

Department of Engineering Technology

**Middle Tennessee State University
Murfreesboro, Tennessee**

**Student Handbook for
Prior Experiential Learning Assessment
for the
Bachelor of Science Degree
in
Engineering Technology
Engineering Systems Concentration**

**For more information contact:
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Rev. 3/09/11

**Department of Engineering Technology
Student Handbook
for Prior Experiential Learning Assessment**

I. Introduction

Students majoring in the Engineering Systems Concentration under the Engineering Technology Degree in the Department of Engineering Technology may earn up to thirty semester hours for experiential learning through a portfolio assessment process. This handbook was developed to help you decide if you should pursue portfolio development for experiential learning assessment and provide guidelines on how to develop and submit a portfolio. The first step in this decision is to talk to your advisor about the appropriateness of your experiential learning in relation to your academic plan. If you determine that your prior experiences may be related to the discipline you are pursuing, then it may be time to consider developing a portfolio to describe and document your prior learning.

Please note that these guidelines are subject to change. Be sure to check with your advisor to make certain you are following the current requirements and procedures.

II. Rationale for Prior Experiential Learning Assessment Programs

Much of the learning that adults have acquired is “experiential.” It is learning through the process of involvement and understanding that happens as we work, volunteer, pursue hobbies, etc. Institutionally-sponsored experiential learning has taken the form of apprenticeships, internships, student teaching, etc.

Experiential learning assessment programs allow students to seek credit for what they have learned outside of the classroom through experience. Although documenting experiential learning through portfolio development can be a time consuming process, it can also be a valuable learning experience as you review information you have previously learned. Experiential learning assessment can validate the worth of the learning you have achieved on your own, shorten the time necessary to earn a degree, and enhance your pride for what you have accomplished as a learner.

III. Steps for Portfolio Development

A. Determine if You are Eligible for Experiential Learning Credit

1. Portfolio assessment for experiential learning applies only to the Engineering Systems Concentration under the Engineering Technology degree.
2. Complete a minimum of 9 semester hours at Middle Tennessee State University. However, it is recommended that you contact the Department of Engineering Technology to be assigned an advisor to work with you prior to completing the 9 hours.

B. Decide Whether to Prepare a Portfolio

1. Consult with your academic advisor about the possibility/appropriateness of preparing a portfolio for experiential learning credit.

- a. Experiential learning must relate to the degree requirements and must be able to be defined as college-level learning.
 - b. Each experience must be thoroughly documented and the learning from that experience clearly shown.
2. Consider these questions:
 - a. Did my experience produce significant learning at the college level?
 - b. Does my experiential learning apply to my academic goal?
 - c. Can I document my experience and extract from it clear statements of learning?
 - d. Am I prepared to spend my time and effort gathering, organizing, and interpreting materials needed in a portfolio? Students must be self-directed, committed to the task, and willing to work independently. Would credit by examination be a better alternative than submission of a portfolio?

C. Prepare Portfolio of Documented Learning Experiences

1. Conduct Research and Gather Information
 - a. Review sample portfolios that are located in the ET office.
 - b. Recommended resource for examples of letters, worksheets, checklists etc. *Earn College Credit for What You Know*, Lois Lamdin, ISBN 0-7872-573- 3
2. Prepare a Cover Page and Cover Letter
Tell the assessor how your experiential learning relates to the academic program you are pursuing, where your experience was gained, and state each area of competency that you are seeking credit for. (see examples on pages 7-8)
3. Include the following MTSU documents: printout of current semester courses being taken, upper division form, transcript and transfer credits.
4. Include a Table of Contents
This will help organize the information in your portfolio and help guide the assessor through the information presented.
5. Prepare a Resume
List all activities that relate to the portfolio you are submitting. Be concise, but complete (see page 9)
6. Identify and Define the Learning
 - a. Identify the learning by listing each Area of Competency separately. (See page 12 for the Department of Engineering Technology competency areas).
 - b. To define and describe each Area of Competency complete the *Learning Experience Description and Documentation* Form on page 13. (See sample on page 14). In your description of the experience consider the following:
 - 1) **What** did you learn? (ex. I learned to create and use a spreadsheet program.)
 - Describe changes in yourself, your understanding, or your skills that occurred as a result of the activity and show what learning the changes produced.
 - Explain if your duties required acquisition of new skills, or understanding of complex procedures or techniques.

- Describe instances of new programs initiated, forms or procedures developed, problems resolved, or processes improved.
 - Document training, teaching, or supervisory roles.
 - Formulate broad concepts about the areas of knowledge and skills represented in your experiences.
 - Generalize from the specific experience to the broad principle.
 - Note instances where learning resulted in successful completion of a specific project, task, or activity. (example: Directed the design and implementation of a new safety program which resulted in 10% decrease in accidents during the next 12 months.)
 - Do not include "life experience" learned through community or other personal activities
- 2) **When and where** did the learning take place?
- Include employer, agency or experience provider or location.
- 3) **How** was the learning acquired?
- Was the learning formal (schools, military training, on-the-job training) or non-formal (work experience)?
 - Were you engaged in independent study?
 - Were you involved in an apprenticeship?
 - Did you go through some formal training experience?
 - Was the learning acquired on-the-job through experience, experimenting, informal training, etc.?
- 4) **Why** is the learning college-level?
- Is it generally applicable outside the setting where it was learned?
 - Is it conceptual in nature, represents a theory or abstraction?
 - Is it related to a knowledge base and is not a manual or routine skill?
 - Is it verifiable and measurable?
 - Is it of a quality equal to that done in college work?
7. Documentation
- a. Document of work experience must show that you held the position and performed the duties described.
 - b. Letters of verification should not be letters of recommendation. They should include the writer's relationship to the experience (e.g. supervisor, director, etc.), description of the pertinent past and present duties, responsibilities, and tasks involved in the learning under consideration, indication of competence, skills and knowledge of the area, and how well the person performed, (see sample letter on page 15). Letters should be written on official stationery if appropriate to authenticate the evidence.
 - c. Document training received with copies of certificates of completion, letters from supervisors, transcripts, etc.
 - d. Document the scope of the training with a copy of the syllabus, outlines of the training, descriptions of the training, etc.
 - e. Documentation should include only relevant materials (see examples on page 16). Large quantities of flowery, vague documentation will not be as

- effective as a few appropriate, informative documents.
- f. Since the entire portfolio will be reviewed, do not replicate documents in each section, but reference common documents in each section to the Appendix.

D. Submit Your Portfolio

Procedures for Processing Credit for Experiential

1. When the student presents the portfolio describing Experiential Learning to the Engineering Technology Department (Ms. Sally Swoape, VET 143), they will pay a \$90 initial non-refundable assessment fee. A receipt of payment will be placed in portfolio.
2. The portfolio is then given to the approved departmental faculty assessor (Mr. David Gore) for review by a committee composed of a minimum of two Engineering Technology faculty. It will be kept intact and not broken apart into sections. Additional representatives may be called upon as needed.
3. The approved departmental faculty assessor (Mr. David Gore) will then give the assessed portfolio (with feedback for student inside of portfolio) to the chair of Engineering Technology for signature and final approval (Dr. Walter Boles).
4. The portfolio will then be taken to the CBAS College Advisors. They will notify the students of the credit awarded. Credit will not be posted until the student's last semester of enrollment at MTSU. The Graduation Analyst (Deborah Phillips) will forward the Permit for Credit for Experiential Learning form to the Admissions Office (Susanna Wassom) for posting when the student is in the last semester of enrollment. Once the credit is posted by Admissions, the Graduate Analyst will adjust the degree requirements accordingly. The credit does not affect the computation of the grade point average.
5. CBAS places a copy of the Official Permit for Experiential Learning and substitution forms in the portfolio.
6. The portfolio is NOT returned to the student, but is retained by the Engineering Technology Department for at least three years.

Cover Page

PORTFOLIO FOR EXPERIENTIAL LEARNING ASSESSMENT

submitted to

DEPARTMENT OF ENGINEERING TECHNOLOGY
MIDDLE TENNESSEE STATE UNIVERSITY

BY

DATE

ADDRESS

PHONE

CONTACT INFORMATION

Sample Cover Letter

September XX, XXX

Dr. _____, Department Chair
MTSU
P.O. Box
Murfreesboro, TN 37132

Dear Dr. _____:

Attached is my portfolio of experiential learning which I am submitting for credit consideration. This portfolio is a comprehensive documentation of my work experience over the past 20 years. This includes both experiences gained while working in the automotive industry and documents from traditional and non-traditional training acquired during that time through the military, on-the-job training, apprenticeship programs, and the Tennessee Technology Center at Shelbyville.

This portfolio is being submitted for credit which will be applied toward my bachelor of science degree in Engineering Technology with a concentration in Engineering Systems.

Although my experiences have basically related to the automotive industry, the administrative and technical concepts and philosophies I have acquired would apply to any field. Training received such as (highlight most significant and applicable training received), etc. can be applied in many fields. Proficiencies gained on-the-job such as (list most relevant work experiences that have contributed to your learning in this field) are also applicable to other industries.

In this portfolio I have identified and described each Area of Competency and supplied documentation of my relevant experiences. Listed below is the title of each Area of Competency in this portfolio for which I am seeking credit for:

- Total Industry Perspective
- Economic Analysis
- Work Standards
- Plant Layout and Material Handling
- Team Facilitator
- Industrial Equipment
- Production Line Management

If you would like further information or an interview, please feel free to contact me at

Sincerely,

RESUME

James R. Jones
1400 Long Field Circle
Murfreesboro, Tennessee 37132
(615) XXX.XXXX (H)
(931) XXX-XXXX (W)

Work Experience

Rogers Motor Corporation 1989 - Present
Rockford, Tennessee

Senior Manufacturing Engineer 1996 - 1999

Manufacturing Floor Systems

Provide maintenance, troubleshooting, and diagnostic assistance for Manufacturing related computer applications.
Implementation and support of software systems.
Provide source code management.
Utilize technical writing skills for the development of software application related documentation.
Utilize project managements skills for leading Software Developers and conducting User Group meetings.

**Plant Facility Engineer and
Planned Maintenance Coordinator:** 1994 - 1996

Evaluation and investigation of work requests, projects and assignments.
Prepare, coordinate, supervise and monitor bid packages including establishing, coordinating and controlling schedules, priorities and costs.
Provide technical assistance to other Team Members.
Coordinate Planned Maintenance Program (Preventive and Predictive) including technical training, new technology equipment purchases and program administration.
Coordinate Productivity Performance Measurement
Business Unit Dispatch Engineering Resource.
Assist in the administration of Business Unit Service Contracts.

Maintenance Operations Module Advisor: 1993 - 1994

Provide leadership, guidance and act as a resource to the Maintenance Work Units and Module.
Support and apply Company's Mission and Philosophy.
Represent the Maintenance Module on the Business Unit Decision Ring

and external groups.
Coordinate model change impacts on Maintenance Work Units and production equipment and the Production Work Units.
Assist in prioritizing and providing the allocation and utilization of resources with the Maintenance Work Units and Module.
Facilitate, coordinate, assist in development and monitor implementation of safety, maintenance goals and maintenance process's, training, business plans, continuous improvement, people systems and other programs within the Maintenance Work Units and Module.
Promote World Class Maintenance Philosophy.
Communication link for scheduling and problem solving on production equipment, quality and maintenance with other Module Leadership within Business Unit.
Facilitate and coordinate team development activities.

Process Engineer (Paint): 1991 - 1993
Provide manufacturing, quality and process support and training to Work Units involved in paint application. (Knowledge of quality and paint process methods and procedures, Knowledge of paint process materials and facilities)
Establish and support continuous improvement activities in each work unit.
Maintain a working knowledge of latest developments in paint applications.
Coordinate, paint activities in a Clean Room environment.

Electrical Technician: 1989 - 1991
Electrical Maintenance of paint application automation and manufacturing support equipment.

Winfield Corporation 1983 - 1989
Truck and Bus Group
Paine, Minnesota

Maintenance Electrician:
Electrical Maintenance of manufacturing equipment in the Paint and Body Fabrication departments.

International Brotherhood of Electrical Workers 1976 - 1983
Local Union XXX
Paine, Minnesota

Electrical Construction Foreman:
Foreman of electrical construction projects for Hicks Electrical Construction Company.

Electrical Apprenticeship Training:
Four Year Electrical Apprenticeship through the Paine Joint Apprenticeship Training Committee.

Education

Middle Tennessee State University 1994 - Present
Murfreesboro, Tennessee
Working towards Bachelor of Science in Engineering Technology.
Major - industrial Management
GPA 4.0
Intent to Graduate - Spring 2000

Straton Technical University
1975 - 1976
Wagner, Minnesota
Pre-Engineering

Walker Heights Academy
1971 - 1975
Paine, Minnesota

Technical Training

Rogers ITP for Information Technology Engineers	1996 - 1998
Rogers ITP for Manufacturing Engineers	1994 - 1996
Rogers IIP for Maintenance Module Advisors	1993 - 1994
Rogers ITP for Electrical Technicians	1989 - 1993
Cleveland institute of Electronics	1985 - 1986
Associate in Applied Science in Electronics Engineering Technology	
Control Data Corporation	1984 - 1985
Plato Electronics Training	
Winfield Pre-Employment Training for Skilled Trades	1983
Paine Joint Apprenticeship and Training Committee	1976 - 1980

Department of Engineering Technology
B.S. in Engineering Technology
Concentration: Engineering Systems

Prior Experiential Learning Competency Areas

Credit for prior experiential learning will be limited to the seven competency areas described below. These areas have been verified as appropriate for a degree in Engineering Technology by the Department of Engineering Technology faculty. You may wish to review this document with your academic advisor before you begin preparing your portfolio.

You should prepare separate documentation for each competency you feel applies to your experiential learning. If you have more than one experience which applies to a competency, you should provide separate documentation for each experience. The “Learning Experience Description and Documentation Form” should be used for this purpose.

Competency Area 1. Total Industry Perspective (9 S. H.)

An understanding of the interrelationships between topics such as manufacturing, product development, sales and marketing, finances, and product quality.

Competency Area 2. Economic Analysis (6 S. H.)

The ability to assimilate data and justify capital equipment through economic analysis.

Competency Area 3. Work Standards (6 S. H.)

The ability to understand and establish work standards.

Competency Area 4. Plant Layout and Material Handling (6 S. H.)

The ability to perform plant layout and material handling analysis.

Competency Area 5. Team Facilitator (6 S. H.)

The ability to function as a facilitator in work improvement teams based on knowledge of workplace design, ergonomics, continuous improvement strategies, TQM, TPM, etc.

Competency Area 6. Industrial Equipment (6 S. H.)

An understanding of and the ability to use current industrial equipment.

Competency Area 7. Production Line Management (6 S. H.)

The ability to maintain and manage an effective production line.

Competency Area 8. Quality Systems (6 S. H.)

An understanding of and the ability to apply quality concepts as related to processes and products.

Competency Area 9. Production/Inventory Control/Materials Management (6 S. H.)

The ability to do production planning, scheduling, and inventory control work including related computer systems.

LEARNING EXPERIENCE DESCRIPTION AND DOCUMENTATION

Area of Competency: _____
(Put title of learning here)

Type of Experience (check one):

Work Experience Seminar or Workshop Military Training
 Non-Accredited Course Vocational Training Apprenticeship
 Other: _____

Title of Learning Experience: _____
(Provide job title or brief title of workshop, non-accredited course, etc.)

Dates of the Experience: _____

Hours Spent if Appropriate (for workshops, seminars, etc.): _____

Name and Address of Provider: _____

Description of the Experience:

Include the following types of information as appropriate: duties performed, skills and knowledge acquired, unique or unusual responsibilities, outline of content if formal training, special awards, promotions, or achievements, etc. The exact content of your description should be dictated by the activity you are describing. Use additional pages as needed.

DOCUMENTATION (attach copies)

-SAMPLE-

LEARNING EXPERIENCE DESCRIPTION AND DOCUMENTATION

Area of Competency: *Industrial Equipment*

Type of Experience (check one):

Work Experience Seminar or Workshop Military Training
 Non-Accredited Course Vocational Training Apprenticeship
 Other: _____

Title of Learning Experience: *Introduction to CADD*
(Provide job title or brief title of workshop, non-accredited course, etc.)

Dates of the Experience: *July 12-23, 1998*

Hours Spent if Appropriate (for workshops, seminars, etc.): *40 hours*

Name and Address of Provider: *James Tool and Die, 1500 Industrial Drive, Pakston, TN 37000*

Description of the Experience:

Include the following types of information as appropriate: duties performed, skills and knowledge acquired, unique or unusual responsibilities, outline of content if formal training, special awards, promotions, or achievements, etc. The exact content of your description should be dictated by the activity you are describing. Use additional pages as needed.

This course was provided by the company and taught by a member of the company's design department. It covered a basic introduction to CAD using AutoCad version 12 software.

DOCUMENTATION (attach copies)

*Course Outline
Certificate of Completion*

Example of Letter of Documentation

Dr. _____
Middle Tennessee State University
Murfreesboro, TN 37132

Dear Dr. _____,

I am delighted to verify Jane Smith's work experience with our company. I was her supervisor for 10 years. During that time I watched her grow from a novice in this area to someone who could handle almost any task we set before her.

Jane joined our staff in 1982 as an account manager and was promoted to office manager in 1985. Her chief responsibilities in the position include:

1. Working with product engineering to do FMEA reviews.
2. Assisting with ISO 9000 certification in the Assembly Department.
3. Serving on the cross-functional product development team for assembly.
4. Responsible for the quality assurance function in the Assembly Department.
5. Reviewing warranty claims related to assembly.
6. Training operators in SPC methods in assembly.

In addition to learning gained on-the-job, several training courses were also successfully completed in many software programs including Peachtree software. She was able to take this knowledge and revise our billing processes using this new program.

If I can be of further assistance to you regarding Jane's work experience with our company, please do not hesitate to call upon me.

Sincerely,

TYPES OF DOCUMENTATION

WORK EXPERIENCE	Job Experience Awards Letters of commendation Letters of corroboration from superiors, peers, clients Promotion evaluation Evidence of promotion Evidence of suggestions adopted Explanation of ranking, rating, or classification system in company or organization Certificates of licenses and performance standards for these Membership in professional or trade organizations and criteria for membership Rating forms Articles about accomplishments (trade journals, etc.) Examples of products, publications, manuals, videos, recordings produced Examples of reports/plans written, blueprints or computer programs designed, etc. Slides/Photographs of large articles (painting, sculpture)
COMMUNITY SERVICE	Commendations Awards Newspaper and magazine clippings Letters or corroboration from co-volunteers, clients, supervisors
NON-COLLEGE COURSES AND TRAINING, IF NOT IN ACE GUIDE (CONT.ED.)	Transcripts-letters attesting to enlistment Learning outcome or objectives of course guide syllabi Evidence of and criteria for completion Course description/outline Number of didactic hours-Number of clinical or practicum hours Diplomas and certificates
SPECIAL ACCOMPLISHMENTS	List of books read with synopses and relation to academic goals Patents obtained Countries visited and relation to academic goal Mementos from travels and relation to academic goal Exhibits (i.e. shells, plants, etc.) Programs and reviews of performance, exhibits

**Application and Verification Statement
for the Assessment of Experiential Learning**

First Name _____ Last Name _____

Address: _____

City: _____ State _____ Zip _____

Daytime Telephone () _____ Evening Telephone _____

Applicant's Statement

I, _____, the undersigned, being duly sworn hereby state that all facts, statements, and information contained in this portfolio are true and correct.

Signature of Applicant Date

Sworn to and subscribed before me this _____ day of _____, 19_____.

Signature of Notary Public

My commission expires _____

Advisor/Faculty Statement

The learning claimed and described in this portfolio is appropriate to this student's degree program. I recommend that this portfolio be accepted for evaluation.

Name (please print) Department

Signature Date

OFFICAL PERMIT FOR CREDIT FOR EXPERIENTIAL LERNING

Student's Name: _____

Social Security Number: _____ Date: _____

Instructions (To be completed by the department chair based upon the review of the departmental committee):

1. Place in the cell " Work Experience" and "Training" under "Rating" the number presenting the student's ability with reference to each Area of Competency. The following rating symbols should be used in regard to each area:
 - 3- Comprehensive knowledge and/or skill
 - 2- Knowledge and/or skill significantly above that needed for basic functions
 - 1- Knowledge and /or skill adequate to maintain basic functions
 - 0- Insufficient demonstrated knowledge and/or skill
2. Place in the appropriate cell the number of lower and upper division hours credit that the student should receive in each Area of Competency.
3. Total the hours awarded for work experience (not to exceed 18 hours) and total the hours awarded for training (not exceed 18 hours)
4. Provide the total number of hours recommended (not to exceed 30 hours) for both work experience and training.
5. Sign form, obtain the dean's approval and route to the Continuing Studies Office along with the portfolio and any student feed back.

CREDIT TO BE POSTED: Maximum of 30 semester hours (s.h.) of credit.

Area of Competency (Maximum No. of Semester Hours)	Work Experience Hours Credit (Max. 18 hrs)			Training Hours Credit (Max. 18 hrs)		
	RATING	UD	LD	RATING	UD	LD
Total Industry Perspective (9)						
Economic Analysis (6)						
Work Standard (6)						
Plant Layout/Material Handling (6)						
Team Facilitator (6)						
Industrial Equipment (6)						
Production Line Management (6)						
Quality Systems (6)						
Production/ Inventory Control/Materials Management (6)						
*Subtotal (not to exceed 18 s.h. hrs. each)						
*Total Hours Recommended (not to exceed 30 s.h. hrs.)	ET Elective Upper Div.: _____			ET Elective Lower Div.: _____		

Assessment Approved

Department Chair's Signature: _____ Date: _____

Dean's Signature: _____ Date: _____

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3. The approved departmental faculty assessor (Mr. David Gore) will then give the assessed portfolio (with feedback for student inside of portfolio) to the chair of Engineering Technology for signature and final approval (Dr. Walter Boles).
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5. CBAS places a copy of the Official Permit for Experiential Learning and substitution forms in the portfolio.
6. The portfolio is NOT returned to the student, but is retained by the Engineering Technology Department for at least three years.

Procedures Governing the Granting of Credit for Experiential Learning

1. The obtains a student handbook on the development of the portfolio and the evaluation of experiential learning from the Department of Engineering Technology.
2. "The student develops an experiential learning portfolio based on the specified guidelines.
3. The portfolio is evaluated by persons with expert knowledge to determine the amount and classification of credits to be awarded.
4. The student pays a non-refundable assessment fee of \$90.
5. Credit is posted on the student's record as ET Elective Credit when the student is in the last semester of enrollment, but does not affect the computation of the grade point average.
6. If the student is dissatisfied with the credit awarded, he or she may appeal to the Department Chair of the department in which the student is seeking credit by writing a letter stating the reasons for the appeal. It should not be noted, however, that careful consideration will be given to credit awarded and the student must have a very strong basis on which to make the appeal.
7. You may submit up to two additional portfolios for review if you acquire additional experiential learning. A \$90 non-refundable assessment fee is due with each additional assessment.