

NEW/MODIFIED/ACTIVATED/INACTIVATED COURSE

Division: Health & Public Services

Date 9/17/98

Course Designator: EHMT 270

Title: Introduction to Industrial Hygiene I

Same as (other course(s) designator(s), ,

Effective Catalog Year: 1999-2000

Faculty Originator: Robert Evangelista

New Course

Course Classification Code: I3

Course Modification*

SAM Classification Code: C

Inactivate Course

Activate Course

Requires Board Approval:

Units of Credit	From:	To:	Prerequisite <input type="checkbox"/> (attach change)
Lecture Hours	From:	To:	Corequisite <input type="checkbox"/> (attach change)
Laboratory Hours	From:	To:	
Degree Status	From:	To:	Course Designator: <input type="checkbox"/>
			From:
			To:

Board Approval Not Required:

Course Description <input type="checkbox"/>	Title: <input type="checkbox"/>
Grading Basis <input type="checkbox"/>	From:
Recommended Preparation <input type="checkbox"/>	To:
Other:	

Rationale for Modification or Activation or Inactivation:

***NOTE: Attach new or modified course outline for all course modifications.**

Charlotte A. Erdahl 9.17.98
Division Dean Date

Am SMM 12/17/98
Vice President for Academic Affairs Date

Alexis R. Davidson 12/17/98
Academic Senate Vice President Date

Instructional Office Use Only:

Approved by:

C & I Sub A

Date 11/24/98

C & I Committee

Date 12/17/98

Governing Board

Date 3/10/99

Catalog Number

Date _____

GENERAL INFORMATION

- A. Need for course
This is a required course in the proposed emphasis of Occupational Health & Safety in the Environmental Technology program.
- B. Specific student population for whom this course is designed
Adults working in occupations overseen by the Occupational Safety and Health Administration (OSHA) regulations; working adults who desire to switch occupational fields to a better paying position; college students who desire an interesting and well-paid job in a growing field.
- C. Parallel courses offered elsewhere in: **(MUST BE COMPLETED)**
- (a) Community Colleges
- | | |
|--|----------------------------|
| Course Title | College |
| OESM 150, Intro. to Industrial Hygiene | Honolulu Community College |
- (b) Four-Year Institutions
- | | |
|---------------------------------|----------------------------|
| Course Title | College/University |
| HS 265, Environmental Health | San Jose State University |
| HE350, Environmental Health Ed. | San Diego State University |
| HSCI 356A, Environ. Hlth. I | CSU, Northridge |
- For vocational courses only:
Recommended by Advisory Committee: Yes No
- D. Scheduling Characteristics:
Fall Spring Variable
- E. Check One: Degree applicable Non Degree applicable
- F. Course Challengeable by Exam: Yes No
If no, rationale:
- G. Graduation Requirements
Recommended for:
1. Plan A--General Education Requirements for the Associate Degree Under
 2. Plan B--General Education Breadth Requirements, California State University Under
 3. IGETC UC/CSU General Education Breadth Requirements, University of California Under
- H. Transferability
1. Recommended for California State University (course number must be three digits)
 2. Recommended for University of California (course number must be three digits)
 3. Non Transferable (course number must be two digits)
 4. 295 Course Transferable Non Transferable
- I. FSA (Faculty Service Area Number) **029**

SOUTHWESTERN COLLEGE COURSE OUTLINE

Division: Health & Public Services

Origination Date: 9/98

Modification Date:

Effective Date: Fall 1999

Course Designator

Course Designator and Number	Title	Units	Lec	Lab
EHMT 270	Introduction to Industrial Hygiene I	3	3	

Same as (other course(s) designator(s), ,

Grading Basis: Grading scale; Credit/No Credit option available

Prerequisite: EHMT 130

Corequisite:

Recommended Preparation: EHMT 100; Biol 190; Chem 100, 110

Course Description & Scope: (50 words or less)

This course will introduce students to the development of industrial hygiene, also called occupational health or environmental health, as a professional discipline. The course will give an overview of certain human organs and how they are affected by occupational exposure. It will familiarize students with the recognition of hazards in the work environment. [CSU]

Measurable Course Objectives and Minimum Standards, as Determined by Standards set by the instructor, at 70% Proficiency for a Grade of "C":

1. Student will **describe the elements of the history and development of industrial hygiene as an occupation, and will apply these ideas in classroom discussion and written assessments.**
2. Student will **evaluate human anatomy, physiology, and pathology as it relates to occupational exposure to harmful agents, through written assessments.**
3. Student will **demonstrate the significance of airborne hazards through written assessments.**

4. Student will, demonstrate familiarity through written and practical assessments, identify the relationships between industrial and occupational exposures, and human pathological conditions.
5. Student will describe the industrial hygiene principles of hazard recognition in the workplace.
6. Student will identify the industrial hazards of particulates and noise through written assessment.
7. Student will demonstrate, through classroom discussion and written assessment, the hazardous effects of ionizing and non-ionizing radiation.
8. Student will evaluate occupational and workplace situation that may lead to thermal stress of the human body, and will demonstrate this knowledge through classroom discussion and in a written test.
9. Student will identify what are ergonomic considerations in both commercial and industrial settings.
10. Student will demonstrate, in written assessments, knowledge of the multitude of biological hazards in workplace and non-workplace occupancies.

Core Content to be Covered in all Sections:

1. Approximate 7 % of course
Overview of industrial hygiene
2. Approximate 7 % of course
The respiratory system
3. Approximate 7 % of course
The skin, ears, eyes
4. Approximate 7 % of course
Industrial Toxicology
- Risk Assessment
- Dose Response Relationship
- Threshold Limit Value
5. Approximate 7 % of course
Gases, vapors, and solvents
6. Approximate 7 % of course
Particulates

7. Approximate 7 % of course
Industrial Noise
8. Approximate 7 % of course
Ionizing Radiation
9. Approximate 7 % of course
Non-ionizing Radiation
10. Approximate 7 % of course
Thermal Stress
11. Approximate 7 % of course
Ergonomics
12. Approximate 7 % of course
Biological Hazards
13. Approximate 16 % of course: Supplemental
Assessments

NOTE: For Specific Details, see Instructor's Syllabus.

Method of evaluation to determine if objectives have been met by students:
(Check all that apply)

Exams:

Essay	<input type="checkbox"/>	Class Activity	<input checked="" type="checkbox"/>	Written Assignments	<input type="checkbox"/>
Problem Solving Exercise	<input type="checkbox"/>	Skill Demonstration	<input type="checkbox"/>	Lab Activity	<input type="checkbox"/>
Objective Test	<input checked="" type="checkbox"/>	Oral Assignments	<input type="checkbox"/>	Quizzes	<input type="checkbox"/>

Other

Instructional Methodology: (Check all that apply)

Lecture	<input checked="" type="checkbox"/>	Demonstration	<input checked="" type="checkbox"/>	Discussion	<input checked="" type="checkbox"/>
Audiovisual	<input checked="" type="checkbox"/>	Individual Assistance	<input type="checkbox"/>	Group Activity	<input type="checkbox"/>
Computer Assisted Instruction	<input type="checkbox"/>				

Requires a minimum of three (3) hours of work per unit, including class time

Required and Major Optional Reading(s), Including Textbook(s) and Software: (Author-last name, first name. Title. Location: Publisher, Year)

Required Text: Fundamentals of Industrial Hygiene. National Safety Council, Latest Edition



Southwestern College

CHECKLIST FOR CLASSIFICATION

Course: EHMT 270

Non Degree Credit

Degree Credit

Title: Introduction to Industrial Hygiene I

	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Culminates in a formal grade based on uniform standard 55002a6	Documentation	<input type="checkbox"/> Yes <input type="checkbox"/> No Culminates in a formal grade based on uniform standard 55002c4	Faculty Reviewer: <u>Paul E. Luke</u> Date: <u>9/17/98</u> Approved: <input checked="" type="checkbox"/> Disapproved: <input type="checkbox"/>
PRE/CO-REQUISITES	<input checked="" type="checkbox"/> Language & computation or other entrance skills, if needed, are sufficient for enrollment in Associate Degree level courses 55002a9 <input type="checkbox"/> Not Required	Pre- or Co-requisites developed by advisory committee, articulation agreement, sequential course or student data available.	<input type="checkbox"/> Common to all students 55002b4 <input type="checkbox"/> Prepares students to succeed in types of courses in 55805.5 OR <input type="checkbox"/> One of a sequenced series of course with final objective being the acquisition of such skills OR <input type="checkbox"/> A special class that facilitates measurable progress toward an educational goal 56030c OR <input type="checkbox"/> Prepares students for non-college oriented occupation <input type="checkbox"/> None of the above	Instructional Administrator: <u>Charlotte A. DeWald</u> Date: <u>9/7/98</u> Approved: <input checked="" type="checkbox"/> Disapproved: <input type="checkbox"/>
OUTLINE Objectives Scope Content	<input checked="" type="checkbox"/> Common to all students 55002a4 <input checked="" type="checkbox"/> Covered by 55805.5a-e <input type="checkbox"/> Transfer <input type="checkbox"/> Non-baccalaureate occupational major <input type="checkbox"/> If English: 1 level below Engl 115 or less <input type="checkbox"/> If Math: Algebra or above <input type="checkbox"/> Equivalent English or Math 550805.5 <input type="checkbox"/> Introduces students to the key concept and methods of a discipline (55002a12 'College Level')	Course Proposal	<input type="checkbox"/> Common to all students 55002b4 <input type="checkbox"/> Prepares students to succeed in types of courses in 55805.5 OR <input type="checkbox"/> One of a sequenced series of course with final objective being the acquisition of such skills OR <input type="checkbox"/> A special class that facilitates measurable progress toward an educational goal 56030c OR <input type="checkbox"/> Prepares students for non-college oriented occupation <input type="checkbox"/> None of the above	C & I Subcommittee: <u>[Signature]</u> Date: <u>10/24/98</u> Approved: <input checked="" type="checkbox"/> Disapproved: <input type="checkbox"/>
QUALITY OF ASSIGNMENTS	<input checked="" type="checkbox"/> Appropriate college level educational materials 55002a 11 & 12 <input checked="" type="checkbox"/> Critical Thinking: Requires analysis, synthesis, evaluation &/or problem solving 55002a10.	Measurable objectives and/or method of evaluation contained in the course outline.	<input type="checkbox"/> Measures student performance in terms of stated objective.	C & I Committee: <u>[Signature]</u> Date: <u>12/17/98</u> Approved: <input type="checkbox"/> Disapproved: <input type="checkbox"/>
QUANTITY OF ASSIGNMENTS	<input checked="" type="checkbox"/> Scope & intensity of work requires independent study outside of class 55002a7 <input checked="" type="checkbox"/> Requires a minimum of 3 Hrs. of work per week, including class time, per unit of credit 55002a6	Syllabus and/or course outlines	<input type="checkbox"/> Specifies amount of student work that must be completed per unit of credit earned 55002b6	Vice President for Academic Affairs: <u>[Signature]</u> Date: <u>12/17/98</u> Approved: <input type="checkbox"/> Disapproved: <input type="checkbox"/>
REPEATABILITY	<input checked="" type="checkbox"/> Repeatable only under 51000, 55761-3, 56044, 58161, 55002a13	College policy stated in Catalog	<input type="checkbox"/> Repeatable only under 51000, 55761-3, 56044, 58161, 55002b8	Approved by Governing Board: <u>[Signature]</u> Date: <u>3/10/99</u> Approved: <input type="checkbox"/> Disapproved: <input type="checkbox"/>
OFFICE USE ONLY:				Mailed to Chancellor's Office: _____ Date: _____ Approved by Chancellor's Office: _____ Date: _____

COMMENTS ON BACK

PREREQUISITE, COREQUISITE AND RECOMMENDED PREPARATION CHECK LIST



Course Name/Number: EHMT 270	Course Title: Introduction to Industrial Hygiene I
Name the Prerequisite: EHMT 130, Health Effects of Haz. Mtrl.	Corequisite
and/or Advisory (Recommended Preparation)	

The content of courses which have prerequisites, co-requisites, or advisories must be reviewed by department faculty, and the need for the prerequisite, co-requisite, or advisory must be scrutinized and verified.

Content Review of the Course

(all boxes must be checked)

The department should review course content and determine the prerequisite, corequisite, or advisory is an appropriate measure of student readiness to enter the course.

- 1. Review of prerequisite or corequisite involved faculty with appropriate expertise.
- 2. Review of the course objectives as appropriate to course purposes.
- 3. Review is based on a detailed course syllabus and outline of record including:
 - texts and related instructional materials
 - type and number of examinations
 - grading criteria
- 4. Identify the body of knowledge and/or skills which are deemed necessary at entry and/or concurrent with enrollment.
- 5. Identify and review the prerequisite or corequisite course which develops the body of knowledge and/or measures skills identified under #4.
- 6. Match the knowledge and skills (identified under #4) in the course with those developed or measured by the prerequisite or corequisite identified under #5.
- 7. Maintain documentation that the above steps were taken.

The Content Review form should accompany this form. This form and the Content Review should be attached to the course outline.

The Prerequisite, corequisite, or advisory is verified by the content review of the course and scrutiny of the prerequisite, corequisite, or advisory. The content review, scrutiny, and verification have been completed by:

	9/17/98		10/20/98
Division Dean (or designee)	Date	Discipline Faculty	Date

The Curriculum Committee approves disapproves the validation of the prerequisite, corequisite, or advisory.

	12/17/98		
Academic Senate	Date	Vice President for Academic Affairs	Date

SCRUTINY LEVEL AND VERIFICATION

(at least *one* of the following sections *must* be checked)

___ **STANDARD** - A course articulated with UC or CSU.

List three UC and/or CSU offerings, catalogue date, course name for equivalent course, and equivalent prerequisite.

Campus	Catalogue Date	Course Name/Number	Prerequisite Course Name/Number
Campus	Catalogue Date	Course Name/Number	Prerequisite Course Name/Number
Campus	Catalogue Date	Course Name/Number	Prerequisite Course Name/Number

✓ **SEQUENTIAL COURSE** - A course where the prerequisite knowledge and/or skills are needed.

Specify the content of the prerequisite course as it is linked to the specific skills and/or knowledge needed.

EHMT 130, Health Effects of Hazardous Materials, provides the following skills and knowledge needed: 1) types of environmental and occupational health hazards; 2) routes of entry into the human body; 3) relationship between hazard dose/exposure and health effects (response); 4) types of exposure; and 5) types of health effects.

___ **HEALTH AND SAFETY** - A course which has specific health and safety concerns.

Check and Explain:

___ The course is one in which students might endanger their own health and safety or the health and safety of others.

___ The prerequisite is that students possess necessary skills/knowledge to protect their own health and safety or the health and safety of others.

___ **STATUTE/REGULATION** - A course for which a prerequisite, corequisite, or advisory is required by statute regulation.

Describe statute or regulation:

___ **PROGRAM** - A program for which a prerequisite is required prior to acceptance.

List program for which the prerequisite appears:

___ **COMMUNICATION OR COMPUTATION SKILLS** - A course (not in communications or computation) for which communication or computation skills are the prerequisite or corequisite. *Complete Research Section for prerequisites and corequisites only.*

___ **ASSESSMENT** - A course for which assessment is used as a prerequisite. *Complete Research Section for prerequisites and corequisites only.*

___ **RECENCY/READINESS** - A course for which recency is the prerequisite or corequisite. *Complete Research Section for prerequisites and corequisites only.*

Research Section (do not complete for advisories):

Data gathered according to sound research practices is: ___ attached or ___ planned to be completed within the next two years.

Verification of the necessity of the prerequisites or cut score of assessment is from at least one of the following areas:

___ *the extent to which students, those currently enrolled in the course or those who have completed it, believe the prerequisite or corequisite is necessary.*

___ *comparison of faculty appraisal of student readiness for the course versus whether students met the prerequisite or corequisite.*

___ *comparison of student performance at any point in the course with completion of the prerequisite or corequisite.*

___ *comparison of student performance in the course with cut scores on assessment instruments in the manner required to validate an assessment instrument.*

