

**CENTRAL WASHINGTON UNIVERSITY
INDUSTRIAL AND ENGINEERING TECHNOLOGY
SAFETY EDUCATION**

SED 180: Principles of Accident Prevention, 3 credits

FACULTY INFORMATION:

Instructor: Scott Calahan
Office: Hogue Technology Building, Room 206
Office Hrs. 2:00 PM-2:50 PM Tues., Thurs. and by appointment
Telephone: 963-3218
E-mail calahans@cwu.edu

COURSE PREREQUISITES: None

COURSE DESCRIPTION:

A general safety course studying the underlying principles and theories of accident causation and prevention. Impact of accidents on society today, psychological factors related to accidents, legal requirements, and accident prevention in business, industry, schools and community.

COURSE PURPOSE:

Provide a review of the cause and contributing factors that contribute to accident occurrence at work, home, recreational, motor vehicle and public environments and methods for reducing the risk of occurrence.

TEXT BOOKS AND OTHER REQUIRED MATERIALS:

1. Bever, David, Safety, A Personal Focus, 1996
2. Instructor handouts
3. Materials from organizations related to class topics

Learner Outcomes

1. Explain the evolution of safety from the Industrial Revolution to the present time.
2. Discuss risk taking characteristics.
3. Define accidents and describe accident prevention methods.
4. Describe the impact of accidents/incidents on society.
5. Distinguish between accident-prone, repeater and susceptible characteristics.
6. Describe psychological factors that increase accident/incident susceptibility.

Assessment

1. Students will explain the key events in the evolution of safety
2. Assessment through exam.
3. Students will define and describe accidents and methods for risk reduction and prevention.
4. Assessment through exam.
5. Assessment through exam.
6. Assessment through exam.

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| 7. Determine causes and countermeasures for traffic, home, public, recreational, sports, school related incidents. | 7. Class presentation and exam. |
| 8. Explain the legal factors related to accident causation. | 8. Assessment through exam. |
| 9. Discuss proper procedures for disaster preparedness and response as related to home and community. | 9. Assessment through exam. |

COURSE OUTLINE:

1. Introduction:

- 1.1 Course overview
- 1.2 Course requirements
- 1.3 Career opportunities in safety
- 1.4 Education requirements
- 1.5 Related university programs

2. Philosophy and Development of Accident Prevention:

- 2.1 Factors influencing growth of accident prevention
- 2.2 Agencies and organizations involved in safety and accident prevention
- 2.3 Philosophy of safety, accident prevention
- 2.4 Risk taking
- 2.5 Concept of an accident, cause and prevention factors

3. Analysis of the Accident Problem:

- 3.1 Classification of accidents
- 3.2 Accident types
- 3.3 Trends
- 3.4 Accident costs
- 3.5 Age group involvement

4. Theories of Accident Causation and Prevention:

- 4.1 Accident repeater
- 4.2 Accident susceptibility
- 4.3 Psychological factors
- 4.4 Epidemiological models
- 4.5 Behavioral - Decision making
- 4.6 Reducing losses

5. Major Categories of Accidents - Causes and Countermeasures:

- 5.1 Motor vehicle
- 5.2 Home
- 5.3 Work
- 5.4 Sports and Recreation
- 5.5 School
- 5.6 Fire
- 5.7 Consumer

6. Legal Factors Related to Accident Causation

- 6.1 Employee/Employer
- 6.2 Definition of legal terms
- 6.3 Negligence
- 6.4 Measures for reducing legal liability

7. Disaster Preparedness:

- 7.1 Types of disasters
- 7.2 Planning responsibilities
- 7.3 Response procedures
- 7.4 Risk reduction

INSTRUCTIONAL METHODS:

1. PowerPoint presentations
2. Small and large group activities
3. Out-of-class assignments
4. Project research and presentation

GRADING:

1. Exam #1 (15%)
2. Exam #2 (15%)
3. Exam #3 (15%)
3. Final Exam (15%)
4. Research project (30%)
5. Class assignments (10%)
6. The following grade scale will be used for exams and written assignments:

A = 95%-100%, **B+** = 87-89%, **C+** = 77-79%, **D+** = 67-69%, **F** = below 60%
A- = 90%-94%, **B** = 83-86%, **C** = 73-76%, **D** = 63-66%,
B- = 80-82%, **C-** = 70-72%, **D-** = 60-62%

ADA STATEMENT:

Students who have special needs or disabilities that may affect their ability to access information and or materials presented in this course are encouraged to contact the instructor or Mr. Robert Harden, AD Compliance Officer, Director, ADA Affairs and Students Assistance on campus at 963-2171 for additional disability related education accommodations.