



Mathematics

College Mathematics for Managerial, Social, and Life Sciences

Math 1630

INSTRUCTOR INFORMATION:

Instructor:

Office Location:

Office Hours:

Email/Phone:

COURSE INFORMATION:

Description:

Three credits. This course satisfies the General Education Mathematics requirement and meets specific requirements for programs as outlined in the MTSU Undergraduate Catalog. Topics include solving systems of linear equations, Leontief models, linear programming, mathematics of finance, set theory, and probability theory.

Objectives:

Upon completion of this course with a passing grade, the student will:

- 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.
- Apply mathematical and/or basic statistical reasoning to analyze data and graphs.
- Have enhanced ability to reason mathematically and enhanced problem solving skills.
- Be able to apply algebraic and matrix methods to the solution of practical problems, including understanding reasonableness of answers and problem assumptions.
- Have enhanced ability to use the graphing calculator to better understand linear systems and linear inequalities.
- Have a better understanding of the mathematical tools to deal with compound interest and annuities.
- Have developed familiarity with vocabulary and concepts of present value, future value, and amortization.
- Be able to solve systems of linear equations by a variety of methods.

- Be able to solve linear programming problems both graphically and using the simplex method.
- Be able to apply counting principles in the computation of simple and compound probabilities.

Topics Covered:

- Functions and Applications
- Finance
- Systems of Linear Equations and Matrices
- Matrix Algebra
- Linear Programming
- Sets and Counting
- Probability Topics

Prerequisites and Co-requisites:

Two years of high school algebra and a Math Enhanced ACT score of at least 25 or a passing grade in MATH 1710.

General Education Mathematics Goal and Learning Outcomes:

Goal:

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:

Upon completion of this course, students will demonstrate the ability to:

- 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.
- Apply mathematical and/or basic statistical reasoning to analyze data and graphs.

Course Requirements:

In order to accomplish the learning outcomes of this course, the learner is required to:

- Attend class lectures
- Participate in class activities
- Read and study assignments
- Solve assigned problem sets
- Complete test, quizzes, homework, etc.
- Complete a comprehensive final exam

Attendance Policy:

Attendance is required at each class meeting. Participation in University sanctioned activities or in military duties and situations where the institution's policy on inclement weather is applicable are considered excused absences. However, non-attendance does not relieve a student of the responsibility for work covered or assigned. The instructor will keep a record of attendance for each student.

COURSE MATERIALS:**Required Textbooks:**

Finite Mathematics, 12th edition, by Lial, Greenwell, and Ritchey. You must purchase a MyMathLab access code. Your MML code will allow you access to the eText and the online homework. You may purchase the code at the campus bookstore, other area bookstores, or the MML website. Please wait for confirmation from your instructor to purchase the book or MML. <https://www.bkstr.com/middletennesseestatestore/home/en>.

Supplementary Materials:

A TI-83/84 calculator is required for this course.

ASSESSMENT AND GRADING:**Grading Scale:**

Assignment	Points/Percentage
In Class Tests	45%-50%
Online Homework	25%-30%
Comprehensive Final Exam	25%
Other	0%-5%
Total	100%

Letter Grade	Range
A	90%-100%
B	80%-89%
C	70%-79%
D	60%-69%
F	Below 60%

Incomplete Grades:

Incomplete grades are given rarely and only in extenuating circumstances. The MTSU Undergraduate Catalog states: "The grade I indicates that the student has not completed all course requirements because of illness or other uncontrollable circumstances, especially those

which occur toward the end of the term. Mere failure to make up work or turn in required work on time does not provide the basis for the grade of "I" unless extenuating circumstances noted above are present for reasons acceptable to the instructor." Please refer to the Undergraduate catalog for the complete Incomplete Grade Policy.

PARTICIPATION:

Course Ground Rules:

The following are expected of all students in this course:

- Put your MTSU email on your cell phone or check it multiple times a day.
- Reply to emails from your instructor in 24 hours or less.
- If you do not do the online homework, you will not pass this class.

Class Participation:

Student participation is required in all aspects of the course. Please adhere to the following:

- Attend class lectures
- Participate in class activities
- Read and study assignments
- Solve assigned problem sets
- Complete test, quizzes, homework, etc.
- Complete a comprehensive final exam

Math Tutoring Lab (MTL):

Math tutoring for this course is available as a free service to MTSU students in KOM 252.

Tutoring is conducted by Graduate Teaching Assistants (GTAs), work study students, and a faculty coordinator. The lab is closed on weekends and scheduled MTSU holidays. The hours of operation are posted in the lab. More information is available at

<http://mtsu.edu/math/students.php#tutoring>.

Academic Integrity/Misconduct:

Please review the [information on Academic Integrity and Misconduct](#). Academic integrity is a hallmark of Middle Tennessee State University. We expect students to present original work for all academic assignments turned in for credit and appropriately credit all sources used.

Academic misconduct includes, but is not limited to:

1. Plagiarism: The adoption or reproduction of ideas, words, statements, images, or works of another person as one's own without proper attribution. This includes self-plagiarism, which occurs when an author submits material or research from a previous academic exercise to satisfy the requirements of another exercise and uses it without proper citation of its reuse.
2. Cheating: Using or attempting to use unauthorized materials, information, or study aids in any academic exercise. This includes unapproved collaboration, which occurs when a student works with others on an academic exercise without the express permission of

the professor. It also includes purchasing assignments or paying another person to complete a course for you.

3. Fabrication: Unauthorized falsification or invention of any information or citation in an academic exercise.

Going online and using information without proper citation, copying parts of other students' work, creating information to establish credibility, or using someone else's thoughts or ideas without appropriate acknowledgment is academic misconduct. If you have a question about an assignment, please ask me to clarify. All cases of academic misconduct will be reported to the Director of Student Academic Ethics and may result in failure on the test/assignment or for the course.

Students guilty of academic misconduct are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions (including suspension from the university), which may be imposed through the regular institutional procedures as a result of academic misconduct, the instructor has the authority to assign an "F" or zero for an activity or to assign an "F" for the course. Students accused of plagiarism will be immediately reported to the Director of Student Academic Ethics.

Drop/Withdrawal Policy and Dates:

Please note the Drop Policy and Withdrawal Procedures as they are stated in the Current Registration Guide. A grade of "I" will be given only in accordance with University Policy. No grade of "W" will be assigned after the official drop date except in situations involving extreme extenuating circumstances beyond the student's control. In particular, a "W" will not be granted merely because the student is failing. Students should be aware that missing the official drop date and thereby receiving an "F" can have ramifications on financial aid.

I am True Blue:

As a member of this diverse community, I am a valuable contributor to its progress and success. I am engaged in the life of this community. I am a recipient and a giver. I am a listener and a speaker. I am honest in word and deed. I am committed to reason, not violence. I am a learner now and forever. I am a BLUE RAIDER. True Blue!

Attendance Reporting:

MTSU Administration requires that instructors complete an attendance report for each course each semester. Regular class attendance is required and will be monitored by: the D2L system report; participation in the discussion board; and timely submission of course assignments. If several class assignment submissions are missing, student attendance will be reported as "no longer attending."

Email:

Per the Family Educational Rights and Privacy Act (FERPA) all course communication will be conducted using D2L email. Faculty will not respond to student emails via a non-institutional assigned email

STUDENT RESOURCES:**Technical Support:**

If you are having computer issues the University has a help desk located in the KUC room 320 or by phone at 615-898-5345. Help with the online homework module is available from the textbook company. If you are having issues with your computer or the online homework, do not wait to get help getting it fixed. D2L Resources are available to MTSU students at the link in this sentence.

Students with Disabilities:

Middle Tennessee State University is committed to campus access in accordance with Title II of the Americans with Disabilities Act and Section 504 of the Vocational Rehabilitation Act of 1973. Any student interested in reasonable accommodations can consult the Disability & Access Center (DAC) website and/or contact the DAC for assistance at 615-898-2783 or DAC Email.

Title IX:

Students who believe they have been harassed, discriminated against or been the victim of sexual assault, dating violence, domestic violence or stalking should contact a Title IX/Deputy Coordinator at 615-898- 2185 or 615-898-2750 for assistance or review [MTSU's Title IX website](#) for resources. MTSU faculty are concerned about the well-being and development of our students and are legally obligated to share reports of sexual assault, dating violence, domestic violence and stalking with the University's Title IX coordinator to help ensure student's safety and welfare. Please refer to [MTSU's Title IX website](#) for contact information and details.

Grade Appeals:

University Policy 313, Student Grade Appeals, provides an avenue for MTSU students to appeal a final course grade in cases in which the student alleges that unethical or unprofessional actions by the instructor and/or grading inequities improperly impacted the final grade.

Instructors Discretion:

The instructor may opt out of using My Math Lab for the assigned homework in this course. If your section of the class does not use MML for the assigned homework, you will receive a syllabus with updated grading scale and homework policy the first day of class. Most classes will use MML and you will not know until the first day of class if your section is not using MML.

Hope (Lottery) Scholarship Information:

Do you have a lottery scholarship? To retain the Tennessee Education Lottery Scholarship

eligibility, you must earn a cumulative TELS GPA of 2.75 after 24 and 48 attempted hours and a cumulative TELS GPA of 3.0 thereafter. A grade of C, D, F, FA, or I in this class may negatively impact TELS eligibility.

If you drop this class, withdraw, or if you stop attending this class you may lose eligibility for your lottery scholarship, and you may not be able to regain eligibility at a later time.

For additional Lottery rules, please refer to your [Lottery Statement of Understanding form](#) or contact your [MT One Stop Enrollment Counselor](#).

Mental Health:

As a college student, you may experience a range of challenges and issues that can interfere with your physical and mental well-being, hinder your academic experience, and negatively impact your daily life. Some of these experiences may include overwhelming depression/sadness, anxiety, high levels of stress, use of alcohol/drugs, difficulty sleeping, difficulty concentrating, and/or loss of motivation. These challenges and issues can lead to thoughts of self-harm and suicide. If you or any of your classmates are experiencing these issues, it is important to reach out and ask for help. Discuss your situation with a friend, a family member, your instructor, or an academic advisor. Remember: Everyone struggles. It's okay to talk about it. Ask for help. YOU ARE NOT ALONE!

The True Blue Pledge:

[I am True Blue](#)

As a member of this diverse community, I am a valuable contributor to its progress and success. I am engaged in the life of this community. I am a recipient and a giver. I am a listener and a speaker. I am honest in word and deed. I am committed to reason, not violence. I am a learner now and forever. I am a BLUE RAIDER. True Blue!

Find us on Social Media:

