

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

LSC Use Only
Number LS-90
Action NOT APPROVED
Date 10-26-89

UWUCC Use Only
Number _____
Action _____
Date _____

I. TITLE/AUTHOR OF CHANGE

COURSE/PROGRAM TITLE SA101 Introduction to Occupational Safety and Health
DEPARTMENT Safety Sciences
CONTACT PERSON Jack C. Reed

II. THIS COURSE IS BEING PROPOSED FOR:

- Course Approval Only
 Course Approval and Liberal Studies Approval
 Liberal Studies Approval only (course previously has been approved by the University Senate)

III. APPROVALS

Jack C. Reed
Department Curriculum Committee

Shary E. Allen
College Curriculum Committee

NOT APPROVED
Director of Liberal Studies
(where applicable)

Nicholas Tavel
Department Chairperson

Harold C. Wingard
College Dean*

Provost
(where applicable)

*College Dean must consult with Provost before approving curriculum changes. Approval by College Dean indicates that the proposed change is consistent with long range planning documents, that all requests for resources made as part of the proposal can be met, and that the proposal has the support of the university administration.

IV. TIMETABLE

Date Submitted
to LSC 12/10/88
to UWUCC _____

Semester/Year to be
implemented F-1989

Date to be published
in Catalog 1990

LIBERAL STUDIES COURSE APPROVAL FORM

About this form: Use this form only if you wish to have a course included for Liberal Studies credit. The form is intended to assist you in developing your course to meet the university's Criteria for Liberal Studies, and to arrange your proposal in a standard order for consideration by the LSC and the UWUCC. If you have questions, contact the Liberal Studies Office, 353 Sutton Hall; telephone, 357-5715.

Do not use this form for technical, professional, or pre-professional courses or for remedial courses, none of which is eligible for Liberal Studies. **Do not** use this form for sections of the synthesis course or for writing-intensive sections; different forms will be available for those.

PART I. BASIC INFORMATION

A. For which category(ies) are you proposing the course? Check all that apply.

LEARNING SKILLS

- First English Composition Course
- Second English Composition Course
- Mathematics

KNOWLEDGE AREAS

- Humanities: History
- Humanities: Philosophy/Religious Studies
- Humanities: Literature
- Fine Arts
- Natural Sciences: Laboratory Course
- Natural Sciences: Non-laboratory Course
- Social Sciences
- Health and Wellness
- Non-Western Cultures
- Liberal Studies Elective

B. Are you requesting regular or provisional approval for this course?

- Regular** **Provisional** (limitations apply, see instructions)

C. During the transition from General Education to Liberal Studies, should this course be listed as an approved substitute for a current General Education course, thus allowing it to meet any remaining General Education needs? yes no

If so, which General Education course(s)? _____

PART II. WHICH LIBERAL STUDIES GOALS WILL YOUR COURSE MEET? Check all that apply and attach an explanation.

All Liberal Studies courses must contribute to at least one of these goals; most will meet more than one. As you check them off, please indicate whether you consider them to be primary or secondary goals of the course. [For example, a history course might assume "historical consciousness" and "acquiring a body of knowledge" as its primary goals, but it might also enhance inquiry skills or literacy or library skills.] Keep in mind that no single course is expected to shoulder all by itself the responsibility for meeting these goals; our work is supported and enhanced by that of our colleagues teaching other courses.

	Primary	Secondary
A. Intellectual Skills and Modes of Thinking:		
1. Inquiry, abstract logical thinking, critical analysis, synthesis, decision making, and other aspects of the critical process.	_____	_____X_____
2. Literacy--writing, reading, speaking, listening	_____	_____X_____
3. Understanding numerical data	_____	_____X_____
4. Historical consciousness	_____	_____X_____
5. Scientific inquiry	_____	_____X_____
6. Values (ethical mode of thinking or application of ethical perception)	_____	_____X_____
7. Aesthetic mode of thinking	_____	_____X_____
B. Acquiring a Body of Knowledge or Understanding Essential to an Educated Person	_____X_____	_____
C. Understanding the Physical Nature of Human Beings	_____	_____X_____
D. Certain Collateral Skills:		
1. Use of the library	_____X_____	_____
2. Use of computing technology	_____	_____X_____

PART I. Basic Information

- A. Knowledge
- B. Regular
- C. No

PART II. Goals of Course

- A. The intellectual skills and modes of thinking will be a secondary goal of this course. The laws and principles that affect everyone in the workplace will be discussed to emphasize the importance of hazards and their controls. In class presentation of examples for the home environment will show this importance.
- B. The major goal of this course is for the student to acquire a body of knowledge. They will be introduced to all phases of the Safety and Health Profession and how this field will affect their lives both on-the-job and off-the-job. The course addresses the historical development of safety and health and addresses current issues and topics which causes the student to think or rethink their ideas and values.
- C. The understanding of the physical nature of human being is a secondary goal. The course addresses human behavior as applied to safety and health and how they react under hazardous conditions.
- D. The Collateral skills of the student is a major goal of this course. The student will be expected to use the library to do research on specific topics and write abstracts of articles of various safety and health subjects.

PART III. DOES YOUR COURSE MEET THE GENERAL CRITERIA FOR LIBERAL STUDIES? Please attach answers to these questions.

- A. If this is a multiple-section, multiple-instructor course, there should be a basic equivalency (though not necessarily uniformity) among the sections in such things as objectives, content, assignments, and evaluation. Note: this should not be interpreted to mean that all professors must make the same assignments or teach the same way; departments are encouraged to develop their courses to allow the flexibility which contributes to imaginative, committed teaching and capitalizes on the strengths of individual faculty.

What are the strategies that your department will use to assure that basic equivalency exists? Examples might be the establishment of departmental guidelines, assignment of responsibility to a coordinating committee, exchange and discussion of individual instructor syllabi, periodic meetings among instructors, etc.

- B. Liberal Studies courses must include the perspectives and contributions of ethnic and racial minorities and of women wherever appropriate to the subject matter. **If your attached syllabus does not make explicit that the course meets this criterion, please append an explanation of how it will.**

- C. Liberal Studies courses must require the reading and use by students of at least one, but preferably more, substantial works of fiction or nonfiction (as distinguished from textbooks, anthologies, workbooks, or manuals). **Your attached syllabus must make explicit that the course meets this criterion.**

[The only exception is for courses whose primary purpose is the development of higher level quantitative skills; such courses are encouraged to include such reading, but are not expected to do so at the expense of other course objectives. **If you are exercising this exception, please justify here.**]

- D. If this is an introductory course intended for a general student audience, it should be designed to reflect the reality that it may well be the only formal college instruction these students will have in that discipline, instead of being designed as the first course in a major sequence. That is, it should introduce the discipline to students rather than introduce students into the discipline. **If this is such an introductory course, how is it different from what is provided for beginning majors?**

PART III.

- A. The course outline gives a breakdown of the course into units and their objectives. The instructors follow this outline closely and have periodic meetings to add or delete from this outline as things in industry or government change.
- B. The course is designed to cover all minorities in the workplaces. Guest speakers of women in the profession are used to show how they are contributing to the area of safety and health.
- C. This course deals with non-fiction. It is based on governmental laws and management skills. The student will select and read one book from the selected bibliography. See attached syllabus for bibliography.
- D. This is a survey course that covers all areas of safety and health. It is designed for the non-major to be approximately 80% to 90% of the total enrollment. Majors take the course to obtain, as do non-majors, a better understanding of how the issues of safety and health are dealt with by the professional and how they are involved in the process regardless of their future goals.
- E. There are five of the criteria that are of major concern in this course:
 - E2. The problems encountered in the day-to-day work environment must be recognized then evaluated by acceptable methods and finally some form of control introduced. This is the principles that the student will be taught to explore all areas of this course.
 - E3. In the modern industrial environment the ability to communicate about the safety and health problems is of prime importance, therefore discussions and examples of problems and solutions will express these ideas.
 - E4. The course will stimulate the student to be creative in their skills of human relationship and their ability to use what is on hand to emphasize safety and health.
 - E5. Areas of advancement and sources to obtain up-to-date technology and ideas will be provided so that the student will be aware of the future trends.
 - E6. The course will utilize current events to explore trends and interpretations in safety and health. Examples of real world problems will be discussed.

E. The Liberal Studies Criteria indicate six ways in which all courses should contribute to students' abilities. **To which of the six will your course contribute? Check all that apply and attach an explanation.**

- 1. Confront the major ethical issues which pertain to the subject matter; realize that although "suspended judgment" is a necessity of intellectual inquiry, one cannot live forever in suspension; and make ethical choices and take responsibility for them.
- 2. Define and analyze problems, frame questions, evaluate available solutions, and make choices
- 3. Communicate knowledge and exchange ideas by various forms of expression, in most cases writing and speaking.
- 4. Recognize creativity and engage in creative thinking.
- 5. Continue learning even after the completion of their formal education.
- 6. Recognize relationships between what is being studied and current issues, thoughts, institutions, and/or events.

PART IV. DOES YOUR COURSE MEET THE CRITERIA FOR THE CURRICULUM CATEGORY IN WHICH IT IS TO BE LISTED?

Each curriculum category has its own set of specific criteria in addition to those generally applicable. The LSC provides copies of these criteria arranged in a convenient, check-list format which you can mark off appropriately and include with your proposal. **The attached syllabus should indicate how your course meets each criterion you check. If it does not do so explicitly, please attach an explanation.**

SA 101 INTRODUCTION TO OCCUPATIONAL SAFETY AND HEALTH S-001

Monday, Wednesday & Friday 8:00-9:00 am 1.0 Hour Lectures

OBJECTIVE: To gain an understanding of the fundamentals and concepts associated with the safety and health profession.

TEXT: Accident Prevention Manual for Industrial Operations-
"Administration and Programs". National Safety Council. 9th
Edition. 1988.

GRADING: The final grade will be based on the highest average of the class and will be curved. The weighted average of each of the following will be used to determine this average.

Three scheduled exams = 80%

Quizzes & Other = 10%

Reports = 10%

There will be no makeups for the scheduled exams unless prior arrangements are made. ALL EXAMS ARE OF EQUAL VALUE REGARDLESS OF LENGTH.

Quizzes will be weekly and from the reading assignments for the previous week. NO MAKEUP QUIZZES FOR ANY REASON.

All quizzes and exams will be closed book.

REPORTS will be presented at end of semester.

The subject will be of your choice and the outline will be due on Class 26.

Any field trips that we have are not mandatory but I suggest that you participate for the learning experience.

THERE WILL BE ONE NIGHT CLASS THAT WILL ELIMINATE ONE WEEK OF CLASSES. THIS CLASS WILL BE THREE (3) HOURS LONG. IT WILL BE ANNOUNCED AT A LATER DATE AND THE NIGHT WILL HAVE TO BE ACCEPTABLE TO ALL STUDENTS.

CONSULTATION: My office is located in the Safety Sciences Department, Room 135, Johnson Hall. I will be there most days from 8:00 am to 4:00 pm. If you need to make an appointment to see me call 357-3017 and do so. My door is always open and you can come to see me at such times.

READING AND EXAM SCHEDULE: Based on 1.0 hours per class.

<u>DATE</u>	<u>CLASS</u>	<u>SUBJECT</u>	<u>READING ASSIGNMENT</u>
1/25	1	Introduction	
1/27	2	History	Chapter 1
1/30	3	Federal Legislation	Chapter 2
2/1	4	" "	Chapter 2
2/3	5	" "	Chapter 2
2/6	6	Compensation Insurance	Chapter 8

2/8	7	Compensation Insurance	Chapter 8
2/10	8	Sources of Help	Chapter 24
2/13	9	Hazard Control Programs	Chapter 3
2/15	10	" " "	Chapter 3
2/17	11	" " "	Chapter 3
2/20	12	Hazard Information	Chapter 4
2/22	13	" "	Chapter 4
2/24	14	" "	Chapter 4
2/27	15	Hazard Evaluation	Chapter 6
3/1	16	" "	Chapter 6
<u>3/3</u>	<u>17</u>	<u>1st Exam</u>	<u>ALL MATERIAL FROM CLASS 1-16</u>
3/6	18	Accident Investigations	Chapter 7
3/8	19	Accident Analysis	Chapter 7
3/10	20	Safety Training	Chapter 9
3/11 thur 3/19 SPRING VACATION			
3/20	21	Ergonomics	Chapter 10
3/22	22	Systems Safety	Chapter 10
3/24	23	Human Behavior & Safety	Chapter 11
3/28	24	Safety Management	Chapter 12(Tuesday)
3/29	25	" "	Chapter 12
<u>3/31</u>	<u>26</u>	<u>2nd Exam</u>	<u>ALL MATERIAL FROM CLASS 18-25</u>
4/3	27	Industrial Fire	Chapter 16
4/5	28	Industrial Fire	Chapter 16
4/7	29	Emergencies	Chapter 16
4/10	30	Product Safety & Liability	Chapter 22
4/12	31	" " "	Chapter 22
4/14	32	" " "	Chapter 22
4/17	33	Fleet Safety	Chapter 23
4/19	34	Occupational Health	Chapter 19
4/21	35	Occupational Health	Chapter 19
4/24	36	Exceptional Employees	Chapter 20
4/26	37	Office Safety	Chapter 15
4/28	38	Environmental S & H	Chapter 18
5/1	39	Off-the-Job Safety	Chapter 21
5/3	40	Student Presentations	
5/5	41	Student Presentations	
5/8	42	Student Presentations	
5/10		Reading Day	
5/11 thur 5/19 Final Exams			

SUGGESTED BIBLIOGRAPHY

- Commerce Clearing House, Inc., 4025 West Peterson Ave., Chicago, Ill. 60646. "Employment Safety & Health Guide." 1975.
- Factory Mutual Engineering Corp., Norwood, Mass. 02062. "Loss Prevention Data." 1985.
- "Facility Inspection". Philadelphia, Pa., Insurance Company of North America, 1973.
- Fiereze, Robert J. "The Process of Hazard Control," Dubuque, Iowa, Kendall/Hurt Publishing Co., 1970.
- "Industrial Hygiene Instrumentation," National Safety News, Vol. 117, No. 3 (March 1978).
- National Safety Council, 44 N. Michigan Ave., Chicago, Ill. 60611. "Accident Facts" (Published annually).
- Tufte, Edward R. "The Visual Display of Quantitative Information." Cheshire, Conn.: Graphics Press, 1983.
- Hammer, Willie, "Occupational Safety Management and Engineering." Englewood Cliffs, N.J.: Prentice-Hall Inc. 3rd Edition, 1985.
- Cote, Arthur and Percy Bugee. "Principles of Fire Protection." Quincey, MA: NFPA, 1988.
- LaDou, Joseph. "Introduction to Occupational Health and Safety." Chicago Ill.: National Safety Council. 1988.
- Drysdale, Dougal. "An Introduction to Fire Dynamics." New York, NY: John Wiley and Sons. 1985.
- Anton, T.J. "Occupational Safety & Health Management." McGraw-Hill Book Co.: New York, N.Y. 1989.

GENERAL COURSE OUTLINE

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

Spring, 1987

SA 101 - Conduct of the Course

Introduction to Occupational Safety and Health

Unit I Historical Review of the Industrial Safety and Health Movement

3 hours A review is made of the effects of the industrial revolution upon the occupational environment of the worker. The evolution of Worker's Compensation Laws is covered and its effects upon safety and health legislation are discussed and historical progress in occupational safety and health is surveyed.

Unit Objective

The students shall be familiar with effects of the industrial revolution upon the evolution of worker's compensation; and safety and health legislation. The students will understand the factors leading to the current state of safety and health management.

Unit II Worker's Compensation Programs

2 hours The objectives of such programs and the insurer's role in them is discussed. The various state programs and current changes and trends are studied together with the benefits occurring to the worker and his survivors. Recordkeeping requirements, investigations and litigation processes are reviewed in detail. Insurance cost factors are covered.

Unit Objective

The students will understand the objectives, administrative aspects, and benefit philosophy of various compensation programs. Trends in programs will be learned and the position of insurers and costs in the process.

Unit III Safety and Health Legislation

4 hours An introduction to federal safety and health legislation is given including a thorough review of the Occupational Safety and Health Act of 1970, the Federal Coal Mine Health and Safety Act of 1977, and the Consumer Product Safety Act of 1972. Rights and duties of industrial managers under these acts are discussed in detail together with enforcement provisions.

Unit Objective

The students must know the fundamental rights and duties of employers within the subject of legislation. The students will have an intimate knowledge of the administrative and enforcement aspects of each Act.

Unit IV Terminology and Definitions

5 hours Important terms inherent to the occupational safety, health, and fire protection disciplines are studied so that a firm foundation for effective

communicating will exist. The trend away from "traditional safety" philosophy and through "loss or hazard control" or "error-free performance" is discussed with its effects on changing terminology and all units which follow.

Unit Objective

The students will learn the fundamental terminology sufficient for effective communications with those in the subject disciplines. The student will become familiar with the newer concepts of loss control, especially the system safety concept.

Unit V The General Functions of Management

4 hours The functions of management are reviewed in detail: planning, coordination, communicating, controlling, organizing and directing. The need for planning techniques such as PERT and planning documents such as the budget are discussed. Various methods for organizing the safety management functions are investigated. Students are introduced to methods for coordinating and controlling programs including various data collection and retrieval systems. The importance of communications, common failures in communications and basic communicating techniques are covered. Modern motivational techniques are reviewed in detail.

Unit Objective

The students must know the functions of management and the various methods of utilizing them. The students will also become familiar with the modern techniques of motivation and their application in safety management.

Unit VI Programs to Ensure Safe Working Conditions

5 Hours The student is introduced to the general safety hazards of the workplace involving plant layout, materials handling, storage, electrical and chemical hazards, welding and cutting, working surfaces, hand tools, machine tools, woodworking equipment, presses, forges, pressure vessels, boilers, and other machinery. Emphasis is placed on related planning, organizing, directing, coordinating, communicating and controlling functions.

Unit Objective

The student will learn how the functions of management are utilized in programs for assuring safe work conditions. The student will become familiar with the general safety hazards of the work environment.

Unit VII Programs to Ensure Safety Work Practices

4 Hours Job safety analysis and establishment of safe work procedures are reviewed. Employee selection, placement, and counseling are also covered. Extensive discussions on employee training are made along with planned job observations and retraining. Emphasis is placed on related planning, organizing, directing, coordinating, communicating, and controlling functions.

Unit Objective

The student will learn how the functions of management are utilized in programs for assuring safe work procedures. The students must know how to prepare a job safety analysis and the effect of employee selection, placement and training on safe performance.

Unit VIII Industrial Health Management Programs

5 hours Programs are discussed in terms of their importance, areas of applicability, objectives and implementation: hearing conservation programs, respirator inspection and maintenance programs, toxic materials control programs, ventilation system evaluation programs, radiological health programs, and environmental control programs. Emphasis is placed on related planning, organizing, directing, coordinating, communicating and controlling functions.

Unit Objective

The student must know the interrelationships between the functions of management and the overall industrial health programs common in a good system.

Unit IX Industrial Fire Protection Management Programs

5 hours Programs are discussed in terms of their importance, areas of applicability, objectives and implementation: life safety programs, hazardous work permit programs, fire protection equipment inspections and testing programs, electrical maintenance programs, flammables storage, and control programs, fire drills, and fire brigade training programs. Emphasis is placed on related planning, organizing, directing, coordinating, communicating, and controlling functions.

Unit Objective

The student will learn the programs involved with fire prevention and suppression and how they are administered through the application of the functions of management.

Unit X Other Industrial Safety and Health Programs

5 hours The managerial aspects of other programs are explored in some detail. These programs involve motor vehicle fleets, product safety, construction safety, environmental control, drug and alcohol abuse, and off-the-job accident prevention. All important managerial functions involved with these programs are emphasized.

Unit Objective

The student will become familiar with the management functions with regard to other program areas in the industrial environment.