

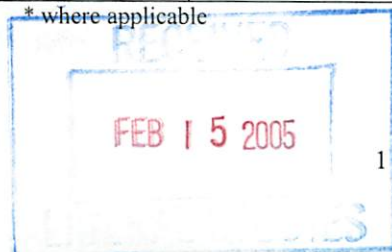
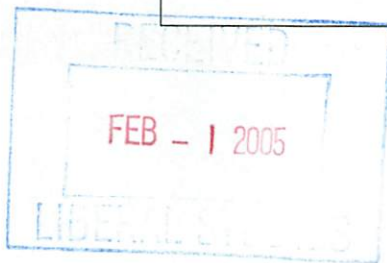
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		04-46a	Apr 3/22/05	Apr 4/26/05

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person Dr. Lon Ferguson	Email Address Ferguson@iup.edu
Proposing Department/Unit Safety Sciences Department	Phone 7-3019

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 type="checkbox"/> Course Revision	<input type="checkbox"/> Course Number and/or Title Change	<input type="checkbox"/> Catalog Description Change
<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 checked="" type="checkbox"/> Program Revision
<input type="checkbox"/> New Minor Program	<input type="checkbox"/> New Track	<input type="checkbox"/> Other
B.S. Degree in Safety Sciences		
<u>Current</u> program name		<u>Proposed</u> program name, if changing
4. Approvals		
Department Curriculum Committee Chair(s)	<i>Lon Ferguson</i>	12/13/04
Department Chair(s)	<i>Lon Ferguson</i>	12/21/04
College Curriculum Committee Chair	<i>Elizabeth Palmer</i>	1/28/05
College Dean	<i>Carleen C. Zorn</i>	2-1-05
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	<i>Gail Schuist</i>	3-22-05



**PROGRAM REVISION FOR THE BACHELOR OF SCIENCE
DEGREE IN SAFETY SCIENCES**

Spring 2005

Part II. Description of Curriculum Change

1. Catalog Description

There will be two minor change to the catalog description for the program. These changes are in "**bold**".

The department offers a minor and a Bachelor of Science degree in Safety Sciences with a focus on occupational safety and health. The program in Safety Sciences prepares the student for professional, administrative, managerial and supervisory positions in industry, manufacturing, insurance, transportation, utility, government, construction, trade service industries and others. There remains a need in Pennsylvania and the nation for university educated occupational safety and health professionals. The curriculum includes a major of **45** credit hours in Safety Sciences and an additional **9** credit hours in related professional courses. A variety of elective courses is available in both the major and professional fields that enable students to strengthen their primary interest areas.

Bachelor of Science-Safety Sciences

Liberal Studies: As outlined in Liberal Studies section with the following specifications: **48 cr**

- Mathematics: (3 credits) MATH 105
- Natural Sciences: CHEM 101 & 102
- Social Sciences: PSYC 101, SOC 151, non western culture required
- Liberal Studies Electives: (3 credits) MATH 217

Major: **45 cr**

Required Courses:

SAFE 101	Introduction to Occupational Safety & Health	3 cr
SAFE 111	Principles of Industrial Safety I	3 cr.
SAFE 211	Principles of Industrial Safety II	4 cr.
SAFE 212	Hazard Prevention Management I	3 cr
SAFE 220	Hazardous Materials	3 cr.
SAFE 320	Recognition/Evaluation/Control of Health Hazards I	4 cr
SAFE 311	Fire Protection	3 cr.
SAFE 345	Systems	3 cr.
SAFE 347	Ergonomics	3 cr.
SAFE 410	Environmental Safety & Health Regulations	3 cr.
SAFE 412	Hazard Prevention Management II	3 cr.
SAFE 420	Recognition/Evaluation/Control of Health Hazards II	4 cr.
SAFE 488 or 493	Safety Internship	6 cr.

Other Requirements: 27 cr

Additional Science and Mathematics:

BIOL 155	Human Physiology & Anatomy	4 cr
PHYS 111	Physics I Lecture	3 cr
PHYS 121	Physics I Lab	1 cr
PHYS 112	Physics II Lecture	3 cr
PHYS 122	Physics II Lab	1 cr

Professional Courses:

BTST 321 Business & Interpersonal Communications	3 cr
MGMT 311 Human Behavior in Organizations	3 cr
ACCT 200 Foundations of Accounting	3 cr

Free Electives (2 courses): 6 cr

Total Degree Requirements: 120 cr

Minor - Safety Sciences 18 cr

The minor in Safety Sciences consists of 18 credit hours in Safety Sciences courses as identified below. The minor in Safety Sciences has improved job opportunities for students in Environmental Health, Environmental Geoscience, Criminology, Human Resource Management, International Business and Management.

Required Courses

SAFE 101 Introduction to Occupational Safety and Health	3cr
SAFE 111 Principles of Industrial Safety I	3cr
SAFE 220 Hazardous Materials	3cr

Controlled Electives

Three SAFE courses approved by department chair 9cr

2. Summary of Changes

- a. Table 1 summarizes the proposed changes in the Safety Sciences Curriculum. Table 1 "Program Comparison" illustrates program changes for the entire curriculum based on the Liberal Studies Requirements, Professional Courses, Free Electives, Prerequisite Courses, and SAFE Major Courses. Again, the specific changes are in **bold** and *italicized*.

TABLE 1. PROGRAM COMPARISON

Current Safety Sciences Program	Revised Safety Sciences Program
<i>LIBERAL STUDIES</i>	<i>LIBERAL STUDIES</i>
English Composition: EN 101 & 202 - 7 cr.	English Composition: ENGL 101 & 202 - 7 cr.
Mathematics: MA 217 - 3 cr.	Mathematics: MATH 105 - 3 cr.
Humanities: HI 195, EN/FL 121 & Philosophy/Religious Study Elective - 9 cr.	Humanities: HIST 195, ENGL/FNGL 121 OR ENGL 122 & Philosophy/Religious Study Elective - 9 cr.
Fine Arts Elective - 3 cr.	Fine Arts Elective - 3 cr.
Natural Science: CH101-102 - 8 cr.	Natural Science: CHEM101-102 - 8 cr.
Social Science: PC 101, SO 151 & non western culture required- 9 cr.	Social Science: PSYC 101, SOC 151 & non western culture required - 9 cr.
Health & Wellness: HP 143 or FN 143 - 3 cr. or MS101 - 102 Military Science - 4 cr.	Health & Wellness: HPED 143, NURS 143 or FDNT 143 - 3 cr. or MLSC 101-102 Military Science - 4 cr.
Electives: EC 122, MA 121 – 7 cr.	Electives: MATH 217 - 3 cr.
Synthesis Course - 3 cr.	Synthesis Course - 3 cr.
Total Liberal Studies: 52	Total Liberal Studies: 48 cr.
<i>PROFESSIONAL COURSES</i>	<i>PROFESSIONAL COURSES</i>
MG 311 Human Behavior in Organizations - 3 cr.	MGMT 311 Human Behavior in Organizations - 3 cr.
AD 321 Business & Interpersonal Commun. - 3cr.	BTST 321 Business & Interpersonal Commun. - 3cr.
	ACCT 200 Foundations of Accounting – 3 cr.
Three courses approved by advisor to form a concentration in a professional area -9 cr.	
Total Professional Courses: 15 cr.	Total Professional Courses: 9 cr.
<i>SA PREREQUISITE COURSES</i>	<i>SAFE PREREQUISITE COURSES</i>
PY 111 & 112 - 4 cr..	PHYS 111 & 112 - 4 cr.
PY 121 & 122 - 4 cr.	PY 121 & 122 – 4 cr.
BI 155 - 4 cr.	BIOL 155 - 4 cr.
Total Prerequisite Courses: 12 cr.	Total Prerequisite Courses: 12 cr.
<i>SA REQUIRED COURSES</i>	<i>SAFE REQUIRED COURSES</i>
SA 101 Intro. to Occup. Safety & Health - 3 cr.	SAFE 101 Intro. to Occup. Safety & Health - 3 cr.
SA 111 Principles of Industrial Safety I - 3 cr.	SAFE 111 Principles of Industrial Safety I - 3 cr.
SA 210 Environ. Safety & Health Regul. - 3cr.	SAFE 211 Principles of Industrial Safety II - 4 cr.
SA 211 Principles of Industrial Safety II - 4 cr.	SAFE 212 Hazard Prevention Management I- 3 cr.
	SAFE 220 Hazardous Materials - 3cr.
SA 301 Health Hazard Identification - 3 cr	SAFE 320 Recog/Eval/Control Health Haz I – 4 cr.
SA 303 Control of Health Hazards - 3 cr.	
SA 311 Fire Protection - 3 cr.	SAFE 311 Fire Protection - 3 cr.
SA 345 Systems - 3 cr.	SAFE 345 Systems - 3 cr.
SA 347 Ergonomics - 3 cr.	SAFE 347 Ergonomics - 3 cr.
	SAFE 410 Environ. Safety & Health Regul. - 3 cr.
SA 402 Health Hazard Evaluation - 3 cr.	SAFE 420 Recog/Eval/Control Health Haz II – 4 cr.
SA 412 Hazard Prevention Management - 4 cr.	SAFE 412 Hazard Prevention Management II - 3 cr.
SA 493 Safety Internship - 6 cr. or SA 488 Safety Internship - 12 cr. (If SA 488 is used, 6 credits are counted toward the Professional Electives).	SAFE 493 Safety Internship - 6 cr. or SAFE 488 Safety Internship - 12 cr. (If SAFE 488 is used, 6 credits are counted toward the Free Electives).
Credits in Major: 41 cr.	Credits in Major: 45 cr.
	Free Electives: 6 cr.
Total Degree Requirements: 120 cr.	Total Degree Requirements: 120 cr.

b. List of all associated course changes:

- **SAFE 220 Hazardous Materials**
New course developed to cover hazardous materials that was only briefly covered in the old SAFE 210 Environmental Safety & Health Regulations.
- **SAFE 212 Hazard Prevention Management I**
New course developed to cover safety management aspects not covered adequately in previous curriculum.
- **SAFE 320 Recognition/Evaluation/Control of Health Hazards I**
New course developed with SAFE 420 to replace the old industrial hygiene sequence of courses, SAFE 301, 303, and 402.
- **SAFE 410 Environmental Safety and Health Regulations**
Course number change and minor revisions to update objectives and course content now that a sophomore level course was added to cover hazardous materials, SAFE 220.
- **SAFE 420 Recognition/Evaluation/Control of Health Hazards II**
New course developed with SAFE 320 to replace the old industrial hygiene sequence of courses, SAFE 301, 303, and 402.
- **SAFE 412 Hazard Prevention Management II**
Name change, reduction in credit hours from 4 to 3 and course revision to update objectives and course content based on development of new sophomore level management class.
- **Math 121 Calculus I**
Remove as a requirement for the program and replace with Math 105 College Algebra.
- **ECON 122**
Remove ECON 122 as a Liberal Studies Elective course and replace with another Professional Course: ACCT 200 Foundations of Accounting.
- **Remove three courses that form a concentration in a professional area (9cr.)**
Remove the requirement for three professional courses that form a concentration in a professional area and replace with 6 credits of free electives.

3. Rationale for Program Changes:

A. Remove MATH 121 Calculus and replace with MATH 105 College Algebra

Rationale: In the past Calculus was required by our accrediting agency, the Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology, see Appendix A. Two years ago the accreditation criteria were changed and the requirement is now College Algebra. Currently less than 5 % of our students place into MATH 121 as freshman. Therefore 95% of the freshman have to take at least one additional math course (MATH 105) and some have to take two, MATH 100 as well.

Based on the above, Safety Sciences Department Faculty believe our current program with requirements for both MATH 105 and MATH 217 provide enough coverage in mathematics to allow our students to successfully complete the remainder of their coursework in the major and be successfully safety & health professionals.

B. Remove ECON 122 and replace with ACCT 200

Rationale: Our advisory board has recommended this change and it is supported by department faculty. Increasingly, safety professionals are being asked to integrate safety into other business functions within the organization and no where is this more true than the financial side. It was believed that ACCT 200 would provide our students basic financial accounting principles and it was chosen over FIN 310 Fundamental of Finance because this course would require our students to take two additional prerequisites.

C. Remove the three professional elective courses that formed a concentration in a professional area and replace with two Free Elective Courses.

Rationale: A recent review during graduate checkout revealed a very liberal interpretation of professional concentration area by department advisors with most allowing almost any course to fit into this area. Therefore, it was decided to remove this section and replace with two free elective courses. This change will provide the students more flexibility which is crucial for students who transfer into the safety sciences major. Approximately 60% of our current students transfer into our program during their sophomore year. The other three credits were needed because we added the course SAFE 220 Hazardous Materials.

D. Add a course in Hazardous Materials (SAFE 220)

Rationale: For the past ten years the safety profession has been expanding into the area of hazardous materials. We recognized this issue 7 years ago and created a sophomore level course SAFE 210 Environmental Safety and Health Regulations with a portion of this course covering hazardous materials. The involvement of safety professionals in this area continues to expand and alumni as well as our Advisory Committee have recommended we expand our coverage of hazardous materials. This is also a required topic of our accrediting agency, the Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology, see Appendix A.

- E. Add an additional Safety Management Course for sophomore level students (SAFE 212)

Rationale: The department has always tried to provide our students both the technical skills in our profession as well as the management skills to manage safety, health and environmental activities. The primary course related to safety management has been SAFE 412 Hazard Prevention Management. Unfortunately, we have not been able to adequately cover many safety management topics in this one course and they now are scattered piece meal through several other classes where the coverage is minimal. Adding SAFE 212 Hazard Prevention Management I will allow us to better cover safety management topics such as: safety professional ethics, legal aspects of safety, Product Safety Management, Fleet Safety Management, and OSHA Safety Management Program Elements. Many of these areas are required topics in our accreditation criteria and have been recommended by our alumni and advisory committee.

- F. Delete three Industrial Hygiene Courses and replace with two new industrial hygiene courses with laboratories (SAFE 320 & 420).

Rationale: The two new industrial hygiene courses, SAFE 320 Recognition, Evaluation, and Control of Health Hazards I and SAFE 420 recognition, Evaluation and Control of Health Hazards II include content that was previously covered in three SAFE courses (SAFE 301, 303 & 402) Specifically the recognition of health hazards was covered in SAFE 301, the control in SAFE 303 and the evaluation in SAFE 402. This three course sequence created overlap and department faculty believed it was more efficient to address the recognition, evaluation and control of health hazards together in two courses. This change will also allow us to add a second industrial hygiene laboratory which will provide our students with the much needed hands on use of industrial hygiene equipment.

Part III Implementation

1. How will the proposed revision affect students already in the existing program?

Removal of MATH 121, three professional courses and ECON 122 and adding the two SAFE courses SAFE 212 and 410 and ACCT 200 starting with the Fall 2005 semester. Students already in the existing program who have not already taken ECON 122 will have the option of taking this course or taking ACCT 200 and they will not have to take the two new Safety Course SAFE 212 and 220 unless they choose to as an elective. Students already in the existing program who have not already taken Math 121 will have the option of taking this course or getting a course substitution for Math 105 as long as they make up the one credit difference with another course to maintain the 120 credit graduation requirement. Students entering the Fall of 2005 will meet the new curriculum requirements. Included in Appendix B is a revised Curriculum Sequence.

2. Are faculty resources adequate?

Faculty resources are adequate to support these changes with the following changes to course scheduling. In the past we have offered SAFE 301 (3 workload hours), 303 (3 workload hours) and 402 (6 workload hours) every semester for a total of 24 workload hours each year. With these proposed changes we will offer one section of SAFE 320 (9 workload hours) in the Spring and SAFE 420 (9 workload hours) in the Fall for a total of 18 workload hours each year. This will be a savings of 6 workload hours which will be used to support the two new SAFE courses, SAFE 212 and SAFE 220 both of which will only be offered once a year.

3. Are other resources adequate?

We have always supported an industrial hygiene laboratory for our old course SAFE 402. Now we will simply expand the number and types of laboratory exercises. The current laboratory room will be adequate because we will be offering the labs for the two courses on different semesters. If we need additional laboratory equipment and supplies we will use department funding from our ESF account.

4. Do you expect an increase or decrease in the number of students as a result of these revisions?

We do not expect these changes to affect enrollment in our program. However, it may increase slightly because of the removal of MATH 121 which was seen by many students as a deterrent. In addition, the vast majority of our students were not placed in MATH 121 and therefore were required to take one and possibly two prerequisite math courses.

Part IV. Periodic Assessment

1. Describe the evaluation plan.

Periodic assessment of the program will include both an internal and external evaluation. The internal evaluation is completed annually by the department faculty. This evaluation includes a review of the following six program outcomes:

- I. Demonstrated their ability to anticipate, identify, evaluate and develop hazard prevention/control designs, methods, procedures and programs.
- II. Acquired those basic research skills necessary to analyze and interpret data.
- III. Developed an understanding of their professional and ethical responsibilities within the Safety, Health and Environmental Profession.
- IV. Developed an ability to communicate effectively and work in multidisciplinary teams.
- V. Acquired an ability to apply mathematics and sciences as it relates to the Safety, Health and Environmental Profession.
- VI. Developed an ability to analyze and improve the management system with the goal of preventing the occurrence of hazardous acts and conditions that lead to loss incidents.

This internal evaluation also includes a review of course outcomes, recommendations from our graduate surveys and our Advisory Committee. The advisory committee meets on a semiannual basis with one of their responsibilities being the evaluation of our programs. This committee has a membership of twenty safety & health professionals and two current Safety Sciences Faculty. Many of the SAFE Course revisions included in this proposal resulted from the internal evaluation that occurred during the Spring 2002 and 2003 semesters.

For individual courses several different evaluation methodologies will be used to evaluate student-learning outcomes. The instructor of each class will be evaluated following the criteria outlined in Article 12 and 42 of the Collective Bargaining Agreement (CBA).

The external evaluation will be completed by an ABET accreditation team for a period of time not to exceed six years. A three person team will visit our program and complete a three day review of the curriculum which will focus on the achievement of program outcomes, as well as a review of facilities, faculty, students and resources. The program is currently in the process of collecting outcome assessment materials for the next accreditation visit which will be the Fall 2008 semester.

2. Specify the frequency of the evaluations.

The internal evaluations of the program are completed annually by department faculty. The Department Advisory Committee review our programs semi-annually and the ABET Accreditation evaluations occur once every six years.

3. Identify the evaluating entity.

Internal Evaluation: Department Faculty and students.

External Evaluations: Safety Sciences Advisory Committee and the Accreditation Board for Engineering and Technology (ABET), Applied Science Accreditation Commission.

Part V. Course Proposals

The proposals for the new courses SAFE 212, 220, 320 and 420 are attached as well as the proposals for the course revisions in SAFE 410, 311, 412 and 488. As mentioned earlier most of these revisions involve minor course changes.

Part VI. Letters of Support

Letters of support were requested from the Accounting, Economics, Math and Biology Departments. These letters as well as responses are included in Appendix C.

Appendix A

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:

- a. detailed published educational objectives that are consistent with the mission of the institution and these criteria.
- b. a process based on the needs of the program's various constituencies in which the objectives are determined and periodically evaluated.
- c. a curriculum and process that ensures the achievement of these objectives.
- d. a system of ongoing evaluation that demonstrates achievement of these objectives and uses the results to improve the effectiveness of the program.

Program Outcomes and Assessment

Safety programs shall demonstrate that their graduates have:

- a. an ability to apply knowledge of mathematics and science
- b. an ability to analyze and interpret data
- c. an ability to anticipate, identify, and evaluate hazardous conditions and practices
- d. an ability to develop hazard control designs, methods, procedures and programs.
- e. an ability to function on multi-disciplinary teams
- f. an understanding of ethical and professional responsibility
- g. knowledge of contemporary issues within a global and societal context.

Each program must have an assessment process with documented results. Evidence must be given that the results are applied to the further development and improvement of the program. The assessment process must demonstrate that the outcomes important to the mission of the institution and the objectives of the program, including those listed above, are being measured. Evidence that may be used includes, but is not limited to, the following: student portfolios, including design projects; nationally normed subject content examinations; alumni surveys that document professional accomplishments and career development activities, employer surveys; and placement data of graduates.

The institution must have and enforce policies for the acceptance of transfer students and for the validation of credit 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.
- b. Graduates shall demonstrate proficiency in the application of chemistry (including organic), physics, physiology, and biology as it pertains to the practice of safety.
- c. Graduates shall demonstrate proficiency in written composition and oral communications.
- d. Graduates shall demonstrate knowledge of the techniques, skills, and modern behavioral tools necessary for the practice of safety.
- e. Safety graduates shall demonstrate knowledge of:
 1. safety and health fundamentals
 2. industrial hygiene including toxicology
 3. systems safety and associated analytical techniques
 4. legal aspects of safety, health and environmental practice
 5. environmental aspects of safety and health
 6. product safety
 7. fire prevention and protection
 8. construction safety
 9. industrial or manufacturing processes
 10. applied mechanics for safety
- f. Safety graduates shall demonstrate competency in:
 1. laboratory techniques associated with industrial hygiene and basic sciences
 2. safety and health program management
 3. ergonomics
 4. accident/incident investigation and analysis
 5. the performance of education and training for safety
 6. fundamental exposure measurement techniques
 7. measurement of safety performance
- g. Students should be given the opportunity to apply principles of safety and health in a non-academic setting through an intern or cooperative work experience.

Appendix B

Rev. 1/05

DEPARTMENT OF SAFETY SCIENCES
INDIANA UNIVERSITY OF PENNSYLVANIA
CURRICULUM SEQUENCE

Name	Banner User ID				Advisor	Expected Graduation					
<i>Semester</i>	<i>SH</i>	<i>Sem</i>	<i>Year</i>	<i>Grade</i>	<i>Note</i>	<i>Semester</i>	<i>SH</i>	<i>Sem</i>	<i>Year</i>	<i>Grade</i>	<i>Note</i>
<i>Fall (Semester 1)</i>						<i>Spring (Semester 2)</i>					
MATH 105 College Algebra	3	___	___	___	___	PSYC 101 General Psych	3	___	___	___	___
ENGL 101 College Writing	4	___	___	___	___	HIST 195 History Modern Era	3	___	___	___	___
CHEM 101 College Chem I	4	___	___	___	___	CHEM 102 College Chem II	4	___	___	___	___
SAFE 101 Intro Occu Sfty&Hlth	3	___	___	___	___	SAFE 111 Prin of Safety I	3	___	___	___	___
	14					_____ Wellness Elective*	3	___	___	___	___
							16				
<i>Fall (Semester 3)</i>						<i>Spring (Semester 4)</i>					
BIOL 155 Hum Phys&Anat	4	___	___	___	___	SAFE 212 Hazard Prev Mgmt I	3	___	___	___	___
PHYS 111 Physics I	3	___	___	___	___	PHYS 112 Physics II	3	___	___	___	___
PHYS 121 Physics Lab	1	___	___	___	___	PHYS 122 Physics II Lab	1	___	___	___	___
SAFE 211 Prin of Safety II	4	___	___	___	___	ACCT 200 Acct Prin I	3	___	___	___	LS-E
ENGL 202 Research Writing	3	___	___	___	___	SAFE 220 Hazardous Mat.	3	___	___	___	___
	15					MATH 217 Prob & Stat	3	___	___	___	LS-E
							16				
<i>Fall (Semester 5)</i>						<i>Spring (Semester 6)</i>					
_____ Non-West Culture*	3	___	___	___	___	SAFE 320 Health Hazards I	4	___	___	___	___
SAFE 311 Indus Fire Protection	3	___	___	___	___	SAFE 347 Ergonomics	3	___	___	___	___
SAFE 345 System Sfty Analysis	3	___	___	___	___	_____ Fine Arts Elective*	3	___	___	___	___
_____ Human Lit Elective*	3	___	___	___	___	SOC 151 Prin of Sociology	3	___	___	___	___
MGMT 311 Hum Behav in Org	3	___	___	___	___	BTST 321 Bus&Interpers Com	3	___	___	___	W
	15						16				
<i>Fall (Semester 7)</i>						<i>Spring (Semester 8)</i>					
SAFE 420 Health Hazrds II	4	___	___	___	___	SAFE _____ Internship	6	___	___	___	W
SAFE 412 Hazard Prev Mgt	3	___	___	___	___	_____ Free Elective	3	___	___	___	___
SAFE 410 Env Sfty Hlth Reg II	3	___	___	___	___	_____ Free Elective	3	___	___	___	___
LBST 499 Synthesis Course	3	___	___	___	___		12				
_____ Philos/Rel Elective*	3	___	___	___	___						
	16										

*See list on back for course options.

W - Writing Intensive Courses

Other Courses:

***Philosophy/Religion Elective**

(select one)

PHIL 101 Informal Logic: Methods of Critical Thinking	3
PHIL 120 Intro to Philosophy	3
PHIL 221 Intro to Symbolic Logic	3
PHIL 222 Ethics	3
RLST 100 Intro to Religion	3
RLST 250 Understanding the Bible	3
RLST 290 Christianity	3

***Humanities Literature Elective (select one)**

ENGL 121 Humanities: Literature	3
FL 121 Humanities Literature	3

Fine Arts Elective (select one)

ARHT 101 Introduction to Art	3
MUHI 101 Introduction to Music	3
THTR 101 Introduction to Theater	3
THTR 102 Introduction to Dance	3

Wellness Elective (select one)

HPED 143 Health and Wellness	3
FDNT 143 Nutrition and Wellness	3
MLSC 101 Intro to Military Science <u>and</u>	2
MLSC 102 Fundamentals of Military Science	2

Non-Western Culture Elective (select one)

ANTH 110 Contemporary Anthropology	3
ANTH 211 Cultural Anthropology	3
GEOG 104 Geography of the Non-Western World	3
PLSC 101 World Politics	3

*The Humanities requirement group consists of HI 195 plus one Philosophy/Religion Elective plus one Humanities/Literature Elective.

Appendix C

Letters of Support

Memorandum

To: Dr. Gary Stoudt, Chairperson, Mathematics Department
From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
Date: 1/18/2005
Re: Revisions to Safety Sciences Curriculum

I want to thank you for the input you provided me last Fall regarding our Advisory Committee questions on differences between Math 105, Math 115 and Math 121. This information as well as the passing rates for the various courses was very helpful. Based on this input, review of ABET accreditation criteria for safety programs, and recommendations from our Advisory Committee, Department Faculty voted to change our current math requirement of MATH 121 Calculus to MATH 105 College Algebra.

As part of our curriculum proposal, would you please send a letter of support for this change, thank you!

January 18, 2005

Memorandum

To: Dr. Jerry Kline, Chairperson, Accounting Department
From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
Date: 1/18/2005
Re: Revisions to Safety Sciences Curriculum

I want to thank you for the input you provided me last Fall regarding our Advisory Committee questions on introductory level accounting courses. Based on this input and recommendations from our Advisory Committee, Department Faculty voted to change our current curriculum to require students to take ACCT 200 Accounting Principles I. Students will now be required to take this course as well as the two existing management courses, MGMT 311 and BTST 321.

There was some question as whether the course should be listed as ACCT 200 or 201, please advise so we can number this correctly in our curriculum proposal. As part of this proposal, would you please send a letter of support for this change, thank you!

January 18, 2005

Memorandum

To: Dr. Thomas Simmons, Assistant Chairperson, Biology Department
From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
Date: 1/18/2005
Re: Revisions to Safety Sciences Curriculum

As a member of the Safety Sciences Advisory Committee you are aware of our recent meetings to review our B.S. Curriculum. This review included liberal studies requirements, pre-requisite courses in math, sciences and management as well as core safety courses. Following the most recent meeting, the committee recommended the following changes for department faculty consideration:

- Replace MATH 121 with MATH 105
- Add undergraduate 200 level courses in Hazardous Materials 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, 303, and 402) to include two four credit courses with a lab (SAFE 320 and 420). In a nutshell these courses will no longer be divided into recognition, evaluation and control of health hazards but will be split based on chemical, biological and physical health hazards. As previously done, there was tremendous overlap in coverage and now the recognition, evaluation and control of the various hazards will be covered in the same course.

Based on these recommendations and a review of ABET accreditation criteria for safety programs, Department Faculty voted to change our B.S. Curriculum. We realize that Environmental Health Majors will be affected by the change from the revision of SAFE 210 to 410 but as you can see in the attached course proposals the major change was to simply remove coverage of hazardous materials and to make this a senior level course. We will as we have in the past waive all prerequisites for Environmental Health Majors. The other changes that will affect electives are the change from SAFE 301,303, and 402 to SAFE 320 and 420. Hopefully, these courses can remain as elective courses for your majors.

Please see the attached curriculum and course proposals. As part of our curriculum proposal, would you please send a letter of support for this change, thank you!

January 26, 2005

Memorandum

To: Dr. Nicholas Karatjas, Chairperson, Economics Department
From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
Date: 1/26/2005
Re: Revisions to Safety Sciences Curriculum

I wanted to inform you that the Safety Sciences Department is currently undergoing a revision of the B.S. Program in Safety Sciences. One of the revisions will be to reduce our current liberal Studies requirements from 51 credits to 48 credits. This reduction will be done by eliminating the need for our students to take ECON 122 which was a Liberal Studies Elective for our students.

As part of our curriculum proposal, would you please send a letter of support for this change, thank you!

Lon Ferguson

From: "Lon Ferguson" <ferguson@iup.edu>
To: <gsstoudt@iup.edu>
Cc: "Lon Ferguson" <ferguson@iup.edu>
Sent: Thursday, January 27, 2005 4:05 PM
Subject: Revisions to Safety Sciences Curriculum

Hi Gary:

The Safety Sciences Curriculum proposal was recently approved by the CUCC and they asked me to follow-up on previous requests for letters of support for course changes, see memo below.

Your input would be appreciated!

To: Dr. Gary Stoudt, Chairperson, Mathematics Department
From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
Date: 1/27/2005
Re: Revisions to Safety Sciences Curriculum

I want to thank you for the input you provided me last Fall regarding our Advisory Committee questions on differences between Math 105, Math 115 and Math 121. This information as well as the passing rates for the various courses was very helpful. Based on this input, review of ABET accreditation criteria for safety programs, and recommendations from our Advisory Committee, Department Faculty voted to change our current math requirement of MATH 121 Calculus to MATH 105 College Algebra.

As part of our curriculum proposal, would you please send a letter of support for this change, thank you!

Lon Ferguson

From: "Lon Ferguson" <ferguson@iup.edu>
To: "Thomas Simmons" <tsimmons@iup.edu>
Cc: "Lon Ferguson" <ferguson@iup.edu>
Sent: Thursday, January 27, 2005 4:11 PM
Subject: Revisions to Safety Sciences Curriculum

Hi Tom:

The Safety Sciences Curriculum proposal was recently approved by the CUCC and they asked me to follow-up on previous requests for letters of support for course changes, see memo below.

Your input would be appreciated!

To: Dr. Thomas Simmons, Assistant Chairperson, Biology Department
From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
Date: 1/20/2005
Re: Revisions to Safety Sciences Curriculum

As a member of the Safety Sciences Advisory Committee you are aware of our recent meetings to review our B.S. Curriculum. This review included liberal studies requirements, pre-requisite courses in math, sciences and management as well as core safety courses. Following the most recent meeting, the committee recommended the following changes for department faculty consideration:

- Replace MATH 121 with MATH 105
- Add undergraduate 200 level courses in Hazardous Materials 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, 303, and 402) to include two four credit courses with a lab (SAFE 320 and 420). In a nutshell these courses will no longer be divided into recognition, evaluation and control of health hazards but will be split based on chemical, biological and physical health hazards. As previously done, there was tremendous over-coverage and now the recognition, evaluation and control of the various hazards will be covered in the same course.

Based on these recommendations and a review of ABET accreditation criteria for safety programs, Department Faculty voted to change our B.S. Curriculum. We realize that Environmental Health Majors will be affected by the change from the revision of SAFE 210 to 410 but as you can see in the attached course proposals the major change was to simply remove coverage of hazardous materials and to make this a senior level course. We will as we have in the past waive all prerequisites for Environmental Health Majors. The other changes that will affect electives are the change from SAFE 301, 303, and 402 to SAFE 320 and 420. Hopefully, these courses will remain as elective courses for your majors.

Please see the attached curriculum and course proposals. As part of our curriculum proposal, would you please send a letter of support for this change, thank you!

Lon Ferguson

From: "Lon Ferguson" <ferguson@iup.edu>
To: <gpcline@iup.edu>
Cc: "Lon Ferguson" <ferguson@iup.edu>
Sent: Thursday, January 27, 2005 4:18 PM
Subject: Revisions to Safety Sciences Curriculum

Hi Jerry:

The Safety Sciences Curriculum proposal was recently approved by the CUCC and they asked me to follow-up on previous requests for letters of support for course changes, see memo below.

I also need to know the status of the new course proposal for ACCT 200. If this course has not yet been approved I need to change the curriculum proposal to ACCT 201, please advise.

Your input would be appreciated!

To: Dr. Jerry Kline, Chairperson, Accounting Department
From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
Date: 1/20/2005
Re: Revisions to Safety Sciences Curriculum

I want to thank you for the input you provided me last Fall regarding our Advisory Committee questions on introductory level accounting courses. Based on this input and recommendations from our Advisory Committee, Department Faculty voted to change our current curriculum to require students to take ACCT 200 Accounting Principles I. Students will now be required to take this course as well as the two existing management courses, MG 311 and BTST 321.

There was some question as whether the course should be listed as ACCT 200 or 201, please advise so we can name this correctly in our curriculum proposal. As part of this proposal, would you please send a letter of support for this change, thank you!

Lon Ferguson

From: "Jolene Campbell" <jolenec@iup.edu>
To: <rdistani@iup.edu>
Cc: "Lon Ferguson" <ferguson@iup.edu>
Sent: Thursday, January 27, 2005 4:20 PM
Subject: Course Numbers

Rich,

The Safety Sciences Department is making some curriculum changes and I need to know if the following course numbers are clear to use:

SAFE 212
SAFE 220
SAFE 320
SAFE 410

If you have any questions, please feel free to contact the office.

Jolene Campbell
IUP - Safety Sciences Dept.
117 Johnson Hall
Indiana, PA 15705
Email: jolenec@iup.edu
Phone: 724-357-3017
Fax: 724-357-3992

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,

I did look over the hardcopy materials that you sent to me. They look 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
 >the CUCC and they asked me to follow-up on previous requests for
 >letters of support for course changes, see memo below.
 >
 >
 > Your input would be appreciated!
 >
 >
 >
 >
 > To: Dr. Thomas Simmons, Assistant Chairperson, Biology
 >Department
 >
 >From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
 >
 > Date: 1/20/2005
 >
 > Re: Revisions to Safety Sciences Curriculum
 >
 > As a member of the Safety Sciences Advisory Committee you are aware
 >of our recent meetings to review our B.S. Curriculum. This review
 >included liberal studies requirements, pre-requisite courses in math,
 >sciences and management as well as core safety courses. Following
 >the most recent meeting, the committee recommended the following
 >changes for department faculty consideration:
 >
 >
 >
 > · Replace MATH 121 with MATH 105
 >
 > · Add undergraduate 200 level courses in Hazardous Materials

>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,
>303, and 402) to include two four credit courses with a lab (SAFE 320
>and 420). In a nutshell these courses will no longer be divided into
>recognition, evaluation and control of health hazards but will be
>split based on chemical, biological and physical health hazards. As
>previously done, there was tremendous overlap in coverage and now the
>recognition, evaluation and control of the various hazards will be
>covered in the same course.

>
>
>
> Based on these recommendations and a review of ABET accreditation
>criteria for safety programs, Department Faculty voted to change our
>B.S. Curriculum. We realize that Environmental Health Majors will be
>affected by the change from the revision of SAFE 210 to 410 but as
>you can see in the attached course proposals the major change was to
>simply remove coverage of hazardous materials and to make this a
>senior level course. We will as we have in the past waive all
>prerequisites for Environmental Health Majors. The other changes
>that will affect electives are the change from SAFE 301,303, and 402
>to SAFE 320 and 420. Hopefully, these courses can remain as elective
>courses for your majors.

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>
> Please see the attached curriculum and course proposals. As part of
>our curriculum proposal, would you please send a letter of support
>for this change, thank you!

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> The Safety Sciences Curriculum proposal was recently approved by the
> CUCC and they asked me to follow-up on previous requests for letters of
> support for course changes, see memo below.

>
>
> I also need to know the status of the new course proposal for ACCT 200.
> If this course has not yet been approved I will need to change the
> curriculum proposal to ACCT 201, please advise.

>
>
> Your input would be appreciated!

>
>
> To: Dr. Jerry Kline, Chairperson, Accounting Department
>
> From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
>
> Date: 1/20/2005
>
> Re: Revisions to Safety Sciences Curriculum

>
> I want to thank you for the input you provided me last Fall regarding
> our Advisory Committee questions on introductory level accounting
> courses. Based on this input and recommendations from our Advisory
> Committee, Department Faculty voted to change our current curriculum to
> require students to take ACCT 200 Accounting Principles I. Students
> will now be required to take this course as well as the two existing
> management courses, MGMT 311 and BTST 321.

>
>
> There was some question as whether the course should be listed as ACCT
> 200 or 201, please advise so we can number this correctly in our
> curriculum proposal. As part of this proposal, would you please send a
> letter of support for this change, thank you!

>
>
>

Lon Ferguson

From: "Julie Moreland" <jamorela@iup.edu>
To: "Lon Ferguson" <ferguson@iup.edu>; "Jackie Beck" <jbeck@grove.iup.edu>
Sent: Friday, January 28, 2005 9:12 AM
Subject: [Fwd: Re: Fw: Revisions to Safety Sciences Curriculum]]

FYI.

----- Original Message -----

Subject:Re: Fw: Revisions to Safety Sciences Curriculum]
Date:Fri, 28 Jan 2005 07:27:21 -0500
From:"Jerry Kline" <gpcline@iup.edu>
To:"Julie Moreland" <jamorela@iup.edu>
References:<41F95F2E.70500@iup.edu>

Julie,

I will forward a copy of the ACCT 200 curriculum proposal along with the current status of the course in the approval pipeline.

Jerry

----- Original Message -----

From: "Julie Moreland"
To: "Jerry Kline"
Sent: Thursday, January 27, 2005 4:37 PM
Subject: [Fwd: Fw: Revisions to Safety Sciences Curriculum]

> Could you please provide an update. Thanks.

>

> ----- Original Message -----

> **Subject:** Fw: Revisions to Safety Sciences Curriculum
 > **Date:** Thu, 27 Jan 2005 16:22:48 -0500
 > **From:** "Lon Ferguson"
 > **To:**
 > **CC:** "Jacqueline Beck"

>

>

>

> Hi Julie:

>

> Any help you can give me on this request would be appreciated, thank you!

>

> ----- Original Message -----

> **From:** Lon Ferguson
 > **To:** gpcline@iup.edu
 > **Cc:** Lon Ferguson
 > **Sent:** Thursday, January 27, 2005 4:18 PM
 > **Subject:** Revisions to Safety Sciences Curriculum

>

>

>

>

> Hi Jerry:

>

Lon Ferguson

From: "Jerry Kline" <gpcline@iup.edu>
To: "Lon Ferguson" <ferguson@iup.edu>
Cc: "Julie Moreland" <jamorela@iup.edu>
Sent: Friday, January 28, 2005 11:28 AM
Attach: ACCT 200 Foundations of Accounting(I).doc
Subject: Re: Revisions to Safety Sciences Curriculum

Lon,

I have attached a copy of the ACCT 200 proposal for your review. I believe that this redesigned course will provide greater benefits to non-business majors who for either curriculum requirements or personal interests need to have some exposure to accounting principles and concepts. The course has been approved by the department and college curriculum committees and will be going forward to the University Undergraduate Curriculum Committee for approval. I am hopeful that I will be able to offer it during the Fall 2005 semester. I appreciate your interest and would be happy to discuss with you any other issues or concerns that you might have.

Jerry

----- Original Message -----

From: Lon Ferguson
To: gpcline@iup.edu
Cc: Lon Ferguson
Sent: Thursday, January 27, 2005 4:18 PM
Subject: Revisions to Safety Sciences Curriculum

Hi Jerry:

The Safety Sciences Curriculum proposal was recently approved by the CUCC and they asked me to follow-up previous requests for letters of support for course changes, see memo below.

I also need to know the status of the new course proposal for ACCT 200. If this course has not yet been approved will need to change the curriculum proposal to ACCT 201, please advise.

Your input would be appreciated!

To: Dr. Jerry Kline, Chairperson, Accounting Department
From: Dr. Lon Ferguson, Chairperson, Safety Sciences Department
Date: 1/20/2005
Re: Revisions to Safety Sciences Curriculum

I want to thank you for the input you provided me last Fall regarding our Advisory Committee questions on introductory level accounting courses. Based on this input and recommendations from our Advisory Committee, Department Faculty voted to change our current curriculum to require students to take ACCT 200 Accounting Principles I. Students will now be required to take this course as well as the two existing management courses, MGMT 311 and BTST 321.

There was some question as whether the course should be listed as ACCT 200 or 201, please advise so we can number this correctly in our curriculum proposal. As part of this proposal, would you please send a letter of support for this change, thank you!

Lon Ferguson

From: "Jolene Campbell" <jolenec@iup.edu>
To: "Lon Ferguson" <ferguson@iup.edu>
Sent: Monday, January 31, 2005 8:44 AM
Subject: Fw: Course Numbers

----- Original Message -----

From: Marcy Rearick
To: Jolene Campbell
Sent: Friday, January 28, 2005 8:54 AM
Subject: Re: Course Numbers

Jolene, SAFE 212, 220, 320 and 410 are all available course numbers. Thanks for inquiring. Marcy

----- Original Message -----

From: Richard A DiStanislao
To: mrearick@iup.edu
Cc: rjsimon@iup.edu
Sent: Friday, January 28, 2005 8:27 AM
Subject: Fwd: Course Numbers

--- the forwarded message follows ---

Hi, Marcy.

Here is a message from Safety Science. I don't know if the people who are sending email are still getting my autoreply that I am no longer at IUP.

Have a good week-end.

Go Steelers! Oops, too late.

Rich

Lon Ferguson

From: "Jolene Campbell" <jolenec@iup.edu>
To: "Bob Simon" <RJSIMON@iup.edu>
Cc: "Lon Ferguson" <ferguson@iup.edu>
Sent: Thursday, January 27, 2005 4:29 PM
Subject: Curriculum Changes

Bob,

The Safety Sciences Department is making some curriculum changes and I need to know if the following course numbers are clear to use:

SAFE 212
SAFE 220
SAFE 320
SAFE 410

If you have any questions, please feel free to contact the office.

Jolene Campbell
IUP - Safety Sciences Dept.
117 Johnson Hall
Indiana, PA 15705
Email: jolenec@iup.edu
Phone: 724-357-3017
Fax: 724-357-3992

Lon Ferguson

From: "Gary Stoudt" <Gary.Stoudt@iup.edu>
To: <ferguson@iup.edu>
Sent: Tuesday, February 01, 2005 9:25 AM
Subject: Re: Revisions to Safety Sciences Curriculum

The Mathematics Department can accommodate Safety Science students in changing a Liberal Studies Elective requirement from MATH 121 to MATH 105. It is likely that most of these students were already taking MATH 105 as preparation for MATH 121.

Gary Stoudt, Chairperson
Mathematics Department