

LSC Use Only Proposal No:

LSC Action Date: *App - 10/27/11*UWUCC Use Only Proposal No: *11-53a*UWUCC Action Date: *App - 12/13/11*Senate Action Date: *App - 01/24/12*

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person(s) Dr. Jan K. Wachter	Email Address Jan.Wachter@iup.edu
Proposing Department/Unit Safety Sciences	Phone 7-3275

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

1. Course Proposals (check all that apply)

New Course Course Prefix Change Course Deletion
 Course Revision Course Number and/or Title Change Catalog Description Change

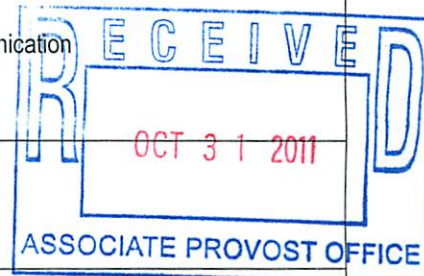
Current course prefix, number and full title: _____Proposed course prefix, number and full title, if changing: _____

2. Liberal Studies Course Designations, as appropriate

This course is also proposed as a Liberal Studies Course (please mark the appropriate categories below)
 Learning Skills Knowledge Area Global and Multicultural Awareness Writing Intensive (include W cover sheet)
 Liberal Studies Elective (please mark the designation(s) that applies – must meet at least one)
 Global Citizenship Information Literacy Oral Communication
 Quantitative Reasoning Scientific Literacy

3. Other Designations, as appropriate

Honors College Course Other: (e.g. Women's Studies, Pan African)



4. Program Proposals

Catalog Description Change Program Revision Program Title Change New Track
 New Degree Program New Minor Program Liberal Studies Requirement Changes Other

Current program name: **B.S. Degree in Safety Sciences**Proposed program name, if changing: **B.S. Degree in Safety, Health and Environmental Applied Sciences**

5. Approvals	Signature	Date
Department Curriculum Committee Chair(s)	<u>Dr. Jan K. Wachter</u> <i>Jan K Wachter</i>	<i>9-13-2011</i>
Department Chairperson(s)	<u>Dr. Lon Ferguson</u> <i>Lon H Ferguson</i>	<i>9-15-2011</i>
College Curriculum Committee Chair	<u>Dr. Jan K. Wachter</u> <i>Jan K Wachter</i>	<i>10-20-2011</i>
College Dean	<u>Dr. Mary Swinker</u> <i>Mary E Swinker</i>	<i>10-21-11</i>
Director of Liberal Studies (as needed)	<i>[Signature]</i>	<i>10-31-11</i>
Director of Honors College (as needed)	<i>[Signature]</i>	
Provost (as needed)	<i>[Signature]</i>	<i>11/1/11</i>
Additional signatures (with title) as appropriate:	Received	<i>11/1/11</i>
UWUCC Co-Chairs	Received <i>NOV 4 2011 Gail Sechrist</i>	<i>12/13/11</i>

OCT 24 2011

Liberal Studies

Liberal Studies

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

Fall 2011

Part II. Description of Curriculum Change

1. Catalog Description

There will be a number of changes (e.g., program title, program description, four new SAFE courses required for completing the B.S. degree) to the catalog description for the program. It is being proposed that these changes go into effect for the FALL 2012 term/catalog.

The new catalogue description is as follows:

Department of Safety Sciences

Website: www.iup.edu/safetysciences

Lon H. Ferguson, Chairperson: Cekada, Engler, Janicak, Rhodes, Wachter; and professors emeriti McClay, Pacalo, Soule

The department offers a minor and a Bachelor of Science degree in Safety, Health and Environmental Applied Sciences with a focus on occupational exposures. The program in Safety, Health and Environmental Applied 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, health and environmental professionals. As a minimum, the curriculum includes a major of 52 credit hours in Safety, Health and Environmental Applied Sciences.

Bachelor of Science – Safety, Health and Environmental Applied Sciences

Liberal Studies: As outlined in Liberal Studies section with the following specifications: 44

Mathematics: MATH 105

Natural Sciences: CHEM 101–102

Social Sciences: PSYC 101, global and multicultural awareness/social science elective

Liberal Studies Elective: 3 cr., Math 217

Major: 52-58

Required Courses:

SAFE 101	Introduction to Occupational Safety and Health	3cr
SAFE 111	Principles of Industrial Safety I – General Industry	3cr
SAFE 211	Principles of Industrial Safety II – Construction Industry	3cr
SAFE 212	Hazard Prevention Management I	3cr
SAFE 215	Safety, Health and Environmental Communications	3cr
SAFE 220	Hazardous Materials and Emergency Management	3cr
SAFE 310	Environmental Safety and Health Regulations and Sustainability	3cr
SAFE 311	Fire Protection	3cr
SAFE 330	Recognition, Evaluation, and Control of Occupational Health Hazards I	4cr
SAFE 335	Industrial and Environmental Stressors	2cr
SAFE 345	Process and Systems Safety	3cr
SAFE 347	Ergonomics	3cr
SAFE 361	Air and Water Pollution	2cr

SAFE 412	Hazard Prevention Management II	3cr
SAFE 430	Recognition, Evaluation, and Control of Occupational Health Hazards II	4cr
SAFE 435	Ethics and Professionalism	1cr
SAFE 488/493	Internship	6-12cr

Other Requirements: 18

Additional Science and Mathematics:

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

Business Electives (two 3 credit courses from approved list): 6cr

ACCT 200	Foundations of Accounting
MGMT 300	Human Resource Management
MGMT 310	Principles of Management
MGMT 311	Human Behavior and Organization
MGMT 434	Quality Management

Free Electives: 0-6

Total Degree Requirements: 120

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

Minor - Safety, Health and Environmental Applied Sciences 18

Required Courses:

SAFE 101	Introduction to Occupational Safety and Health	3cr
SAFE 111	Principles of Industrial Safety I – General Industry	3cr
SAFE 220	Hazardous Materials and Emergency Management	3cr

Controlled Electives:

SAFE courses approved by department chair totaling at least nine credits including at least one environmental course (SAFE 310, SAFE 335, or SAFE 361) 9cr

2. Summary of Changes

- a. Table 1 summarizes the proposed changes in the Safety, Health and Environmental Applied Sciences Curriculum. Table 1 “Program Comparison” illustrates program changes for the entire curriculum based on the Liberal Studies Requirements, Free Electives, Prerequisite Courses, and SAFE Major Courses.

TABLE 1. PROGRAM COMPARISON

Current Program: Bachelor of Science—Safety Sciences		Proposed Program: Bachelor of Science—Safety, Health and Environmental Applied Sciences	
<p>Liberal Studies: As outlined in Liberal Studies section with the following specifications:</p> <p>Mathematics: MATH 105</p> <p>Natural Sciences: CHEM 101-102</p> <p>Social Science: PSYC 101, SOC 151 & non western culture required</p> <p>Liberal Studies Electives: 3cr, MATH 217, no courses with SAFE prefix</p>	48	<p>Liberal Studies: As outlined in Liberal Studies section with the following specifications:</p> <p>Mathematics: MATH 105</p> <p>Natural Sciences: CHEM 101-102</p> <p>Social Science: PSYC 101, global and multicultural awareness course</p> <p>Liberal Studies Electives: 3cr, MATH 217</p>	44
<p>Major:</p> <p>Required Courses:</p> <p>SAFE 101 Introduction to Occupational Safety and Health 3cr</p> <p>SAFE 111 Principles of Industrial Safety I—General Industry 3cr</p> <p>SAFE 211 Principles of Industrial Safety II—Construction Industry 4cr</p> <p>SAFE 212 Hazard Prevention Management I 3cr</p> <p>SAFE 220 Hazardous Materials 3cr</p> <p>SAFE 311 Fire Protection 3cr</p> <p>SAFE 330 Recognition, Evaluation, and Control of Occupational Health Hazards I 4cr</p> <p>SAFE 345 Systems Safety Analysis 3cr</p> <p>SAFE 347 Ergonomics 3cr</p> <p>SAFE 410 Environmental Safety and Health Regulations 3cr</p> <p>SAFE 412 Hazard Prevention Management II 3cr</p> <p>SAFE 430 Recognition, Evaluation, and Control of Occupational Health Hazards II 4cr</p> <p>SAFE 488/493 Internship 6cr</p>	45	<p>Major:</p> <p>Required Courses:</p> <p>SAFE 101 Introduction to Occupational Safety and Health 3cr</p> <p>SAFE 111 Principles of Industrial Safety I—General Industry 3cr</p> <p>SAFE 211 Principles of Industrial Safety II—Construction Industry 3cr</p> <p>SAFE 212 Hazard Prevention Management I 3cr</p> <p>SAFE 215 Safety, Health and Environmental Communications (W) 3cr</p> <p>SAFE 220 Hazardous Materials and Emergency Management 3cr</p> <p>SAFE 310 Environmental Safety and Health Regulations and Sustainability 3cr</p> <p>SAFE 311 Fire Protection 3cr</p> <p>SAFE 330 Recognition, Evaluation, and Control of Occupation Health Hazards I 4cr</p> <p>SAFE 335 Industrial and Environmental Stressors 2cr</p> <p>SAFE 345 Process and Systems Safety 3cr</p> <p>SAFE 347 Ergonomics 3cr</p> <p>SAFE 361 Air and Water Pollution 2cr</p> <p>SAFE 412 Hazard Prevention Management II 3cr</p> <p>SAFE 430 Recognition, Evaluation, and Control of Occupational Health Hazards II 4cr</p> <p>SAFE 435 Ethics and Professionalism 1cr</p> <p>SAFE 488/493 Internship (W) 6-12cr</p>	52-58
<p>Other Requirements:</p> <p>Additional Science and Mathematics:</p> <p>BIOL 155 Human Physiology and Anatomy 4cr</p> <p>PHYS 111 Physics I Lecture 3cr</p> <p>PHYS 112 Physics II Lecture 3cr</p> <p>PHYS 121 Physics I Lab 1cr</p> <p>PHYS 122 Physics II Lab 1cr</p> <p>Professional Courses:</p> <p>ACCT 200 Foundations of Accounting 3cr</p> <p>BTST 321 Business and Interpersonal Communications 3cr</p> <p>MGMT 311 Human Behavior in Organizations 3cr</p> <p>Free Electives: 6</p> <p>Total Degree Requirements: 120</p>	21	<p>Other Requirements:</p> <p>Additional Science and Mathematics:</p> <p>BIOL 155 Human Physiology and Anatomy 4cr</p> <p>PHYS 111 Physics I Lecture 3cr</p> <p>PHYS 112 Physics II Lecture 3cr</p> <p>PHYS 121 Physics I Lab 1cr</p> <p>PHYS 122 Physics II Lab 1cr</p> <p>Business Electives (two 3 credit courses from approved list): 6cr</p> <p>ACCT 200 Foundations of Accounting</p> <p>MGMT 300 Human Resource Management</p> <p>MGMT 310 Principles of Management</p> <p>MGMT 311 Human Behavior and Organization</p> <p>MGMT 434 Quality Management</p> <p>Free Electives: 0-6</p> <p>Total Degree Requirements: 120</p>	18

Minor-Safety Sciences Required Courses: SAFE 101 Introduction to Occupational Safety and Health 3cr SAFE 111 Principles of Industrial Safety I–General Industry 3cr SAFE 220 Hazardous Materials 3cr Controlled Electives: Three SAFE courses approved by department chair 9cr	18	Minor-Safety, Health and Environmental Applied Sciences Required Courses: SAFE 101 Introduction to Occupational Safety and Health 3cr SAFE 111 Principles of Industrial Safety I–General Industry 3cr SAFE 220 Hazardous Materials and Emergency Management 3cr Controlled Electives: SAFE courses approved by department chair totaling at least nine credits and including at least one environmental course (SAFE 310, SAFE 335, or SAFE 361) 9cr	18
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b. List of all associated course changes:

- **SAFE 211 Principles of Industrial Safety II–Construction Safety**

Course credits were reduced from 4 to 3 credits with the lecture portion of the course going from 3 to 2 credits.
- **SAFE 215 Safety, Health and Environmental Communications**

New writing-intensive course was developed with a focus on both written and oral communications and an emphasis on safety, health and environmental content.
- **SAFE 220 Hazardous Materials and Emergency Management**

Course name and content were changed to reflect a greater emphasis on emergency management.
- **SAFE 310 Environmental Safety and Health Regulations and Sustainability**

Course number was changed (from SAFE 410) to reflect move from senior-level class to junior-level class; course name was changed to reflect a greater emphasis on sustainability; minor revisions to course objectives and content were made to reflect content of other new courses (e.g., SAFE 335 and 361) and an emphasis on sustainability.
- **SAFE 311 Fire Protection**

Lab was removed; number of lecture credits was expanded from 2 to 3 credits.
- **SAFE 335 Industrial and Environmental Stressors**

New course was developed with a focus on estimating worker risk from industrial and environmental stressor exposure by applying risk models and reviewing case studies.

- SAFE 345 Process and Systems Safety

Course name was changed; content was revised to reflect the content and title change to emphasize more "process safety management."

- SAFE 361 Air and Water Pollution

Course number was changed; course title was changed; course credits were changed; revision of existing elective course (SAFE 461 Air Pollution) was made to include water pollution; course was made mandatory.

- SAFE 435 Ethics and Professionalism

New course was developed on ethics and professionalism to prepare students for their internships and future work.

- Non-Western Culture Course

The non western culture requirement was removed and replaced with the requirement for a Global and Multicultural Awareness course which also meets the social science liberal studies course requirement. When a list of courses which meet both the Global Multicultural Awareness course and social science liberal studies course requirement are approved by the University, the Safety Sciences Department will consider making the most appropriate courses to our major as controlled electives.

- Three business courses (ACCT 200, MGMT 311, and BTST 321)

The requirement for three business courses was removed and replaced with a requirement for taking 6 credits of business electives from the following approved list:

ACCT 200 - Foundations of Accounting
MGMT 300 - Human Resource Management
MGMT 310 - Principles of Management
MGMT 311 - Human Behavior and Organization
MGMT 434 - Quality Management

- LBST 499 Course

The requirement for LBST 499 was removed.

- SOC 151 Course

The specific requirement for SOC 151 was removed allowing students to take a variety of social science electives to meet the liberal studies requirement.

3. Rationale for Program Changes:

A. *Program name change from Safety Sciences to Safety, Health and Environmental Applied Sciences and the addition of the four new SAFE courses to the major.*

Rationale: For the past 15 years there has been an on-going merger of the Safety, Occupational Health and the Environmental Safety professions. This convergence has been well documented and in 2005 our accrediting agency, the Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology, developed separate accreditation criteria for Safety, Health and Environmental Programs (see Appendix A). During the April 2011 Safety Sciences Advisory Committee meeting, the program name change issue was discussed at length. As you can see in the attached minutes (Appendix B), the committee overwhelmingly recommended we change our program to meet the Safety, Health and Environmental criteria. This was discussed at our May 2011 Department Meeting and faculty voted to support this change.

To meet the new ABET/ASAC criteria, the title of the program has to be changed (to include the words safety, health and environmental) and we needed to add four additional courses so we can meet several new student outcomes (see Appendix A). The name change as well as the addition of the four new SAFE courses (SAFE 215, 335, 361, and 435) will make the program more in line with current practice and position us as one of only **three** programs in the nation accredited by ASAC in the Safety, Health and Environmental criteria. Two environmental courses were added to the undergraduate curriculum (SAFE 335 and 361) to complement the existing environmental course (SAFE 310) being offered in order to satisfy the more environmentally-oriented ABET/ASAC accreditation criteria (see Appendix A).

It is noted that there is an environmental health track offered by IUP's Department of Biology that could appear to "overlap" with this program's name and course offerings. Based on discussions with the chairperson and undergraduate curriculum coordinator in the Biology Department, any areas of overlap have been addressed in this program revision and course revisions (see letter of support from Department of Biology in Appendix D). In summary, what the biology department has concluded is that *"It is clear to us that Safety Sciences has a focus on what goes on inside the "box" that defines the boundaries of a factory or manufacturing site. On the other hand, Biology has a focus on what goes on outside the factory box. Terms such as "industrial", "workplace" and "occupational" apply to the focus of your department; terms such as "ecological", "physiological" and "medical" apply to ours."*

It is also noted that there is a B.S. Geology/Environmental track offered by IUP's Department of Geology. As stated in the catalog, this track covers pollution that may impact the subsurface environment in ways that are difficult to detect and remediate. Based on the description of the track and the courses contributing to this track, there is not an overlap with the Safety, Health and Environmental Applied Sciences Program. Although SAFE 361 covers air and water pollution, the major emphasis is on the analysis and control of industrial water and air pollution *at the source* (mainly within the confines of industrial or contractor facilities), and not subsurface groundwater pollution. Hydrology, geochemistry and environmental geology concepts are not covered in the Safety, Health and Environmental Applied Sciences Program curriculum.

B. Remove ACCT 200, MGMT 311 and BTST 321

Rationale: Requiring two business electives (from a list of approved business electives: ACCT 200 - Foundations of Accounting; MGMT 300 - Human Resource Management; MGMT 310 - Principles of Management; MGMT 311 - Human Behavior and Organization, and MGMT 434 - Quality Management) will provide our students more flexibility in choosing business courses that fit their current and future interests. The new SAFE 215 course is a communications course geared toward safety, health and environmental professionals, which is the major reason why BTST 321 is not on the list of approved business courses.

C. Remove LBST 499 and Non-Western Culture and replace with a Global and Multicultural Awareness Course

Rationale: LBST 499 is no longer required or offered under the Liberal Studies curriculum. The Global and Multicultural Awareness Course is part of the revised IUP Liberal Studies Program requirements. The intent is to find social sciences electives to satisfy the Global and Multicultural Awareness criteria.

D. Remove SOC 151 Course

In the April 2011 advisory board meeting, the Safety Sciences Advisory Board recommended that SOC 151 no longer be a mandatory curriculum requirement for undergraduate students. (The Board did recommend keeping PSYCH 101 as a mandatory social sciences elective requirement due to its strong link with worker motivation and behavior-based safety management approaches.) Thus, the specific mandatory requirement for SOC 151 was removed allowing students to take a variety of social science electives to meet the liberal studies requirement. However, the Safety Sciences Department has talked to the Sociology Department in terms of adapting some of their current courses to meet the Global and Multicultural Awareness Course criteria, and if this occurs, there is a high probability that BS majors will be again routinely taking a sociology course.

E. Add a course in Safety, Health and Environmental Communications (SAFE 215)

Rationale: One of our Safety, Health and Environmental Student Outcomes is that students are proficient in written and oral communications. In addition, alumni surveys have consistently rated written and oral communications skills in the top five skills for our profession. Our outcomes in written and oral communication as well as faculty opinion and internship site feedback have shown this area demanded additional emphasis. Based on all these facts and in support of the University-wide commitment and emphasis on written and oral communications, it was decided to add a new writing-intensive course unique to our safety, health and environmental profession.

F. Add a course in Industrial and Environmental Stressors (SAFE 335)

Rationale: This course was necessary to address the following specific student outcomes (see Appendix A):

The basic level criteria as applied to the field of Environmental, Health, and Safety should be interpreted with respect to the following curricular content areas:

(b) physiological and/or toxicological interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors with the human body;

(e) environmental, health, and safety data interpretation including statistical and epidemiological principles;

G. Add a course in Air and Water Pollution (SAFE 361)

Rationale: We were not addressing this area in our current program with the exception of an elective course called Air Pollution (SAFE 461). In order to meet our accreditation body's student outcomes, this course cannot be an elective course. Therefore, we needed to require and revise this existing course to meet the following specific student outcome (see Appendix A) for accreditation:

The basic level criteria as applied to the field of Environmental, Health, and Safety should be interpreted with respect to the following curricular content areas:

(l) air pollution fundamentals and control technologies;

(m) water pollution fundamentals and control technologies.

H. Add a one credit course in Ethics and Professionalism (SAFE 435)

Rationale: The General Program Criteria of ASAC/ABET has a specific student outcome related to "ethics" and "professionalism". In the past we have attempted to address this through student assignments on ethics and professional development plans but faculty believe this is not sufficient. In addition, student misconduct has increased during internship and faculty strongly believes this one credit course prior to internship is critical to focus the students on understanding and applying both ethics and professionalism in the workplace.

I. Remove the lab from SAFE 311 and reduce the credits of SAFE 211 from 4 to 3 credits.

Rationale: To add the new courses to our program we also needed to find ways to reduce faculty load so we could make these changes without increasing faculty complement. Based on input from faculty and our Advisory Committee, it was decided the best way to do that was to eliminate the lab in the fire class and take the most critical content from the labs and incorporate it into the fire lecture, which results in increasing the lecture component by one credit (2 credit lecture to 3 credit lecture). This resulted in a savings of 10 credits of faculty load each year.

To save an additional two credits of faculty load each year we also have decided to reduce SAFE 211 from a three credit lecture to a two credit lecture making it more in line with our existing SAFE 347 course.

J. Change the titles of SAFE 220, SAFE 410 and SAFE 345

Rationale: These title changes were necessary to reflect evolving content changes in these courses which were substantial enough to warrant changing the course titles. In addition there was a number change of SAFE 410 to SAFE 310 to reflect that this course will now be offered during the students' junior year.

Part III Implementation

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

The proposed revisions to the B.S. Program will start with the Fall 2012 semester. Students already in the existing program will have the option of taking the four new SAFE courses and receive a B.S. Degree in Safety, Health and Environmental Applied Sciences or stay in the current program and receive a B.S. Degree in Safety Sciences. Students already in the existing program who have not already taken SAFE 211 and SAFE 311 will be getting a course substitution for SAFE 211 and SAFE 311 and will have to make up the one credit difference (due to changing SAFE 211 from 4 to 3 credits) in order to maintain the 120 credit graduation requirement. Students entering the Fall of 2012 will meet the new curriculum requirements. Included in Appendix C is a revised Curriculum Sequence.

2. Are faculty resources adequate?

Faculty complement is adequate to support these changes. As mentioned earlier, we are able to absorb these additional credits of faculty load by removing the lab component from SAFE 311, reducing the lecture of SAFE 211 from three to two credits, and no longer offering SAFE 100 or LBST 499. This results in a total savings of 15 credits of faculty load per year which will allow us to offer three sections of SAFE 215 (9 credits total), two sections of SAFE 435 (2 credits total) and one section of SAFE 335 (2 credits total) and 361 each year (2 credits total). Offering SAFE 335 and 361 once a year in the spring semester is not unique as we are currently offering SAFE 430 and 347 fall semester only and SAFE 330 spring semester only.

3. Are other resources adequate?

With the exception of SAFE 361, the other new SAFE courses are primarily lecture based. During the Summer 2011 semester we renovated room 131 Johnson Hall which increased our largest lecture room from 40 to 60 students. This will help accommodate the larger SAFE lecture based courses which are only offered once a year. Some of the sampling equipment and supplies for SAFE 361 are already available from our SAFE 330 and 430 lab courses. We will use ESF funds to support any additional equipment needs for this course.

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 the new program title is more marketable and recognized by current practice. We will also be one of only three programs in the nation accredited by ASAC/ABET in the Safety, Health and Environmental program criteria!

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 department faculty. This evaluation

includes a review of all of our student outcomes which are linked directly to the ASAC/ABET outcomes identified in Appendix A.

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, Health and Environmental Sciences Faculty. All the major changes to our current program, title change and many of the course revisions resulted from the Fall 2010 and Spring 2011 meetings of our Advisory Committee. See Appendix B for a copy of minutes.

For individual courses several different evaluation methodologies will be used to evaluate student-learning outcomes. Student outcomes are also collected on each SAFE course and analyzed using the IUP KARS program.

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 next accreditation visit which will be the Fall 2015 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, Health and Environmental Sciences Advisory Committee and the Accreditation Board for Engineering and Technology (ABET), Applied Science Accreditation Commission.

Part V. Course Proposals

The following proposals are attached:

New courses: SAFE 215, SAFE 335 and SAFE 435.

Major course revision: SAFE 361 (changed from SAFE 461)

Course revisions: SAFE 211, SAFE 311

Minor course revisions: SAFE 220, SAFE 310 (changed from SAFE 410), SAFE 345

Part VI. Letters of Support

Letters of support were requested from College of Business, Biology Department, and Sociology Department. These letters as well as responses are included in Appendix D.

Appendix A: Accreditation Criteria

ACCREDITATION CRITERIA 2011/12 Criteria for Accrediting Applied Science Programs

PROGRAM CRITERIA FOR ENVIRONMENTAL, HEALTH, AND SAFETY AND SIMILARLY NAMED APPLIED SCIENCE PROGRAMS

Lead Societies: American Industrial Hygiene Association or American Society of Safety Engineers
These program criteria apply to applied science programs having environmental, health, and safety in their program titles. Each program evaluated under these Program Criteria must designate which society is to serve as Lead Society for that program.

I. PROGRAM CRITERIA FOR BACCALAUREATE LEVEL PROGRAMS

Program Criteria presented herein provide the specificity needed to interpret the General Criteria with respect to the discipline of Environmental, Health, and Safety and furnish a framework upon which a given program may develop the more general Outcomes and Assessment requirements of Criteria 3.(a) through (k). In all cases, the program must demonstrate that graduates possess the knowledge, skills, and attitudes necessary to competently and ethically practice the applicable scientific, technical, and regulatory aspects of this discipline.

The basic level criteria as applied to the field of Environmental, Health, and Safety should be interpreted with respect to the following curricular content areas:

- (a) environmental, health, and safety fundamentals;
- (b) physiological and/or toxicological interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors with the human body;
- (c) anticipation, identification, and evaluation of potentially hazardous agents, conditions and practices;
- (d) fundamental exposure assessment techniques (both qualitative and quantitative);
- (e) environmental, health, and safety data interpretation including statistical and epidemiological principles;
- (f) development of hazard control designs, methods, procedures and programs;
- (g) accident/incident investigation and analysis;
- (h) industrial and construction safety;
- (i) legal aspects of environmental, health, and safety practices;
- (j) environmental, health and safety program management;
- (k) hazardous materials/waste recognition, control, and remediation;
- (l) air pollution fundamentals and control technologies;
- (m) water pollution fundamentals and control technologies;
- (n) environmental regulations and permitting processes
- (o) environmental sampling and measurement methodologies.

Note: In this context, the terms hazard and hazardous incorporate issues related to the broad context of occupational environmental, health, and safety. Environmental, Health, and Safety programs are expected to provide breadth across the range of topics implied by the title. Thus,

these curricular content areas are considered to be minimum requirements. Other areas may be added as dictated by the Mission and Program Educational Objectives of the specific program. Additionally, the extent to which each content area is developed and emphasized in a given program must also be consistent with the program's mission and objectives. Depending on the program, a given area may be addressed in a devoted course, a portion of a course, or in an appropriate extracurricular experience. Based upon this content, program faculty are free to develop unique outcomes at appropriate functional levels that embrace Criterion 3.(a) through (k) of the General Criteria.

Baccalaureate-level Faculty

The majority of core Environmental, Health, and Safety and other supporting faculty must hold an earned doctorate. ("Core faculty" pertains to those who are teaching Environmental, Health, and Safety courses and does not include faculty members teaching courses such as epidemiology, statistics, etc.). The majority of core faculty should hold certifications issued by nationally accredited credentialing bodies such as Certified Industrial Hygienist or Certified Safety Professional. Faculty must also demonstrate external professional activity, including, but not limited to, participation on national, regional, state, and/or local committees and advisory boards, professional practice, and/or editorial reviews of professional publications. A full-time faculty member must be identified as administratively in charge of the program.

Appendix B: Minutes of Advisory Committee and Department 4/15/2011

SAFETY SCIENCES ADVISORY MEETING MINUTES April 15, 2011

The following Advisory Committee members were present for the April 15, 2011 meeting: Lon Ferguson, Irwin Dobrushin, David Feiglstok, Michael Formaini, Phil Jones, Greg Palchak, Kim Kammerdiener, William Mosier, John Mulroy, Jason Savasta, Francis Sehn, Robert Soule, John Tippery, Joseph Visgaitis, Pamela Walaski and Daniel Wible.

Francis Sehn called the meeting to order and asked if there were any changes to the minutes from the October 10, 2010 meeting. No changes were necessary; David Feiglstok made a motion to approve the minutes and Phil Jones seconded the motion; all were in favor of the minutes as submitted.

Welcome New Members

Fran Sehn spoke briefly to the new members, telling them the Advisory Committee has been in place for 12 years and meets two times a year, mainly in April and October. The committee strives to provide recommendations for continuous improvement to the Safety Sciences Department. Fran said the faces of the Committee will change but the intent of the mission will not. Fran then had each new member introduce themselves;

New Members Who Were Present:

Mr. Irwin Dobrushin, Senior Industrial Hygienist, Westinghouse Electric Company, LLC

Mr. Michael Formaini, EHS Manager, GE Transportation

Mr. John Tippery, Transportation Safety Manager, CLI – Sheetz, Inc.

Mr. Joseph Visgaitis, Safety Manager, Mid-Atlantic Region, Southland Industries

Ms. Pamela Walaski, President, JC Safety & Environmental, Inc.

Mr. Daniel Wible, Safety Manager, Snyder Associated Companies

New Members Who Were Not Present:

Ms. Teresa Cole, Safety Director, Central Region, First Student

Ms. Jenny Reefer, Safety Consultant, Petroleum Service Partners, Inc.

Updates and Announcements

- **Passing of Retired Faculty** – Dr. Ferguson informed the committee two retired faculty members passed away within months of each other, Mr. Dick Christensen and Mr. Jack Reed.

- **Greg Palchak** – a long time Advisory Committee Member retired on April 1, 2011 after 37 years with PPG, we wish Greg a long and happy retirement!

- **Career Fair** – October 6 & 7, 2011 are the dates for this year's Career Fair. We are hoping Davis Construction will send their Human Development expert, Dr. Jonathan Dougherty to IUP several weeks prior to the Career Fair to speak to the students about three main topics:
 - 1) **Selling oneself**
 - 2) **Interview skills**
 - 3) **Resume essentials**

The meeting will be mandatory for all juniors and seniors. Joe Visgaitis said there was a profound improvement in the students last year in the way they presented themselves and answered interview questions, he feels it's due to the coaching prior to the fair and asked Dr. Ferguson to please continue to offer that service if possible.

Dr. Ferguson asked the Board if they thought the market was getting better; the general consensus was the market is improving. Dr. Ferguson said it is still hard for May graduates to get full-time positions, he only knows of a small number who have secured full-time jobs prior to graduation. Kim Kammerdiener, Jason Savasta and Irwin Dobrushin all said most companies want to hire individuals with experience. The workload is so great at most companies there is not time to train new individuals. They also agreed the once someone retires their duties are being distributed among the current employees rather than hiring someone new.

Pam Walaski suggested sending Career Fair information to the ASSE website and Irwin Dobrushin said to send it to the AIHA website as well. Irwin provided me contact information for the AIHA site.

- **Ph.D. Proposal** –Dr. Ferguson said the idea to offer a Ph.D. Program started with Dr. Soule approximately 15 years ago, in 2004 paperwork was put into motion, it stalled out and in 2011 we are close to getting it approved again. When the proposal went to the State System it was sent back with 19 areas of concern; last fall Dr. Chris Janicak addressed those issues, but unfortunately the proposal has to go back through the whole approval process again. In the fall it was sent to PASSHE to see if they approved of the changes, they sent it back agreeing to the changes. On Tuesday, April 12, 2011 the University Wide Graduate Committee approved it, now the proposal will move on to the Senate, then the Board of Directors and finally to PASSHE. If all governing bodies approve it, the Ph.D. Program could begin as early as summer 2012. We are hoping Governor Corbett's new spending cuts do not have any effect on this proposal getting approved.
- **Accreditation Follow-up Report** – Dr. Ferguson told the Committee the Safety Sciences Department was accredited two years ago by ABET (Accreditation Board for Engineering & Technology). One weakness was identified, it involved waiving prerequisites. Since the accreditation visit, the Department has updated the prerequisites for the Safety Sciences courses. Dr. Ferguson is now in the process of writing the follow-up report to ABET. We now have extensive tracking in place of all prerequisites issued. Our goal was to issue less than 10% of overrides to approximately 245 students. During the spring 2011 semester 19 overrides were issued, with 13 of these due to the student taking a higher level course (i.e. CHEM 111 instead of CHEM 101), this mostly happens when students transfer into Safety Sciences from another major. Another reason would be the student transfers from another university or transfers coursework from another university to IUP. Therefore only five overrides were issued for prerequisites not completed. In all these cases if they were not issued the student's graduation would have been delayed by anywhere from 6 months to one year.

Dr. Soule said IUP's prerequisite issue was a hot topic at the ABET meeting as well. He said this issue was discussed for over an hour, during which time he waited outside the meeting due to conflict of interest.

Dr. Ferguson assured the Advisory Board that math and science outcomes are being assessed to determine the effects of prerequisite changes to courses. For fall 2010 the math and science outcomes were met and have not changed due to the removal of any math or science prerequisites.

- **Enrollment** – Enrollment is very healthy at the present time, so healthy in fact that it is interfering with teaching and being able to teach in Johnson Hall. Admissions for the whole university have been capped for fall 2011 due to high numbers. Currently we have 245 undergraduate and 75 graduate students. There are 39 freshmen admitted for fall 2011, of those 39, 19 are admit paid. John Mulroy asked if 39 reflects going to high schools such as Indiana and Homer Center; Dr. Ferguson said yes, that and the fact the video was placed on our website may be helping. The graduate number is down due to the fact we are only currently offering one cohort.
- **Budget** – Dr. Ferguson said 70% of the University funding comes from tuition; the other 30% comes from the state. According to Governor Corbett's proposed budget our state funding will be cut to 15% if his plan is approved. IUP is planning on receiving 20% of funding from the state, which will cut the budget in the College of Health & Human Services by \$982,000. A step toward cutting the budget is to eliminate unhealthy programs in the College, to date 19 programs have been identified to eliminate. Our Safety Sciences MS Management Track as well as the Certificate of Recognition (COR) Program are two that will be eliminated. Dr. Ferguson said there used to be two separate tracks offered, Management and Technical, he said they have blended together over the years so removing the Management track will not be an issue. The COR was geared toward part-time safety professionals and enrollment has always been an issue.

Currently, retirees are not being replaced, if someone in your department retires that position is lost. We are fortunate that Dr. Engler is the closest to retirement and that will not be for approximately three years. Dr. Soule asked if all our complement was filled, Dr. Ferguson said it is, with three full-time temporaries who are not tenure-track employees at this time.

- **Corporate Support** – Dr. Ferguson said approximately one week ago Larry Goodheart from Chevron was the guest speaker at our ASSE meeting. While Larry was here he toured the labs. While our labs are in good shape the quantity of instrumentation needs to be increased. At the present time our labs have students working in groups of 3-4, with only one person using the instrument, typically that is the person who has knowledge on how to use it, when these students graduate and become employed they are sometimes clueless as to how to use the instruments. The desire of the department is to get enough instruments to have lab groups of two. Dr. Ferguson told the Committee he gave Larry names of Advisory Board members and if they get a call from him they will know what it is regarding, we are looking for corporate support to increase the number of instruments in our labs. Dr. Ferguson said we currently have around \$20,000 per year to spend on equipment. With a

couple high priced items this money goes away very quickly. Mike Formaini asked if we had a wish list, Dr. Ferguson said yes, one will be available. Irwin Dobrushin suggested contacting equipment manufacturers to see if they have used equipment to give us or if they offer any type of discount. Dr. Ferguson said currently MSA is providing us with a corporate discount. Jason Savasta suggested renting equipment from Pine Environmental, his contact is Sean Wolf. Fran Sehn said his company uses Galson and Irwin Dobrushin said he uses R.J. Lee for air sampling. Dr. Ferguson indicated we are now renting some equipment but the Purchasing Department at IUP does not make this an easy process.

- **ASSE Awards** – Mr. Sam Gualardo, Director of IUP’s PA OSHA Consultation Program was awarded the ASSE Fellow honor. This year five students, Wade Baily, Jamie Shockey, Molly Dunn, Andrew Glass and Shane Ferguson received ASSE scholarships, this is in sharp contrast to last year when none were received by IUP.
- **Fatality Forum** – In 2007 Alcoa Foundation gave Safety Sciences \$100,000 to host a Fatality Forum and develop an article for publication. Dr. Ferguson told the Committee he has been asked often when the next forum is scheduled. He said in order to do this companies will have to come together with financial support. Recently John Mulroy contacted Dr. Ferguson and indicated First Energy may be interested in sponsoring a second forum. John Mulroy spoke next about Fred Manuele’s article (see attachment) **Serious Injuries & Fatalities** that was published post-forum.

John said he is concerned over the fact that Mr. Manuele is getting older and he wonders who will carry on his work when he is no longer able to do it. This is why he feels it is time to consider hosting another Fatality Forum. Joe Visgaitis asked “are people still dying?” Of course they are, therefore the need for another forum is high. Dr. Ferguson asked John Mulroy to chair a committee to see if we can come up with funding and develop an agenda for the next forum. David Feiglstock, Mike Formaini, Irwin Dobrushin, Pam Walaski and Fran Sehn all volunteered to be on the committee. Jolene Campbell offered to do all the clerical work involved with another forum. Dr. Ferguson said to begin planning this now; however the forum wouldn’t happen until either next spring or next fall at the earliest. Dr. Soule said with NIOSH’s release of their new standard they may be a good source of funding.

Curriculum Review

Dr. Ferguson said every three years the Advisory Committee completes a continuous review of the Safety Sciences Mission Statement, Program Outcomes and Curriculum. Liberal Studies is being revised and since half of the program is Liberal Studies requirements the opportunity to make changes would be now. In order to make any changes cost effectiveness and efficiency must be looked at closely! Currently Safety Sciences is in the black, but out of nine programs in our College, Nursing is the only program more expensive. The reason for this high cost is the expensiveness of our labs. When paying their tuition, students pay for one lab credit, however Dr. Ferguson must pay the instructor for two credits, you can see how expensive this becomes when six of our courses have labs associated with them. The Dean challenged Chairpersons to look for ways to incorporate

lab activities into lecture courses, Nursing's accreditation criteria states they must have clinicals, ABET does not.

To start the curriculum review Dr. Ferguson asked the Advisory Committee if they thought we should stay with "Safety" or change to "EHS" criteria, which would be a joint accreditation with the AIHA group. Both Millersville and Finley have gone the EHS route. If Safety Sciences goes the EHS route the program name would have to be changed as well as program outcomes. Greg Palchak said most of the positions available at PPG are EHS positions. Dr. Soule said it was always the intent of our program to be EH&S. Mike Formaini said he feels IUP graduates are viewed in the safety realm versus the environmental realm. Pam Walaski agreed with Mike, she said the customer wants versatility. Irwin Dobrushin said over time relationships between IH, Environmental and Safety have merged, in the 70's they were separate functions, however today one person is performing all of these functions in some cases.

Dr. Soule said companies who are familiar with us already know we cover EH&S, it's the companies yet to be dealt with that do not realize this. Both Kim Kammerdiener and Joe Visgaitis feel graduates will have more doors opened to them if they have an EHS degree, the rest of the committee overwhelmingly agreed to move from the safety criteria to the EHS criteria.

Mission Statement and Program Outcomes

Dr. Ferguson asked if Safety Sciences was addressing future trends/skill identified at the October 2010 meeting. Greg Palchak said the wording needed changed on the Mission Statement under Program Outcomes from Systems Safety to Process Safety. Joe Visgaitis said writing intensive courses need to focus more on technical writing than on creative writing. Dr. Soule said technical writing is woven into the courses, feedback from the student's reports should be provided to them by faculty. Dr. Ferguson said at times it is hard, especially when you have 75 students in a class and are reading 75 lab reports per week. If they do the reports in groups, you have one student who becomes an expert writer and the other three partners can barely spell their names! Irwin Dobrushin said you have to be careful how technical you write, a report should be written so the CEO as well as the person on the shop floor can understand it. Dr. Ferguson asked if the Committee was suggesting he add a Communications course and split it 50/50 between oral and written communication. He said at the last meeting they thought a Leadership course should be included. Most of the Committee felt leadership was an employer's job to instill in their employees. Leadership is covered in the management course and forums such as ASSE provide leadership. Dr. Ferguson reminded everyone if it becomes an outcome it has to be evaluated. Most members felt internship supervisors could quantify leadership; it will be added to the internship evaluation form. Dr. Soule didn't particularly agree, he felt leadership is already in the Outcomes and said by adding it to the Internship Evaluation that leaves one individual to make the distinction. Pam Walaski wanted to know what was wrong with being a soldier. She said she does not expect a new graduate, approximately 22 years in age to have the same leadership skills that a more experienced employee 30 years in age would have. Fran Sehn said if you are looking for a soldier, buy a soldier, but who

wants 10 soldiers? The eventual consensus of the group is that leadership traits should be included in courses but not as an additional outcome, due to the difficulty in assessing. In summary, the committee recommended changing the program outcome by changing systems safety to process safety, focusing on technical writing and will consider adding something on case management.

Curriculum

When the Liberal Studies changes take effect a Safety Communications class will be considered. Dr. Ferguson gave everyone a copy of the syllabus of record for BTST 321, the committee didn't feel confident in what the syllabus reflected, they felt a communications course offered by the Department was still needed. Suggestions included:

- ✓ Training/Delivery
- ✓ Training Outcomes/Objectives
- ✓ Know your Audience
- ✓ Conflict Management
- ✓ Influence without Authority
- ✓ Running Effective Meetings
- ✓ Professionalism
- ✓ Cultural Aspects of Communications

If we change to EHS criteria an additional Environmental course will need to be added and Accounting will be eliminated. In making these changes we need to become more efficient by increasing class size (rooms are maxed out at 40), we will need to go out of the building to offer classes, offer classes less (once per year), this could delay a student's graduation, and reduce the number of labs. Dr. Ferguson explained the revenue and cost associated with labs and then showed the group a comparison of our labs with five other accredited programs, see attachment.

Joe Visgaitis suggested that courses with labs be broken down to have the lecture two times per week and on the third day have the lab, thus reducing the need for individual labs. Dr. Soule asked what you can do worthwhile in a 50 minute lab with 40 students. Jason Savasta said not to eliminate labs across the board, just where it isn't essential to have a separate lab. Dr. Ferguson said the Safety Management lab is case driven. Everyone agreed these procedures could be performed as homework. Mike Formaini wanted to know what happened in that lab that differentiates our students from those at other universities. Dr. Ferguson said presentation skills are a plus for the Safety Management lab. Joe Visgaitis disagreed, he said the course could be done with no lab, lecture held two times per week and on Friday presentations could be made by alternating students. John Mulroy strongly disagreed by saying he feels SAFE 412 was a capstone course, everything you learned through the curriculum is used in this course. He feels management changes the way you think. Dr. Soule said by justifying the labs shows we stand firmly behind the notion of what this course and lab provides; we have a history and a precedent.

William Mosier asked if SAFE 330 and SAFE 430 labs could be combined. Dr. Ferguson said all other programs have an IH lab, but we are the only program with two IH labs

Fire Lab – Most members agreed their companies outsource to specialists for fire. They also agreed that fire assignments are the most difficult to come up with when hosting an intern. Joe Visgaitis said his interns are assigned a Life Safety task to complete the fire assignment.

To develop some consensus on lab priorities, Dr. Ferguson asked each member to vote. In order of priority:

1. IH Labs
2. Ergonomic Labs
3. Safety Lab
4. Safety Management Lab
5. Fire Lab

Dr. Ferguson will take this priority list to the department for further action.

Wrap-up

Joe Visgaitis suggested a student representative be added to the Advisory Committee, the Committee overwhelmingly felt there are some things discussed that we don't want a current student to hear, so they suggested adding a recent graduate instead.

NEXT MEETING WILL BE October 28, 2011 at the Rustic Lodge

Topics for discussion will be: Fatality Forum, Career Fair Feedback, Status of Ph.D. Proposal, Voting for new Chairperson for Advisory Committee, and Program/Curriculum updates.

Thanks for attending and providing all of your valuable input!!

SAFETY SCIENCES DEPARTMENT MEETING

Dr. Ferguson, Dr. Janicak, Dr. Cekada, Ms. Minnick, Mr. Yorio, Dr. Rhodes, Dr. Engler and Mr. Nelson were present at the meeting, Dr. Wachter was excused, as he was giving his final exams.

I. Approval of Minutes- The minutes from April 19, 2011 were approved by Dr. Rhodes, seconded by Mr. Nelson, all were in favor of approving the minutes as submitted.

II. Reports and Announcements

-Dr. Ferguson reminded faculty members to get Graduate Exit Surveys from both part-time and full-time interns. Jolene will email the forms to all faculty members.

-Dr. Mary Ann Rafoth, Dean of Education, is leaving IUP and going to Robert Morris University.

-The changes to Liberal Studies will begin with the fall 2012 term, LBST 499 will be offered until that time. This means December 2011, May and August 2012 graduates will need to complete LBST 499. Over the summer Dr. Wachter will be working on our program revisions to the Liberal Studies requirements, if he contacts you for assistance please help him. We would like to have the first draft ready for the fall 2011 department meeting so we can approve it and forward it to the University Wide Undergraduate Committee for approval.

III. Committee Reports

Curriculum Committee – Dr. Wachter was not present, no report.

Graduate Committee – Dr. Janicak said he has 18 M.S. students who will be needing undergraduate deficiency courses for fall and they are all full. Dr. Ferguson asked Dr. Janicak to get him numbers and he will forward that to Dean Swinker.

Senate Committee – Dr. Cekada said the Safety Sciences Ph.D. Proposal was approved at the Senate Meeting; it will now go to PASSHE for approval.

APSCUF Committee – Dr. Rhodes said Governor Corbett's 54% budget reduction was a main concern and APSCUF would like all faculty members to provide them with off-campus email addresses in case there would be a strike. She also said Steve Hicks, the state-wide President of APSCUF was present for the meeting. APSCUF is asking that if you are not a union member you should consider becoming one in order to get voting rights. If you do not want your dues to pay for political issues you can get that portion back.

Search Committee – Dr. Ferguson said he was required to post the temporary positions, however he let Human Resources know they positions were filled with full time temporary faculty.

Evaluation Committee – Dr. Engler said all the evaluation material has been sent to the Dean's Office. Dr. Ferguson urged non-tenured and temporary employees to visit the Human Resources Department over the summer to check their personnel files to make sure they contain everything they are supposed to. He also reminded faculty to be sure your faculty evaluations and classroom observation forms are signed and a copy is in your file.

Promotion/Leave/Tenure Committee – No report.

Internship Committee – Ms. Minnick had nothing new to report.

Library Committee – Ms. Minnick said she spent all the funds for the B.S. program, however, the Doctorate program still had a lot left over. Dr. Janicak said he would be able to spend that but Ms. Minnick wasn't sure if the deadline had passed or not. Dr. Rhodes said she has \$1,100 in the Keller Account to purchase videos if necessary. She would like this money to be used rather than taken away from us.

Technology Committee – Dr. Janicak had nothing to report.

III. Unfinished Continuing Business

- **Outcomes Data for Application of Math and Science** – Dr. Ferguson reminded faculty members that if one of their Outcomes relates to math and science please get their examples of student work to him. Examples of target (A), acceptable (B-C) and unacceptable (-> C) should be included. Please enter the outcomes when you are entering your grades, as the Provost tracks these. Dr. Ferguson said the outcomes need to be sent to him by June 1st.
- **Budget/ESF/Lab Fee/KOSH** – All Chairpersons in the College of HHS were given a list of designated accounts they were associated with. Since the University is looking at a large deficit they are looking for ways to come up with more spending money. One of the ways is to take money from designated funds. According to the chart Safety Sciences has eight of those accounts, however of the eight, six are OSHA accounts. Our KOSH Account is the most vulnerable; Dr. Ferguson is trying to get a quote from Doug Miller to make room 131 larger by tearing down the wall, removing the mine ventilation fan and adding an outside doorway; this could increase the room capacity to between 60-65 students. Dr. Ferguson said our Lab Fee Account is safe for now and the ESF account can't be touched as that money comes from state funding. He would like all faculty members to give him a "wish list" of items they could use for their courses/labs. On this list please include: Vendor name, address, phone number, supplier part number and cost. Please do not give Jolene websites to purchase items from, they are not tax exempt and she is unable to use the department credit card to place those orders if they are under \$500. Any items ordered must be able to be delivered by June 30, 2011. Dr. Ferguson said he will purchase DVD's and reference books with these funds if necessary.

IV. New Business

- **Graduation Ceremony** - The ceremony begins at 8:00, please be there by 7:15 in order to help line students up. Dr. Rhodes will lead the student procession; May undergrads will go first, followed by August grads. May M.S. students will follow August graduates and sit on the opposite side of the aisle. Dr. Rhodes will present Mark Prenni with his token of appreciation immediately following his address. The remainder of the program details were worked out; Jolene will go to Crooked Creek Creations this afternoon to pick up the gift for Mr. Prenni and the Outstanding Intern awards.
- **BCSP Meeting** – Dr. Ferguson said he just attended a BCSP Meeting in Champaign, IL and had some interesting facts to report; Liberty Mutual employs the most CSP's in the nation, followed by Travelers Insurance and BP. Of all the universities IUP has the most CSP's (10), and that does not include the OSHA Consultants.
- **Example of Student Work** – Dr. Ferguson asked everyone if they read the example he put in their mailboxes of a report written by a SAFE 410 student. Dr. Ferguson said he hoped everyone would agree the paper was pathetic; however, the student currently has an overall GPA of 3.31 and was just inducted into Rho Sigma Kappa! Dr. Ferguson said at Dr.

Cekada's request he asked the Registrar's Office to run a breakdown of letter grades by course. He said by looking this report over you can see where you stand. Dr. Rhodes interjected and said if the university continues to increase the class size professors can't possibly read that many reports and make all the necessary corrections. Dr. Ferguson said then to do something other than reports.

Dr. Ferguson said the students definitely needed more writing assignments. He also said if they are working in a group he suggested they must list the names of all group participants on the cover and what portion of the report they were responsible for. The student will be graded on the amount/quality of work they did. Dr. Ferguson said not to reward pathetic work, give the paper/report back to the student and tell them they have a chance to rewrite the paper/report, take it to the IUP Writing Center in order to get a "C", otherwise they will receive a failing grade for that assignment. He suggested not accepting the paper back until the changes are made. Much discussion evolved on this topic and several different ideas were suggested:

- Dr. Rhodes suggested starting in SAFE 101 and having them write a two page paper in class on a related topic; she also suggested each student have a blue book.
- Mr. Yorio asked if there was any chance a one credit course could be offered on topics such as attendance, professionalism, writing techniques and what's expected in a paper/report.
- Mr. Nelson said he felt everyone should be on the same page regarding how reports and labs should be written.
- Dr. Ferguson also said to be careful with bonus points. Dr. Engler said he requires rewrites or an additional paper to be written in order to get a bonus point and improve their grade; he said only serious students take advantage of this. Dr. Cekada said she will have to cut back on offering bonus points for attending ASSE meetings, she said she has some students this semester who got as many as 12 bonus points, giving them a higher grade than they actually deserved. She said on the other hand, by cutting out the bonus points the number of students attending the meetings will go down, and that's one of the criteria to receive the Outstanding ASSE Section Award.
- Dr. Ferguson suggested offering a "weeder" course early in the sequence; I guess you could consider SAFE 111 that course, now that Dr. Ferguson is teaching it! Mr. Nelson said that course used to be calculus, which was removed to draw more students to the program.
- Dr. Cekada volunteered to chair a committee that would meet over summer to design guidelines students would use when writing assignments, labs and reports.
- Dr. Ferguson said Dr. Cekada will be working on a new SAFE Communications Course under the new Liberal Studies Guidelines that will deal 50% with oral communications and 50% with written communication. This course was going to be offered during a student's senior year, however it will be moved up to take place much earlier in the student's curriculum, preferably the sophomore year.
- Dr. Ferguson also said to be sure and change things up just enough in your assignments to prevent students from using other's work. He said make small changes like changing the chemical used, or changing the name of a company. If a student is caught turning in someone else's work they will receive an immediate zero for the assignment. Dr. Rhodes said please realize if you make these hard fast changes you will more than likely decrease enrollment in the program, what will that

do to us when the Provost and Dean are talking numbers? Dr. Ferguson said he isn't worried about that now, if it's too much to ask of students they shouldn't be in the program. If we would lose 20% of our students over a two year period we would re-evaluate the situation at that time.

- Dr. Ferguson said the rigor must go up; find new ways to make them write more and grade accordingly!

- **EHS vs Safety Criteria** – Dr. Ferguson said he gave faculty members one month to decide if they wanted to go the EHS route or stay with the Safety criteria for ABET Accreditation. He said switching to EHS would not require a major overhaul, 1-2 additional Environmental courses would be added and toxicology would be included. Outcomes would also have to change the department name would not have to change, however the Program title would; instead of a B.S. in Safety Sciences it would be a B.S. in SH&E. Ms. Minnick said the first letter typically reflects the strength of the program, so instead of EH&S it should be SH&E. The following courses will most likely be eliminated from the course sequence; Acct 200/201, BTST 321 and LBST 499, this is due to the liberal studies curriculum changes and our choice to go the EHS route. Three new safety classes will be added; a Safety Communications course, Industrial Exposure/Toxicology course and Environmental/Pollution Control course. Dr. Wachter will ask for faculty help in developing these new courses.

- **Chevron Scholarship Awards** – After faculty vote the winners of the Chevron Scholarships for fall 2011 are: David Kolson (\$1,500), Jason Brubaker (\$800), Abby Sichi (\$800) and Aaron Sulava (\$800).

**Have a GREAT summer,
recharge your batteries and
we'll see you in the fall!!!**

Appendix C: Revised Safety, Health and Environmental Applied Sciences Curriculum Sequence

SAFETY, HEALTH AND ENVIRONMENTAL APPLIED SCIENCES CURRICULUM			
			FALL 2012
<i>Fall (Semester 1)</i>	Credits	<i>Spring (Semester 2)</i>	Credits
<i>SAFE 101 Intro Occupational Safety & Health</i>	3	<i>SAFE 111 Principles of Safety I – General Industry</i>	3
<i>MATH 105 College Algebra</i>	3	____ <i>Humanities Elective (in History)</i>	3
<i>CHEM 101 College Chemistry I</i>	4	<i>CHEM 102 College Chemistry II</i>	4
<i>English Composition I</i>	3	____ <i>Dimension in Wellness Elective</i>	3
____ <i>Humanities Elective (in Philosophy or Religion)</i>	3	<i>PSYCH 101 (Social Science Elective No. 1)</i>	3
	16		16
<i>Fall (Semester 3)</i>	Credits	<i>Spring (Semester 4)</i>	Credits
<i>SAFE 215 Safety, Health and Environmental Communications (WI)</i>	3	<i>SAFE 211 Principles of Safety II – Construction Industry</i>	3
<i>SAFE 220 Hazardous Mat. and Emergency Management</i>	3	<i>SAFE 212 Hazard Prevention Mgmt I</i>	3
<i>BIOL 155 Human Phys&Anat</i>	4	<i>PHYS 112 Physics II</i>	3
<i>PHYS 111 Physics I</i>	3	<i>PHYS 122 Physics II Lab</i>	1
<i>PHYS 121 Physics I Lab</i>	1	<i>English Composition II</i>	3
	14	____ <i>Humanities Elective (in Literature)</i>	3
			16
<i>Fall (Semester 5)</i>	Credits	<i>Spring (Semester 6)</i>	Credits
<i>SAFE 310 Environmental Safety and Health Regulations and Sustainability</i>	3	<i>SAFE 361 Air and Water Pollution</i>	2
<i>SAFE 311 Indus Fire Protection</i>	3	<i>SAFE 330 Health Hazards I</i>	4
<i>SAFE 347 Ergonomics</i>	3	<i>SAFE 335 Industrial and Environmental Stressors</i>	2
____ * <i>Social Science Elective No. 2: Global and Multicultural Awareness course</i>	3	<i>SAFE 345 Process and System Safety</i>	3
<i>MATH 217 Prob. & Stat</i>	3	____ <i>Fine Arts Elective</i>	3
	15		14
<i>Fall (Semester 7)</i>	Credit	<i>Spring (Semester 8)</i>	Credit
<i>SAFE 412 Hazard Prev Mgt II –</i>	3	<i>SAFE ____ Internship (WI)</i>	6
<i>SAFE 430 Health Hazards II</i>	4	____ <i>Free Elective</i>	3
<i>SAFE 435 (new) Ethics and Professionalism</i>	1	____ <i>Free Elective</i>	3
____ <i>Social Science Elective No. 3***</i>			
____ <i>Business Elective No. 1**</i>	3		12
____ <i>Business Elective No. 2**</i>	3		
	3		
	17		

TOTAL CREDITS: 120 credits

* Select a course that fulfills both the social science elective and the global and multicultural awareness requirement.

** Approved Business Electives: ACCT 200 - Foundations of Accounting; MGMT 300 - Human Resource Management ; MGMT 310- Principles of Management; MGMT 311- Human Behavior and Organization, and MGMT 434 Quality Management.

*** Some of the targeted classes for students to take include: SOC 151, SOC 231, ECON 121, and GEOG 101.

Appendix D: Letters of Support

Subject: Proposed Changes to Safety Sciences Undergraduate Curriculum Related to Business Courses

From: "Robert Camp" <bobcamp@iup.edu>

Date: Sat, 16 Jul 2011 08:28:19 -0400

To: "Lon Ferguson" <lon.ferguson@iup.edu>

CC: "Jan K Wachter" <jan.wachter@iup.edu>

Lon-

Dr. Wachter and I visited at length this week regarding a package of coursework which would enhance the skill set and employability of students taking a major in Safety Science. That list is outlined below with comments.

1. Social Sciences Electives

Students would be encouraged to take ECON 122 (Microeconomics) since it would provide valuable instruction regarding the competitive environment of business and cost considerations applicable to investment/expenditures related to safety.

2. Required Business Courses Students would choose two from the following list:

ACCT 200 - Foundations of Accounting
MGMT 300 - Human Resource Management
MGMT 310 - Principles of Management
MGMT 311 - Human Behavior and Organization
MGMT 434 - Quality Management

I certainly endorse the list outlined above. Each course should provide valuable knowledge related to the career work of professionals in the field of Safety Sciences. Please let me know if you have any questions regarding this matter.

Bob

Subject: Re: SAFETY SCIENCES PROGRAM REVISION AND SOC 151 - A SOLUTION?

From: Alex Heckert <aheckert@iup.edu>

Date: 10/18/11 11:41 PM

To: Jan K Wachter <jan.wachter@iup.edu>

Cc: ferguson@iup.edu <ferguson@iup.edu>, kbonach@iup.edu <kbonach@iup.edu>, Melanie Hildebrandt <melanie.hildebrandt@iup.edu>

Jan,

Looks like I need to meet with your external advisory board! :)

Thank you for your compromise position. I am copying our undergraduate coordinator. She and I discussed today the feasibility of making the SOC 151 and SOC 231 classes fit the global and multicultural awareness category. The SOC 151 probably can be adapted to do so pretty easily (I think). The SOC 231 may be a bit more of a challenge.

Again, on behalf of the Sociology department, thanks.
Alex

----- Original Message ----- From: "Jan K Wachter" <jan.wachter@iup.edu>
To: "Alex Heckert" <aheckert@iup.edu>
Cc: <ferguson@iup.edu>
Sent: Monday, October 17, 2011 1:58 PM
Subject: Re: SAFETY SCIENCES PROGRAM REVISION AND SOC 151 - A SOLUTION?

Alex

In a meeting held last April to discuss our proposed program revision, our safety sciences department's external advisory board did not endorse that our B.S. safety science students should need to take SOC 151 as a mandatory course (they did endorse though that PSYC 101 would remain a mandatory course for a variety of reasons related to worker motivation and behavior-based safety management approaches).

But in a spirit of compromise in terms of meeting the advisory board's desire as well our desire to support your department, how about the following as a solution? After talking to Dr. Ferguson, we are willing to make the third social science course a controlled elective. The students could pick one of the following three courses: SOC 151 (Principles of Sociology), SOC 231 (Contemporary Social Problems) or ECON 122 (Microeconomics). I think this solution supports the advisory board's wishes as well as supports your department. I personally think any of these 3 courses would aid our student's overall education.

Also, please be aware that our third social science elective needs to also be a course that will also fulfill the liberal studies curriculum's requirement for global and multicultural awareness. So if your department generates a course that covers both the social sciences and global and multicultural awareness criteria, some of our students would be inclined to take that course also.

Jan