

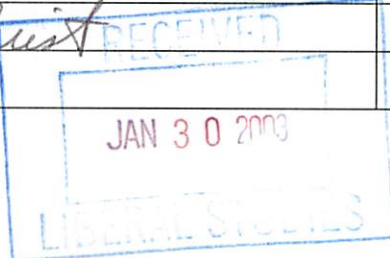
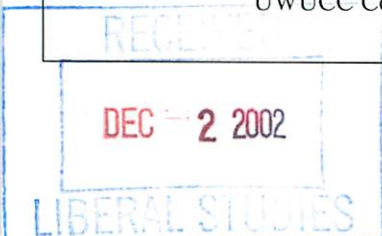
LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action Date:
		02-39a	App 2/4/03	App 2/25/03

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person Dr. Laura Rhodes	Email Address lhrhodes@iup.edu
Proposing Department/Unit Safety Sciences	Phone 7-2357

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply) <input type="checkbox"/> New Course <input type="checkbox"/> Course Prefix Change <input type="checkbox"/> Course Deletion <input checked="" type="checkbox"/> Course Revision <input type="checkbox"/> Course Number and/or Title Change <input type="checkbox"/> Catalog Description Change		
SAFE 101 Introduction to Occupational Safety and Health		
<u>Current</u> Course prefix, number and full title		<u>Proposed</u> course prefix, number and full title, if changing
2. Additional Course Designations: check if appropriate <input type="checkbox"/> This course is also proposed as a Liberal Studies Course. <input type="checkbox"/> Other: (e.g., Women's Studies, Pan-African) <input type="checkbox"/> This course is also proposed as an Honors College Course.		
3. Program Proposals <input type="checkbox"/> New Degree Program <input type="checkbox"/> Program Title Change <input type="checkbox"/> Other <input type="checkbox"/> New Minor Program <input type="checkbox"/> New Track <input type="checkbox"/> Catalog Description Change <input type="checkbox"/> Program Revision		
<u>Current</u> program name		<u>Proposed</u> program name, if changing
4. Approvals		
Department Curriculum Committee Chair(s)	<i>Lan H. Ferguson</i>	10/21/02
Department Chair	<i>Lan H. Ferguson</i>	10/21/02
College Curriculum Committee Chair	<i>Jeffrey Miller</i>	11-22-02
College Dean	<i>Robert C. Zoni</i>	11-25-02
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	<i>Gail S. Schust</i>	2/04/03



Course Revision: SAFE 101 Introduction to Occupational Safety and Health

Part II. Description of the Curriculum Change

1. Syllabus of Record.

The new syllabus of record for this revised course is attached in Appendix A.

2. A summary of the proposed revisions:

a. Change in course description and objectives to match the upgrades in course content.

Old Course Description:

Covers the theory and history of occupational hazard control, effects of hazards and failures on organizational control and productivity, safety and health legislation, and accident causation. The course also previews aspects of recognizing, evaluating, and understanding control of safety and health hazards, acquiring hazard data and hazard analytical tools. Communication techniques in safety and health management are stressed along with the development of safety and health program.

New Course Description:

Designed to introduce the student to the evolution of the safety profession through study of historical events and the changes that resulted. Students gain an understanding of the key components of the profession such as OSHA and workers' compensation, accident investigation, occupational health hazards, emergency response, product liability, ergonomics, fleet safety, ethics and measuring safety program success. Case studies and small group activities prepare students for further in-depth study of these topics and to fulfill their roles as professionals.

b. Revision of course content into modules and updated bibliography

3. Justification/rationale for the revision.

This is a minor revision to an existing course. Changes reflect the resolutions made at a day-long faculty retreat held in May 2002. Instructors agreed that content needed to be added based on results of alumni surveys and recommendations from the Advisory Committee. These major changes will not require changes in the content or descriptions of other existing courses in the B.S. or M.S. Program in Safety Sciences.

4. The old syllabus of record.

The old syllabus of record is attached in Appendix B.

5. Liberal Studies course approval.

These changes do not affect the Liberal Studies requirements.

Part III. Letters of Support or Acknowledgement

These course changes will not affect other departments, therefore letters of support from other departments were not obtained.

Appendix A: New Syllabus of Record

I. Catalog Description

SAFE 101 Introduction to Occupational Safety and Health

3 class hours

0 lab hours

Prerequisites: None

3 credit hours

(3c-01-3cr)

Designed to introduce the student to the evolution of the safety profession through study of historical events and the changes that resulted. Students gain an understanding of the key components of the profession such as OSHA and workers' compensation, accident investigation, occupational health hazards, emergency response, product liability, ergonomics, fleet safety, ethics and measuring safety program success. Case studies and small group activities prepare students for further in-depth study of these topics and to fulfill their roles as professionals.

II. Course Objectives

Students completing this course will be able to:

- A. Describe the history of the safety and health evolution and the events in resulting safety and health legislation in global workplace.
- B. Explain the emergence of workers' compensation legislation, various coverages and cost containment strategies.
- C. Describe the application of accident investigation in determining basic causes of Accidents.
- D. Demonstrate an understanding of the many other analytical techniques which may also lead to the identification of basic causes of losses.
- E. State the requirements for reporting accidents and for record keeping for legal purposes and for the benefit of effective use of statistics.
- F. Describe methods used for recognizing, evaluating and controlling occupational health exposures and techniques used to manage the risk.
- G. Explain the basic principles of fire and emergency response including identifying pertinent standards, fire hazards and controls.
- H. Compare and contrast product liability exposures and control measures.
- I. List common ergonomic hazards and their manifestations as well as the associated accepted controls.

- J. Describe the basic program elements and management involvement necessary for an effective fleet safety program including what should be included in safe driver selection, development and preventative maintenance.
- K. Express the elements of professional codes of ethics and the process of obtaining professional certifications.

III. Course Outline

A. Global Status of Worker Protection (5 Hours)

- 1. History of Occupational Safety and Health (OSH)
- 2. Global Industrial Disasters and the Legislation that Followed
- 3. Other Important Legislation
 - Walsh-Healy
 - Construction Safety Act
 - OSH Act and OSHA Recordkeeping

B. Managing Workers' Compensation (5 Hours)

- 1. Legislation
- 2. Definition
- 3. Coverage
- 4. Cost Containment Strategies

C. Accident Investigation (AI) (5 Hours)

- 1. Accident Causation Theories
- 2. Conducting an Effective AI
- 3. Preventing Recurrence
- 4. Using Accident Statistics (American National Standards Institute)

D. Environmental Safety and Industrial Hygiene (4 Hours)

- 1. Recognizing Occupational Health Exposures
- 2. Evaluating and Controlling Health Hazards
- 3. Managing Environmental Risk
- 4. Legislation Overview

Exam 1 (1 Hour)

E. Fire and Emergency Response (5 Hours)

- 1. Principles of Fire Protection
- 2. Introduction to Pertinent Standards
- 3. Recognizing Fire Hazards And their Controls
- 4. Life Safety and Emergency Action Plans

- F. Product Safety and Liability** (5 Hours)
1. Consumer Product Safety Commission
 2. Identifying Potential Loss Exposure Through Systems Safety
 3. Elements of an Effective Product Safety Program

- G. Ergonomics** (5 Hours)
1. Fundamentals of Human Performance
 2. Common Ergonomic Hazards and Their Manifestations
 3. Job Safety Analysis and Engineering Controls
 4. Current Legislation Governing Ergonomics

- H. Fleet Safety** (3.5 Hours)
1. Extent of Exposure
 2. Basic Program Elements and Management Involvement
 3. Driver Selection, Development and Control
 4. Preventative Maintenance

- I. Managing the Safety Function** (3.5 Hours)
1. Codes of Ethics, Certifications, and Career Advancement
 2. Getting the Job Done (Safety by Objectives, Employee Involvement, Total Quality Management and Safety Training)
 3. Maintaining Priorities (Safety Metrics, Statistics, Convincing Others)

- J. Culminating Activity** (2 hours)

IV. Evaluation Methods

The faculty person assigned to teach this course could be one of several faculty within the Safety Sciences Department. What follows is an example of the evaluation methods and weighting used by one of those faculty.

- A. Two examinations (50%)
All examinations will be announced and will be closed book. Questions on exams may be short answer, multiple choice, true/false, or matching. The final exam may be comprehensive, covering the total semester.
- B. Quizzes (20%)
Quizzes will be similar in format to the examinations; however, they may not be announced. Quizzes will emphasize readings from the texts, handouts, and current notes.

C. Reports (20%)

A number of reports will be prepared from assigned types of reading materials or from materials selected by the student and approved in advance by the instructor.

D. Other Assigned Work (10%)

Other assigned work may include the following:

1. Take home problems/projects.
2. In-class projects that may include group discussions, in-class writing exercises, and class presentations/participation.

Work which has due dates may carry a penalty if late; exams and quizzes may not be made up without the approval of the instructor.

V. Example Grading Scale

The following grading scale will be used to assign letter grades, related to the evaluation of student performance based on a percentage scale.

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = < 60%

At the discretion of the instructor, a grading curve that results in an appropriate distribution of grades may be used in place of the scale described above.

VI. Attendance Policy

Although there is no formal attendance policy for this class, student learning is enhanced by regular attendance and participation in class discussions and the university expects all students to attend class.

VII. Required Text

Hagan, P., Montgomery, J. , O'Reilly, J. (2001) . *Accident prevention manual for industrial operations –administration and programs.* , 12th Ed. Chicago: National Safety Council.

VIII. Special Resource Requirements

None

IX. Bibliography

Fanning, F. (1998). Basic Safety Administration: A Handbook for the New Safety Officer. Des Plaines, IL: American Society of Safety Engineers.

Gellar, S. (2002). The Participation Factor. Des Plaines, IL: American Society of Safety Engineers.

Greenwald, M. (1996). Pittsburgh Surveyed: Social Science and Social Reform in the Early Twentieth Century. Pittsburgh, PA: University of Pittsburgh Press.

Hansen, M. (2002). Out of The Box--Skills for Developing Your Own Career Path. Des Plaines, IL: American Society of Safety Engineers.

Levitt, R. & Semelson, N. (1993). Construction Safety Management, Second Edition. New York, NY: McGraw-Hill.

Manuele, F. (1993). On the Practice of Safety. New York, NY: Van Nostrand Reinhold.

McSween, T. (1995). The Values Based Safety Process: Improving Your Culture with a Behavioral Approach. New York, NY: Van Nostrand Reinhold.

Rhodes, L. & Rhodes D. (2002). Human resources Best Practices aid accident prevention. Professional Safety, October 2002. Des Plaines, IL: American Society of Safety Engineers.

“Ten Worst Industrial Accidents” (Video Recording) The Learning Channel, 2001

Vincoli, J. (1994). Accident Investigation and Loss Control. New York, NY: Van Nostrand Reinhold.

Historical References

Anton, T. (1992). Occupational Safety & Health Management, Second Edition. New York, NY: McGraw-Hill.

Grimaldi, J. and Simmons, R. (1989). Safety Management. Boston, MA: Irwin Publishing.

Hammer, W. (1989). Occupational Safety Management & Engineering. Englewood Cliffs, CA: Prentice-Hall.

La Dou, J., Editor. (1986). Introduction to Occupational Health and Safety. Chicago, IL: National Safety Council.

Laing, P.M., Editor. (1991). Supervisor's Safety Manual, Seventh Edition. Chicago, IL: National Safety Council.

APPENDIX B: OLD SYLLABUS OF RECORD

I. Catalog Description

SAFE 101 Introduction to Occupational Safety and Health
Prerequisites: None

3 credits
3 lecture hours
0 lab hours
(3c-01-3cr)

Covers the theory and history of occupational hazard control, effects of hazards and failures on organizational control and productivity, safety and health legislation, and accident causation. The course also previews aspects of recognizing, evaluating, and understanding control of safety and health hazards, acquiring hazard data and hazard analytical tools. Communication techniques in safety and health management are stressed along with the development of safety and health program.

II. Course Objectives

Students completing this course will be able to:

- A. Describe the history of the safety and health evolution, the emergence of worker's compensation, and the details of the resulting safety and health legislation.
- B. Identify the reasons for different attitudes on safety, the many management techniques used in industry, the reasons why some workers are motivated for safety, and what job dissatisfactions may lead to errant safety performance.
- C. Collect information relevant to safety and health hazards and prepare it for analytical use determining causation; identify human factors which have an impact on accidents or errors.
- D. Describe the application of accident investigation in determining basic causes of accidents; demonstrate an understanding of the many other analytical techniques which may also lead to the identification of basic causes of losses; state the requirements for reporting accidents and for record keeping for legal purposes and for the benefit of effective evaluation of hazards.
- E. Explain how the functions of management are utilized in general programs for assuring safe conditions and practices for safety, health, and fire hazards. The student will also be able to define the objectives, administrative aspects, and the benefit philosophy of various compensation programs. Trends in programs will be compared as will the position of insurers and costs in the process.
- F. Compare and contrast the management functions with regard to other specific program areas in the occupational environment.

- G. Describe the methods and content of an effective training program. In particular, the concept of an effective lesson plan will be understood.

III. Course Outline

- A. Historical Review and Management Leadership (6 hours)
1. History of Occupational Safety and Health
 2. General Management Functions
 3. Areas of Responsibility in Safety and Health
- B. Employee Involvement (3 hours)
1. Attitudes, Behavior and Motivation
 2. Promotions and Campaigns
- C. Workplace Hazard Identification (3 hours)
1. Acquiring Hazard Information
 2. Human Aspects
- D. Workplace Hazard Evaluation (6 hours)
1. Accident Investigation, Analysis
 2. Costs of Accidents
 3. Reporting and Record Keeping
 4. Computer Information
- E. General Hazard Prevention and Control (10.5 hours)
1. Safety Hazard Control Program Organization
 2. Occupational Health Program Organization
 3. Industrial Fire Protection Program Organization
 4. Environmental Management Program Organization
 5. Worker's Compensation
- F. Specific Occupational Safety and Health Programs (10.5 hours)
1. Emergency Preparedness
 2. Employee Assistance Programs
 3. Product Safety Programs
 4. Motorized Fleet Safety Programs
 5. Office Safety Programs
 6. Workers with Disabilities Programs
- G. Safety Training (3 hours)
1. Safety Training
 2. Audio-Visual Techniques

IV. Evaluation Methods

The faculty person assigned to teach this course could be one of several faculty within the Safety Sciences Department. What follows is an example of the evaluation methods and weighting used by one of those faculty.

E. At least two examinations (50%)

All examinations will be announced and will be closed book. Questions on exams may be short answer, multiple choice, true/false, or matching. The final exam may be comprehensive, covering the total semester.

F. Quizzes (20%)

Quizzes will be similar in format to the examinations; however, they may not be announced. Quizzes will emphasize readings from the texts, handouts, and current notes.

G. Reports (20%)

A number of reports will be prepared from assigned types of reading materials or from materials selected by the student and approved in advance by the instructor.

H. Other Assigned Work (10%)

Other assigned work may include the following:

3. Take home problems/projects.
4. In-class projects that may include group discussions, in-class writing exercises, and class presentations/participation.

Work which has due dates may carry a penalty if late; exams and quizzes may not be made up without the approval of the instructor.

The following grading scale will be used to assign letter grades, related to the evaluation of student performance based on a percentage scale.

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = Below 60%

At the discretion of the instructor, a grading curve that results in an appropriate distribution of grades may be used in place of the scale described above.

V. Required Text

Laing, Patricia M., Editor. Accident Prevention Manual for Industrial Operations – Administration and Programs. 10th Edition. National Safety Council, Chicago IL. 1992.

VI. Special Resource Requirements

None

VII. Bibliography

Anton, Thomas John. Occupational Safety & Health Management. Second Edition. New York: McGraw-Hill, Inc., 1992.

Ashfahl, C. Ray. Industrial Safety & Health Management. Second Edition. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1990.

Colling, David A. Industrial Safety Management & Technology. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1990.

Grimaldi, J. and Simmons, R. Safety Management. Boston, MA: Irwin, 1989.

Hammer, Willie. Occupational Safety Management & Engineering. Englewood Cliffs, NJ: Prentice-Hall, 1989.

La Dou, Joseph, Editor. Introduction to Occupational Health and Safety. Chicago: National Safety Council, 1986.

Laing, P.M., Editor. Supervisor's Safety Manual, Seventh Edition. Chicago: National Safety Council, 1991.

Levitt, Raymond and Semelson, Nancy. Construction Safety Management, Second Edition. New York: McGraw-Hill, 1993.

Society of Manufacturing Engineers. Tool and Manufacturing Engineer's Handbook, Vol. 5. Dearborn, MI: SME, 1988.

VIII. General Course Outline

The following is a description, by unit, of the contents of SA 101, Introduction to Occupational Safety and Health.

Unit I Historical Review and Management Leadership (6 hours)

A review is made of the effects of the industrial revolution upon the occupational environment of the worker. The general functions of management are reviewed in detail: planning, leading, organizing, and controlling. Various methods for organizing the safety management functions are investigated. The importance of communications, common failures in communications, and basic communicating techniques are covered. An introduction to federal safety and health legislation is given including a thorough review of the OSHA Act of 1970. The rights and duties of industrial managers under the acts are discussed in detail together with enforcement provisions.

Unit Objectives

Describe the history of the safety and health evolution, the emergency of worker's compensation, and the details of the resulting safety and health legislation.

Unit II Employee Involvement (3.0 hours)

An employee's involvement and reaction to programs is discussed in detail. How are employee attitudes formed, how does the "personal equation" affect behaviors, what are some of the prevailing behavior theories regarding human actions and the relationship to job satisfaction, and how can motivation be directed towards a more safe and healthful workplace. Provides a detailed review of the many techniques used to promote a safety and health program and the types of campaigns for maintaining an interest in the safety and health programs.

Unit Objectives

Identify the reasons for different attitudes on safety, the many management techniques used in industry, the reasons why some workers are motivated for safety, and what job dissatisfactions may lead to errant safety performance.

Unit III Workplace Hazard Identification (3.0 hours)

The student is introduced to the various techniques of acquiring information on safety and health hazards. A number of monitoring and observing methods are reviewed. Human aspects as they relate to hazards are discussed.

Unit Objectives

Collect information relevant to safety and health hazards and prepare it for analytical use determining causation; identify human factors which have an impact on accidents or errors.

Unit IV. Workplace Hazard Evaluation (6 hours)

The student is introduced to the concept of accident investigation as a tool for collecting the information necessary to perform an effective hazard evaluation which will lead to basic causes of accidents. Other analytical techniques are reviewed. In addition, the subject of costs is considered in determining the need for safety and health programs, and for the effectiveness of controls for hazards. The requirements for reporting of accidents and of record keeping are discussed in detail. The use of the computer is discussed with regard to data collection and analysis.

Unit Objectives

Describe the application of accident investigation in determining basic causes of accidents; understand the many other analytical techniques which may also lead to the identification of basic causes of losses; know the requirements for reporting accidents and for record keeping for legal purposes and for the benefit of effective evaluation of hazards.

Unit V. General Hazard Prevention and Control (10.5 hours)

The student is introduced to general safety hazard control programs, occupational health programs, industrial fire protection programs, and environmental management programs. Emphasis is placed on related planning, organizing, directing, coordinating, communicating and controlling functions. In addition, the general concepts of worker's compensation as a no-fault insurance for occupational injuries and illnesses is discussed. The various state programs and current changes and trends in worker's compensation are studied as a control mechanism for occupational injuries and illnesses.

Unit Objectives

Explain how the functions of management are utilized in general programs for assuring safe conditions and practices for safety, health, and fire hazards. The student will also be able to define the objectives, administrative aspects, and the benefit philosophy of various compensation programs. Trends in programs will be compared as will the position of insurers and costs in the process.

Unit VI. Specific Occupational Safety and Health Programs (10.5 hours)

The managerial aspects of other specific programs are explored in some detail. These programs involve emergency preparedness, employee assistance programs, product safety, motor vehicle fleets, office safety, workers with disabilities, and non-employee safety. All important managerial functions involved with these programs are emphasized.

Unit Objectives

Compare and contrast the management functions with regard to other specific program areas in the occupational environment.

Unit VII. Safety Training (3.0 hours)

The student will be introduced to the principles of training and the characteristics of an effective safety training program. In addition the requirement for safety training subjects as directed by regulations is discussed. Effective methods for audio-visual presentation are also discussed in detail. Poor methods are brought to the attention of the student.

Unit Objectives

Describe the methods and content of an effective training program. In particular, the concept of an effective lesson plan will be evaluated.

Appendix C: Catalog Description

SAFE 101 Introduction to Occupational Safety and Health

3c-01-3cr

Prerequisites: None

Designed to introduce the student to the evolution of the safety profession through study of historical events and the changes that resulted. Students gain an understanding of the key components of the profession such as OSHA and workers' compensation, accident investigation, occupational health hazards, emergency response, product liability, ergonomics, fleet safety, ethics and measuring safety program success. Case studies and small group activities prepare students for further in-depth study of these topics and to fulfill their roles as professionals.