

**PELLISSIPPI STATE COMMUNITY COLLEGE
MASTER SYLLABUS**

**INDUSTRIAL SAFETY MANAGEMENT
MET 2111**

Lecture/Lab Hours: 4

Credit Hours: 3

Date Revised: Spring 2017

Catalog Course Description

An overview of modern occupational safety and health practices. Topics include accidents and their effects, the OSHA Act, worker's compensation, management of safety and health, and hazards related to mechanical systems, falling, impact, acceleration, lifting, vision, temperature extremes, pressure, electricity, fire, industrial hygiene, confined spaces, radiation, noise and vibration, automation and robots, and blood-borne pathogens.

Prerequisites

None

Co-requisites

None

Textbooks and Other Supplies

Occupational Safety and Health for Technologists, Engineers, and Managers. 7th ed.
Goetsch. Prentice Hall.

Week/Topic Basis

Week	Topic
1	Introduction and History
2	Accidents and Their Effects; Roles and Professional Certifications; Safety, Health, and Competition in the Global Marketplace
3	Laws and Regulations
4	Human Element; Mechanical Hazards and Machine Safeguarding
5	Mechanical Hazards and Machine Safeguarding
6	Falling, Impact, Acceleration, Lifting, and Vision Hazards
7	Hazards of Temperature Extremes; Pressure Hazards; Electrical Hazards

- 8 Noise and Vibration Hazards; Computers, Automation, and Robots
- 9 Project and Presentations
- 10 Project and Presentations

Engineering Technology General Outcomes (Educational objectives)

- I. Apply basic engineering theories and concepts creatively to analyze and solve technical problems.
- II. Utilize with a high degree of knowledge and skill equipment, instruments, software, and technical reference materials currently used in industry.
- III. Communicate effectively using developed writing, speaking, and graphics skills.
- IV. Assimilate and practice the concepts and principles of working in a team environment.
- V. Obtain employment within the discipline or matriculate to a four year program in engineering or industrial technology.

Engineering Technology Concentration Competencies

NOTE: At the program level all 6 competencies apply to roman numerals I – V of the Engineering Technology General Outcomes (Educational objectives) listed above.

Students will

- A. Apply the knowledge, techniques, skills, and modern tools for the concentration of study to specifically defined engineering technology activities.
- B. Demonstrate the knowledge of mathematics, science, engineering and technology to engineering technology problems using developed practical knowledge.
- C. Conduct and report the results of standard tests and measurements, and conduct, analyze and interpret experiment or project results.
- D. Function effectively as a member of a technical team.
- E. Identify, analyze and solve specifically defined engineering technology-based problems.
- F. Employ written, oral and visual communication in a technical environment.

Course Goals

NOTE: Capital letters after course goals reference goals of the Engineering Technology Program.

The course will

- 1. Enhance understanding of the historical perspective of occupational safety from then to now. (A-C)
- 2. Enhance knowledge regarding federal and state laws and regulations. (A-D)
- 3. Expand skills in identifying the human element within an occupation. (A-E)
- 4. Develop necessary skills in identifying and providing hazard assessment, prevention, and control within any given occupation. (A-E)

Expected Student Learning Outcomes

NOTE: Numbers after Expected Student Learning Outcomes reference the course goals listed above.

The student will

- a. Relate and understand the importance of the safety movement both historic and current times. (1)
- b. Analyze certain laws and regulations regarding the OSH Act, OSHA, liability, and Worker's Compensation both state and federal. (2)
- c. Identify the human element in regards to stress and safety training. (3)
- d. Determine and analyze hazard assessment, prevention, and control in regards to mechanical hazards and machine safeguarding. (4)
- e. Determine and analyze hazard assessment, prevention, and control regarding falling, impact, acceleration, lifting, and vision hazards. (4)
- f. Determine and analyze hazard assessment, prevention, and control regarding temperature extremes. (4)
- g. Determine and analyze hazard assessment, prevention, and control regarding pressure and electrical hazards. (4)
- h. Determine and analyze hazard assessment, prevention, and control regarding fire hazards and life safety. (4)
- i. Determine and analyze hazard assessment, prevention, and control regarding industrial hygiene and confined spaces. (4)
- j. Determine and analyze hazard assessment, prevention, and control regarding noise and vibration hazards. (4)
- k. Determine and analyze hazard assessment, prevention, and control regarding computers, automation, and robots. (4)
- l. Analyze, document, and present a safety assessment of either a lab or model. (1-4)

Evaluation

Total evaluation will be based on the following point distribution.

Testing Procedures

Exams **50 points**

Project/Presentation **30 points**

WC Interactive Presentation **10 points**

Participation **10 points**

Participation is based on instructor's observation during the course, and each student is evaluated on participation activities. Evaluation parameters include

active participation in class discussions, being prepared, efficient use of lab time, striving to achieve more than the minimum requirements, and regular attendance

Laboratory Experiences

N/A

Field Work

N/A

Other Evaluation Methods

N/A

Grading Scale

Final grade for this course will be based on the following alphabetical/numerical scale.

A	93-100
B+	88-92
B	83-87
C+	79-82
C	74-78
D	65-73
F	Below 65

Policies

Attendance Policy

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of Academic Affairs, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of Academic Affairs.

Academic Dishonesty

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.

- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one's own work.
- Taking an exam for another student.
- Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
- Any of the above occurring within the Web or distance learning environment.

Please see the Pellissippi State Policies and Procedures Manual, Policy 04:02:00 Academic/Classroom Conduct and Disciplinary Sanctions for the complete policy.

Accommodations for Disabilities

Students that need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Disability Services (DS) in order to receive accommodations in this course. [Disability Services](#) (<http://www.pstcc.edu/sswd/>) may be contacted via [Disability Services email](#) or by visiting Alexander 130.

Other Policies

Safety and Equipment Abuse:

Repeated safety violations will result in a reduction of final grade, at the instructor's discretion. Flagrant violations which result in equipment damage or personal injury could result in automatic failure of the course