associate Athletic Director and Senior Women's Administrator, Athletics
B.S., 1980, David Lipscomb College; M.S., 1981, Austin Peay State University. (1982)

Tyner, Thomas R., Instructor, English
B.S., 1978; M.A., 1989, Middle Tennessee State University. (1998)

Ujcich Ward, Kimberly, Associate Professor, Psychology
B.A., 1990, University of Tennessee; M.A., 1993; Ph.D., 1996, West Virginia University. (1995)

Umscheid, Dana, Assistant Professor, Health and Human Performance
B.S., 1997, Northwestern University; M.S., 2000; M.S., 2004; Ph.D., 2008, Indiana University. (2008)

Untch, Roland H., Professor, Computer Science
B.A., 1979, Mundelein College; M.S., 1983, DePaul University; Ph.D., 1995, Clemson University. (1994)

Van Hein, Judith L., Professor, Psychology
B.S., 1983, Carroll College; M.S., 1987; Ph.D., 1992, Georgia Institute of Technology. (1990)

Vance, Jason, Assistant Professor, Walker Library
B.A., 1997, Western Kentucky University; M.L.I.S., 1999, Simmons College. (2008)

Vanhook, Eddie Duane, Assistant Professor, Engineering Technology
B.A., 1993; B.S., 1995; M.Ed., 2001, Middle Tennessee State University. (2005)

Vanosdall, Frederick P., Professor, Educational Leadership; Director, Mathematics and Science Education, College of Basic and Applied Sciences
B.S., 1984, Michigan State University; M.Ed., 1988; Ed.D., 2004, Arizona State University. (2008)

Van Zelm, Antoinette G., Interpretive Specialist, Tennessee Civil War National Heritage Area, Center for Historic Preservation, History
B.A., 1988, Middlebury College; M.A., 1992; Ph.D., 1998, College of William and Mary. (2000)

Vaughn, Andy, Assistant Football Coach, Athletics
B.S., 2003, North Greenville University; M.S., 2005, Florida State. (2008)

Vaughn, Joyce M., Coordinator, Business Operations and Conference Housing, Housing and Residential Life
B.S., 1974, Middle Tennessee State University; C.P.S., 1991. (1973)

Vaughter, Ronda, Assistant Director, Account Services, Telecommunication Services
B.B.A., 1992; M.B.A., 2006, Middle Tennessee State University. (1998)

Veal, Mary Lou, Professor, Health and Human Performance
B.S., 1967; M.Ed., 1977, University of North Texas; Ed.D., 1986, Teachers College, Columbia University. (2006?)

Vernardakis, George, Professor, Political Science
B.S., 1959, Cornell University; M.P.A., 1961; Ph.D., 1969, University of Michigan. (1969)

Vesper, Virginia, Associate Professor, Walker Library
B.A., 1966, DePaul University; M.L.S., 1972, University of Michigan. (1990)

Victory, Donna A., Certifying Officer for Athletic Eligibility, Enrollment Services
B.Unv.S., 2000, Middle Tennessee State University. (1989)

Victory, Jacqueline, Director, Leadership and Service
B.S., 1997, University of Tennessee, Martin; M.S., 2000, Middle Tennessee State University. (1999)

Vile, John R., Professor, Political Science; Dean, University Honors College
B.A., 1973, College of William and Mary; Ph.D., 1977, University of Virginia. (1989)

Vincent, Pierre L., Instructor, Speech and Theatre
B.A., 1980, Howard University; M.P.A., 1983, Golden Gate University; M.A., 1988, Syracuse University. (2008)

Vincion, Derek, Manager, Receiving and Moving Services
B.S., 1988, Middle Tennessee State University. (1990)

Vogt, Linda, Assistant Librarian, Campus Planning
B.S., 1983, Indiana University of Pennsylvania. (2002)

Volker, Heather X., Instructor, Geosciences
B.S., 2002, Austin Peay State University; M.A., 2004; ABD, University of Memphis. (2008)

Volkov, Anatoliy, Associate Professor, Chemistry
B.S., 1995; M.S., 2001, St. Petersburg State University, Russia; Ph.D., 2000, State University of New York at Buffalo. (2007)

Volpe-Rinonapoli, Paolo, Instructor, Foreign Languages and Literatures
B.A., 1999, University of Parma, Italy; M.A.T., 2004, Middle Tennessee State University, (2004)

Vroman, Keith, Assistant Track Coach, Athletics
B.S., 2000; M.S., 2003; M.A., 2003, Eastern Kentucky. (2003)

Wade, Jacqueline E., Associate Professor, Social Work
B.A., 1962, Fisk University; M.S.W., 1972; Ph.D., 1983, University of Pennsylvania. (2005)

Wade, Matthew, Manager, Tennessee Livestock Center
B.S., 1993, Middle Tennessee State University. (1995)

Wakid, Nabil W., Associate Professor, Chemistry
B.A., 1950; M.S., 1953, American University of Beirut; Ph.D., 1960, Cambridge University. (1997)

Walck, Jeffrey L., Professor, Biology
B.S., 1989, Cornell University; Ph.D., 1998, University of Kentucky. (1999)

Wald, Melissa, Assistant Professor, Recording Industry
B.B.A., 1989, Belmont College; M.E., 2005, University of Phoenix. (2006)

Waldecker, Todd H., Associate Professor, Music
B.M., B.S.Ed., 1990, University of Missouri, Columbia; M.M., 1992, Yale University; D. Mus., 2003, Indiana University. (1998)

Waldrop, Phillip, Professor, Elementary and Special Education; Associate Dean, College of Education and Behavioral Science
B.S., 1970; M.A., 1971; Ed.D., 1977, University of Alabama. (1989)

Waldrop, Susan P., Director, Project Help
B.S., 1971, University of Tennessee; M.S.E., 1978, Arkansas State University. (1999)

Walker, Dellmar, Professor, Human Sciences; Department Chair B.S., 1972, Middle Tennessee State University; M.S., 1974, University of Kentucky; R.D., 1973; Ph.D., 1986, University of Tennessee. (1978)

Walker, Lynne C., Program Coordinator, Tennessee Louis Stokes Alliance for Minority Participation, MTSU Talent Search Program, College of Basic and Applied Sciences
B.S., 1980, Baylor University; M.Ed., 1981, University of Memphis; M.A., 1985, Fuller Theological Seminary. (2003)

## Walker, Steven, Instructor, English

B.A., 1972, Stanford University; M.A., 1995, California State University, Stanislaus; M.F.A., 1998, Vermont College. (1999)

Wall, Patricia S., Assistant Professor, Accounting
B.A., 1975; J.D., 1979; B.S., 1985, University of Tennessee; M.B.A., 1987, University of Tennessee, Chattanooga; Ed.D., 2004, Tennessee State University; C.P.A., 1992. (2003)

Wallace, J. Brandon, Professor, Sociology and Anthropology; Director, Aging Studies
B.A., 1985, Athens State College; M.A., 1987, Middle Tennessee State University; Ph.D., 1990, University of Florida. (1991)

Wallace, James E., Director, Capital Projects Administration
B.S., 1969, Florida Southern University. (1995)

Wallace, Monica A., Assistant Professor, Psychology
B.A., 1979, University of North Carolina, Greensboro; M.Ed., 1998, University of South Florida; Ph.D., 2003, University of Tennessee. (2004)

Wallace, Tom, Associate Vice President, Information Technology Division
B.S., 1978, Lipscomb University; M.S., 1981, Tennessee Technological University. (2006)

Walsh, Dennis P., Associate Professor, Mathematical Sciences
B.A., 1982; M.S., 1985, University of New Orleans; Ph.D., 1991, University of Southwestern Louisiana. (1991)

Ward, Cheryl B., Associate Professor, Management and Marketing B.A., 1982, Morehead State University; M.B.A., 1988, East Carolina University; Ph.D., 2001, University of Kentucky. (1998)

Ward, Karen S., Professor, Nursing; Coordinator for Nursing Education, Regents Online Degree Program (RODP)
B.S.N., 1970; M.S.N., 1972, Vanderbilt University; Ph.D., 1988, Cornell University. (1995)

Ward, Terry J., Professor, Accounting
B.B.A., 1981; M.B.A., 1982, Morehead State University; C.P.A., 1986; Ph.D., 1991, University of Tennessee. (1994)

Warise, Lita, Assistant Professor, Nursing
L.P.N., 1993, Livingston Area Vocational School; A.A.S., 1996, Columbia State Community College; B.S.N., 2002; M.S.N., 2003, Union University. (2004)

Warner, Melisa, General Merchandise Manager, Phillips Bookstore B.B.A., 1986, Middle Tennessee State University. (1993)

Warren, Deborah F., Administrative Senior Systems Analyst, Administrative Information System Services
A.S., 1970, Columbia State Community College; B.B.A., 1988, Middle Tennessee State University. (1991)

Warren, Dorothy S., Instructor, Business Communication and Entrepreneurship
B.S., 1978; M.B.E., 1999, Middle Tennessee State University. (2003)

Warren, William E., Professor, Management and Marketing
B.S., 1958, Florence State College; M.S., 1962, University of Tennessee; D.B.A., 1985, Memphis State University. (1990)

Wassom, Susanna, Associate Director, Admissions
B.B.A., 1995, Middle Tennessee Sate University. (2006)

Watts, Justin, Assistant Football Coach, Athletics
B.S., 1999, Clemson University. (2006)

Watts, Rebecca, Assistant Professor, Educational Leadership
B.S., 1990, Louisiana Tech University; M.Ed., 1998; Ed.D., 2003, University of Louisiana, Monroe. (2006)

Weatherby, Norman, Professor, Health and Human Performance B.S., 1974; M.S., 1977, North Texas State University; Ph.D., 1983, Florida State University. (2000)

Weatherly, Nancy, Manager, Parking and Transportation Services. (1979)

Webb, Rebecca L., Instructor, Speech and Theatre
B.A., 1994, Cedarville College; M.A., 1999, Wheaton College. (2004)

Webber, Gretchen R., Assistant Professor, Sociology
B.S., 1986, University of Oklahoma; M.B.A., 1989, University of Oklahoma; M.Ed., 1998, University of Texas;
Ph.D., 2005, University of Texas (2007)
Wedan, Stephen D., Associate Professor, Speech and Theatre B.A., 1977, Stetson University; M.F.A., 1981, University of Florida. (2007)

Weeks, Libby A., Psychiatrist, Counseling Services
B.A., 1987, University of Louisville; M.D., 1992, University of Louisville School of Medicine (2005)

Weeks, Terry M., Professor, Educational Leadership
B.S., 1972; M.Ed., 1975, Middle Tennessee State University; Ed.D., 1993, Vanderbilt University. (1989)

## Weiler, Randy, Editor, News and Public Affairs

B.S., 1976, East Tennessee State University. (2000)

Welborn, Cliff A., Assistant Professor, Management and Marketing B.S., 1988, Kansas State University; M.S., 1998, Auburn University; Ph.D., 2005, University of Texas. (2006)

Weller, Martha R., Professor, Physics and Astronomy
B.A., 1973, Rice University; Ph.D., 1979, California Institute of Technology. (1988)

Wells, Paul F., Associate Professor, Music; Director, Center for Popular Music
A.B., 1972, Clark University; M.A., 1974, University of California, Los Angeles. (1985)

Wermert, John G., Associate Professor, Accounting
B.S., 1983, University of Dayton; Ph.D., 1995, Indiana University; C.P.A., 1984. (2002)

West, Carroll Van, Professor, History; Director, Center for Historic Preservation
B.A., 1977, Middle Tennessee State University; M.A., 1978, University of Tennessee, Knoxville; Ph.D., 1982, College of William and Mary. (1985)

West, Kristen, Assistant Professor, Walker Library
B.A., 1992, Brigham Young University; M.L.S., 2006, University of North Texas. (2007)

West Osterfield, Paul D., Associate Professor, Music
B.M., 1994, Cleveland Institute of Music; M.M., 1996, Indiana University; D.M.A., 2001, Cornell University. (2001)

Westmoreland, Kara, Area Coordinator, Housing and Residential Life
B.S., 2005; M.A., 2007, Appalachian State University. (2007)

Wheaton, Michael, Assistant Manager, Walker Library (2003)

Whitaker, David D., Director, Public Service-Horse Science, Agribusiness and Agriscience
B.S., 1968, University of Tennessee; M.Ed., 1977, Montana State University; Ph.D., 1982, Texas Tech University. (1982)

Whitaker, Rita H., Manager, Murphy Center Complex
A.S., 1995, Motlow State Community College; B.A., 1998; M.S., 2002, Middle Tennessee State University. (1996)

White, Eric, Director of Women's Basketball Operations, Athletics B.S., 1996, University of Montevallo; B.S., 2000, University of Tennessee, Martin. (2007)

White, Gary D., Associate Professor, Chemistry
B.A., 1978, Johns Hopkins University; Ph.D., 1984, University of Pennsylvania. (1991)

White, Raholanda, Professor, Business Communication and Entrepreneurship
B.S., 1980, Lambuth University; M.S., 1984, University of Memphis; Ph.D., 1990, University of Missouri, Columbia. (1990)

Whitefield, Joe, Executive Director, Facilities Services; Director, Center for Energy Efficiency
B.S., 1988, Tennessee Technological University; M.A., 2006, Middle Tennessee State University. (1999)

Whitehill, William R., Associate Professor, Health and Human Performance
B.A., 1973; M.A., 1979, Morehead State University; Ed.D., 1992, University of Alabama, Tuscaloosa. (1994)

Whiteside, Harold D., Professor, Psychology; Interim Dean, College of Education and Behavioral Science
B.A., 1967, University of Miami; M.S., 1973, North Carolina State University; Ph.D., 1973, Oklahoma State University. (1973)

Whittenburg, Albert C., Director, Academic and Instructional Technology Services
B.S., 1990, Tennessee Technological University; M.S., 1998, University of Tennessee; M.A., 2005, University of Illinois. (2006)

Whitwell, Jeffrey, Director, Phillips Bookstore
B.B.A., 1991, Middle Tennessee State University. (1996)

Wiley, Raymond W., Associate Director, Student Recreation Center B.S., 1980, Campbellsville College; M.A., 1982, Morehead State University. (1994)

Williams, Betsy, Assistant Director, Advancement Services B.S., 2000, Middle Tennessee State University. (1994)

Williams, Christie R., Assistant Professor, English
B.A., 1997, University of Maryland, Eastern Shore; M.A., 2000, Miami University. (2005)

Williams, Doug, Executive Director, Marketing and Communications
B.S., 1974, Middle Tennessee State University. (1996)

Williams, Elsie Annette, Assistant Professor, Academic Enrichment Support Unit
B.A., 1972, David Lipscomb College; M.S., 1974; Ed.S., 1992, Middle Tennessee State University. (1985)

Williams, Forrestine W., Special Assistant to the President, Institutional Equity and Compliance
B.S., 1976; M.P.A., 1982; Ed.D., 1997, Tennessee State University. (1989)

Williams, James H., Professor, History; Director, Albert Gore Research Center
B.A., 1986, Westminster College; M.A., 1987, College of William and Mary; Ph.D., 1993, Vanderbilt University. (1996)

Williams, Jane L., Professor, Educational Leadership
B.S., 1970; M.A., 1972; George Peabody College; Ed.D., 1983, East Tennessee State University. (1988)

Williams, Jo, Assistant Professor, Walker Library
B.A., 1988, South Arkansas University; M.L.S., 1998, Florida State University. (2004)

Williams, Patricia W., Psychiatrist, Counseling Services
B.S., 1982, University of Kentucky; M.D., 1986, University of Kentucky College of Medicine. (2005)

Willingham, Anne, Assistant Professor, Speech and Theatre
B.A., 1992, Auburn University; M.F.A., 1995, University of Alabama. (2006)

Willis, Clyde E., Professor, Political Science; Interim Chair, Political Science
B.S., 1966, East Tennessee State University; J.D., 1969; Ph.D., 1991, University of Tennessee. (1999)

Wills, Cornelia, Director, Institutional Research
B.S., 1974, Austin Peay State University; M.Ed., 1992; Ed.D., 1997, Tennessee State University. (1989)

Wilson, Debra, Associate Professor, Nursing
B.S.N., 1981, Lakehead University; M.S.N., 2002, Tennessee State University; Ph.D., 2006, Waldon University. (2007)

Wilson, Jamie L., Employment Specialist, Human Resource Services (2002)

Wilson, Jean R., Coordinator/Instructor, Management and Marketing B.S., 1985, Illinois State University; M.B.A., 1989, Western Illinois University. (1999)

Wilson, Jennifer, Instructor, English
B.A., 1996, David Lipscomb University; M.A., 2005, Middle Tennessee State University. (2006)

Wilson, Linda Diane, Professor, Nursing B.S., 1975; M.S.N., 1978, University of Alabama, Birmingham; Ph.D., 1996, Georgia State University. (1996)

Wilson, Rachel C., Assistant Professor, Business Communication and Entrepreneurship
B.S., 1997, University of Alabama; Ph.D., 2002, University of Alabama at Birmingham. (2002)

Wilt, Timothy L., Assistant Professor, English
B.A., 1975, Houghton College; M.A., 1980, University of Texas-Arlington; Ph.D., 1988, Michigan State University. (2006)

Winborn, John Douglas, Associate Professor, Health and Human Performance
B.S., 1976; M.S., 1988, Southern Connecticut State College; Ed.D., 1992, Tennessee State University. (1993)

Wincek, Todd J., Manager, Chemistry Laboratories
B.S., 1990, Coastal Carolina University. (2003)

Wind, Allison Oxsher, Assistant Professor, Chemistry
B.S., 1997, University of Mississippi; Ph.D., 2002, University of South Carolina. (2006)

Windmiller, Julie A., Assistant Professor, Nursing
B.S.N., 2001; M.S.N., 2006, Middle Tennessee State University. (2007)

Windrow, Vincent, Director, Intercultural and Diversity Affairs
B.U.S., 1990; B.S., 1994, Middle Tennessee State University; Th.B., 2004, American Baptist Theological Seminary. (2008)

Windsor, Wendy J., Associate Director of Intramural Sports, Sport Clubs, and Wellness, Student Recreation Center
B.A., 1997, Clemson University; M.Ed., 2000, Auburn University; Ed.D., 2005, United States Sports Academy. (2004)

Winters, J. Jeremy, Assistant Professor, Elementary and Special Education
B.A., 1996; M.Ed., 1997, Harding University; Ph.D., 2003, University of Tennessee. (2006)

Witherow, Laurie B., Director, Academic Support Center
B.A., 1987; M.A., 1988, Indiana University; Ed.D., 2005, Tennessee State University. (1989)

Womack, Bob, Professor, Educational Leadership
B.S., 1948, Middle Tennessee State College; M.A., 1952; Ed.D., 1956, George Peabody College. (1957)

Womack, Julianne, Physician, Health Services
B.S., 1991, Purdue University; M.D., 1995, Indiana University School of Medicine. (2007)

## Wong, Ray, Professor, Journalism

B.S., 1972, Arizona State University; M.A., 1974, University of Missouri. (1995)

Wood, Marilyn S., Associate Professor, Recording Industry
B.M.E., 1972, Oklahoma Baptist University; M.M.E., 1977, University of North Texas. (1995)

## Wood, Robert, Professor, Recording Industry

B.M., 1969, Oklahoma Baptist University; M.M., 1974; D.M.A., 1981, University of North Texas. (1991)

Woodard, Jennifer Bailey, Assistant Professor, Electronic Media Communication
B.S., 1991, Middle Tennessee State University; M.A., 1993, University of Georgia; Ph.D., 2003, Indiana University. (1993)

Woods, Louis L., Assistant Professor, History
B.A., 1999, State University of New York, Stony Brook; M.A., 2001, Ph.D., 2006, Howard University. (2007)

Woods, Travis, Assistant Athletic Communications Director B.A., 2002, University of North Carolina, Charlotte. (2008)

Woodward, Beverly, Pre-School Teacher I, Human Sciences B.S., 1984; M.S., 2004, Cumberland University. (2006)

Worsey, Andrew J., Professor, Mathematical Sciences B.S., 1977, Durham University, England; Ph.D., 1981, Brunel University. (1993)

Wright, Rhonda, Assistant Director, Alumni Relations B.S., 1994, David Lipscomb University. (2007)

Wright, Stephen M., Professor, Biology
B.A., 1978, Northwestern College; B.S., 1983; M.S., 1987; Ph.D., 1990, University of North Dakota. (1992)

Wubneh, Tech, Director, International Programs and Services B.A., 1974, Trevecca College; M.A., 1976, Scarritt College; M.Ed., 1978, Middle Tennessee State University; Ph.D., 1984, Vanderbilt University. (1986)

Wulfsberg, Gary Paul, Professor, Chemistry
B.S., 1966, lowa State University; Ph.D., 1971, University of Wisconsin. (1981)

Wunder, Brenda M., Event Coordinator, Event Coordination (1995)

Wydra, Paul, Assistant Director, Alumni Relations
B.S., 2002, University of Missouri, St. Louis. (2006)

Wynne, Daniel, Assistant Coordinator of Custodial Services, Housing and Residential Life.
(1999)

Xia, Yu (Amy), Assistant Professor, Management and Marketing
B.E., 1994, Huazhong University of Science \& Technology; M.E., 1997, Shanghai Jiaotong University; M.S., 2003; Ph.D., 2004, Washington State University. (2005)

Yang, Zhifu, Assistant Professor, Engineering Technology and Industrial Studies
B.E., 1989; M.S., 1992, University of Science and Technology; Ph.D., 2004, Purdue University. (2005)

Yelverton, William E., Professor, Music
B.M., 1983, Berklee College of Music; M.M., 1985, University of Miami; D.Mus., 1990, Florida State University. (1989)

Yoo, Jungsoon, Professor, Computer Science
B.S., 1979, Ewha Women's University (Seoul, Korea); M.S., 1984, North Carolina State University; Ph.D., 1991, Vanderbilt University. (1991)

Yoo, Sung Kun, Professor, Computer Science
B.S., 1973, Seoul National University; Ph.D., 1983; M.S., 1984, North Carolina State University. (1984)

York, Amy Catherine, Assistant Professor, Walker Library
B.A., 1998, Middle Tennessee State University; M.S., 2003, University of Tennessee. (2005)

York, Tammy, Coordinator, ACG and SMART Grants, Student Financial Aid
B.S., 2001, Middle Tennessee State University. (2004)

Young, Barbara N., Professor, Educational Leadership
B.A., 1971, University of Southwestern Louisiana; M.Ed., 1984, Louisiana State University; M.A.T., 1989; Ed.S., 1990, Middle Tennessee State University; Ed.D., 1993, Tennessee State University. (1991)

Young, Maureen, Coordinator, College of Continuing Education and Distance Learning
B.A., 2001, Middle Tennessee State University. (1989)

Yue, Jinfeng, Associate Professor, Management and Marketing
B.S., 1983, Peking University; M.E., 1989, Northwestern Polytechnical

University; M.B.A., 1995, University of Nebraska; M.S., Ph.D., 2000, Washington State University. (2001)

Zamora, John M., Professor, Biology
B.A., 1979, Columbia University; Ph.D., 1984, Auburn University. (1987)

Zawislak, Ronald L., Professor, Geosciences; Department Chair
B.A., 1966; M.A.T., 1968, Vanderbilt University; Ph.D., 1980, University of Wyoming. (1988)

Zengaro, Franco, Assistant Professor, Health and Human Performance
B.A., 1990; M.S.E., 2001, Harding University; M.B.A., 1999, Leicester University; Ph.D., 2006, University of Alabama. (2006)

Zha, Xiaoya, Professor, Mathematical Sciences
B.S., 1982, Anhui University, China; M.S., 1984, Huazhong University of Science and Technology, China; M.S., 1990; Ph.D., 1993, Ohio State University. (1997)

Zhang, Ping, Assistant Professor, Mathematical Sciences
B.S., 1993, Hebei Normal University; M.S., 1996, Yangzhou University; M.S., 2002; Ph.D., 2004, Memphis Sate University. (2004)

Zhao, Min Kevin, Professor, Economics and Finance
B.A., 1995, Peking University; M.B.A., 2004, University of South Carolina; Ph.D., 2008, University of Tennessee. (2008)

Zheng, Guanping, Associate Professor, Electronic Media Communication
B.S., 1983; M.A., 1986, Hunan Normal University; M.S., 1998, East Tennessee State University; Ph.D., 1998, University of Tennessee. (1998)

## Zietz, Emily J., Professor, Economics and Finance

B.B.A., 1980; M.B.A., 1982, University of Mississippi; Ph.D., 1993, Florida State University. (1992)

Zietz, Joachim, Professor, Economics and Finance
M.A., 1978; Ph.D., 1981, University of Gottingen. (1989)

Zijlstra, Jan, Associate Professor, Mathematical Sciences
B.S., 1982; M.S., 1986, Agricultural University (Wageningen, Netherlands); M.S., 1991; Ph.D., 1992, Auburn University. (1987)

## Zijlstra, Rebecca C., Professor, Mathematical Sciences

B.S., 1979; M.S., 1981, Middle Tennessee State University; Ph.D., 1990, Auburn University. (1990)

Zlotky, Gail L., Associate Professor, Aerospace
B.S., 1993; M.S., 1994, Middle Tennessee State University. (1996)

Zwycewicz, Kris, Assistant Professor, Engineering Technology B.S., 1989; B.A., 1989, Pennsylvania State University; M.B.A., 1997, Saint Joseph's University. (2008)

# Military Science 

Giles, Charles M., Maj., Assistant Professor, Military Science B.S., 1976, Middle Tennessee State University. (2000)

Brannom, Leonard D., Maj., Assistant Professor, Military Science B.S., 1999, State University of New York. (2008)

Daugherty, Steve A., Maj., Assistant Professor, Military Science B.S., 1982, Austin Peay State University. (2005)

Walsh, Michael T., Lt. Col., Professor, Military Science; Department Chair
B.S., 1987, Northeastern University; M.B.A., 1999, Troy State University; M.A., 2000, ZZ, UK London. (2006)

## Pittard Campus School Faculty

Baskin, Stan, Principal
B.M., 1975; M.A.T., 1978; Ed.S., 1981, Middle Tennessee State University; Ed.D., 1991, Tennessee State University. (1995)

Bevins, Shannon, Third Grade
B.A., 1996, Rhodes College, M.A., 2001, University of Colorado. (2008)

## Blooding, Karen, Music

B.M., 1980, M.A.T., 1989, Middle Tennessee State University; National Board Certification, 2003. (1996)

Cliche, Cynthia, First Grade
B.S., 1980, Ball State University; M.A., 1985, Berry College. (1990)

Dibble, Julie, Counselor, Campus School
B.S., 1988; M.S., 1990, University of Tennessee Martin. Ed.S., 2005, Mississippi State.

Gillespie, Gayle, First Grade
B.S., 1972; M.Ed., 1974, Middle Tennessee State University. (1988)

Hayes, LeAnn, Media Specialist, Librarian
B.S., 1991; M.Ed, 1993, Middle Tennessee State University. (2006)

Howse, John, Physical Education
B.S., Middle Tennessee State University. (1998)

Jackson, Amy, Kindergarten
B.S., 1989; B.S., 1991; M.Ed., 1998, Middle Tennessee State University. (2005)

Lasater, Marrie, Second Grade
B.S., 1973; M.Ed., 1976, University of Tennessee, Chattanooga. (1989)

## Luecke, JoAnn C., Second Grade

B.A., 1990, Middle Tennessee State University; M.A.E., 2004, Cumberland University. (2004)

## Neal, Pamela, Fourth Grade

B.S., 1988, Middle Tennessee State University; M.S., 1997, Western Kentucky University. (2003)

Paul, Kathryn R., Sixth Grade
B.S., 1989; M.Ed., 2000, Middle Tennessee State University. (2004)

Perdue, Nancy, Third Grade
B.S., 1988; M.S., 1996, Austin Peay State University. (2003)

## Ray, Holly, Fifth Grade

B.S., 1994; M.A., 1995, University of North Alabama; Ed.S., 2005, Middle Tennessee State University. (2006)

Seigfried, Debbie Hurst, Kindergarten
B.S., 1974; M.S., 1980, George Peabody College; +30, 2003. (1991)

Shaffer, Tammi, Resource
B.S., 1992; M.S., 1997; Ed.S., 2000, Tennessee Technological University. (2004)

Templeton, Angie, Fifth Grade
B.S., 1990; M.Ed., 1994; Ed.S., 1996, Middle Tennessee State University. (2001)

Templeton, Shields, Sixth Grade
B.S., 1996; M.S., 2000; Ed.S., 2002, Middle Tennessee State University. (2005)

Young, Charlotte, Fourth Grade
B.A., 1985, University of Washington; M.Ed., 1992, George Mason University. (2008)

## Tennessee Center for Child Welfare

Bailey, Ron, Program Specialist
B.S., 1962, University of Wisconsin Madison; M.Ed., 1973, Northeastern

Illinois University; Masters of Jurisprudence, 2002, Loyola University Law School. (2005)

## Biggers, Carolyn, Director of Program Delivery

B.S., 1981, Tennessee State University; M.S.S.W., 1988, University of Tennessee. (2005)

Brown, Sandra, Program Delivery Program Specialist
B.S., 1989, Lane College. (2007)

## Buhl, Jennifer, MSW Supervisory Specialist

Bachelors, 1994, Rhodes College; M.S.W., 1999, University of Tennessee. (2008)

Carpenter, Brenda, Curriculum Development Program Specialist
B.S., 1986; M.S., 1990, University of Tennessee. (2007)

Chansuthus, Daryl, Assistant Professor, Social Work; Tennessee Center for Child Welfare Executive Director
B.A., 1977, University of Tennessee; M.A., 1981, Middle Tennessee State University; M.S.S.W., 2002, University of Tennessee. (2007)

## Ellis, Stephanie, MSW Supervisory Specialist

B.S., 1986, Lambuth College; M.S.S.W., 2005, University of Tennessee. (2005)

Faulkner, Ronya, Program Delivery Program Specialist
B.S., 1993, Tennessee State University. (2006)

Groves, Ronald, Manager of Federal Grants, Contracts and Budgets; Interim Finance and Operations Director
B.S., 1989, Indiana University; M.B.A., 1993, Ball State University. (2008)

Haines, Sherry, Learning and Staff Development Program Specialist Associates, 1983, Volunteer State Community College; B.S., 1986, Middle Tennessee State University; M.A., 1995, Trevecca Nazarene University. (2005)

Harrington, Leigh, Assistant Video Production Manager
B.S., 1998, Middle Tennessee State University. (2007)

Harris, Kimberly, MSW Supervisory Specialist
B.A., 1983, University of Tennessee ; M.S.S.W., 1990, University of Tennessee. (2008)

Heckathorn, Linda, MSW Supervisory Specialist
B.S.S.W., 1994; M.S.S.W., 1995, University of Tennessee. (2006)

Johnson, Colleen, Program Delivery Program Coordinator
B.A., 2004, Middle Tennessee State University. (2007)

Jones, Kristi, MSW Supervisory Specialist
B.A., 1997; M.S.S.W., 2002, University of Tennessee. (2006)

King, Nancy, MSW Supervisory Specialist
Bachelors degree, 1993; M.S.W., 1994, Southern University at New Orleans. (2006)

Martinez, Louis, Finance and Operations Program Coordinator B.S., 1978, Illinois State University; M.S.W., 1983, University of Illinois. (2004)

Morris, Kimberly, MSW Supervisory Specialist
B.A., 1994, University of Memphis; M.S.S.W., 2005, University of Tennessee. (2006)

Peace, Scott, Video Production Manager
B.A., 2001, University of Kentucky. (2008)

Puckett, Vicky, Curriculum Development Specialist
B.S., 1999, East Tennessee State University. (2006)

Quinn, Beverly, Program Coordinator
B.S., 1972, Austin Peay State University; M.S.W., 1983, University of Tennessee; M.S.O.D., 2000, American University. (2005)

Roberts, Brian, Organizational Effectiveness Program Specialist B.S., 2000; B.A., 2001; B.A., 2003; M.A.T., 2006, Middle Tennessee State University. (2006)

Russ, Christy, Program Coordinator
B.S., 1999, Tennessee State University; M.S.S.W., 2003, University of Tennessee. (2007)

Scales, Barbara, Learning and Staff Development Program Specialist
B.A., 1996, San Angelo State University; M.Ed., 2001, Sul Ross University. (2005)

Seymour, Gail, Training Delivery Program Specialist
B.A., 1983, University of Detroit. (2006)

Starks, Shannon, MSW Supervisory Specialist
B.A., 1990, Kentucky State University; M.S.W., 2005, University of Kentucky. (2005)

Stotts, Edward, Sr., MSW Supervisory Specialist
B.A., 1972, Central Bible College; B.S.W., 1990; M.S.W., 1994, Wayne State University. (2006)

Thurston, Jessica, MSW Supervisory Specialist
B.A., 1997, State University of New York Oswego; M.S.W., 2001, Syracuse University. (2007)

Williams, Jennifer, MSW Supervisory Specialist
B.A., 1997, University of Tennessee, Chattanooga; M.S.S.W., 2004, University of Tennessee. (2005)

## Retired Faculty/Administrators

The two dates in parentheses indicate the years of service.

Adams, James L., Manager, Academic Services, Office of Information Technology
B.S., 1961, University of Oklahoma; M.S., 1968, University of California, Davis; Ph.D., 1989, University of California, Los Angeles. (1994-2000)

Allsbrook, Leland L., Associate Professor, Health, Physical Education, Recreation, and Safety
B.S., 1963, East Carolina University; M.A.T., 1969, University of North Carolina. (1972-2000)

Anderson, Guy F., Associate Professor, English
B.A., 1963, Lambuth College; M.R.E., 1966, Southern Methodist University; M.A.C.T., 1971, Middle Tennessee State University. (1971-98)

Anthony, Frances, Assistant to the Librarian
B.S., 1954, Middle Tennessee State College. (1967-94)

Arnold, David, Professor Emeritus, Speech and Theatre
A.B., 1952, David Lipscomb College; M.A., 1962; Graduate Study, Louisiana State University. (1962-97)

Arters, Jack D., Professor Emeritus, Educational Leadership
B.S., 1959, Bluffton College; M.A., 1961, Marshall University; Ed.D., 1967, University of Tennessee; Postdoctoral Study, University of Wyoming. (1967-95)

Arthur, Hattie Lamb, Professor, Home Economics; Department Chair
B.S., 1957, Baylor University; M.S., 1964; Ed.D., 1969, Texas Woman's University. (1974-85)

Aseltine, Gwen, Assistant Professor, Sociology, Anthropology, and Social Work
Work A.B., 1961, Elmhurst College; M.A., University of South Florida; Ed.S., 1972; Ph.D., 1977, George Peabody College. (1967-81)

Austin, Benjamin S., Associate Professor, Sociology and Anthropology
B.S., 1966; M.A., 1970, Middle Tennessee State University; Graduate Study, University of Tennessee. (1970-2006)

Babb, Helen G., Kindergarten, Pittard Campus School
B.S., 1964, George Peabody College; M.Ed., 1979, Middle Tennessee State University. (1979-2006)

Baird, Diane N., Associate Professor, Walker Library
B.A., 1965, Austin Peay State University; M.L.S., 1969, George Peabody College; Ed.S., 1979, Vanderbilt University. (1991-2004)

Balch, Billy W., Professor Emeritus, Economics and Finance B.S., 1959, Florence State College; M.B.A., 1960; Ph.D., 1968, University of Alabama. (1964-98)

Balch, James V., Associate Professor, Mathematical Sciences
B.A., 1964, Arkansas College; M.S., 1969; Ed.D., 1973, Oklahoma State University. (1984)

Baldwin, Harold, Professor Emeritus, Radio-Television/Photography A.B., 1951; M.A., 1958, Colorado State College; Graduate Study, Texas A\&M. (1959-91)

Barlow, Sarah F., Professor Emerita, Biology
B.S., 1959; M.A., 1963; Ed.S., 1985, Middle Tennessee State University; Ed.D., 1991, Vanderbilt University. (1979-2003)

Beard, Mala L., Associate Professor, Engineering Technology and Industrial Studies
B.S., 1969, University of Tennessee; M.Ph., 1974, University of Oklahoma; Ph.D., 1994, Colorado State University. (1998-2006)

Beasley, Horace, Professor Emeritus, Music
B.S., 1948; M.A., 1949; Graduate Study, George Peabody College. (1957-89)

Beers, George, Professor, Mathematical Sciences
B.S., 1955; M.Ed., 1960, University of Florida, M.A., 1963, University of Illinois; Ed.D., 1967, University of Florida. (1966-96)

Bergman, Race P., Professor, Elementary and Special Education; Interim Department Chair
B.S., 1961, State University College, Geneseo, New York; M.A., 1967; Ed.D., 1974, University of Rochester. (1973-2002)

Berry, Mary Tom, Professor Emerita, Elementary and Special Education
A.B., 1946, Blue Mountain College; M.A., 1950, Mississippi Southern College; Ph.D., 1961, University of Alabama. (1960-94)

Bertrand, Nancy P., Professor, Elementary and Special Education
B.S., 1971; M.S., 1975, University of Tennessee; Ph.D., 1983, Ohio State University. (1983-2006)

## Bills, Raymond P., Professor Emeritus, Music

B.M., 1959, Northwestern University; M.M., 1962, Yale University; Graduate Study, University of Texas. (1963-2006)

## Bordine, Burton W., Professor Emeritus, Geosciences

B.S., 1963, Western Michigan University; M.S., 1965, Brigham Young University; Ph.D., 1974, Louisiana State University. (1980-2007)

Bow, Kenneth, Assistant Supply Manager, Phillips Bookstore
B.S., 1969, Middle Tennessee State University. (1969-2008)

Boyd, Nancy, Assistant Professor, Accounting
B.A., 1964, Minot State University; M.S., 1974, University of North Dakota; C.P.A., 1980; M.B.A., 1987, Middle Tennessee State University. (1976-2007)

Brandon, Faye, Assistant Professor, Health, Physical Education, Recreation, and Safety
B.S., 1949, Middle Tennessee State College; M.A., 1959, George Peabody College. (1971-92)

Brashears, Elizabeth, Professor Emerita, Elementary and Special Education
B.S., 1943, Mississippi State College for Women; M.Ed., 1962, University of Southern Mississippi; Ed.D., 1969, University of Tennessee. (1969-90)

Brooks, James T., Professor Emeritus, Speech and Theatre; Associate Dean, College of Liberal Arts
B.A., 1965, Appalachian State University; M.A., 1967; Ph.D., 1974, University of Florida. (1969-2000)

Brookshire, Jerry H., Professor Emeritus, History
A.B., 1965, University of Georgia; M.A., 1967; Ph.D., 1970, Vanderbilt University. (1972-2007)

Brown, Homer William, Professor Emeritus, Computer Science
B.S., 1956; M.A., 1960; Graduate Study, George Peabody College. (1962-98)

Brown, James Walker, Jr., Professor, Chemistry and Physics
B.S., 1957, Middle Tennessee State College, M.S., 1959; Ph.D., 1962, North Carolina State College. (1962-89)

Bullen, Robert A., Professor Emeritus, Educational Leadership
B.S., 1962; M.A., 1963, University of Tennessee; Ed.D., 1969, University of Alabama. (1969-2007)

Bunio, Edward M., Health, Physical Education, Recreation, and Safety/ Athletics; Assistant Football Coach, Athletics
B.S., 1965; M.A., 1972, Austin Peay State University. (1978-94).

Burford, Anna M., Professor, Business Education, Marketing Education, and Office Management
B.S., 1964; M.A., 1967, Western Kentucky University; Ph.D., 1979, Ohio State University. (1981-2000)

Burkheart, Hilda Sue, Assistant Professor, Librarian
B.S., 1965, Middle Tennessee State University; M.L.S., 1966, George Peabody College. (1974-2001)

Burks, Tom D., Director, Leadership Institute
A.S., 1972, Columbia State Community College; B.B.A., 1980; M.B.A., 1982; Ed.S., 1988, Middle Tennessee State University; Ed.D., 1992, Vanderbilt University. (1982-2003)

Camp, George, Assistant Professor, Health, Physical Education, Recreation, and Safety; Athletic Trainer
B.S., 1963, Kent State University; M.Ed., 1964, University of Pittsburgh; Graduate Study, Northern Illinois University. (1969-98)

## Cantrell, Ayne, Professor Emerita, English

B.S., 1964, Middle Tennessee State University; M.A., 1966, Pennsylvania State University; D.A., 1976, Middle Tennessee State University. (1975-2006)

Cantrell, Paul T., Assistant Professor, Economics; Dean of Students B.S., 1963, Middle Tennessee State College; M.S., 1965, University of Tennessee. (1965-94)

Carlson, Keith, Professor Emeritus, Psychology
B.A., 1964, Eureka College; M.S., 1968; Ed.D., 1970, Northern Illinois University. (1970-2003)

Carlton, Robert F., Professor, Physics and Astronomy; Department Chair
B.A., 1964, Middle Tennessee State College; M.S., 1966; Ph.D., 1970, University of Georgia. (1968-2008)

Carroll, Carole C., Associate Professor, Sociology and Anthropology B.A., 1963, Southern Methodist University; M.A., 1967, North Texas State University; Graduate Study, University of Arizona. (1969-2008)

Carson, Frances E., Associate Professor, Nursing
R.N., 1957, North Carolina Baptist Hospital School of Nursing; B.S.N.E., 1960, Florida State University; M.N., 1967, Emory University. (19892000)

Chambers, Kenneth R., Assistant Professor, Health, Physical Education, Recreation, and Safety
B.S., 1964; M.A., 1965; Ed.S., 1967; Graduate Study, University of Alabama. (1967-2004)

Chandler, Clay M., Professor Emeritus, Biology
B.S., 1950, Bethel College; M.A., 1954, George Peabody College; Ph.D., 1965, Indiana University. (1970-92)

Chrietzberg, Bertha, Assistant Professor, Health, Physical Education, Recreation, and Safety
B.S., 1941, University of Alabama; M.Ed., 1968; Graduate Study, Middle Tennessee State University. (1969-81)

Clark, Roy W., Professor Emeritus, Chemistry
B.S., 1957, Middle Tennessee State College; M.S., 1959; Ph.D., 1965, Louisiana State University. (1963-96)

Cole, Janice D., Assistant Professor, Business Education, Marketing Education, and Office Management
B.S.B.A., 1976; M.S., 1982; Ph.D., 1996, University of Tennessee. (2001-2006)

Compton, Otha H., Lt. Col., Professor, Military Science
B.S., 1963, Tennessee Technological University; M.S., 1977, Florida Institute of Technology. (1981-84)

Connelly, William, Professor Emeritus, English
A.B., 1966, University of Detroit; M.A., 1968; Ph.D., 1972, University of Oklahoma. (1970-2008)

Cook, Baxter, Coordinator, Campus Planning
B.S., 1958; P.E., 1967; M.S., 1985, Middle Tennessee State University. (1972-92)

Cooper, Linda H., Associate Director, Human Resource Services
B.S., 1964; M.Ed., 1971, Middle Tennessee State University. (19682003)

Corcoran, Bobby Neal, Associate Professor Emeritus, Economics and Finance
B.B.A., 1959; Graduate Study, University of Oklahoma. (1962-99)

Corlew, Robert E., Professor Emeritus, History; Vice President for Academic Affairs
B.S., 1945, Austin Peay State College; M.A., 1949, Vanderbilt University; Ph.D., 1954, University of Alabama. (1949-90)

Cox, Billy W., Associate Professor, Aerospace
B.S., 1960; M.Ed., 1972, Middle Tennessee State University; FAA Airframe and Powerplant Certificate, 1980. (1980-98)

Cox, Donald K., II, Assistant Director, Records
1968, Sullivan Business College; C.S.P., 1985; C.D.P., 1986. (19732003)

Crenshaw, Douglas, Assistant Professor, English
A.B., 1959, David Lipscomb College; M.A., 1963; Graduate Study, George Peabody College. (1966-93)

Cudd, Kermit G., Professor, Management and Marketing
B.A., 1953; M.A., 1958, University of Wisconsin; Ph.D., 1969, Ohio State University. (1988-92)

## Cunningham, Everett, Professor, Political Science

A.B., 1954, Western Kentucky State University; M.A., 1958; Ph.D., 1964, University of Kentucky. (1966-98)

Curry, Donald L., Professor, Biology; Vice Provost for Research and Dean, College of Graduate Studies
A.B., 1963, Sacramento State College; Ph.D., 1967, University of California, San Francisco. (1995-2003)

Davenport, Harold, Professor, Educational Leadership
B.S., 1957; M.A., 1959, Appalachian State; Ed.D., 1970, University of Tennessee. (1970-96)

Davidson, Phyllis M., Professor, Human Sciences; Interim Director, Professional Laboratory Experiences
B.S., 1964, Tennessee Technological University; M.A., 1970, Tennessee Technological University; Ph.D., 1985, University of Tennessee. (1995-2002)

Dawkins, Sarah C., Associate Professor, Accounting
B.S., 1968; M.S., 1970; Ph.D., 1978, Louisiana State University; C.P.A., 1983. (1987-2007)

Dean, Charles J., Associate Professor Emeritus, English
A.B., 1953; B.D., 1956, Vanderbilt University; M.A., 1968, Columbia University; Graduate Study, Auburn University. (1962-99)

Dement, Kelly, Manager, Phillips Bookstore
(1967-2003)
Demonbreum, James Robert, Quality Control Coordinator
B.S., 1970, University of West Florida. (1983-92)

Donnelly, James, Assistant to the Vice President for Business and Finance
B.S., 1965; M.A., 1966, Middle Tennessee State University. (1978)

Douthit, James C., Professor Emeritus, Management and Marketing B.S.B.A., 1958; M.B.A., 1959, University of Arkansas; D.B.A., 1973, Mississippi State University. (1964-96)

Doyle, Patrick J., Professor Emeritus, Biology
A.B., 1962, Buena Vista College; M.A., 1965, Middle Tennessee State University; Ed.D., 1972, Indiana University. (1966-2002)

Drennan, Cynthia Belcher, Associate Dean, Division of Continuing Studies and Public Service
B.Mus., 1959, Converse College; M.Mus., 1965, George Peabody College; Ed.S., 1981, Middle Tennessee State University; Ed.D., 1984, Tennessee State University. (1985-98)

Drennan, Henry Dalton, Professor Emeritus, Business Education, Marketing Education, and Office Management
B.S., 1952; M.A., 1956; Ed.S., 1963, George Peabody College; Ed.D., 1969, University of Mississippi. (1961-97)

Drugmand, Arlene M., Staff Nurse, Health Services
R.N.; A.A.N., 1983, Austin Peay State University. (1985-2007)

Drugmand, John S., Director, Public Safety
A.S., 1983; B.S., 1988, State University of New York. (1983-2004)

Ducker, Paul E., Assistant Professor, Chemistry and Physics
A.B., 1939, Indiana Central College; B.D., United Theological Seminary; M.A., 1963, Middle Tennessee State College. (1965-80)

Duke, John R., Professor Emeritus, Music
B.S., 1954; M.A., 1960; Ph.D., 1971, George Peabody College. (197096)

Duggin, Calvin, Associate Professor, Industrial Studies
B.S., 1950, Middle Tennessee State College; M.S., 1954, Alabama Polytechnic Institute; Graduate Study, University of Tennessee. (1959-86)

Dunn, Charlie M., Director, Vocational-Technical Education B.S., 1953, Middle Tennessee State College; M.S., 1956, University of Tennessee. (1974-84)

Dunne, Michael F., Professor Emeritus, English
B.A., 1964, Fordham University; M.A., 1966; Ph.D., 1969, Louisiana State University. (1969-2006)

Dunne, Sara L., Professor, English
B.A., 1966, Louisiana State University; M.A., 1975; D.A., 1994, Middle Tennessee State University. (1981-2006)

Durham, Charles, Professor Emeritus, English
B.S., 1963, Middle Tennessee State College; M.A., 1964; Ph.D., 1969, Ohio University. (1966-98)

Earle, James P., Assistant Professor, Health, Physical Education, Recreation, and Safety
B.S., 1958; M.A., 1962, Middle Tennessee State College. (1965-92)

Embry, Donald E., Professor Emeritus, Educational Leadership
B.S., 1959; M.S., 1964, Butler University; Ed.D., 1973, Ball State University. (1996-2001)

## Essex, Frank W., Professor Emeritus, Political Science

A.B., 1966; M.A.T., 1967; Ph.D., 1978, Vanderbilt University. (196793).

Evans, Boyd A., Assistant Professor, Economics and Finance
B.S., 1962, Lynchburg College; M.B.A., 1964, Auburn University; Graduate Study, Vanderbilt University. (1965-2008)

Evans, Joe S., Professor, Mathematical Sciences
B.S., 1954, Middle Tennessee State College; M.S., 1959, Vanderbilt University; Ph.D., 1971, George Peabody College. (1959-97).

Fancher, Oliver B., Associate Professor Emeritus, Art
B.F.A., 1964, Washington University; M.F.A., 1970, University of Tennessee. (1983-2003)

Fann, Nancy J., Assistant Professor, Business Education, Marketing Education, and Office Management
B.S., 1965; M.B.E., 1978, Middle Tennessee State University. (19782006)

## Feller, James F., Assistant Professor, Economics and Finance

B.A., 1968, University of South Florida; Ph.D., 1979, University of Florida. (1984-2006)

## Ferris, Norman B., Professor Emeritus, History

B.A., 1953, George Washington University; LL.B., 1956, Blackstone School of Law; M.A., 1957; Ph.D., 1962, Emory University. (1962-97)

Fiveash, Thomas L., Health and Human Performance/Athletics; Director, Football Operations
B.S., 1966, Middle Tennessee State University. (1994-2006)

Flanagan, Lynn L., Assistant Professor, Librarian
B.A., 1959, North Georgia College; M.L.S., 1960, Emory University. (1990-2002)

Ford, Lani A., Associate Professor, Educational Leadership B.A., 1963, University of Oregon; M.N.S., 1966, Arizona State University; Ph.D., 1971, Michigan State University. (1986-96)

Ford, William Clark, Professor, Business Education, Marketing Education, and Office Management
B.S., 1959; M.A., 1966, Appalachian State University; Ph.D., 1970, Michigan State University. (1970-2003)

Forgette, Frank, Director, Audio/Visual Services, Instructional Technology Support Center
Diploma, 1966, Cleveland Institute of Electronics Engineering; First Class Radio Telephone License. (1976-2007)

Forrest, Patsy N., Professor Emerita, Nursing
R.N., 1956; B.S., 1959, Murray State University; M.S.N., 1964, University of North Carolina. (1972-96)

Foutch, Harley W., Professor, Agribusiness and Agriscience
A.A., 1964, Centralia Junior College; B.S., 1966; M.S., 1968, Southern

Illinois University; Ph.D., 1971, Auburn University. (1970-2008)

Fullerton, Ralph O., Jr., Professor Emeritus, Geography and Geology; Department Chair
A.B., 1960, University of Kentucky; M.S., 1962; Ed.D., 1971, Indiana University. (1963-97)

Gaida, Harriette Huff, Assistant Professor, Librarian
B.A., 1970, Agnes Scott College; M.L.S., 1971, George Peabody College. (1971-2003)

Garrigus, Robert R., Professor Emeritus, Agribusiness and Agriscience
B.S., 1958, University of Kentucky; M.S., 1960, University of Illinois; Ph.D., 1963, University of Kentucky. (1967-99)

Gentry, Jerry G., Associate Vice President, Information Technology Division
A.S., 1972, Pensacola Junior College; B.B.A., 1980, National University; M.B.A., 1982, Golden Gate University. (1992-2005)

Gibson, James, Professor Emeritus, Art
A.B., B.S., 1958, Morris Harvey College; M.F.A., 1961, Ohio University. (1970-2000)

Gill, Linda, Associate Professor Emerita, Librarian
A.B., 1961; M.A. in L.S., 1962, George Peabody College. (1966-2000)

Ginanni, Francis R., Professor Emeritus, English
A.B., 1960, San Jose State College; M.A., 1964, University of Virginia; Ph.D., 1970, Auburn University. (1964-94)

Ginanni, Mary B., Professor, Health, Physical Education, Recreation, and Safety
B.S., 1955, Tennessee Technological University; M.S., 1957, University of Tennessee; Re.D., 1990, Indiana University. (1970-99)

Gist, J.O., Director, Business and Administrative Services
B.S., 1948; M.A., 1967, Middle Tennessee State University. (1964-94)

Given, Robert Edmond, Jr., Director, Sports Information
B.S., 1957, Union University; M.S., 1970, Western Kentucky University. (1983-98)

Gould, Richard H., Professor Emeritus, Engineering Technology and Industrial Studies; Department Chair
B.S., 1952; M.S., 1955, University of Mississippi; Ed.D., 1973, University of Tennessee. (1966-95)

Grasty, William J., Professor Emeritus, Accounting
B.S., 1961, Austin Peay State University; M.S., 1963; Ph.D., 1967, University of Florida; C.P.A., 1981. (1980-2001)

Greene, William F., Professor Emeritus, Accounting
B.S., 1958, Middle Tennessee State College; M.S., 1961, University of Tennessee; C.P.A., 1973; Graduate Study, Mississippi State University. (1968-94)

Grubbs, David, Professor Emeritus, Political Science
A.B., 1951, Maryville College; M.A., 1953, University of Tennessee; Ph.D., 1961, University of Pennsylvania. (1966-94)

Halterlein, Anthony J., Associate Professor, Agribusiness and Agriscience
B.A., 1958, Duquesne University; B.S., 1972; M.S., 1974, University of Missouri; Ph.D., 1978, Kansas State University. (1985-2007)

Hamilton, Marian M., Professor, Elementary and Special Education B.A., 1943, Vanderbilt University; M.A., 1964; Graduate Study, George Peabody College; Ed.D., 1974, Memphis State University. (1967-90)

Hankins, J.C., Professor, Mathematical Sciences
B.S., 1969; M.S., 1971, Murray State University; Ph.D., 1976, University of Missouri, Rolla. (1979-2004)

Harris, Earl, Director, Phillips Bookstore
B.S., 1966; M.Ed., 1973, Middle Tennessee State University. (19702008)

Harris, Thomas M., Associate Professor Emeritus, English
A.B., 1961, Belmont College; M.A.T., 1962, Vanderbilt University. (1964-98)

Harrison, Dorothy W., Director, Development Communications and Marketing, Development Office
B.A., 1962; M.A.C.T., 1972, Middle Tennessee State University. (19762000)

Harrison, Joyce S., Professor Emerita, Human Sciences
B.S., 1968, University of Tulsa; M.S., 1974; Ed.D., 1979, University of Tennessee; C.F.P., 1988. (1978-2004)

Hart, William S., Associate Professor, Management and Marketing B.S., 1953; M.S., 1957, Kansas State Teachers College; Ph.D., 1969, University of Florida. (1986-2003)

Harvin, Laurence, Professor, Music
B.M., 1964, University of Alabama; M.M., 1966, University of Oklahoma; D.M.A., 1972, Florida State University. (1966-99)

Hawk, Floyd Richard, Counselor, Counseling and Testing Center B.S., 1954; M.A., 1958, Middle Tennessee State College; J.D., 1962, Nashville YMCA Law School. (1972-98)

Hayes, Ann C., Sixth Grade, Pittard Campus School B.S., 1966; M.Ed., 1973, Middle Tennessee State University. (1974-86)

Hayes, Dean, Professor, Health and Human Performance/Athletics; Head Men's and Women's Track Coach, Athletics
B.A., 1959, Lake Forest College; M.S.Ed., 1965, Northern Illinois University. (1965-2009)

Hayes, Janice O., Professor Emerita, Educational Leadership
B.S., 1963, University of Minnesota; M.Ed., 1967; D.A., 1973, Middle Tennessee State University. (1973-2007)

Hayes, Joe Black, Associate Professor, Health, Physical Education, Recreation, and Safety
B.S., 1939, University of Tennessee; M.A., 1950; Graduate Study, George Peabody College. (1950-81)

Heller, Peter L., Professor Emeritus, Sociology and Anthropology B.A., 1960, University of Indianapolis; M.A., 1964, Pennsylvania State University; Ph.D., 1972, University of Nevada, Reno. (1988-2003)

Helm, John Thomas, Professor, Engineering Technology and Industrial Studies
B.S., 1957; M.S.M.E., 1969, Vanderbilt University. (1991-99)

Hemmerly, Thomas E., Professor, Biology
A.B., 1953, Trevecca Nazarene College; A.M., 1955; Ed.S., 1964, George Peabody College; Ph.D., 1976, Vanderbilt University. (1964-2007)

Henry, Carlene T., Administrative Assistant to the President C.P.S., 1975. (1973-2002)

Heritage, Jeannette, Professor, Psychology
B.S., 1953, Auburn University; M.A., 1969, University of South Alabama; Ph.D., 1971, University of Southern Mississippi. (1971-2003)

Herrick, William C., Associate Professor, Aerospace
B.S., 1987; M.Ed., 1988; Ed.S., 1989, Middle Tennessee State University; Ph.D., 1991, University of Tennessee. (1992-2001)

## Higdon, Bella, Professor, Elementary and Special Education

B.A., 1964, McNeese State University; M.A., 1969, University of Houston; Ed.D., 1973, McNeese State University. (1989-2006)

## High, John L., General Manager, WMOT

B.S., 1975, University of Tennessee; M.S., 1977, Murray State University. (1977-2007)

## Hill, Donald E., Assistant Professor, Journalism

B.S., 1960, University of Alabama; M.S., 1962, South Dakota State University; Ed.D., 1984, University of Missouri. (1972-94)

Hillman, Ralph E., Professor, Speech and Theatre
B.A., 1962; M.A., 1965, University of lowa; Ph.D., 1972, Pennsylvania State University. (1974-2002)

Himebaugh, Glenn A., Professor Emeritus, Journalism
B.S.J., 1958; M.S., 1959, Ohio University; Ph.D., 1978, Southern Illinois University. (1971-2001)

Hodge, Harry F., Professor, Psychology
B.S., 1959; M.S., 1960, University of Tennessee; Ed.D., 1963, Auburn University. (1980-93)

Holland, Anne V. Cole, Associate Professor, Health, Physical Education, Recreation, and Safety
A.B., 1952, University of North Carolina; M.Ed., 1968, Middle Tennessee State University. (1967-2000)

Holland, Molly C., Assistant Professor, Library
B.A., 1958, Western Kentucky University; M.L.S., 1963, George Peabody College. (1987-2003)

Holland, William, Professor, English
A.B., 1952, Millsaps College; M.A., 1957; Ph.D., 1966, University of Edinburgh. (1966-93)

## Howard, Charles Edwin, Professor Emeritus, English

B.S., 1947, Troy State Teachers College; M.A., 1948, George Peabody College; Ph.D., 1959, Vanderbilt University. (1951-84)

Howard, Wera Dross, Assistant Professor, Foreign Languages
B.S., 1950; M.A., 1953, University of Kiel, Germany; Graduate Study, Vanderbilt University. (1969-85)

Howell, Sarah, Professor Emerita, History
A.B., 1952; M.A., 1967; Ph.D., 1970, Vanderbilt University. (1970-96)

Hughes, Cary T., Professor, Computer Information Systems
B.S., 1971, California State University, Los Angeles; M.B.A., 1979, University of Nevada; Ph.D., 1982, Arizona State University. (1989-2006)

Huhta, James K., Professor Emeritus, History; Director, Center for Historic Preservation
B.A., 1959, Baldwin-Wallace College; M.A., 1963; Ph.D., 1965, University of North Carolina. (1965-2003)

Hull, Geoffrey P., Professor Emeritus, Recording Industry
B.S., 1968, Georgia Institute of Technology; J.D., 1971, University of

Virginia Law School; M.B.A., 1980, Middle Tennessee State University. (1977-2007)

Hunter, Frances G., Assistant Professor, Librarian
B.S., 1947, George Peabody College; M.A., 1965, Middle Tennessee State University; Graduate Study, George Peabody College. (1965-85)

Hutcheson, Paul Henry, Professor Emeritus, Computer Science
A.B., 1950, David Lipscomb College; M.A., 1951, George Peabody College; Ph.D., 1960, University of Florida. (1960-94)

Hutchinson, James H., Professor Emeritus, Chemistry; Department Chair
A.B., 1955, University of Southern Mississippi; M.S., 1960, University of lowa; Ph.D., 1968, Auburn University. (1969-98)

Ingram, Sam H., President
B.S.E., 1951, Bethel College; M.A., 1953, Memphis State College; Ed.D., 1959, University of Tennessee. (1979-90)

Jackson, William Dayton, Associate Professor, Radio-Television/ Photography
B.S., 1952, Auburn University; M.S., 1958; Ed.D., 1967, Indiana University. (1974-92)

James, John B., Associate Professor, Economics and Finance
B.S., 1964, Austin Peay State University; M.S., 1967; Ph.D., 1970, Texas A\&M University. (1969-98)

James, Mary Jo, Director, Media Services, Learning Resources Center
B.A., 1963, Oakland University; M.S.L.S., 1967, Wayne State University. (1975-90)

## Jamison, King, Professor, Mathematical Sciences

B.S., 1952, Union University; M.A., 1953; Ph.D., 1962, George Peabody College. (1966-2002)

Jansen, Charles, Professor Emeritus, Art
B.A., 1971, MacMurray College; M.A., 1973; Ed.S., 1974, University of Iowa; Ph.D., 1991, University of Georgia. (1976-2003)

Jennings, Raymond Oakley, Associate Professor, Chemistry and Physics
B.S., 1947, Middle Tennessee State College; M.A., 1951; Graduate Study, George Peabody College. (1962-85)

Johnson, Carolyn H., Assistant to Associate Vice President for Enrollment Management; Associate Director of Records
B.A., 1970, Middle Tennessee State University; A.S., 1982, Nashville State Technical Institute. (1983-2001)

Jolly, Ella T., Third Grade, Campus School
B.S., 1955; M.Ed., 1972, Middle Tennessee State University. (1973-92)

Jones, Bertha, Assistant Professor, Home Economics
B.S., 1953, East Carolina College; M.Ed., 1955, University of North Carolina; Graduate Study, University of Maryland. (1968-73)

Jones, Grady R., Associate Professor, Aerospace
B.M.E., 1959, Vanderbilt University; M.Ed., 1980, Middle Tennessee State University. (1985-2002)

## Jones, Herbert, Associate Professor, Accounting

B.S., 1963, Middle Tennessee State University; M.A., 1965, University of Alabama; C.P.A., 1967; Graduate Study, University of Alabama. (1967-2004)

Kallenberger, Klaus H., Professor Emeritus, Art
B.F.A., 1961, Bethany College; M.F.A., 1966, Kansas University. (19662002)

Kawahito, Kiyoshi, Professor Emeritus, Economics and Finance
B.S., 1963, Oklahoma City University; M.B.A., 1965; Ph.D., 1971, University of Maryland. (1971-2007)

Keese, Earl E., Professor, Mathematical Sciences; Dean, College of Basic and Applied Sciences
B.S., 1963, Texas A\&M University; M.Ed., 1966, West Texas State University; M.Math, 1967, University of South Carolina; Ph.D., 1972, George Peabody College. (1969-99)

## Keese, Nancy C., Professor, Educational Leadership

B.A., 1962, Winthrop College; M.M., 1969, University of South Carolina; Ed.S., 1980, Middle Tennessee State University; Ed.D., 1990, University of Tennessee. (1988-2002)

## Kemp, James, Associate Professor, Biology

B.S., 1959; M.A., 1969, Middle Tennessee State University; Graduate Study, North Carolina Central, Shorter College, University of North Carolina. (1971-95)

Kew, Rosemary, Assistant Professor, Foreign Languages and Literatures
B.A., 1968, University of London; M.A., 1984, University of Rochester. (1989-2008)

Key, Charlene B., Assistant Professor, Developmental Studies
B.S., 1962; M.S.T., 1967; Ed.S., 1992, Middle Tennessee State University. (1986-96)

## Kinslow, Anita T., Assistant Professor Emerita, Nursing

R.N., 1964, Baptist Hospital; B.S.N., 1969, Florida State University; M.S.N., 1980, Vanderbilt University. (1981-2003)

Kirkman, Loisteen, Assistant Professor, English
A.B., 1958, Ouachita College; M.A., 1970, Middle Tennessee State University. (1970-93)

## Kyle, Reuben, Professor Emeritus, Economics and Finance

B.S., 1963, Georgia Institute of Technology; M.B.A., 1967, University of Alabama; Ph.D., 1972, University of Tennessee. (1972-2006)

LaLance, Richard, Professor Emeritus, Health, Physical Education, Recreation, and Safety
B.S., 1964, West Virginia University; M.Ed., 1970; D.A., 1975, Middle Tennessee State University. (1970-99)

LaLance, Robert C., Jr., Assistant Professor Emeritus, Health, Physical Education, Recreation, and Safety; Vice President for Student Affairs
B.S., 1962, West Virginia University; M.S., 1963, University of Tennessee; D.A., 1974, Middle Tennessee State University. (1963-98)

Lea, James W., Professor Emeritus, Mathematical Sciences
B.S., 1963; M.S., 1965, Tennessee Technological University; Ph.D., 1971, Louisiana State University. (1971-2008)

## LeDoux, David G., Professor Emeritus, Art

A.B., 1947, Louisiana College; M.A., 1950, Louisiana State University; Graduate Study, Ohio State University. (1956-94)

Lee, John T., Professor Emeritus, Economics and Finance; Department Chair
B.S., 1964, Tennessee Technological University; M.S., 1966, University of Tennessee; Ph.D., 1977, University of Georgia; C.F.P., 1994. (19842008)

Lee, Karen Kimmel, Associate Professor Emerita, Social Work
B.A., 1970, Marietta College; M.S.W., 1974, Boston College. (19832006)

Levi, Lester Wright, Associate Professor, Mathematical Sciences A.B., 1949, Carson-Newman College; B.D., 1952, Southern Baptist Seminary; M.A., 1960; Graduate Study, George Peabody College. (1961-90)

Lindsey, Richard, Associate Professor, Youth Education and School Personnel Services
B.S., 1948; M.S., 1951, Indiana State College; Ed.D., 1962, George Peabody College. (1969-81)

Lorenz, James H., Professor Emeritus, Engineering Technology and Industrial Studies; Department Chair
B.S., 1964, University of Wisconsin, Stout; M.A., 1970, University of Minnesota; Ed.D., 1974, University of Georgia. (1973-2001)

Lowe, Larry V., Professor Emeritus, Speech and Theatre
A.B., 1952, Mercer University; M.F.A., 1959, University of Georgia; Ph.D., 1965, Michigan State University. (1963-97)

MacBeth, In Cheung Sok, Assistant Professor, Walker Library
B.A., 1963, Ewha Women's University-Korea; M.L.S., 1970; Ed.S., 1972, George Peabody College. (1975-2005)

MacBeth, Jon L., Professor Emeritus, Health and Human Performance B.A., 1963, University of Florida; M.A., 1968; Ed.D., 1973, George Peabody College. (1973-2008)

Mann, Joan C., Media Specialist, Librarian, Pittard Campus School
B.A., 1968; M.Ed., 1973, Middle Tennessee State University; + 45, 2002, Cumberland University, Andrews University. (1973)

Maples, Wallace, Professor Emeritus, Aerospace; Department Chair
B.S., 1963, Middle Tennessee State College; M.S., 1965, University of Tennessee; Ed.D., 1970, Indiana University. (1969-1995)

## Mapp, Larry Glover, Professor, English

B.A., 1968; M.A., 1969, University of Georgia; Ph.D., 1981, Vanderbilt University. (1969-2008)

## Martin, Barbara L., Director, Health Services

R.N., 1956, St. Thomas Hospital, Nashville; B.S., 1961; M.A., 1965, Middle Tennessee State University. (1974-98)

Martin, Mary W., Professor Emerita, Educational Leadership; Dean, College of Graduate Studies
B.S., 1952, Ohio State University; M.A., 1965, Memphis State University; Ed.D., 1967, University of Tennessee. (1968-94)

Martin, Norman, Manager, Athletic Budgets
B.S., 1964, Middle Tennessee State University. (1966-97)

Mason, Franklin Curtis, Professor, Physics and Astronomy
B.S., 1959, Middle Tennessee State College; M.A.T., 1960, Vanderbilt University; M.S., 1965, Miami University of Ohio; Ph.D., 1972, Ohio State University. (1972-96)

Massaquoi, Jeanne H., Director, Student-Athlete Enhancement Center
B.S., 1985; M.S., 1988, Middle Tennessee State University. (19882006)

Mast, John A., Assistant Professor, English
B.S., 1960; M.A., 1962, Appalachian State Teachers College. (196279)

Mathis, Philip M., Professor Emeritus, Biology; Dean, University Honors College
B.S., 1964, Murray State College; M.S., 1967, Middle Tennessee State University; Ed.S., 1971, George Peabody College; Ed.D., 1973, University of Georgia. (1967-2008)

McBroom, James, Associate Professor, Sociology, Anthropology, and Social Work
B.S., 1941, Auburn University; M.A., 1947, George Peabody College; Graduate Study, Vanderbilt University. (1966-85)

McCallie, Dorothy W., Bursar, Business Office
B.S., 1964, University of North Alabama; C.P.A., 1983, "Inactive." (1985-2007)

McCash, June H., Professor Emerita, Foreign Languages and Literatures
A.B., 1960, Agnes Scott College; M.A., 1963; Ph.D., 1967, Emory University. (1967-2004)

McClaran, James C., Assistant Director, Human Resource Services B.S., 1955; M.A., 1956, Middle Tennessee State College. (1973-95)

McClellan, Powell, Professor, Health and Human Performance
B.S., 1962, Arkansas Polytechnic College; M.Ed., 1966; Ed.D., 1969, University of Arkansas. (1970-2006)

## McCord, Richard L., Professor, Mathematical Sciences

B.S., 1953, Middle Tennessee State College; M.A., 1956; Ph.D., 1970, George Peabody College. (1956-96)

## McCullough, Martin A., Professor, Educational Leadership

B.S., 1954; M.Ed., 1960, Middle Tennessee State College; Ed.D., 1963, Peabody College. (1987-99)

## McFall, Betty N., Assistant Professor, Librarian

B.A., 1963, Mississippi University for Women; M.L.S., 1980, University of South Carolina. (1986-98)

McFerrin, Florence, Assistant Professor, Mathematics and Computer Science
A.B., 1936, Tennessee College for Women; M.A., 1961, Middle Tennessee State College; Ed.S., 1970, George Peabody College. (1965-78)

McMurry, Daniel W., Professor Emeritus, Sociology, Anthropology, and Social Work
B.A., 1958; M.A., 1962; Graduate Study, University of North Carolina. (1968-97)

## McNaughton, Janet P., Professor, Human Sciences

B.S., 1973, Mississippi College; M.S., 1974; Ph.D., 1976, Mississippi State University. (1993-2004)

McNeill, Mary Frances Snell, Eighth Grade, Pittard Campus School
B.S., 1930, Middle Tennessee State College; M.A., 1933, Columbia University. (1938-71)

Messier, Ronald, Professor Emeritus, History
B.A., 1966, University of Rhode Island; M.A., 1968; Ph.D., 1972, University of Michigan. (1972-2004)

Milligan, Barbara, Assistant Professor, Educational Leadership B.A., 1950, Cumberland University; M.A., 1957; Ed.S., 1980, Middle Tennessee State University; Ph.D., 1990, Peabody College of Vanderbilt University. (1997-2003)

Montgomery, John Paul, Professor Emeritus, English; Dean, University Honors College
B.S., 1965, Middle Tennessee State University; M.A., 1966, George Peabody College; Ph.D., 1972, Ohio University. (1972-2004)

Moody, Thomas L., Professor, Physics and Astronomy
B.S., 1961, Auburn University; M.S., 1965, University of Tennessee. (1966-99)

Moore, John C., Director of Olympic Sports; Head Golf Coach, Athletics
B.S., 1961, Middle Tennessee State University. (1989-2007)

Morris, Larry W., Professor Emeritus, Psychology; Department Chair
B.A., 1966, Arlington State College; Ph.D., 1969, Vanderbilt University. (1969-2003)

Moser, Jean H., Instructor, Developmental Studies
B.A., 1954; M.A., 1962, Middle Tennessee State College. (1985-94)

Mueller, Hans G., Professor Emeritus, Economics and Finance
A.B., 1955, University of Washington; Ph.D., 1968, Vanderbilt University. (1961-93)

Mullins, William E., Assistant Professor, Industrial Studies
B.S.E.E., 1962, University of Louisville; M.S., 1983; Graduate Study, Middle Tennessee State University. (1984-94)

## Nagy, Alex, Professor, Journalism

B.S.J., 1951, Ohio University; M.A., 1970; Ph.D., 1973, University of Wisconsin, Madison. (1980-2006)

Naylor, Tom L., Professor Emeritus, Music
B.S., 1961, Bob Jones University; M.A., 1962, Appalachian State University; M.M., 1969; D.M., 1973, Indiana University. (1967-98)

Neal, James H., Professor Emeritus, History
B.S., 1958; M.A., 1963, University of Houston; Ph.D., 1971, Vanderbilt University. (1968-99)

Nemerov, Bruce N., Audio Specialist, Center for Popular Music B.A., 1969, University of California, Berkeley. (1990-2006)

Nguyen, Nghiep H., Associate Professor, Economics and Finance B.A., 1967; M.A., 1969, University of Saigon; M.A., 1973, National Institute of Administration, Saigon; M.A., 1978; Ph.D., 1981, University of Tennessee. (1981)

Norwood, Francis W., Instructor, Criminal Justice Administration B.S., 1940, Mississippi State University; M.P.A., 1974, Middle Tennessee State University, University of Tennessee. (1977-82)

O'Hara-Murdock, Peggy, Professor Emerita, Health and Human Performance
B.S., 1964, Miami University; M.Ed., 1965; Ph.D., 1981, University of Pittsburgh. (1998-2008)

Ordoubadian, Margaret, Associate Professor Emerita, English
B.A., 1957, Duke University; M.A., 1966, Middle Tennessee State University; J.D., 1987, Nashville School of Law. (1968-2003)

Ordoubadian, Reza, Professor, English
B.A., 1954, Teheran University; Graduate Study, Duke University, Vanderbilt University; M.A., 1965; Ph.D., 1968, Auburn University. (1962-89)

Owens, Rosemary Wade, Dean, College of Continuing Education and Distance Learning
B.S., 1973; M.Ed., 1975; Ed.S., 1979, Middle Tennessee State University; Ed.D., 1983, Tennessee State University. (1984-2006)

Parente, Donald E., Associate Professor, Journalism
A.B., 1966; M.S., 1969; Ph.D., 1974, University of Illinois. (19812007)

Parker, Austin D., Financial Management Analyst
B.S., 1958, University of Tennessee; M.B.A., 1973, Middle Tennessee State University. (1967-95)

Parker, Harold, Professor Emeritus, Philosophy; Department Chair B.A., 1956, Eastern Nazarene College; M.A., 1958, University of Kansas; Ph.D., 1967, Emory University. (1968-95)

Patterson, Linda, Assistant Professor, Health, Physical Education, Recreation, and Safety
B.S., 1967; M.Ed., 1968, Middle Tennessee State University; Graduate Study, Indiana University. (1968-99)

Patton, Dewey, Associate Professor, Aerospace
B.A.S., 1960, University of Maryland; M.A., 1966, University of Southern California. (1971-96)

Pegg, Raymond Edward, Maintenance Engineer, Electronic Media Communication
Certification in Broadcast Engineering, 1990, Society for Broadcast Engineers. (1991-2006)

Pellegrini, Linda E., Director of Employment/Employee Relations, Human Resource Services (2001-2009)

Penny, Guy, Professor Emeritus, Health, Physical Education, Recreation, and Safety; Director, The Wellness Center
B.S., 1950; M.Ed., 1958, University of Mississippi; Ed.D., 1970, University of Southern Mississippi. (1970-93)

Penrod, William, Professor Emeritus, Psychology
B.A., 1951, Carson-Newman College; M.S., 1959, University of Miami; Ph.D., 1962, University of Florida. (1970-93)

Perkins, Jerry, Professor Emeritus, Music
B.M., 1963; M.M., 1964, University of Cincinnati; D.M.A., 1969, Boston

University. (1969-2007)
Peters, Mary Jane, Coordinator, Correspondence Courses, Special Academic Programs, Division of Continuing Studies and Public Service B.S., 1980, Louisiana State University. (1993-2003)

Phillips, Burns, Associate Professor, Mathematics and Computer Science
B.S., 1948, Middle Tennessee State College; M.A., 1949; Graduate Study, George Peabody College. (1957-83)

Phillips, E. Ray, Professor Emeritus, Mathematical Sciences; Associate Dean, College of Graduate Studies; Interim Dean, College of Basic and Applied Sciences
B.S., 1966, Middle Tennessee State University; M.A., 1968, University of Arkansas; Ph.D., 1971, Purdue University. (1990-2003)

Phillips, Robert E., Associate Professor, Aerospace
B.S., 1962; M.Ed., 1973, Middle Tennessee State University; FAA Airframe and Powerplant Certificate, 1982. (1982-2003)

Pigg, Charles, Director, Campus Planning
B.S., 1955; M.Ed., 1976, Middle Tennessee State University. (1965-92)

Pleas, John Roland, Professor Emeritus, Psychology
B.A., 1960, McKendree College; M.Ed., 1967, University of Illinois; Ph.D., 1980, Vanderbilt University. (1985-2004)

Poole, Finis W., Associate Professor, Psychology; Counselor, Guidance and Counseling Center
A.B., 1948; M.A., 1949, Highlands University; Graduate Study, George Peabody College. (1954-84)

Poole, Jane, Associate Professor, Elementary and Special Education B.S., 1954, George Peabody College; M.Ed., 1972; Ed.S., 1979, Middle Tennessee State University. (1975-2000)

Porter, T. Coy, Professor, Foreign Languages
B.A., 1944, Harding College; M.A., 1946; Ph.D., 1968, Vanderbilt University. (1964-85)

Potts, Marie T., Assistant Professor, Nursing
B.S.N., 1959, St. John College of Cleveland; M.S.N., 1987, University of Tennessee. (1981-96)

Pratt, James O., Associate Professor, Engineering Technology and Industrial Studies
B.S., 1976, Southern Missionary College; M.A.T., 1977, Middle Tennessee State University. (1981-97)

Price, Kathryn, Associate Professor, Human Sciences
B.S., 1964, Austin Peay State University; M.Ed., 1970, University of Illinois. Graduate Study, United States International University, Middle Tennessee State University. (1975-98)

Price, Robert Gregg, Associate Professor, Business Education, Marketing Education, and Office Management
B.S., B.A., 1958, University of Kansas; M.S., 1970, Pittsburg State University; Ph.D., 1973, Kansas State University. (1979-2001)

Price, William H., Associate Professor, Mathematical Sciences
B.S., 1962, Austin Peay State College; M.A., 1963, George Peabody College; Graduate Study, University of Illinois and George Peabody College. (1964-97)

Pugh, E. Hixson, Purchasing Agent
B.S., 1950, University of Tennessee. (1965-87)

Raper, Elmer, Professor, Education
A.B., 1946, University of Chattanooga; M.S., 1950; Ed.D., 1957, University of Tennessee. (1957-74)

Rawlins, N. Omri, Professor Emeritus, Agribusiness and Agriscience B.S.A., 1961; M.S., 1963, University of Georgia; Ph.D., 1968, Texas A\&M University. (1968-99)

Ray, John B., Professor, Geography and Geology
B.S., 1951, Indiana State College of Pennsylvania; M. Litt., 1956, University of Pittsburgh; Ph.D., 1968, Indiana University. (1975-91)

Read, Ida Dunaway, Assistant Professor, Librarian
A.B., 1945, Tennessee College for Women; M.A., 1959, Middle Tennessee State College. (1965-87)

Renn, Walter F., Professor Emeritus, History
B.S., 1958, University of Miami; M.A., 1967; Ph.D., 1970, Florida State University. (1992-2004)

Reyes, Mary de los, Professor, Biology
B.S., 1965, Louisiana State University; M.S., 1970, Eastern Kentucky University; Ph.D., 1973, Auburn University. (1981-2003)

Richey, Linda H., Associate Professor, Human Sciences
B.S., 1968; Ph.D., 1992, University of Tennessee. (1992)

Rob, Peter, Professor Emeritus, Computer Information Systems B.A., 1964; M.A.T., 1965, University of Florida; Ph.D., 1970, University of Arkansas. (1981-2002)

Robins, Alexander Spotswood, Jr., Assistant Coach, Football B.S., 1969, Maryville College. (1983-2006)

Rogers, Walter B., Professor, Economics and Finance
B.S., 1951, Texas Technological University; M.S., 1953, University of Arizona; Ph.D., 1959, Oklahoma State University. (1981-99)

Rolater, Frederick S., Professor Emeritus, History
A.B., 1960, Wake Forest College; M.S., 1963; Ph.D., 1970, University of Southern California. (1967-2000)

Roose, Robert S., Director, Technical Assistance
B.S., 1942, Otterbein College. (1983-90)

Royal, Katherine Elaine, Professor Emerita, Psychology
B.A., 1967; M.S., 1969; Ph.D., 1971, Purdue University. (1978-2006)

Sakas, Joseph, Associate Professor, Youth Education and School Personnel Services
B.S., 1962; M.A., 1963, Austin Peay State University; Ed.D., 1967, George Peabody College. (1966-84)

Sawyer, Joe E., Associate Professor Emeritus, Business Education, Marketing Education, and Office Management
B.S., 1957, Troy State College; M.A., 1963; Graduate Study, University of Alabama, University of Oklahoma. (1963-2003)

Scales, Mary C., Associate Dean, Continuing Education and Public Service
B.S., 1961, Tennessee State University; M.Ed., 1967, Middle Tennessee State University. (1982-87)

Schukert, Michael A., Professor, Aerospace
B.A., 1963, University of Arizona; M.Ed., 1969, University of Florida; Ph.D., 1976, Ohio University. (1988-2000)

Scott, Dan, Professor Emeritus, Chemistry and Physics; Department Chair
B.S., 1950, Middle Tennessee State College; M.A., 1954; Ph.D., 1963, George Peabody College. (1955-92)

Scott, Margaret W., Associate Professor, Librarian
B.S., 1966, Middle Tennessee State University; M.L.S., 1969, George Peabody College; M.A., 1984, Middle Tennessee State University. (1971-92)

Self, Helen H., Assistant Professor, Elementary and Special Education B.A., 1949, University of Alabama; M.Ed., 1962, Auburn University; Ed.D., 1969, University of Alabama. (1972-81)

Sergeant, O. Kenneth, Jr., Associate Professor, Engineering Technology B.S., 1966, Lincoln Memorial University; B.S.E., 1975, University of Tennessee; P.E., 1980; M.S., 1983, University of Tennessee; Ed.S., 1990, Middle Tennessee State University. (1983-2008)

Shewmake, Ivan, Director, Student Ombudsman
B.S., 1972; M.A., 1974, Middle Tennessee State University. (1974-98)

## Short, Dale, Head Coach, Men's Tennis

B.A., 1981; M.S., 1990, Middle Tennessee State University. (19872009)

Sikes, Lewright, Professor Emeritus, History
A.B., 1966, Maryville College; M.A., 1968; Ph.D., 1973, University of Tennessee. (1969-96)

Singer, David, Professor Emeritus, Educational Leadership
B.S., 1955; M.A., 1958, Middle Tennessee State College; Ed.D., 1968, Wayne State University. (1968-96)

Smith, Dean, Assistant to the Vice President, Business and Finance B.S., 1970; M.P.A., 1975, Middle Tennessee State University. (20032008)

Smith, Harold, Director, Student Unions and Programming; Interim Dean, Student Services
B.S., 1966; M.A., 1970, Middle Tennessee State University. (1968-2003)

Smith, Joseph, Professor Emeritus, Music
B.S., 1951; M.A., 1957, Middle Tennessee State College. (1957-94)

Smith, Judy, Instructor, Sociology, Anthropology, and Social Work; Associate Dean of Students
B.S., 1960, Middle Tennessee State College; M.S.S.W., 1962, School of Social Work, University of Tennessee. (1966-94)

Smith, Patricia H. Grimes, Associate Professor, Educational Leadership
B.A., 1959, Hunter College; M.Ed., 1972; M.Ed., 1974; Ed.S., 1976; Ed.D., 1982, Florida Atlantic University. (1998-2003)

Smith, Rebecca L., Associate Professor, Librarian
B.S., 1949, David Lipscomb College; M.A., 1952, George Peabody College. (1969-88)

Smotherman, Charlotte, Assistant Professor, Home Economics B.S., 1941, Tennessee Technological University; M.A., 1942, George Peabody College. (1966-79)

Smotherman, William C., Director, Construction Administration and Environmental Health and Safety
B.E., 1959; Graduate Study, Vanderbilt University. (1973-2000)

Solomon, A.H., Professor Emeritus, Health, Physical Education, Recreation, and Safety
A.B., 1956, Union College; M.A., 1960; Ed.D., 1968, George Peabody College. (1969-97)

Spence, Forrestine, Second Grade, Pittard Campus School
B.S., 1973, Oakland City University; M.S., 1989, Southern Illinois University. (2002)

Stanford, John E., Assistant Professor, Health, Physical Education, Recreation, and Safety; Athletic Planning
B.S., 1962; M.A., 1964, Middle Tennessee State College. (1973-96)

Staley, James G., Coordinator, Receiving Services
B.S., 1963; M.S., 1966; Ph.D., 1970, University of Tennessee. (197798)

Steward, James F., Professor Emeritus, Business Education, Marketing Education, and Office Management
B.S., 1969, Memphis State University; M.A., 1971, George Peabody College; Ed.D., 1982, Vanderbilt University. (1982-2000)

Stott, Sandra C., Coordinator, Student Unions and Programming B.S., 1960, Middle Tennessee State University. (1960-2006)

Strickland, Thomas H., Professor, Economics and Finance B.S.I.E., 1963, Texas Tech University; M.B.A., 1972, University of Texas, Arlington; Ph.D., 1979, University of Oklahoma. (1988-2008)

## Strobel, Eugene F., Associate Professor, Biology

B.S., 1951; M.A., 1951, George Peabody College; Graduate Study, Louisiana State University. (1968-94)

Strobel, Katherine B., Professor Emerita, Health, Physical Education, Recreation, and Safety
B.S., 1952, Delta State Teachers College; M.A., 1954, Texas State College for Women; Ph.D., 1986, Texas Women's University. (1971-96)

Stubblefield, Mary Frances, Professor Emerita, Mathematical Sciences
B.S., 1946, Tennessee Polytechnic Institute; M.A., 1958; Graduate Study, George Peabody College. (1959-97)

Swain, Sarah H., Associate Professor Emerita, Biology
A.B., 1966, University of Chattanooga; M.A.T., 1967, Vanderbilt University. (1975-2006)

Taylor, James E., Assistant Professor, Social Work
B.S., 1959, Agricultural and Technical University; M.Ed., 1965, Springfield College; Ph.D., 1977, Brandeis University. (1998-2009)

Taylor, Robert Love, Jr., Professor Emeritus, History
B.A., 1961, Vanderbilt University; M.A., 1964; Ph.D., 1971, University of Tennessee. (1969-2002)

Taylor, Thomas A., Manager, Operations, Office of Information Technology
(1971-96)

## Tenpenny, Ann, Professor Emerita, Nursing

R.N., 1954, Henry Ford Hospital; B.S.N., 1962; M.S.N., 1963, Wayne State University. (1967-94)

Terrell, R. Paul, Professor, Geography and Geology
B.S., 1937, Western Kentucky; M.A., 1941, George Peabody College; Ph.D., 1949, Clark University. (1969-80)

## Thweatt, Joe Mack, Professor Emeritus, Computer Science

B.A., 1961, David Lipscomb College; M.A., 1962, Middle Tennessee State College; Ed.S., 1986, Middle Tennessee State University; Ed.D., 1988, Tennessee State University. (1965-2006)

Todd, Fowler I., Professor Emeritus, Management and Marketing B.S., 1940, Murray State Teachers College; M.A., 1956, George Peabody College; Ph.D., 1965, University of Illinois. (1965-83)

## Trent, Sheri, Professor, Elementary and Special Education

B.S., 1972, Middle Tennessee State University; M.Ed., 1975, University of Mississippi; Ph.D., 1982, George Peabody College. (1989-2007)

Truitt, Samuel, Professor, Mathematical Sciences
B.S., 1966; M.S., 1968; Ph.D., 1970, University of North Carolina. (1970-2003)

Tucker, Dorethe, Professor Emerita, Speech and Theatre
B.S., 1956, Middle Tennessee State College; One Year Study, American Academy of Dramatic Arts. (1956-81)

Turner, Jack J., Associate Professor Emeritus, Political Science
A.B., 1959, Berea College; Ph.D., 1969, University of Kentucky. (19652000)

Turner, Martha, Director, Career and Employment Center (1964-2007)

VanDervort, Thomas R., Professor Emeritus, Political Science
A.B., 1960, University of Tennessee; M.A., 1962, Tufts University; Ph.D., 1967, University of Tennessee. (1963-98)

## Vermillion, William H., Jr., Professor Emeritus, Psychology

B.A., 1959, Northwestern University; M.S., 1961; Ph.D., 1964, Purdue University. (1972-2001)

Wall, B.J., Associate Professor, Engineering Technology and Industrial Studies
B.S., 1956; M.S., 1973, University of Tennessee; P.E., 1974. (19802000)

Wasson, Woodrow, Professor, Sociology, Anthropology, and Social Work
A.B., 1939; M.A., 1940, Vanderbilt University; B.D., 1942; Ph.D., 1947, University of Chicago; M.L.S., 1967, George Peabody College. (1969-80)

Watts, Exum D., Professor, Chemistry and Physics
B.S., 1948; M.A., 1948, George Peabody College; Ph.D., 1954, Vanderbilt University. (1954-91)

Weese, Luther A., Associate Professor, Recording Industry B.S., 1977, University of Tennessee; M.B.A., 1995, Middle Tennessee State University. (1999-2008)

Wells, Marilyn, Professor Emerita, Sociology and Anthropology A.B., 1951, Randolph-Macon College; M.A., 1966, Middle Tennessee State University; Ph.D., 1979, University of Tennessee. (1966-98)

Wells, Marion R., Professor Emeritus, Biology
B.S., 1960; M.A., 1963, Memphis State University; Ph.D., 1971, Mississippi State University. (1964-2002)

## West, W. Beryl, Professor Emeritus, Psychology

B.S., 1953, West Texas State College; M.Div., 1956; Th.M., 1962, Southwestern Baptist Theological Seminary; M.Ed., 1965; Ed.D., 1969, North Texas State University. (1969-2006)

Whaley, Martha A., Professor Emerita, Health, Physical Education, Recreation, and Safety; Department Chair
B.S., 1957; M.A., 1962; Ed.D., 1967, University of Alabama. (19662003)

Whicker, Peggy Monfee, Fourth Grade, Pittard Campus School
B.S., 1964; M.Ed., 1972, Middle Tennessee State University. (1970-90)


White, Ralph L., Professor Emeritus, Educational Leadership
B.S., 1954, University of Tennessee; M.A., 1956, George Pea-
body College; Ed.D., 1960, University of Tennessee. (1967-96)
Wilcox, Sondra Elaine, Professor Emerita, Health, Physical Education, Recreation, and Safety
B.S., 1958, David Lipscomb College; M.A., 1963; Ed.S., 1968, George Peabody College; Ed.D., 1976, Boston University. (1963-2003)

Williams, Jerry W., Professor, Agribusiness and Agriscience
B.S., 1965; M.S., 1966, East Texas State University; Ph.D., 1975, University of Tennessee. (1966-2003)

Williams, John D., Professor, Elementary and Special Education B.S., 1943; M.S., 1946, University of Tennessee; Ed.D., 1954, University of Tennessee; Postdoctoral Scholar, University of California, Los Angeles. (1964-91)

## Wilson, Harold O., Professor, Accounting

B.S., 1958, David Lipscomb College; M.A., 1959, University of Missouri; C.P.A., 1959; Ph.D., 1968, University of Alabama; C.F.E., 1994. (1979-2006)

Wilson, Linda A., Professor Emerita, Chemistry
B.S., 1971; M.S., 1974; D.A., 1986, Middle Tennessee State University. (1981-2005)

Windham, William Thomas, Professor Emeritus, History; Department Chair
B.S., 1946, Illinois Institute of Technology; M.A., 1950; Ph.D., 1955, University of Alabama. (1955-89)

Wolfe, William R., Professor Emeritus, English
A.B., 1960, St. Ambrose College; M.A., 1964, Marquette University; Ph.D., 1972, University of Virginia. (1969-96)

Womack, Morris W., Assistant Professor, Developmental Studies B.S., 1963, Ball State Teacher's College; M.S.T., 1986; Ed.S., 1992, Middle Tennessee State University. (1987-2003)

Woods, Alvin Edwin, Professor Emeritus, Chemistry
B.S., 1956, Middle Tennessee State College; M.S., 1958; Ph.D., 1962, North Carolina State College. (1961-98)

## Wrenn, Robert Winston, Director, Student Financial Aid

B.S., 1963; M.S., 1971; Ed.S., 1976, Middle Tennessee State University. (1973-97)

Wyatt, Jacqueline E., Professor, Computer Information Systems B.S.B.A., 1971, Franklin University; M.B.A., 1973, Xavier University; C.D.P., 1977; Ed.D., 1980, University of Cincinnati; C.D.E., 1985; C.P.I.M., 1988; B.S., 1988, Middle Tennessee State University. (19862000)

## Wyatt, Robert O., II, Professor, Journalism

B.A., 1968, University of the South; M.A., 1970; Ph.D., 1973, Northwestern University; M.S., 1977, University of Tennessee; M.T.S., 2003, Vanderbilt University. (1979-2006)

Yates, Frank H., Jr., Director, Institutional Research
B.A., 1948, David Lipscomb College; M.A., 1950; Ed.D., 1960, George Peabody College. (1973-89)

Young, Joseph Earl, Professor, Agribusiness and Agriscience B.S., 1952, Southwestern Louisiana University; M.S., 1957, North Carolina State College. (1957-95)

Youree, Beverly W., Professor, Educational Leadership
B.A., 1969, Union University; M.L.S., 1970, George Peabody College; Ed.D., 1984, George Peabody College at Vanderbilt University. (197098)

## Student Access to Educational Records

## Definitions

Educational Records are those records, files, documents, and other materials which (1) contain information directly related to a student, and (2) are maintained by Middle Tennessee State University or by a person acting for the University. "Records" means information recorded in any medium, including, but not limited to, the following: handwriting, print, tapes, film, CDs, cartridges, diskettes, and disk storage devices. Educational records do not include (1) personal notes, (2) records available only to law enforcement personnel, (3) employment records, (4) medical and psychiatric records (these are accessible by the student's physician).

For all nondisciplinary purposes, a student is any person who is or has been enrolled (registered for at least one class) at Middle Tennessee State University. An applicant who does not enroll or who is declared ineligible has no inherent right to inspect his or her file. Wherever "student" is used in reference to personal rights, an eligible parent of a dependent student has similar rights. This "eligible" parent is one who has satisfied Section 152 of the Internal Revenue Code of 1954 and who presents such proof to the custodian of the educational records. Normally this proof will be a certified copy of the parent's most recent federal income tax form.
Directory information includes the student's name, address (including e-mail), telephone listing, year and place of birth, major field of study, enrolled hours, student level (freshman, sophomore, etc.) participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and dates conferred, awards and dates received, and previous educational agency or institution attended by the student. A student may request that such directory information not be released to anyone other than those persons defined as school officials. To do so, a Request for Nonrelease of Directory Information must be filed in the Records Office, Cope Administration 106. A student may request the nonrelease be honored until the end of the semester, until graduation or ceased enrollment, or indefinitely. A student must notify the Records Office in writing to resume the release of directory information.
A school official is a person employed by the University as an administrator, instructor, supervisor, or support staff member.

A legitimate educational interest exists if the official needs to review an educational record to fulfill his or her professional responsibility.
Having access to an educational record means being allowed to see the original record.

## Release of Personally Identifiable Student Educational Records

Middle Tennessee State University shall not permit access to or the release of any information in the educational records of any student that is personally identifiable (other than directory
information) without the written consent of the student to any party other than the following:

1. MTSU officials and staff who have legitimate educational interests;
2. officials of other schools in which the student seeks admission or is simultaneously enrolled;
3. appropriate persons in connection with a student's application for, or receipt of, financial aid;
4. federal or state officials as defined in paragraph 99.37 of the Family Educational Rights and Privacy Act of 1974;
5. state and local officials authorized by state statute;
6. organizations conducting studies for or on the behalf of MTSU for the purpose of assisting in accomplishing the University's stated goals, when such information will be used only by such organizations and subsequently destroyed when no longer needed for the intended purpose;
7. accrediting organizations, to carry out their functions;
8. parents of a dependent student as defined in section 152 of the Internal Revenue Code of 1954 (Written consent may be allowed from either of these separated or divorced parents subject to any agreement between the parents or court order. In the case of a student whose legal guardian is an institution, a party independent of the institution, appointed under state and local law to give parental consent, may be allowed to do so.);
9. in compliance with judicial order or subpoena, provided that the student is notified in advance of the compliance unless the issuing court or agency has ordered that the existence or the contents of the subpoena or the information furnished not be disclosed; or
10. appropriate persons in connection with an emergency if such knowledge is necessary to protect the health or safety of a student or other persons.
NOTE: With the exception of MTSU officials and staff who have been determined by the University to have legitimate educational interests, all individuals and agencies who have requested or obtained access to a student's record (other than directory information) will be noted in a record which is kept with each student's Educational Record. A request must be in writing stating the purpose of the request. This record will also indicate specifically the legitimate interest that the persons or agency had in obtaining the information.

## Procedures for Accessing Educational Records

Eligible students have a right to inspect and review their Educational Records. To do so the student must request the custodian make the records available. The student may ask for an explanation and/or a copy of the record. (The price of the copies shall not exceed the cost of duplicating the record.) The records shall be made available within 45 days after the request. After consultation with the custodian the student may seek amendment of the records the student believes to be inaccurate, misleading, or otherwise in violation of the student's privacy rights. If there is a disagreement between the student and the custodian as to the correctness of the data contained in the record, the student may submit a request for a formal hearing. The request and the formal challenge to the content of the records must be presented in writing to the chair of the Student Appeals Committee. The chair shall call a meeting no later than 45 days after receipt of the written appeal and challenge. The committee will allow the student to present evidence to substantiate appeal and shall render a written decision to the student within 45 days after the meeting.

Complaints of alleged failure of the institution to comply with the Family Educational Rights and Privacy Act may be filed with the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, D.C. 20202-4605.

NOTE: This procedure does not provide for a hearing to contest an academic grade.

## Exclusions

Right of access does not include

1. financial records of parents or any information therein;
2. confidential letters and statements of recommendation placed in the educational record of a student prior to January 1, 1975;
3. records to which access has been waived by a student. (This applies only if a student, upon request, is notified of the names of all
persons making confidential recommendations and if such recommendations are used solely for the purpose for which they were intended.)

## Destruction of Educational Records

Educational records may be destroyed except that a student shall be granted access prior to destruction if such is requested.

## Informing Students

MTSU informs its students of the policy governing privacy rights of students' Educational Records by publishing the policy in the University Catalogs. A listing of the types of records and related information follows.

## Educational Records at MTSU

Type of Educational Record
Academic Record
Locator Information
Nonrelease Lists
Withdrawal Records
Student Folder (Undergraduate)

Student Folder (Graduate)

Application to Upper Division Form

Teacher Reports of Incomplete, Change of Grade Forms

## Grade Records

Drop/Add Forms/Transactions

## Information in Record

Courses, grades, degrees, entrance examination scores

Personal address, e-mail addresses, telephone no., class schedule

Information concerning nonrelease of records

Demographic; reason for withdrawal

Application for admission, receipt for admission fee, high school transcript, previous college transcript, general correspondence, admission test scores

Application for admission, receipt for admission fee, previous college transcripts, general correspondence, references, test scores
(Miller's Analogy, Cooperative English, GRE, ACTSB, GMAT, TOEFL)

Name, degree, major, minor(s), courses, grades

Grades for particular courses

Students in each class and final grade
Class change data

## Persons with Access

Faculty/staff with official need

Faculty/staff with official need

Faculty/staff with official need

Faculty/staff with official need

Faculty/staff with official need

Faculty/staff with official need

Faculty/staff with official need

Faculty/staff with official need

Faculty/staff with official need
Faculty/staff with official need

Custodian Who Reviews/ Expunges Record

Director of Records

Director of Records

Director of Records

Coordinator of University
Withdrawals and Director of Records

Director of Records

Dean of College of Graduate Studies

## College Graduation

 CoordinatorDirector of Records

## Director of Records

Director of Records

| Type of Educational Record | Information in Record |
| :---: | :---: |
| Change of Major Academic Program Forms | Major change, advisor's name |
| Military Veteran's Files | Enrollment data; dates of attendance |
| Change of Name, Address, Telephone Number Form/ Transaction | Name, address, telephone number changes |
| Transcripts from Previous Institutions | Courses and grades |
| Test Scores (ACT/SAT, GED, academic assessment) | Scores on tests required for admission |
| Application for Admission | Demographic |
| Residency (undergraduate, graduate) | Residency classification and information |
| Application for Admission and Test Scores (International) | Demographic and scores on tests required for admission |
| Financial Statement (International) | Information concerning student's finances |
| Educational Experiences Form (International) | Student's previous schooling |
| Form I-20 (International) | Eligibility certificates for international students |
| Resumes and References | Personal data; personal recommendations |
| Discipline | Violations and penalties |
| Counseling Record | Demographic and counseling summary |
| Payroll | Payments, withholdings |
| Payroll, Facilities Services | Number of hours worked and rate of pay |
| Loans | Amount borrowed, repayments, correspondence |
| Student Receivables | Amounts due from students for various reasons, i.e., rents, parking violations, fee errors |
| Dishonored Checks | Amounts of checks, correspondence, etc. |
| Student Deposits | Deposit amounts, date deposited, purpose, etc. |
| Student Registration Records (Payments) | Fees paid, type, etc. |
| Sun Belt Conference Eligibility List | Student's academic standing for eligibility to participate in intercollegiate athletics |


| Persons with Access | Custodian Who Reviews/ Expunges Record |
| :---: | :---: |
| Faculty/staff with official need | Department/School of Major and Director of Records |
| Faculty/staff with official need | Director of Records |
| Faculty/staff with official need | Director of Records |
| Faculty/staff with official need | Director of Records |
| Faculty/staff with official need | Director of Admissions |
| Faculty/staff with official need | Director of Admissions |
| Faculty/staff with official need | Director of Admissions and Dean of College of Graduate Studies |
| Faculty/staff with official need | Director of Admissions |
| Faculty/staff with official need | Director of Admissions |
| Faculty/staff with official need | Director of Admissions |
| Faculty/staff with official need | Director of Admissions |
| Faculty/staff with official need | Career Development Center Officer |
| Personnel in Dean of Students' Office | Dean of Student Life |
| Individual student | Director of Counseling Services |
| Payroll clerks, office supervisors | Business Manager |
| Facilities Services Office director/supervisor | Director of Facilities Services |
| Loan supervisor and clerks in Loan Office | Bursar |
| Business Office staff | Bursar |
| Business Office staff | Bursar |
| Business Office staff | Bursar |
| Business Office staff | Bursar |
| Staff with official need | Athletic Director |

## Index

## A

| Absences | 52 |
| :--- | ---: |
| Academic Abbreviations | 231 |
| Academic Advising | $9,52,74$ |
| Academic Affairs, Division of | 6 |
| Academic Assessment | 26,98 |
| Examinations | 109 |
| Academic Common Market | 109 |
| Academic Credentials, |  |
| $\quad$ Misrepresentation of | 56 |
| Academic Department Heads | 6 |
| Academic Disciplinary |  |
| $\quad$ Procedures | 52 |
| Academic Enrichment |  |
| Support Unit | 98 |
| Academic Fresh Start | 52 |
| Academic Inventory | 18 |
| Academic Life | 79 |
| Academic Overload | 58 |
| Academic Probation | 57 |
| Academic Progress Policy | 41 |
| Academic Regulations | 52 |
| Academic Success Program |  |
| Courses | 232 |
| Academic Support | 9,99 |
| Academic Support Center | 9,74 |
| Academic Support Services, |  |
| Student Affairs | 74 |
| Academic Suspension | 57 |
| Academic Year | 52 |
| Access to Records | 399 |
| Accounting | 145 |
| Accounting Courses | 232 |

$\begin{array}{lr}\text { Accounting/Information } & \\ \text { Systems Minor } & 145,150 \\ \text { Accounting Minor } & 145 \\ \text { Accreditation for Education } & 162 \\ \text { Accrediting Agencies } & 8\end{array}$
ACT Scores 25,33,65,189
Actuarial Science 134
Actuarial Science Courses 233
ADA/504 Coordinator $\quad 75$
Adding Classes 54
Administrative Department
Heads, Officers
Admission Application
Information
Admission, Conditional 26
Admission, Guaranteed 26
Admission Deadlines
Admission Requirements
Admission, Undergraduate
25
Admission to Graduate Studies 16
Admission, Honors 26
$\begin{array}{lr}\text { Admission, International } & 31 \\ \text { Admission to Nursing } & 29,138\end{array}$
Admission to Social Work Program

208
Admission to Teacher
Education
29,162
Admission, Transfer

| Adult Degree Completion |  |
| :---: | :---: |
| Adult Services Center (see Off-Campus Student Services) |  |
|  |  |
| Adult Special Students | 28,30 |
| Advanced Placement | 33 |
| Advanced Standing 32, | 32,109 |
| Advanced Standing Credit | 33 |
| Advertising | 22 |
| Advertising Courses | 34 |
| Advertising-Public Relations | 222 |
| erospace | 06 |
| Aerospace, Administration | 06 |
| Aerospace Courses | 34 |
| Aerospace, Credit for |  |
| Aerospace, Flight Dispatch and Scheduling | 107 |
| Aerospace, Living and |  |
| Learning Communities | 49,50 |
| Aerospace, Maintenance |  |
| Management | 107 |
| Aerospace Minor | 10 |
| Aerospace, Professional Pilot | 107 |
| Aerospace, Technology | 08 |
| Affiliated Medical Technology |  |
| Programs | 221 |
| African Studies Mino | 81 |
| African American Studies |  |
| Minor | 81,92 |
| African American Studies |  |
| Courses | 237 |
| Aging Studies Minor (see Gerontology Minor) |  |
| Agribusiness | 111 |
| Agribusiness and Agriscience | 11 |
| Agribusiness and Agriscience |  |
| Courses | 237 |
| Agribusiness Courses | 37 |
| Agricultural Education |  |
| Courses | 241 |
| Animal Science Courses | 38 |
| General Courses | 241 |
| Plant and Soil Science |  |
| Courses | 240 |
| Agricultural Education, |  |
| Certification 111,112 | 12,113 |
| Agricultural Engineering (Pre) | ) 113 |
| Agriculture Minor | 13 |
| Air Force ROTC | 103 |
| Air Traffic Control Training | 110 |
| Aircraft Maintenance |  |
| Training | 110 |
| Alumni Association | 77 |
| American Culture Minor | 82 |
| American Music Studies |  |
| Minor | 203 |
| Animal Biology | 14 |
| Animal Science | 12 |
| Animal Science Courses | 238 |
| Anthropology | 210 |
| Anthropology Courses | 242 |


| Anthropology Minor | 210 |
| :--- | ---: |
| Apparel Design | 177 |
| Apartments | 36,48 |
| Appeal, Academic | 57 |
| Appeal, Financial Aid | 42 |
| Appeal, Grades | 54 |
| Appeal, Residency | 29 |
| Application Deadlines | 25,41 |
| Application for Federal |  |
| $\quad$ Student Aid, Free | 41 |
| Application Information | 30,408 |
| Application, International | 30,32 |
| Application, Priority |  |
| Deadlines | 25 |
| Application, Re-enrollee | 28,30 |
| Application, Withholding |  |
| Information | 29 |
| Applications of Mathematics | 133 |
| Applied Music Courses | 306 |
| Arabic Courses | 244 |
| Archaeology Minor | 82 |
| Architecture (Pre) | 128 |
| Archives and Libraries | 13 |
| Army ROTC | 103,136 |
| Art | 186 |
| Art Courses | 244 |
| Art Department Visual |  |
| Resource Center | 9,187 |
| Art Education | 187 |
| Art History Major and Minor | 188 |
| Art for Mass Comm |  |
| Students Minor | 224 |
| Art Minor | 187 |
| Arts Degree, Bachelor of | 61 |
| Asian Studies Minor | 82 |
| Assessment Examinations | 26 |
| Astronomy | 140 |
| Astronomy Courses | 247 |
| Athletic Academic Advising | 14 |
| Athletic Coaching Courses | 248 |
| Athletic Coaching Minor | 171 |
| All |  |

Athletic Enhancement
Center
Athletics
Athletic Tickets
Athletic Training
14,76
78
173
Training Courses
Attendance
Audio Production
52
Audio 227
Spual Services
Audit, Special Students
Auditing Courses, Charges
28,30
37
$\begin{array}{lr}\text { Auditions, Music } & 199 \\ \text { Automobiles, Parking } & 13,37\end{array}$
Average, Grade Point 55,63

## B

Baccalaureate Degrees
60
Bachelor's Degree,
Second

Bachelor of Arts Degree
60
Administration Degree
61,143
Bachelor of Fine Arts
Degree
61,187
Bachelor of Music
Degree
61,199
Bachelor of Science Degree 61
Bachelor of Science
in Nursing Degree
61,136
Bachelor of Social Work
Degree
61,208
Bachelor of University
Studies Degree
61
Basic and Applied Sciences,
College of
18,105
Behavioral Research Minor 83,183
Bill/Payment System 40
Biochemistry 117
Biology 114
Biology Courses 250
Biology Minor 115
Biology, Teacher Licensure 115
Board of Regents, Tennessee 7
$\begin{array}{lr}\text { Board Plan (Meals) } & 38 \\ \text { Business Administration } & 154\end{array}$
Business Administration
Courses
Business Administration Degree, Bachelor of

61,143
Business Administration
Minor
Business and Finance,
Division of
Business, Jennings A. Jones
College of 20,141,143
Business Communication and Entrepreneurship
Business Communication and
Entrepreneurship Courses 254
Business Communication
Minor
Business Education 146
Business Education,
Non-Teaching
Business Education,
Teacher Licensure $\quad 147$
Business Finance
Concentration
Business Finance Courses 281
$\begin{array}{ll}\text { Business Law Courses } & 255 \\ \text { Business Law Minor } & 145\end{array}$

## C

Calendar IFC
Campus Housing Expenses 36
Campus Life
Campus Map IBC
Campus Police (Public Safety) 13
Campus Recreation 70

| mpus School, Pittard | 2 |
| :---: | :---: |
| Campus School Faculty | 378 |
| Cancellation of Scheduled Classes |  |
| Career Development Center | r 74 |
| Catalog, Graduation under | 5 |
| CEEB | 3 |
| Centers of Excellence | 9-11 |
| Center for Energy Efficiency |  |
| Center for Health and Human Services |  |
| Center for Historic |  |
| Preservation |  |
| Center for Popular Music | 10 |
| Chairs, Endowed | 11 |
| Chairs of Excellence | 1 |
| Change of Major | 52 |
| Change of Program | 2 |
| Channel 10 | 7 |
| Checks, Returned | 37 |
| Cheerleading (Spirit Program) | m) 72 |
| Chemical Instrumentation |  |
| Techniques Courses | 258 |
| Chemistry | 116 |
| Chemistry Courses | 255 |
| Chemistry Minor | 117 |
| Chemistry, Professional | 116 |
| Chemistry, Teacher Licensure | e 117 |
| Child Care Laboratory | 4 |
| Child Development and Family Studies | 175 |
| Child Development and |  |
| Family Studies Courses | 258 |
| Chinese Courses | 259 |
| Chiropractic (Pre) | 119 |
| Class Attendance | 52 |
| Class Schedule | 9 |
| Classical Studies Minor | 83 |
| Classification of Students | 53 |
| CLEP | 32 |
| Coaching, Athletic 17 | 71,248 |
| College and University Security |  |
| Information Act | 13 |
| College Entrance Exam | 8 |
| College of |  |
| Basic and Applied |  |
| Sciences | 105 |
| Business, Jennings A. Jones | 20,141 |
| Continuing Education and |  |
| Distance Learning 2 | 20,157 |
| Education and Behavioral |  |
| Science 2 | 21,161 |
| Graduate Studies | 16 |
| Liberal Arts 22 | 22,185 |
| Mass Communication 24,7 | 77,215 |
| Commercial Construction |  |
| Management | 127 |
| Commercial Songwriting | 227 |
| Common Catalog | 62 |
| Communication Disorders | 212 |
| Communication Disorders |  |
| Courses | 260 |
| Minor | 213 |
| Communication Studies | 211 |



| English, Credit for 32,65,189 |  |
| :---: | :---: |
| English, Freshman Placemen | cement 189 |
| English Courses | 275 |
| General Studies | 75 |
| Upper Division | 276 |
| English Minor | 191 |
| English Proficiency | 1 |
| English (Upper Division) | n) 276 |
| Enrollment Verification | 54 |
| Enrollment Services | 70,76 |
| Entertainment Arts Design |  |
| Entertainment Technology |  |
| Minor | 83,229 |
| Entrepreneurship 1 | 148,154 |
| Entrepreneurship |  |
| Minor 84,1 | 84,148,154 |
| Environment and Human |  |
| Society Minor | 84 |
| Environmental Health and Safety | 0 |
| Environmental Science and Technology | 80 |
| Environmental Science and Technology Minor | or 85 |
| Environmental Science and Technology Courses | and $279$ |
| ESL | 2 |
| Evening Classes | 54 |
| Evening School | 158 |
| Exams, Assessment | 26 |
| Exchange Programs | 102 |
| Exercise Science, Wellness | ness 171 |
| Exercise Science Courses | ses 279 |
| Expenses | 35 |
| Expenses, Housing | 36,50 |
| Experiential Learning Scholars |  |
| Program (EXL) | 100 |
| Experiential Learning Scholars |  |
| Program (EXL) Courses | Ses 280 |

## F

$\begin{array}{ll}\begin{array}{ll}\text { Faculty and Administration } & 402 \\ \text { Family and Consumer } \\ \text { Studies }\end{array} & 175\end{array}$
Family and Consumer Sciences Education 175
Family and Consumer Sciences
Education Courses 280
Family Student Housing 50
Family Studies Minor 210
Fashion Merchandising 177
Fees
Fees, Materials
Fees, Refund
Fees, Special Course
Film Studies Minor
Finance
Finance Courses Business General
Insurance
Real Estate
Finance Minor
Financial Aid

Financial Aid, Direct Deposit 40
Financial Aid, International Students 31
Financial Institution Management Concentration 152
Financial Institution Management Courses 281
Fine Arts Degree, Bachelor of 61,186
First-Year Experience
Flight Dispatch and Scheduling, Aerospace 107
Flight-Related Experience $\quad 34$
Food, Campus Board Plan 38
Foreign Languages and Literatures
Foreign Languages 192
Foreign Languages Course 282
$\begin{array}{lr}\text { Foreign Students } & \text { 30,31 } \\ \text { Forestry (Pre) } & 113\end{array}$
Foundations of Education (FOED) Courses 282
Fraternities and Sororities $\quad 71$
French Courses 282
$\begin{array}{lr}\text { French Minor } & 192 \\ \text { Freshman Admissions } & 25-26\end{array}$
Freshman English, Credit for

33,65,189
Freshman Seminar (see University 1010)
Fresh Start, Academic 52
Full-time Student Load 58

## G

$\begin{array}{lr}\text { GED } & 26 \\ \text { Gender Studies } & 91,95 \\ \text { General Biology } & 114 \\ \text { General Education (formerly } & \end{array}$
General Studies) 64-67
General Education Communication History
Humanities/Fine Arts
Mathematics
Natural Sciences
Social/Behavioral Sciences 66
General Education
Requirements
65
General Education, Study
Abroad
General Requirements, Degrees
General Science 117
Genetics and Biotechnology 114
Geography
Geography Courses
Geography for Teachers
Geography, Geographic
Techniques
Geography Minor
Geology
Geology Courses
Geology, Earth Science
Geology, Earth Science for Teachers

| Geology/Earth Science |  |
| :--- | ---: |
| Minor | 196 |
| Geosciences | 193 |
| German Courses | 286 |
| German Minor | 192 |
| Gerontology Courses | 287 |
| Gerontology Minor | 82,93 |
| Global Studies | 93 |
| Global Studies Courses | 287 |
| Global Studies Minor | 86,93 |
| Gore Research Center | 11 |
| GPA for Graduation | 63 |
| Grade Point Average | 55,63 |
| Grades | $54,56,99$ |
| Grades, Appeal of | 54 |
| Graduate College | 16 |
| Graduate Courses, Permission |  |
| to Enroll in | 55 |
| Graduate Degrees | $16,18,62$ |
| Graduation | 55 |
| Graduation, Applicable |  |
| Catalog | 55 |
| Graduation with Honors | 55 |
| Grants, Financial Aid | 46 |
| Graphic Communication (see |  |
| Media Design and Graphics) |  |
| Graphic Design | 186 |
| Great Books Minor | 85 |
| Greek Affairs | 71 |
| Guaranteed Admission | 26 |
| Guidance Services | 74 |
| Gulf Coast Research Lab | 115 |

## H

Handicapped Services
(see Disabled Student Services)
Health and Accident
Insurance
Health and Human
Performance 170

Health and Human Performance Minor172

Health and
Center for

9

Health and Physical Education Minor
Health Care Services Minor
86
Health Courses 287

| High School Students, Programs for | 28,30 |
| :---: | :---: |
| Historic Preservation, Center for | 9 |
| History | 197 |
| History Courses | 288 |
| History Minor | 197 |
| History of the University | 5 |
| Home School | 5 |
| Homeland Security Minor | 6 |
| Honors Admission | 26 |
| Honors College Courses | 342 |
| Honors College, University | y |
| Honors, Graduation with | 55 |
| Honors Living and |  |
| Learning Center | 49,97 |
| Horse Science | 112 |
| Housing and Residential |  |
| Life 47 | 47-50,75 |
| Housing, Application Information | 408 |
| Housing Expenses | 36 |
| Housing Expenses, Refund | d 40,50 |
| Housing License Agreement | nt 50 |
| Housing Policies | 47 |
| Housing Reservations | 50 |
| Housing, Special Interests (Living/Learning |  |
| Communities) | 49 |
| Howard, Philip C. Music Library | 1 |
| Human Resources |  |
| Management | 298 |
| Human Sciences | 175 |
| Human Sciences Courses | 292 |
| Human Sciences Minor | 188 |
| Humanities Courses | 293 |
| Hybrid (Online) Courses | 158 |

I

| IB Program | 34 |
| :---: | :---: |
| Identification Cards (ID) | 55 |
| Immigration | 31 |
| Immunization, Measles | 29 |
| Incompletes, Fee for | 37 |
| Industrial/Organizational Psychology | 182 |
| Industrial/Organizational |  |
| Psychology Minor | 183 |
| Industrial Relations Minor | 151 |
| Information for Application | 30 |
| Information Systems | 49 |
| Information Systems Courses | 293 |
| Information Systems Minor | 149 |
| Information Technology |  |
| Division (ITD) | 12 |
| Institutional Diversity | 12 |
| Instructional Media Resources (IMR), Media Library | 12 |
| Instructional Technology |  |
| Support Center (ITSC) | 12 |
| Instrumental Music |  |
| Education | 199 |
| Instrumental Performance 201 | ,202 |



| Non-Business Economics |  | Philosophy | 204 |
| :---: | :---: | :---: | :---: |
| Program | 151 | Philosophy Courses | 318 |
| Nuclear Medicine Technology |  | Philosophy Minor | 205 |
| (Pre) | 121 | Phone Numbers | 4 |
| Nurse Summer Training, |  | Photo Communication |  |
| ROTC | 136 | Courses | 315 |
| Nursery School | 162 | Photography | 17 |
| Nursing | 136 | Physical Education | 171 |
| Nursing, Admission to 2 | 29,138 | Physical Education Courses | 315 |
| Nursing, Advanced Standing |  | Physical Science Courses | 19 |
| Credit for | 34 | Physical Therapy (Pre) | 19 |
| Nursing Degree, Bachelor of |  | Physics | 139 |
| Science in | 61,136 | Physics and Astronomy | 139 |
| Nursing Courses | 311 | Physics Courses | 319 |
| Nursing, Credit for R.N. | 34 | Physics Minor | 40 |
| Nursing (Pre) | 139 | Physics, Teacher Licensure | 140 |
| Nutrition and Food Sciences | 178 | Physiology | 114 |
| Nutrition and Food Sciences |  | Pittard Campus School | 62 |
| Courses | 313 | Faculty | 378 |
| Nutrition and Food Sciences |  | Placement and Student |  |
| Minor | 179 | Employment (see Career Development Center) |  |
|  |  | Planning and Site Analysis | 81 |
| 0 |  | Plant and Soil Science | 112 |
| Oak Ridge Associated |  | Plant and Soil Science |  |
| Universities (ORAU) | 13 | Courses | 240 |
| Occupational Therapy (Pre) | 122 | Plant Biology | 114 |
| Off-Campus Program | 158 | Police, Campus (Public Safety) | ) 13 |
| Off-Campus Student |  | Political Science 205 | 5,206 |
| Services | 71 | Political Science Courses | 321 |
| Office of Admissions | 25 | Political Science Major |  |
| Office Management | 148 | for Teachers | 207 |
| Office Management Minor | 148 | Political Science Minor | 206 |
| On Demand/Online | 160 | Popular Music, Center for | 10 |
| Online Course Degree, Regen |  | Portuguese Courses | 325 |
| (RODP) | 20,62 | Portuguese Studies Minor | 89 |
| Online/Hybrid Courses | 158 | Postbaccalaureate Teacher |  |
| Operations Management |  | Education Program | 162 |
| Courses | 299 | Pre-Agricultural Engineering | 113 |
| Organizational |  | Pre-Architecture | 128 |
| Communication | 212 | Pre-Chiropractic | 19 |
| Organizational |  | Pre-Cytotechnology | 120 |
| Communication Courses | 314 | Pre-Dental | 120 |
| Orientation (CUSTOMS) | 75 | Pre-Dental Hygiene | 122 |
| Orientation, International |  | Pre-Engineering | 130 |
| Students | 31 | Pre-Forestry | 113 |
| Outdoor Recreation | 173 | Pre-Graduate School |  |
| Out-of-State Tuition | 35,36 | Concentration, Psychology | 181 |
| Overload, Academic | 58 | Pre-Health Information Management | 122 |
|  |  | Pre-Law | 206 |
| P |  | Pre-Medical | 118 |
|  |  | Pre-Medical Technology | 120 |
| Paralegal Studies Minor | 89 | Pre-Nuclear Medicine |  |
| Paralegal Studies Courses | 314 162 | Technology | 121 |
| Parent-Child Learning Center | - 162 | Pre-Nursing | 139 |
| Parking and Transportation |  | Pre-Occupational Therapy | 22 |
| Services | 13 | Prepayment of Housing Fees | 0 |
| Pass/Fail | 56 | Pre-Pharmacy | 121 |
| Paycard/eCard | 40 | Pre-Physical Therapy | 119 |
| Payment (Bill) Plan | 40 | Pre-Radiation Therapy |  |
| Payment Plan, Deferred | 38 | Technology | 121 |
| Pell Grant | 44 | Pre-Veterinary Medicine | 113 |
| Perkins Loan, Federal | 47 | President |  |
| Permanent Resident | 29 | Priority Application Filing |  |
| Pharmacy (Pre) | 121 | Deadline | 25 |


| Private Instruction, Music | 305,306 |
| :--- | ---: |
| Probation, Academic | 57 |
| Procedures for Registration | 51 |
| Production, Sales, and Service | 126 |
| Production Services, MT | 73 |
| Professional Chemistry | 116 |
| Professional Computer Science | 124 |
| Professional Development | 160 |
| Professional Mathematics | 132 |
| Professional Pilot, Aerospace | 107 |
| Professional Seminar Courses | 325 |
| Program Change | 52 |
| Project Help | 162 |
| Psychology | 181 |
| Psychology Courses | 325 |
| Psychology Minor | 181 |
| Psychology, Pre-Graduate |  |
| School | 181 |
| Public Administration | 206 |
| Public Administration Minor | 207 |
| Public Finance Courses | 269 |
| Public Relations | 222 |
| Public Relations (Advertising) | 222 |
| Public Relations Courses | 325 |
| Public Safety | 13 |
| Purpose of the University, |  |
| Mission | 2 |
|  |  |
| Q |  |

Quality Credits, GPA 55
Quantitative Methods Courses

R
$\begin{array}{lr}\text { Radiation Therapy } & \\ \text { Technology (Pre) } & 121 \\ \text { Radio Stations } & 77,216\end{array}$

Reading Courses 328
Real Estate Concentration 152
Real Estate Courses 281
Real Estate/Insurance Minor 153
$\begin{array}{lr}\text { Real Estate Minor } & 153 \\ \text { Recording Industry } & 225,226\end{array}$
Recording Industry,
Admission to 29
Recording Industry Courses 328
Recording Industry Living/ Learning Community49
$\begin{array}{ll}\text { Recording Industry Minor for } \\ \text { Non-Majors } & 230\end{array}$
Recording Industry, Required
Minors for Majors 228
Records, Access to 399
Records, Educational 400
Records Office 76
Recreation Administration 173
$\begin{array}{lr}\text { Recreation, Campus } & 70 \\ \text { Recreation Courses } & 331\end{array}$
Recreation and Leisure Services

172
Recreation Minor 173
Recreation, Outdoor 173

| Recreational Therapy | 172 |
| :--- | ---: |
| Reenrollment <br> Refund and Repayment, <br> Financial Aid | 28,30 |
| Refund of Fees <br> Regents Online <br> Continuing Education | 40 |
|  | 160 |

Regents Online
Degree Program
(RODP) 20,30,37,62,159
Regents Online Degree
Program (RODP)
Degrees Offered 30,62
Regents Online Degree
Program (RODP)
Degree Fees
Registered Nurses 34,137
Registration, Confirmation 39
Registration Fees 35
Registration, Late 37
Registration Procedures 51
Religious Opportunities 14
Religious Studies Courses 333
Religious Studies Minor 205
Remote Sensing Minor 196
Rent
$\begin{array}{ll}\text { Repeated Courses } & 57 \\ \text { Requirements for Admission } & 25\end{array}$
Requirements, High School 25
Requirements,
General Education 65

Requirements, TBR Minimum
Degree and Transferability
of Courses
$\begin{array}{ll}\text { Research Center, } \\ \text { Undergraduate } & 14\end{array}$
Reservation, Housing 50
Residence Hall Room
Rates
Residence Halls 48-51
Residency Classification 29,51
Residency for Fee Paying 29,51
Residential Building Construction Management, Land

| Development | 127 |
| :--- | ---: |
| Residential Life, Housing | 47,75 |

Retention Standards 41,57
Retired Faculty/
Administration 379
$\begin{array}{lr}\text { Returned Checks } & 37 \\ \text { ROTC } & 103,136\end{array}$
$\begin{array}{ll}\text { ROTC Nurse Summer } \\ \text { Training } & 136\end{array}$
Russian Courses 333

Russian Studies Minor 89

S
Safety Courses 333
SAT Scores 25,65,189
Satellite and Webcasting 12
Satisfactory Academic Progress
Policy, Financial Aid 41
Scarlett Commons 49
Schedule of Classes 58
Scheduling Center 76

| Scholarships | 46 |
| :---: | :---: |
| School Personnel Services |  |
| Education (SPSE) Courses | S 334 |
| Science Degree, Bachelor of | of 61 |
| Science, Major | 117 |
| Science Minor | 118 |
| Secondary Education Minor | or 166 |
| Secondary Licensure | 164 |
| Second Bachelor's |  |
| Degree | 62,144 |
| Second Major | 53 |
| Security Information Act, College and University | 13 |
| Semester Hour Load | 58 |
| Service Credits, Military | 34 |
| Service Learning | 71,102 |
| Sidelines |  |
| Student Newspaper | 72,216 |
| Sixty-five-year-old Disabled |  |
| Credit Student 29 | 29,30,38 |
| Sixty-year-old Disabled |  |
| Audit Student | 28 |
| Social Welfare Minor | 209 |
| Social Work | 208 |
| Social Work Certification, |  |
| Social Work Courses | 333 |
| Social Work Degree, Bachelor of | 61,208 |
| Social Work Program, Admission to | 208 |
| Society for Human |  |
| Resource Management | 160 |
| Sociology | 209 |
| Sociology and Anthropology | gy 209 |
| Sociology Courses | 335 |
| Sociology Minor | 210 |
| Songwriting, Commercial | 227 |
| Sororities | 71 |
| Southern Studies Minor | 90 |
| Spanish Courses | 336 |
| Spanish Minor | 192 |
| Special Education 163 | 163,168 |
| Special Education Courses | S 337 |
| Special Education Minor | 170 |
| Special Students, Adult | 28,30 |
| Special Students, Audit | 28,30 |
| Specialist in Education | 16 |
| Speech and Theatre | 77,211 |
| Speech and Theatre Minor | or 213 |
| Speech-Language and |  |
| Hearing Clinic | 214 |
| Spirit Programs | 72 |
| Standard Admission Criteria | ria 25 |
| Standardized Examinations | - 25 |
| Statement of Community |  |
| Standards and Expectation | tions 14 |
| Statistics Courses | 338 |
| Statistics Minor | 135 |
| Student Access to Records | s 399 |


| Student Affairs and |  |
| :---: | :---: |
| Enrollment and Academic |  |
| Services | 7,70 |
| Student-Athlete Enhancement |  |
| Center | 14,76 |
| Student Classification | 53 |
| Student Disciplinary |  |
| Procedures, Academic | 52 |
| Student Employment Cen | ter 74 |
| Student Government |  |
| Association (SGA) | 72 |
| Student Health Services | 72 |
| Student ID | 55 |
| Student Information | 72 |
| Student Insurance | 72 |
| Student Insurance, International | 31 |
| Student Life | 70 |
| Student Newspaper | 72,216 |
| Student Programming | 73 |
| Student Support Services | 76 |
| Student Teaching | 162 |
| Student, Transfer | 62 |
| Student Unions and |  |
| Programming | 72 |
| Studio Art | 186 |
| Study Abroad | 102 |
| Summer School | 159 |
| Summer Fees | 36 |
| Suspension, Academic | 57 |
| Suspension, Appeal of | 57 |
| T |  |
| Teacher Education, |  |
| Teacher Licensure |  |
| Biology | 115 |
| Business Education | 147 |
| Chemistry | 117 |
| English | 190 |
| Foreign Languages | 192 |
| History | 197 |
| Interdisciplinary Studies | 117 |
| Mathematics | 132 |
| Music | 199 |
| Physics | 140 |
| Political Science | 291 |
| Science | 118 |
| Secondary | 164 |
| Special Education | 163 |
| Theatre | 214 |
| Technology, Aerospace | 108 |
| Technology, Computer |  |
| Engineering | 128 |
| Technology, Electro-Mechanical |  |
| Engineering | 129 |
| Technology, Engineering | 125,128 |
| Technology, Engineering |  |
| Systems | 129 |


| Technology, Mechanical |  | University Calendar | IFC |
| :---: | :---: | :---: | :---: |
| Engineering | 129 | University Center, Keathley | 12,73 |
| Technology Proficiency | 176 | University Dance | 77,214 |
| Telecourses (see Video |  | University Honors College | 97 |
| Conferencing) |  | University Honors Courses | 342 |
| Telephone Numbers | 4 | University Media | 216 |
| Television (see Electronic <br> Media Communication) |  | University of Michigan English Proficiency Exam |  |
| Television Station, MTSU | 77 | (UMELI) | 31 |
| Tennessee Board of Regents | 7 | University Studies Degree, |  |
| Tennessee Board of Regents |  | Bachelor of | 61 |
| Common Catalog |  | University Theatre | 77,214 |
| Minimum Degree |  | Upper Division | 56 |
| Requirements and |  | Upper-Division Forms | 60 |
| Transferability of Courses | 62 | Urban Studies Minor | 91 |
| Tennessee Center for |  |  |  |
| Child Welfare Faculty | 378 |  |  |
| Tennessee Higher Education |  | V |  |
| Commission | 7 |  |  |
| Tennessee Education Lottery Scholarships | 43 | Vehicle Registration <br> Veterans Affairs Deferred | 13,37 |
| Testing, ACT (see ACT) |  | Payments | 39 |
| Textiles, Merchandising, and Design |  | Veterinary (Pre) Videoconferencing Courses | 113 158 |
| Textiles, Merchandising, and |  | Vision Statement | 2 |
| Design Courses | 339 | Visual Resource Center | 9,187 |
| extiles, Merchandising, and |  | Voice Performance | 200 |
| Design Minor | 178 | Vocal/General Music | 0 |
| Theatre 77, | 7,212 | Education | 200 |
| Theatre Courses | 340 |  |  |
| Theory-Composition, Music | 202 | W |  |
| Three-and-One Programs | 119 |  |  |
| Ticket Office | 78 | Walker, James E., Library | 14 |
| TOEFL | 31 | Water and Waste |  |
| Transcript of Credits | 58 | Management | 81,131 |
| Transfer Admission | 27 | Webcasting | 12 |
| Transfer Credit | 27 | Wellness and Exercise |  |
| Transfer Student | 62 | Science | 171 |
| Transfer Student Application | 30 | Withdrawal Office | 76 |
| Transient Student | 29,30 | Withdrawals | 40,58 |
| Transportation Courses | 342 | Withholding Application |  |
| Twentieth-Century European |  | Information | 29 |
| Studies Minor | 90 | WMOT | 77,216 |
|  |  | WMTS | 77,216 |
|  |  | Womack Lane Apartments | 48 |
| U |  | Women in Science and |  |
| Undergraduate Admissions | 76 | Engineering Living/ |  |
| Undergraduate Degree |  | Learning Community | 50 |
| Requirements | 60-63 | Women's and Gender |  |
| Undergraduate Degrees | 18 | Studies Minor | 91,95 |
| Undergraduate |  | Women's Center | 74 |
| Research Center | 14 | Women's Studies | 95 |
| Undergraduate Research, |  | Women's Studies Courses | 343 |
| Scholarship, Creative Activi |  | Women's Studies Library | 15 |
| (URSCA) | 14 | Writing Minor | 91 |
| Uniforms and Pay, Military |  |  |  |
| Science | 136 | XYZ |  |
| Unit of Credit | 58 |  |  |
| University Courses |  | Youth Education (YOED) |  |
| University 1010 | 343 | Courses | 344 |
| Service Learning Courses | 280 |  |  |
| Leadership Studies 87 | 37,297 |  |  |

## How to Obtain Applications

## MTSU Undergraduate Admission Application

New applicants
apply online!

www.mtsu.edu/admissn/apply_admissn.shtml

Reenrolling applicants: www.mtsu.edu/admissn/apply_admissn.shtml
A paper copy of the admission application can be obtained by one of the following methods:
E-MAIL: admissions@mtsu.edu
WEB SITE: www.mtsu.edu
WRITE: Admissions Office
208 Cope Administration Building
Murfreesboro, TN 37132
PHONE: (615) 898-2111
1-800-331-MTSU (in Tennessee)
FAX:
(615) 898-5478

Undergraduate application packets for all non-U.S. citizen applicants can be obtained from the International Admissions Office by one of the following methods:

WEB SITE: www.mtsu.edu/admissn/apply_admissn.shtml
PHONE: 1-615-494-8643
WRITE:
Admissions Office
208 Cope Administration Building
Murfreesboro, TN 37132

## MTSU Housing Application and License Agreement

To request additional housing information or a housing application, you may contact MTSU Housing and Residential Life as follows:

| APPLY ONLINE: | www.applyweb.com/aw?mtsuh |
| :--- | :--- |
| PHONE: | $(615) 898-2971$ |
| FAX: | (615) 898-5459 |
| ADDRESS: | Housing and Residential Life <br>  <br>  <br> P.O. Box 6 <br> Middle Tennessee State University <br> Murfreesboro, TN 37132 |

Thanks for your interest in Middle Tennessee State University. We look forward to hearing from you!


[^0]:    Middle Tennessee State University is a member of the Tennessee Board of Regents system, the sixth largest system of higher education in the nation. The Tennessee Board of Regents is the governing board for this system which comprises six universities, thirteen community colleges, and twenty-six area technology centers. The TBR system enrolls more than 80 percent of all Tennessee students attending public institutions of higher education.
    Middle Tennessee State University, in its educational programs and activities involving students and employees, does not discriminate on the basis of race, color, national origin, sex, religion, or age. Furthermore, the University does not discriminate against veterans or individuals with disabilities.

[^1]:    **Interdisciplinary Minors $\ddagger$ These programs are not officially recognized concentrations within the degree programs and do not lead directly to a degree at MTSU.

[^2]:    Cum Laude: 3.500-3.749
    Magna Cum Laude: 3.750-3.899
    Summa Cum Laude: 3.900-4.000

[^3]:    Select 18 hours from the following:
    NFS 3260 Community Nutrition
    NFS 3280 Nutrition in Health Promotion
    HLTH 2600 Introduction to Health Professions
    HLTH 4270 Bioethical Issues in Health Education
    HLTH 4340 Fitness Education for the Adult
    PSY 4050 Applied Psychopharmacology
    PSY 4650 Health Psychology
    PSY 4655 Foundations of Mental Health Counseling
    SW 4640 Health: Organizations, Policy, and Ethics
    SOC 4040 Health Care Delivery Issues
    SOC 4090 Health Care Management
    SOC 4360 Medical Sociology
    SOC 4900 Sociology Internship: Health Care Setting

[^4]:    Curricular listings include General Education requirements in Communication, History, Humanities and/or Fine Arts, Mathematics, Natural Sciences, and Social/Behavioral Sciences categories as outlined on pages 64-67.

[^5]:    *Minor may be selected from any of the following: Art - 18 hours; Entrepreneurship - 18 hours; Entertainment Arts Design - 15 hours; or Mass Communication - 18 hours.
    **The number of hours required as electives may vary depending upon the courses taken. All students must have a minimum of 120 hours in order to graduate, so the number of hours required as electives may vary.

[^6]:    Recommended Curriculum for Non-teaching Majors

    FRESHMAN
    ENGL 1010, 1020 (Comm) 6 ENGL 2020 or 2030 (Hum/FA) 3 Natural Sciences (2 prefixes) 8 ENGL 3000 Foreign Language 1010, 10206 HIST 2010, 2020, or 2030 COMM 2200 (Comm) Humanities and/or Fine Arts

    ## SOPHOMORE

    ENGL 3000
    Mathematics
    Foreign Language 2010, 2020
    Socia/Behavione 2010, 20206
    Social/Behavioral Sciences (2 prefixes)
    HUM 2610 or other
    Humanities and/or Fine Arts 3 Minor or electives as advised
    336

[^7]:    Required courses ( 7 hours)
    GEOG 3401 or 3402 Field Course
    GEOG 4360 Cultural Geography

    ## 17 hours from

    GEOG 3120 Geography of Tennessee
    GEOG 3410 Geography of the United States and Canada
    GEOG 3420 Geography of Latin America
    GEOG 3430 Geography of Europe
    GEOG 3440 Geography of Asia
    GEOG 3460 Geography of the Former Soviet Union
    GEOG 3470 Geography of Africa
    GEOG 4280 Special Problems and Topics in Geography
    GEOG 4310 Resource Management and Conservation
    GEOG 4320 Economic Geography
    GEOG 4330 Political Geography
    GEOG 4340 Historical Geography
    GEOG 4370 Urban Geography
    GEOG 4470 Rural Settlement
    GEOG 4500 Geography of the Middle East
    GEOG 4540 Geography of Native Americans
    GEOG 4550 Global Issues

[^8]:    *Courses counting as General Education requirements that are also needed for the History major.

[^9]:    *All students in the School of Journalism are required to complete two 15-18 hour minors, at least one of which must be in the liberal arts and sciences. Students in any School of Journalism concentration may not minor in any area of the College of Mass Communication. A computer literacy course is required.

[^10]:    *No more than 6 hours total are allowed toward the major from any combination of RIM 3580, 4000, or 4010.
    NOTE: Students electing the Music Business concentration may take up to 9 semester hours of their electives from the other concentrations.
    NOTE: All Music Business concentration students must complete one course (three hours) of accounting. This requirement may be met with ACTG 2110, 2120, or 3000. This requirement may be included within the minor requirement.

[^11]:    *No more than 6 hours total are allowed toward the major from any combination of RIM 3580, 4000, or 4010.
    NOTE: Students electing the Commercial Songwriting concentration may take up to 9 semester hours of their electives from the other concentrations.

[^12]:    2351 Piano. One credit.
    2361 Organ. One credit.
    2371 Voice. One credit.
    2381 Violin. One credit.
    2391 Violoncello. One credit.
    2401 String Bass. One credit.
    2411 Guitar. One credit.
    2421 Flute/Piccolo. One credit.
    2431 Oboe/English Horn. One credit.
    2441 Clarinet. One credit.
    2451 Bassoon. One credit.
    2461 Saxophone. One credit.
    2471 Trumpet. One credit.
    2481 French Horn. One credit.
    2491 Trombone. One credit.
    2501 Baritone/Euphonium. One credit.
    2511 Tuba. One credit.
    2521 Snare Drum/Keyboard Percussion. One credit.
    2531 Drum Set/Latin Percussion. One credit.
    2541 Timpani/Keyboard Percussion. One credit.
    2551 Harpsichord/Continuo. One credit.
    2561 Viola. One credit.
    2342 Composition. Two credits.
    2352 Piano. Two credits.
    2362 Organ. Two credits.
    2372 Voice. Two credits.
    2382 Violin. Two credits.
    2392 Violoncello. Two credits.
    2402 String Bass. Two credits.
    2412 Guitar. Two credits.
    2422 Flute/Piccolo. Two credits.

[^13]:    4351 Piano. One credit.
    4361 Organ. One credit.
    4371 Voice. One credit.
    4381 Violin. One credit.
    4391 Violoncello. One credit.
    4401 String Bass. One credit.
    4411 Guitar. One credit.
    4421 Flute/Piccolo. One credit.
    4431 Oboe/English Horn. One credit.
    4441 Clarinet. One credit.
    4451 Bassoon. One credit.
    4461 Saxophone. One credit.
    4471 Trumpet. One credit.
    4481 French Horn. One credit.
    4491 Trombone. One credit.
    4501 Baritone/Euphonium. One credit.
    4511 Tuba. One credit.
    4521 Snare Drum/Keyboard Percussion. One credit.
    4531 Drum Set/Latin Percussion. One credit.
    4541 Timpani/Keyboard Percussion. One credit.
    4551 Harpsichord/Continuo. One credit.
    4561 Viola. One credit.
    4342 Composition. Two credits.
    4352 Piano. Two credits.

