Chair(s)

Department Chair(s)

FEB – 1 2005

Part II. Description of Curriculum Change

1. Syllabus of Record.

   The revised syllabus is attached in Appendix A.

2. Summary of the Proposed Revisions

   This course was revised to eliminate overlap in the area of hazardous materials with the proposed new course SAFE 220 Hazardous Materials. The objectives for the course were revised to be more behavioral based following Blooms Taxonomy and to remove objectives related to hazardous materials. Course content related to hazardous materials was removed

safety & health regulations in our curriculum and coverage of environmental safety is also mandated by our accrediting body, see appendix D.

4. The Old Syllabus of Record

See Appendix B for the old syllabus of record.

[redacted]

Not applicable!

Part III. Letters of Support or Acknowledgement

This revised course may be an elective in the B.S. in Environmental Health and therefore a letter of support from this program is attached.

APPENDIX A: REVISED SYLLABUS OF RECORD

I. Catalog Description

SAFE 410 Environmental Safety and Health Regulations — 3 class hours, 0 lab hours, 3 credits

Prerequisite: SAFE 220 — (3c-01-3cr)

Provide a working knowledge of federal environmental legislation and their practical application in the work environment. Environmental laws covered include the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act and other related environmental laws.

II. Course Objectives

The students will be able to:

A. demonstrate a fundamental working knowledge of federal environmental legislation

Midterm (1 hour)

C. Regulations Pertaining to Water Quality (12 hours)
1. Basic issues
2. Major sources of water pollution
3. Extent of the water pollution problem
4. Clean Water Act (CWA)
5. Safe Drinking Water Act (SDWA)
6. Evaluation and control strategies for water pollution
7. Permitting

D. Regulations Pertaining to Soil Contamination (8 hours)
1. Basic issues
2. Major sources of solid waste
3. Extent of the solid waste problem
4. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
5. Resource Conservation and Recovery Act (RCRA)
6. Identification and control strategies for soil contamination
7. Permitting

E. Emerging Issues in Environmental Safety (2 hours)
1. Ethics
2. Regulatory
3. Global

Final Examination (2 hours)

IV. Evaluation Methods

Class Participation: This includes but is not limited to individual participation in whole class and

In general, the following scale will be used in assigning letter grades, related to the evaluation of student performance based on a "percentage" grading scale:

A = 90-100%
B = 80-89%

Pichtel, J. (2000). Fundamentals of Site Remediation. Government Institutes, Rockville, MD.

Spellman, F. & Whiting, N. (1999). Water Pollution Control Technology – Concepts andApplications. Government Institutes, Rockville, MD.

Sullivan, T, Editor. (2003). Environmental Law Handbook, Government Institutes, Rockville, MD. 17th edition.

Voyles, James. (2002). Managing Your Hazardous Wastes, Government Institutes, Rockville, MD. 2nd edition.

Historical References:

Hallenbeck, W.H. (1993). Quantitative Risk Assessment for Environmental and Occupational Health, 2nd edition. Boca Raton, FL: CRC Press.

Appendix B: Old Syllabus of Record

I. Catalog Description

SAFE 210 Environmental Safety and Health Regulations

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

Prerequisites: CHEM 102, SAFE 101, or instructor permission

Offers a practical approach to the understanding of, and compliance with, the various environmental regulations that impact on business. A thorough discussion of the definitions, categories, and evaluation of hazardous materials is included. Environmental laws covered include the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Occupational Safety and Health Act, and other related laws.

II. Course Objectives

As objectives for successful completion of this course, students will:

A. Read and be prepared to discuss the major topics of the textbook(s) and other assigned readings.

B. Read and be able to discuss the primary literature in various aspects of environmental safety and health.

C. Demonstrate the ability to comprehend the fundamental meaning and implication of the various environmental regulations on manufacturing and other occupational activities.

D. Investigate representative problems in environmental safety and health by properly designing, conducting

D. Environmental Regulations (3 hours)

1. Overview

3. Appropriateness of risk assessment

E. Regulations Pertaining to Air Quality (8 hours)

1. Basic issues
2. Major sources of air pollution
3. Extent of the air pollution problem
4. General methods for controlling emissions
5. Air pollution case studies
6. The Clean Air Act and Amendments (CAAA)
7. Other major air quality regulations

F. Regulations Pertaining to Water Quality (6 hours)

1. Basic issues
2. Major sources of water pollution

3. Extent of the water pollution problem
4. General methods for controlling pollution
5. Clean Water Act (CWA)
6. Safe Drinking Water Act (SDWA)
7. Other major water quality regulations

G. Regulations Pertaining to Soil Contamination (8 hours)

1. Basic issues
2. Major sources of solid waste
3. Extent of the solid waste problem

4. Comprehensive Environmental Response, Compensation, and
5. Liability Act (CERCLA)

B. Periodic QUIZZES, including unannounced quizzes at the discretion of the instructor. Make-up quizzes may be

permitted at the option of the instructor. (20%)

D. Preparation of formal, technical PAPERS/PROJECTS on topics assigned and/or approved by the instructor. (20%)

Howard, P.H. and Neal, M. Dictionary of Chemical Names and Synonyms. Boca Raton, FL: Lewis Publishers. 1992.

Lippman, M., ed. Environmental Toxicants: Human Exposures and their Health Effects. New York: Van Nostrand Reinhold. 1992.

Lowry, G.G. and Lowry, R.C. Handbook of Hazard Communication and OSHA Requirements. Chelsea, MI: Lewis Publishers. 1988.

Ott, W.R. Environmental Statistics and Data Analysis. Boca Raton, FL: CRC Press. 1995.

Pierce, D.F. Total Quality for Safety and Health Professionals. Rockville, MD: Government Institutes. 1995.

Vincoli, J.W. Basic Guide to Environmental Compliance. New York: Van Nostrand Reinhold. 1993.

West, G.A. and Michaud, R.W., eds. Principles of Environmental Health and Safety Management. Rockville, MD:

Working Safety with Hazardous Materials in the Workplace: An Employee Handbook. New York: Genium Publishing. 1993.

VIII. General Course Outline

See Course Outline section above.

Appendix C Catalog Description

SAFE 410 Environmental Safety and Health Regulations (3c-01-3cr)

Prerequisites: SAFE 220

Provide a working knowledge of federal environmental legislation and their practical application in the work environment. Environmental laws covered include the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response

Appendix D

ACCREDITATION CRITERIA 2003
Criteria for Accrediting Applied Science Programs

PROGRAM CRITERIA FOR SAFETY AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS

Lead Society: American Society of Safety Engineers

These program criteria apply to safety, occupational safety, industrial safety and similarly named applied science programs.

I. PROGRAM CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

Students

The quality and performance of the students and graduates is an important consideration in the evaluation of an academic safety program. The institution must evaluate and monitor students and alumni to determine its success in meeting program objectives.

Program Educational Objectives

Each safety program for which an institution seeks accreditation or reaccreditation shall have in place:

courses taken elsewhere. The institution must also have and enforce procedures to assure that all students meet all program requirements.

Curriculum

a. Graduates shall demonstrate proficiency in college algebra and statistics.

Lon Ferguson

From: "Thomas Simmons" <tsimmons@iup.edu>
To: "Lon Ferguson" <ferguson@iup.edu>
Sent: Thursday, January 27, 2005 7:48 PM
Subject: Re: Revisions to Safety Sciences Curriculum

Dear Lon,

[redacted]

like good changes for your program, and I see benefit for my ENVH Program as well. I will draft a letter of support. Thank you.
Sincerely,
Tom Simmons

On Thu, 27 Jan 2005 16:11:56 -0500
"Lon Ferguson" <ferguson@iup.edu> wrote:
> Hi Tom:
>
> The Safety Sciences Curriculum proposal was recently approved by [redacted]

>and Safety Management
>
> · Revise SAFE 210 Environmental Safety to eliminate coverage
>of hazardous materials and make this a senior level course to better
>reflect course content.
>
> · Replace ECON 122 with ACCT 200 Accounting Principles I.
>
> · Complete revision of Industrial Hygiene courses (SAFE 301

[redacted]

>303, and 402) to include two four credit courses with a lab (SAFE 320
>and 420). In a nutshell these courses will [redacted]

[redacted]

>recognition, evaluation and control of health hazards but will be

[redacted]