

Course Syllabus

SAFM 502/IENG 461

Fall 2019

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Office Hours: Tuesdays & Thursdays 11:00 am-12:00 pm by appointment.

Prerequisites: There are no prerequisites for this course

Course Introduction

Credit Hours: 3.0

Method of Instruction: Lecture, Discussions, assignments, individual research

Class Meets: NRC-E 101; Mondays 3:30 pm- 6:20 pm (8/21/19-12/12/2019)

Course Description:

This course focuses on the investigation of hazard control principles relating to environmental facilities and equipment including control procedures recommended by authorities from the field of engineering, medicine, and public health as well as from the field of safety.

Instructional Materials

Brauer, Roger., "Safety and Health for Engineers" 3rd Edition.

eCampus:

In this course, eCampus (ecampus.wvu.edu) will be used to communicate assignments, grading rubrics, lecture materials, and grades. All assignments will be submitted through eCampus.

Email:

Please note that email communications will occur through WVU MIX emails. It is the student's responsibility to regularly check MIX email.

Course Learning Objectives

1. Identify and assess safety and health hazards.
2. Using the hierarchy of controls, identify methods to mitigate or control safety and health hazards.
3. Demonstrate the ability to assess risk using various risk assessment techniques.

Course Activities

Date	Topic	Special Message
Monday 8/26/2019	Introduction Fundamental Concepts System Safety Overview Product Liability	Chapters 1-5 and 7
Monday 9/2/2019	Labor Day Recess- No Class	
Monday 9/9/2019	Forces, Mechanics, Structures	Chapter 10 Assignment #1: Practice Problems
Monday 9/16/2019	Materials Handling	Chapter 15 Assignment #1 Due by 3:30 pm EST on eCampus Assignment #2: Case Study
Monday 9/23/2019	Walking Working Surfaces, Pressure, Noise, Vibration	Chapters 11
Monday 9/30/2019	Electrical Safety	Chapter 14 Assignment #2 Due by 3:30 pm on Ecampus
Monday 10/7/2019	Midterm Exam	502 Topic Approvals Due
Monday 10/14/2019	JSA	Assignment #3: JSA
Monday 10/21/2019	Personal Protective Equipment (PPE)	Chapter 28
Monday 10/28/2019	Pressure, Noise, Vibration, Heat/Cold, Radiation	Chapter 18, 19, 21, 22, 23, Assignment #3 Due by 3:30 pm on Ecampus
Monday 11/4/2019	Tools and Machines	Chapter 13
Monday 11/11/2019	Risk Assessment Techniques	Assignment #4: Risk Assessment
Monday 11/18/2019	Fault Tree Analysis	
Monday 11/25/2019	Thanksgiving Break- No Class	
Monday 12/2/2019	Failure Modes and Effect Analysis	502 Projects Due Assignment #4 Due
Monday 12/9/2019	Final Exam	

*****NOTE: This schedule is tentative and subject to change. We will have a few guest speakers in this course, so I may need to change topics/days around to accommodate*****

Assessment

Activity	Total Points Possible
Class Attendance and Participation	100
Assignments (papers, presentations, homework, etc.)	100
Midterm Exam	100
Final Exam	200
** Grad Student Project (502 Students Only)	200*
TOTAL	500 (IENG 461) 700 (SAFM 502)

Grades will be provided based on the following scale:

90%-100%	A
80%-89.9%	B
70%-79.9%	C
60%-69.9%	D

Class Participation and Attendance:

Students are expected to attend class. Attendance will randomly be taken during the course of the semester.

Assignments:

There will be 4 assignments during the course of the semester. More information will be provided to students once the topic is assigned.

1. Practice Problems
2. Case Study
3. JSA
4. Risk Assessment

Midterm Exam:

There will be a midterm exam in October.

Final Exam (20%):

There will be a comprehensive final at the end of the course to evaluate knowledge.

Final Project (SAFM 502 Students Only)

SAFM 502 students will have a project due at the end of the semester that incorporates the elements of the class. More information will be provided during class.

Expected Timelines:

Students: All assignments and due dates are listed in the syllabus. Students will have 1-2 weeks to complete assignments, depending on what is assigned.

Instructor: Students will receive feedback on assignments generally within ten (10) consecutive University instructional days of the assignment due date.

Course and Institutional Policies

Attendance Policy:

Students are expected to come to class. Students learn from their peers while in the classroom and that opportunity is lost when absent. As evident in the course grading, repeated absences will reflect poorly on a student's grade.

Late Assignment and Missed Exam Policy:

Late assignments will not be accepted. There will be no make-ups on exams or quizzes.

If an emergency occurs, it will be addressed on a case-by-case scenario.

Institutional Policies:

Academic Integrity Statement: The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, instructors will enforce rigorous standards of academic integrity in all aspects and assignments of their courses. For the detailed policy of West Virginia

University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the West Virginia University [Academic Standards Policy](http://catalog.wvu.edu/undergraduate/coursecredittermsclassification) (<http://catalog.wvu.edu/undergraduate/coursecredittermsclassification>). Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see your instructor before the assignment is due to discuss the matter.

Inclusivity Statement: The West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect, and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in your classes, please advise your instructors and make appropriate arrangements with [the Office of Accessibility Services](https://accessibilityservices.wvu.edu/). (<https://accessibilityservices.wvu.edu/>)

More information is available at the [Division of Diversity, Equity, and Inclusion](https://diversity.wvu.edu/) (<https://diversity.wvu.edu/>) as well. [adopted 2-11-2013]

For more information on WVU Academic Policies, please see <https://tlcommons.wvu.edu/syllabus-policies-and-statements#13> for a list.