CHIN FREN GERM JPNS RUSS SPAN 91, 111-399

MLL 6, 23, 27, 28, 51, 68, 73, 74, 75, 76, 78, 100, 124, 125, 127, 177, 231, 319, 320, 321

1 independent study (4 credits). This independent course will be supervised by both a primary and a secondary advisor, one each from IR and MLL. The course will include original research in at least one foreign language.

Electives (10-12 credits), as follows:

3 electives from the following approved list (must be chosen from at least two departments):

AAS 3, 5, 38, 148, 263
ANTH 111, 120, 123, 184, 187, 320
All ASIA courses
ECO 208, 342, 343
ENGL 38, 120, 121, 318, 384
IR 23, 34, 56, 57, 61, 82, 120, 132, 142, 143, 145, 151, 163, 164, 168, 169, 177, 246, 322, 323, 344, 347, 354, 354, 367*
JOUR 246
MLL 6, 23, 27, 28, 51, 68, 73, 74, 75, 76, 78, 100, 124, 125, 127, 140, 177, 231, 319, 320, 321*
All Global Citizenship (GC) courses
POLS 3, 104, 108, 323, 324, 325, 335, 336, 337, 342, 374
HIST 5, 11, 12, 49, 50, 75, 76, 107, 157, 158, 159, 160, 177, 341, 342, 347, 348, 349, 350, 356, 357, 358, 359
REL 3, 50, 64, 65, 67, 77, 145, 148, 154, 155, 156, 157, 164, 169, 221, 247
SSP 105, 341
STS 141
WS 73, 326, 327, 341, 342
and other courses as approved by IR and MLL advisors.

*Courses counted as required cannot be double-counted as electives.

III. Academic Impact

This interdisciplinary program is expected to have a positive effect on cooperation between the IR and MLL departments, who will work in tandem to ensure the success of Global Studies students. The program is also expected to increase the number of students and faculty who are able to take advantage of Lehigh's NGO status at the United Nations. It may also increase the number of
students intending to spend at least one semester in an approved study abroad program. It may have a slightly negative impact on the number of students who decide to double-major in the traditional languages, particularly German and French, although this potential outcome should be balanced by the larger number of students who opt for the language-rich program in Global Studies. We also expect to draw students who hitherto shied away from doing a triple major (for example, IR, MLL and Economics or Sociology). We cannot yet ascertain whether such a program will increase interest among prospective applicants to Lehigh. The faculty in both departments have been consulted and are in favor of pursuing the new program. Since some courses in the MLL Department, particularly in Spanish, are currently oversubscribed, it is hoped that the question of additional faculty resources for the department can be addressed in the near future. The dean of the college has been consulted about this issue and expects to be able to address some of the concerns soon. The Director of Study Abroad the task force for Globalization and Social Change and the task force for International CAS have also been consulted about the proposed program.

IV. Resource Impact

Library:
In consultation with the librarian for the College of Arts and Sciences it is agreed that no significant new library resources are required for the proposed Major in Global Studies. With the exception of the new, jointly supervised independent study course, no new courses are planned for this degree. Collection maintenance and building in global areas is already underway and the library collections are deemed sufficient to support student research.

Computers:
No significant new resources are expected for this new degree.

Faculty:
The proposed program can be implemented using existing faculty resources during the 2006-07 academic year. In the long-term it is expected that additional resources may be needed by the MLL Department since certain courses are already oversubscribed, and the proposed degree in Global Studies will eventually increase demand for language and culture courses even more significantly. Similarly, the IR Department needs to increase its offerings in Latin America in particular and may have to offer an additional section of IR 205 and additional 300-level seminars.

It may be possible to address the problem in the short run by offering certain courses during the summer.

Facilities
This proposal has no anticipated impact on facilities.
History

Course changes

5. Courses dropped
   Cls/Hist/WS 152 Women in Antiquity
   Rationale: Robert Phillips has not taught this course in many years and
   is not able to include it in his course offerings

7. Courses added
   Hist. 351 The Gangs of New York (4)
   The course will use the Martin Scorsese film "The Gangs of New York" as a
   window to examine the social and economic transformations of New York
   City in the middle of the nineteenth century. Emphasis will be on
   immigration, slum conditions, nativism, working-class culture, gangs and
   street violence, politics, the Draft Riot of 1863, and the Tweed Ring. A
   recurrent theme will be to compare the historical record with the film's
   depiction of those events. There will be a required evening showing of the
   film. R. NOT AVAILABLE FOR PASS-FAIL. Simon (HU)
   Rationale: This course has been offered several times on an experimental
   basis and has been highly successful. Prof. Simon would like to make it a
   permanent part of his course offerings.

   Hist. 355 The Destruction and Reconstruction of Europe, 1870-1950 (3)
   An analysis of the decline and disintegration of European civilization
   through two world wars and its regeneration as the European Union.
   Emphasis on the development of the European state system, international
   conflict, and political thought. (SS) Baylor
   Rationale: This course has been taught for many years in the Lehigh in
   Belgium program as Hist. 303, Topics in History, so it is not really a new
   course. But it is time for it to have a separate course number and description
   in the catalog.

8. Other changes (number, title, credits, or distribution designation)
   Hist. 012: cross-list this course as GCP 012. Hist. 350: cross-list this course
   as GCP 350
   Rationale: Hist. 012 and Hist. 350 are part of the Global Citizenship
   Program, which has requested the cross-listing.

   Hist/AAS 129: renumber this course as Hist/AAS 179
   Rationale: Hist/AAS 129 needs to be renumbered for consistency because
   the Africana Studies Program wishes to use the 129 designation for another
   course that will be cross-listed with the Music Department.

9. Changes in description
   None

10. Impacts of course changes
   The above changes will have no impact on faculty teaching loads or on the
   budget.
International Relations

1. Current course number, title, course description, and credits (from present course catalogue):

IR 34. **Society and War since the Renaissance (4)**

How changes in human social organization and war over the last thousand years have interacted with each other, in both directions: the impact of social, economic, and technological change on the purposes and methods of war; and the impact of war mobilization needs and of war itself on social change, including democratization, economic planning; and emancipation of disadvantaged groups in society. The American and French revolutions; the Civil War; World Wars I and II; Vietnam; Afghanistan; Iraq; the law of war; atrocities; the nuclear and information revolutions; military institutions in advanced societies today. Kaufmann (SS)

IR 36. **International Terrorism (4)**

After 9/11, we must ask: Have we seen the peak of global terrorism, or is the worst still to come? This course examines psychological, religious, and political explanations of terrorism; reasons for the increasing scale of terrorism and the more frequent targeting of Americans; major terrorist organizations, structures, and means of operation; threats and vulnerabilities facing the United States and the West; legal and moral statuses of terrorism; means of coping with terrorism as an individual and through national policy. Kaufmann. (SS)

IR 125. **International Political Economy (4)**

Principles governing the interaction between the economic and political components of international phenomena. Political causes and consequences of trade and investment. Foreign economic policy and its relationship to domestic economic policy and to other aspects of foreign policy. Determinants of foreign economic policy. Prerequisites: Eco 1, 11, or 12; and IR 10. Moon. (SS)

IR 132. **Nationalism and Ethnic Conflict (4)**

The ideal of nationalism exerts a powerful pull on almost all people everywhere. This course investigates the sources of nationalism and national identity; the manipulation of nationalist feelings for political purposes; and the sources of national and ethnic conflict. Proposals for managing ethnic conflict and their records of success (or failure) Recent and current cases, such as the Israeli-Palestinian conflict; ethnic relations in Iraq; the Balkans; others as current events demand. Prospects for the futures of nationalism, ethnic conflict, and ethnic conflict management. Kaufmann (SS)
IR 334. Prospects for Peace in the 21st Century (4)

Will the 21st century be more or less peaceful than the “terrible 20th”? This course examines theories of war and international insecurity; nationalism; ethnic conflict; terrorism; the nuclear revolution; the special situation of the American superpower; in the early 21st century. We also explore tools of war prevention and resolution, including deterrence and alliances; international institutions and norms; efforts against proliferation of weapons of mass destruction, and humanitarian intervention and peacekeeping; and American policy choices between unilateral and multilateral approaches. Prerequisite: IR 10. Kaufmann (SS)

IR 388. Honors Thesis in International Relations (4)

Honors thesis in international relations for majors with senior standing and with a 3.5 GPA who wish to engage in an intensive, two-semester project under the direct guidance of a faculty member in the student's special area of interest. Department permission required. May be repeated for credit. Staff. (SS)

IR 395. Contemporary Ethical Dilemmas in World Politics (4)

This course is designed to explore, challenge, and re-conceptualize the boundaries of moral community and ethical responsibility through such current dilemmas in world politics as famine, terrorism, torture, genocide, weapons of mass destruction, organized crime and more. Prerequisite: IR 10. Bially Mattern (SS)

2. Proposed course number, title, course description, and credits (as it will appear in course catalogue):

IR 34. Society, Technology, and War (4)

This course explores the links between war and society in both directions: the impact of social, economic, and technological change on how wars are fought and the purposes for which they can be fought; as well as the impact of war mobilization needs and of war itself on how societies develop, including the rise of capitalism, democratization, economic planning and other modern institutions, and emancipation of disadvantaged groups in society, such as blacks and women in the United States. The American and French revolutions; the Civil War; World Wars I and II; Vietnam; Afghanistan and Iraq; the law of war; war propaganda; atrocities; the nuclear and information revolutions; the
ongoing 'revolution in military affairs'; and current trends in the status of military institutions in advanced societies. Kaufmann (SS)

IR 36. International Terrorism (4)

Have we seen the peak of global terrorism, or is the worst still to come? This course examines psychological, religious, and political explanations of terrorism; legal and moral justifications of terrorism; explanations for the increasing scale of terrorism and the more frequent targeting of Americans; major terrorist organizations, structures, and means of operation; suicide terrorism; threats and vulnerabilities facing the United States and Western countries today; means of coping with terrorism as an individual and through national policy; possible future developments. Kaufmann (SS)

IR 125. International Political Economy (4)

Principles governing the interaction between the economic and political components of international phenomena. Political causes and consequences of trade and investment. Foreign economic policy and its relationship to domestic economic policy and to other aspects of foreign policy. Determinants of foreign economic policy. Prerequisites: Eco 1 and IR 10. Moon. (SS)

IR 132. Nationalism and Ethnic Conflict (4)

The ideal of nationalism exerts a powerful pull on almost all people everywhere. This course investigates the sources, spread, and possible future decline of nationalism and national identity, the manipulation of nationalist feelings for political purposes, and the sources of nationalism and ethnic conflict. We will also consider proposals for managing ethnic conflicts and their records of success (or failure). We will study recent and current cases, such as the Israeli-Palestinian conflict, ethnic relations in Iraq and Afghanistan, the Balkans, or others as current events demand. Prospects for the future of nationalism, ethnic conflict, and ethnic conflict management. Simulations of decision-making of groups involved in ethnic conflicts. Kaufmann (SS)

IR 334. Prospects for Peace in the 21st Century (4)

Will the 21st century be more or less peaceful than the "terrible 20th?" This course examines: theories of war and international insecurity; nationalism; ethnic conflict; terrorism; the nuclear revolution; and the special situation of American as the world's sole superpower in the early 21st century. We will also explore tools of war prevention and resolution, including deterrence, alliances, international institutions and norms, efforts against proliferation of weapons of mass destruction, and humanitarian intervention and peacekeeping. We will consider choices in U.S. policy between
unilateral and multilateral approaches to preserving global and regional peace.
Prerequisite: IR 10. Kaufmann (SS)

IR 346. Contemporary Ethical Dilemmas in World Politics (4)

This course is designed to explore, challenge, and re-conceptualize the boundaries of moral community and ethical responsibility through such current dilemmas in world politics as famine, terrorism, torture, genocide, weapons of mass destruction, organized crime and more. Prerequisite: IR 10. Bially Mattern (SS)

IR 388. Honors Thesis in International Relations (4)

International relations majors with senior standing may undertake an intensive, two-semester project under the direct guidance of a faculty member in the student's special area of interest. Students who successfully complete the thesis and whose GPA in the major at the time of graduation is 3.5 or higher receive Departmental Honors. Department permission required. May be repeated for credit. See the Department for additional information. Staff. (SS)

IR 393. Seminar in International Relations (4)

Advanced seminar, comparable to other 300-level seminars, that focuses on discussion and research on specialized subjects in international relations. Variable subject matter. May be repeated for credit. Junior standing and departmental permission required. Staff. (SS)

3. Nature of proposed change(s)

A. Course title change? If so, provide rationale below:
IR 34—More accurate description of content.

B. Course number change? If so, provide rationale below:
IR 395 (experimental) becomes IR 346, a regular offering.

C. Change in course credits? If so, provide rationale below: n/a
NONE.

D. Change in course description? If so, provide rationale below:
IR 34, 36, 132, 334, 388—Describes evolution in actual content of courses as taught, including standards for honors theses (388).
IR 125—Eco 11 and 12 dropped as pre-requisites because they are no longer taught.
E. Other change(s)? If so, please describe below and provide rationale for each change.

1. New course (IR 393). This is needed to accommodate new courses, one-time courses, or independent study arrangements that the Department considers satisfactory for the advanced course requirements for the major or the minor.

2. Replacement catalogue copy for the IR major and IR minor. Rationale is correction of ambiguities and small errors in the current catalogue copy, including # of credits 40, clarification of area studies and advanced course requirements, clarification that IR 1 and 391 do not count for the major or the minor, clarification/correction of the requirements for Departmental Honors, and mention of Peace Studies.

Major in International Relations

The major consists of ten courses for a total of 40 credits. The courses required are:

*Gateway courses (two courses)*

IR 10 Introduction to World Politics (4)

ECO 1 Principles of Economics (4)

*Functional core (three courses)*

IR 56 European International Relations (4)

IR 125 International Political Economy (4)

IR 205 Theories of International Relations (4)

*Area studies focus (two courses)*

Two or more IR courses, totaling 8 credits, each of which focuses on a region of the world other than North America. Certain courses offered by other departments may also qualify. See the Department of International Relations for a complete list.

*Advanced courses (two courses)*

Two or more courses, totaling 8 credits, numbered IR 300-387 and 393. Some courses qualify for either the area studies or for the advanced course requirement, but the same course may not be counted toward both.

*Free elective*

Any IR course or courses, totaling 4 credits, other than IR 1, 90, 388, or 391.
Departmental Honors

To graduate with Departmental honors, a major in international relations must: successfully complete a two semester honors thesis (IR 388) in the senior year; and attain an average of at least 3.5 in the courses constituting the IR major program at the time of graduation.

Minor in International Relations

The minor consists of 16 credits: IR 10, one advanced IR elective numbered 300-387 and 393, and 8 credits of free IR electives other than IR 1, 90, or 391.

Minor in Peace Studies

This interdisciplinary minor is listed under Humanities. IR majors are eligible.

4. Resource Impact

A. Provide impact statements in the four areas listed below:

(1) Library impact statement (attach statement if provided by ITS)

NONE.

(2) Computer impact statement (attach statement, if provided by ITS)

NONE.

(3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)

NONE; instructors remain unchanged.

(4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)

NONE.
Journalism and Communication
Department name: Journalism and Communication

Course changes for JOUR

1. Courses dropped

JOUR 127. Public Relations Principles (4) fall
Emphasis on management function of public relations, including research, planning, counseling, programming, communication and evaluation. Study of communication and persuasion theory, public opinion and ethics. Student teams work outside class for a community client, helping research, plan and implement an actual public relations program during the semester. Gorney (SS)

JOUR 129. Specialized Writing in Public Relations (3) fall
Preparation and writing of promotional and publicity materials, including public service announcements, for radio and television; preparation of audio-visual materials and presentations; planning and conducting news conferences; media interview techniques in negative situations; writing informational and persuasive speeches for others. Students will produce finished public service announcements and will be videotaped giving actual media interviews. Prerequisite: JOUR 11, 123, 228 or consent of department chair. Gorney (ND)

JOUR 228. Working With The Media (4) spring
An overview of the many situations and issues involved in working with the mass media. Students learn techniques used to generate positive publicity, minimize negative media coverage, and maintain successful relationships with reporters, editors and producers. Students also gain hands-on experience with planning, writing and designing publicity and promotional materials for use in mass and specialized media. Prerequisite: JOUR 11 or JOUR 123 and JOUR 127. Gorney (ND)

JOUR 229. Public Relations Case Studies (4) fall
Analysis of public relations programs and practices in business and industry, government, and non-profit organizations. Study focuses on principles that govern employee, community, consumer and media relations, as well as issues management and special events and promotions. Students select, research and write fully documented case studies using both primary and secondary sources, as well as preparing PowerPoint slides to support oral presentations throughout the semester. Prerequisite: JOUR 127. Gorney (ND)
JOUR 233. Public Relations Practicum (1-4) every semester.
Practical application of public relations principles to various semester-long projects, including newsletter production, web-site maintenance, client services for The Firm, program and special events development, and planning and implementation of an annual spring conference. The amount of credit is negotiable with the instructor based on the extent and complexity of the projects undertaken. Senior public relations minors only. Gorney (ND)

JOUR 306. Applied Public Relations (4) spring
Study and application of crisis planning, management and communication principles to problems faced by a variety of profit and non-profit organizations. Study includes effective handling of the release of bad news, negative media coverage, and opposition; planning interviews, news briefings and news conferences. The class works together outside of class to prepare written plans on how to respond to a simulated crisis at various stages of escalation. The cases may be developed by the instructor, or may involve participation in competitive programs sponsored by professional and academic public relations societies. Senior public relations minors only. Prerequisite: JOUR 127 and 229. Gorney (ND)

JOUR 325. Special Topics in Public Relations (1-4) every semester
Research and writing or performance involving a topic, medium or issue in public relations involving some aspect of professional application or theory that expands on the body of knowledge or covers some material not covered in other courses. Prerequisite: Junior or senior standing or consent of department chair. Gorney (ND)

Rationale: The seven courses above will be dropped with retirement of the faculty member who has taught them and directed the department's public relations minor. The minor will also be dropped. Resources formerly used for these courses will be redirected to augment the communication and journalism course offerings.

2. Courses added

JOUR 9. Brown and White photography (1) every semester
Enrollment constitutes membership on the photography staff of the semi-weekly undergraduate newspaper. Students should have basic camera skills and knowledge of digital photography. Classes will include review of these subjects and more advanced study in digital darkroom techniques. Members of the class work on a series of assignments for the newspaper. Students should have their own digital SLR camera equipment and will be expected to provide examples of their work for admission to the class. Repeatable up to 8 credits. Trimble (ND)

Rationale: Students who will enroll in the class formerly took JOUR 1-8 Brown and White, and were mixed in with writers and editors. The plan is to establish a specific number for this class and to provide more guidance and training. The student newspaper will pay hire an adjunct to teach this class.
JOUR 210. Freelance Writing (4)
Study of and practice in reporting and writing for magazines, newspapers and other literary and technical publications. Learning to find the right approach for a particular publication and to write in that publication's style. Practice in analyzing publication content and audiences, and in writing queries that will catch an editor's attention. Learn research and interviewing skills and read works by well-known writers. Prerequisite: JOUR 11 or JOUR 123, and JOUR 13. Staff. (ND)

Rationale: This class has been offered several times under an experimental number, but with the title “Magazine Writing.” The “Freelance Writing” title reflects a slightly broader approach. This course will join JOUR 211 Reporting and JOUR 212 Feature writing as classes that satisfy the junior writing-intensive requirement in our journalism major and minor.

JOUR 325. Seminar in Journalism and Communication Issues (4)
A seminar focusing on contemporary issues and problems facing the mass media. Topics vary. (ND)

Rationale: The class will allow the department to rotate subject matter for the senior seminar class required of all journalism majors without creating a number of new specific course titles and numbers.

3. Other changes

Change in description

From:
JOUR 366. Online Journalism (4) spring
The course examines the social, cultural, political, legal and economic influence of online technology on journalism and the role of journalism in society. Emphasizing critical thinking and analysis, the course studies the ways in which digital technology has changed the way journalists research, write, edit and design. Prerequisite: JOUR 11 or JOUR 123, JOUR 122, or consent of department chair. Lule Olson (ND).

To:
JOUR 366. Online Journalism (3-4) spring
The course examines the social, cultural, political, legal and economic influence of online technology on journalism and the role of journalism in society. Emphasizing critical thinking and analysis, the course studies the ways in which digital technology has changed the way journalists research, write, edit and design. Taken by seniors for 4 credits and graduate students for 3 credits. Prerequisite: JOUR 11 or JOUR 123, JOUR 122, or consent of department chair. Lule, Olson (ND).
**Rationale:** Graduate students occasionally request to take this seminar and there needs to be a mechanism for them to roster it for 3 credits instead of 4.

**Change to cross-list**

From:

**JOUR 125. Environment, the Public and the Mass Media (4) Fall**
Extensive exploration of local, national and international environmental problems and their social, political and economic impacts. Analysis of mass media coverage of complex environmental issues and the media's effects on public opinion and government environmental policies. Examination of environmental journalism principles and practices in the United States and around the world. S. Friedman.

(SS)

To:

**JOUR 125 (FS 125). Environment, the Public and the Mass Media (4) Fall**
Extensive exploration of local, national and international environmental problems and their social, political and economic impacts. Analysis of mass media coverage of complex environmental issues and the media's effects on public opinion and government environmental policies. Examination of environmental journalism principles and practices in the United States and around the world. S. Friedman.

(SS)

**Rationale:** This change simply cross-lists the existing JOUR 125 class with the Environmental Studies program.

4. **Impacts of course changes**

As noted in some of the rationale above, most of these changes are related to the retirement of a faculty member and the shifting of resources formerly used to offer the public relations minor to journalism and communication majors and minors. For all these changes, there will be no impact on staffing levels. The department expects to hire a replacement faculty member to begin Fall 2006.

For the courses added, the JOUR 9 class will require an adjunct whose salary will be paid by the student newspaper; the JOUR 210 class has been offered for the past two years with an experimental number out of regular continuing adjunct funds; and the JOUR 325 class will be offered on a rotating basis by various faculty members as part of their normal teaching load.

From a curricular standpoint, the changes will greatly enhance the department's ability to offer communication courses and strengthen its popular communication minor. The last students with declared public relations minors will graduate Spring
2007, and the department will use adjunct funds to cover courses they need to complete their minors.

Curriculum changes

Curriculum Change in Journalism Major:

From:

**Journalism Major**

Core courses
JOUR 1 Brown & White (1)
JOUR 2 Brown & White (1)
JOUR 3 Brown & White (1)
JOUR 4 Brown & White (1)
JOUR 11 News Writing (4)
JOUR 13 Editing (2)
JOUR 14 Publication Design (2)
JOUR 122 Media Ethics & Law (4)

Advanced courses
JOUR 211 Reporting (4) (junior writing intensive requirement)
or
JOUR 212 Feature Writing (4) (junior writing intensive requirement)
JOUR 361 Internship (4)
Senior Seminar Journalism or Communication course at 300 level (4)

Required Electives
Two additional Journalism or Communication courses; one of them at the 200 level or above (8)

Total credits: 36

Collateral Requirements
Students must also complete an academic minor or another major with a minimum of 16 credits

Required math course.
Understanding statistical information has become extremely important in modern society. Math 12, Basic Statistics, is required for students taking a journalism or science writing major. Students should take Math 12 to fulfill the college's distribution requirement. Eco 145, Statistical Methods, is an acceptable alternative. For science/science writing double majors, calculus will be considered as a substitute for statistics.
To:

*Journalism Major*

**Core courses**
JOUR 1 Brown & White (1)
JOUR 2 Brown & White (1)
JOUR 3 Brown & White (1)
JOUR 4 Brown & White (1)
JOUR 11 News Writing (4)
JOUR 13 Editing (2)
JOUR 14 Publication Design (2)
JOUR 122 Media Ethics & Law (4)

**Advanced courses**
JOUR 210 Freelance Writing (4) (junior writing intensive requirement)
or
JOUR 211 Reporting (4) (junior writing intensive requirement)
or
JOUR 212 Feature Writing (4) (junior writing intensive requirement)
JOUR 361 Internship (4)
Senior Seminar Journalism or Communication course at 300 level (4)

**Required Electives**
Two additional Journalism or Communication courses; one of them at the 200 level or above (3)

**Total credits:** 36

**Collateral Requirements**
Students must also complete an academic minor or another major with a minimum of 16 credits

**Required math course.**
Understanding statistical information has become extremely important in modern society. Math 12, Basic Statistics, is required for students taking a journalism or science writing major. Students should take Math 12 to fulfill the college's distribution requirement. Eco 145, Statistical Methods, is an acceptable alternative. For science/science writing double majors, calculus will be considered as a substitute for statistics.

**Rationale:** The change also allows JOUR 210, Freelance Writing, as an alternative to JOUR 211, Reporting, and JOUR 212, Feature Writing, in the Advanced Courses requirements of the major. This will accommodate a broader range of students' career aspirations.
Impacts: This change will not require additional resources because this course is already regularly offered via ongoing funding. Adding JOUR 210 Freelance Writing as an alternative to JOUR 211 Reporting and JOUR 212 Freelance Writing actually takes some stress off of the demand for those two courses.

Curriculum Change for Journalism Minor

From:

Journalism Minor
Students who wish to declare a minor program in journalism must be majors in another discipline and take the following:
- JOUR 1-2 Brown and White (2)
- JOUR 11 News Writing (4)
- JOUR 13 Editing (2)
- JOUR 14 Publication Design (2)
- JOUR 212 Feature Writing (4)
One other Journalism course at or above the 100 level (4)
Total credits: (18)

To:

Journalism Minor
Students who wish to declare a minor program in journalism must be majors in another discipline and take the following:
- JOUR 1-2 Brown and White (2)
- JOUR 11 News Writing (4)
- JOUR 13 Editing (2)
- JOUR 14 Publication Design (2)
- JOUR 210 Freelance Writing (4)
or
- JOUR 211 Reporting (4)
or
- JOUR 212 Feature Writing (4)
One other Journalism course at or above the 100 level (4)
Total credits: (18)

Rationale: This change adds JOUR 210 Freelance Writing to the list of courses that journalism minors can use to satisfy their junior writing requirement to give students another option so that they can tailor the minor to their interests.

Impact: This change will not require additional resources because this course is already regularly offered via ongoing funding. Adding JOUR 210 Freelance Writing as an alternative to JOUR 211 Reporting and JOUR 212 Freelance Writing actually takes some stress off of the demand for those two courses.
Curriculum Change for Public Relations Minor

This minor will be dropped.

Rationale: There are a half-dozen students with this declared minor who will graduate Spring 2007. The department will continue to support those in this minor with adjuncts until they have completed it. The faculty member who has taught most of the courses necessary for this minor is retiring in December 2005. The department is engaged in a search for a replacement, to be hired Fall 2006. The new faculty member will augment the department's communication and journalism offerings.

Impact: The change will have no impact on students who are currently enrolled as public relations minors as their program will be supported through graduation. It will have a very positive impact on the department's ability to offer communication and journalism classes over the long term. No additional resources will be required to implement these changes.

Course changes
5. Courses dropped
   None

6. Courses added
   COMM 220 Public Relations (4)
   Study of public relations principles and writing strategies. Analysis of the ethical, legal and public opinion environments for public relations as well as development of problem-solving and communication strategies for a variety of audiences, including the mass media. Preparation of publicity materials; planning and conducting news conferences; writing brochures, newsletters and reports, and informational and persuasive speeches for others.
   Prerequisites: JOUR 11 or JOUR 123, and JOUR 13. Staff. (ND)
   Rationale: This new course will be offered for the first time Spring 2006 under an experimental number. This single course will give journalism majors and minors basic concepts of public relations once the current public relations courses are dropped under the JOUR designation.

7. Other changes (number, title, credits, or distribution designation)
   None

8. Changes in description
   None

9. Impacts of course changes
   Retirement of the faculty member who has taught our public relations courses and replacement of her with a communications-oriented teacher/researcher will result in most of the resources formerly directed to the public relations program being shifted to communication courses and general journalism courses. Some of those resources will free up adjunct funding that can cover this new course, so there will be no additional need for funding.
Course changes for COMMunications

2. Courses added

COMM 220 Public Relations (4)
Study of public relations principles and writing strategies. Analysis of the ethical, legal and public opinion environments for public relations as well as development of problem solving and communication strategies for a variety of audiences, including the mass media. Preparation of publicity materials; planning and conducting news conferences; writing brochures, newsletters and reports, and informational and persuasive speeches for others. Prerequisites: JOUR 11 or JOUR 123, and JOUR 13. Staff. (ND)

Rationale: This new course will be offered for the first time Spring 2006 under an experimental number. This single course will give journalism majors and minors basic concepts of public relations once the current public relations courses are dropped under the JOUR designation.

4. Impacts of course changes
Retirement of the faculty member who has taught our public relations courses and replacement of her with a communications-oriented teacher/researcher will result in most of the resources formerly directed to the public relations program being shifted to communication courses and general journalism courses. Some of those resources will free up adjunct funding that can cover this new course, so there will be no additional need for funding.

Mathematics
Course changes
1. Courses dropped
None

2. Courses added
MATH 2YZ—Geometry (3-4)
Discussion of geometry as an axiomatic system. Euclid’s postulates History of and equivalent versions of Euclid’s fifth postulate. Finite projective geometries. Non-Euclidean geometries based upon negation of the fifth postulate: Geometry on the sphere; Hyperbolic and elliptic geometries. Examination of the concepts of “straight”, angle, parallel, symmetry and duality in each of these geometries. Applications of the different geometries will be considered. Prerequisite: Math 205 or Math 242 or consent of instructor. (MA)

Rationale: Including a course on geometry that includes but is not limited to Euclidean geometry is one of the recommendations of the MAA’s Committee on Undergraduate Programs in Mathematics (CUPM). In particular, this course will meet the needs of students preparing for careers in pre-college education. Teacher certification requirements in FA and in
most other states include coursework dealing with Euclidean and non-
Euclidean geometries, axiomatic systems, and proof writing.
This course can be structured to provide some historical perspective on
mathematics. This is also among the recommendations of the MAA-CUPM
for all majors and a requirement for teaching certification.

3. Other changes (number, title, credits or distribution designation)
   None

4. Changes in description
   MATH 231. Probability and Statistics (3) fall-spring
   Probability and distribution of random variables; populations and random
   sampling; chi-square and t distributions; estimation and tests of hypotheses;
   correlation and regression theory of two variables. Prerequisite: MATH 22
   or MATH 32 or MATH 52. (MA)
   Rationale: The only change from the existing course description is to
   change the prerequisites from Math 23 or 33 or 52 to Math 22 or 32 or 52.
   Only one topic from Math 23/33 is used in Math 231, namely double
   integrals. They are used to find some probabilities and expected values for
   jointly distributed random variables. Although this is a nice application of
calculus to probability, it is not vital to the course, and appears in about two
lectures during the semester.
   Because of the prerequisite, we are preventing many students from taking a
calculus-based course in probability and statistics. If the topics involving
double integrals are dropped, they could be replaced with other equally
important material.
   The course description is flexible enough to accommodate this without being
   changed.

5. Impacts of course changes
   No impact.
   Math 2YZ will not run every year, but will be put in “rotation” with other
courses that only run periodically, so will not require any increase in
resources.
   The change in Math 231 will allow some students to take the course who
   cannot now do so, so may lead to some increase in enrollment, but the effect
   will be small and the extra students can be accommodated without trouble.

Program changes
Change the minor in applied mathematics from:
   Two of Math 205, 208, 230, 231, 240, 320, 323
   Math 322
   Math 341
   to:
   Three of Math 205, 208, 230, 231, 240, 320, 322, 323
   Math 341
   Rationale: Math 322 may not be a suitable course for students seeking a
   minor in applied mathematics (depending on their backgrounds).
   Impact: No resource impact
Modern Languages and Literature
Course changes
1. Courses dropped
   Fren 159. The French-Speaking World and its Culture (4)
   Rationale: The title of this course no longer reflects the content of our
culture course. The 100 level does not reflect the necessary knowledge
of French and the level of reading and writing for the course.

2. Courses added
   Fren 259. Getting in Touch with Today’s France (4)
   This course is designed to introduce students to major debates in French
society today. How is France defining itself today as a European nation in a
global world? Issues to be explored include: family, gender, race and
religion, the education and social systems, immigration, and politics.
Strongly recommended for students who plan to study abroad in France.
Prerequisite: Fren 143, 144, or consent of instructor. (HU)
Rationale: The 200 level is justified for the reasons specified above. This is
a demanding course that requires an excellent knowledge of the language.
The title reflects the actual content of the course.

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None

5. Impacts of course changes
   None

Modern Languages and Literature
Course changes
1. Courses dropped
   None

2. Courses added
   GERM 260. (MLL 260, GCP 260) Multicultural Germany (4)
   A look at Germany from the perspective of its “others”—the immigrants. We
will read literary and cultural texts and watch films on the topic of ethnic
diversity and integration. (HU)
Rationale: Course developed as part of the Global Citizenship Faculty
seminar, in conjunction with MLL and GERM.

3. Other changes (number, title, credits, or distribution designation)
   Germ 301. Survey of German Literature (4), GERM 211. (MLL 211, THTR
211) German Drama (4), GERM 218. (MLL 218, THTR 218) Goethe’s
“Faust” (4), GERM 231. (MLL 231, GCP 231) New German Cinema (4)
Rationale: German 301 replaces Germ 201, GERM 211 Taught in English.
Add MLL as cross-list, GERM 218 Taught in English. Add MLL as cross-
list, GERM 231 Taught in English. Add GCP as cross-list.
Modern Languages and Literature

Course changes
1. Courses dropped
   None

2. Courses added
   Arabic 001. Elementary Arabic I (4)
   Fundamentals of Arabic, reading and simple texts, simple conversation and composition, vocabulary building. No previous knowledge of Arabic required. (HU)

   Arabic 002. Elementary Arabic II (4)
   Continuation of Elementary Arabic I. Fundamentals of Arabic, reading and simple texts, simple conversation and composition, vocabulary building. No previous knowledge of Arabic required. (HU)

   Arabic 011. Intermediate Arabic I (4)
   Review of grammar, composition, reading of intermediate texts, vocabulary building. Prerequisite: Arabic I. (HU)

   Arabic 012. Intermediate Arabic II (4)
   Continuation of Intermediate Arabic I. Review of grammar, composition, reading of intermediate texts, vocabulary building. Prerequisite: Arabic I. (HU)

   Arabic 190. Arabic Special Topics I (1-4)
   Literary and linguistic topics not covered in regular classes. May be repeated for credit. (HU)

   Arabic 191. Arabic Special Topics II (1-4)
   Literary and linguistic topics not covered in regular classes. May be repeated for credit. (HU)

   Rationale: Rationale: Run as experimental courses for past two years. Add permanently to catalog.

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None
5. Impacts of course changes

Modern Languages and Literature

Course changes

1. Courses dropped
   MLL 143 German Literature and Culture in Translation (4)
   Rationale: This course has not been taught in at least 15 years, and there are no plans to teach it again soon.

2. Courses added
   MLL 165. (Asia 165, GCP 165) Love and Revolution in Shanghai (4)
   This project-based course will examine human relationships and political-economic changes in Shanghai through the lens of literature, film, and a selection of other readings. Students will discuss the conflicts between and influences of pre-communist, communist, and capitalist systems as played out in the Shanghai area. Students will write research papers on aspects of historical or modern Shanghai and present their results to the class. They will also be responsible for blackboard and in-class discussions of assigned readings and films. (11U)
   Rationale

3. Other changes (number, title, credits, or distribution designation)
   MLL 231 (GERM 231, GCP 231) New German Cinema (4)
   Rationale: Add GCP 231 as cross-list.

4. Changes in description
   MLL 73. (Asia 73, GCP 73, WS 73) Film, Fiction, and Gender in Modern China (4)
   Study of the struggle for an individual "modern" identity out of traditionally defined roles for men and women as depicted by Chinese writers and filmmakers. Class, texts, and films in English. Students interested in setting up a corollary Chinese language

5. Impacts of course changes
   No impacts.

Modern Languages and Literature

Course changes

1. Courses dropped
   MLL 320. Berlin: 1920s to the Present (4)
   Rationale: Course to be taught entirely in German, as GERM 320.

2. Courses added
   MLL 211. (GERM 211, THIR 211) German Drama (4)
   German as a literary genre; plays from various periods of German literature. (HU)
Rationale: Course taught in English. Add as cross-list to existing GERM 211, THTR 211.

3. Other changes (number, title, credits, or distribution designation)
   MLL 319 (4)/MLL 419 (3) Second Language Acquisition (SLA) Theory
   MLL 321 (4)/MLL 421 (3) Intercultural Communication
   Rationale: Establishes permanent number for MLI 3XX/4XX courses

4. Changes in description
   MLI 78 (Asia 78) Asian-American Studies (4)
   A survey of issues concerning Asians living in the United States from the
   perspectives of history, language, literature, and film. (HU)
   Rationale:

5. Impacts of course changes
   No impacts.

Modern Languages and Literature
Course changes
1. Courses dropped
   None

2. Courses added
   MLI 218. (GERM 218, THTR 218) Goethe's "Faust" (4)
   Study of Goethe's play with an introduction to the Faust tradition and
   Faustian themes in modern literature. (HU)
   Rationale: Course taught in English. Add as cross-list to existing GERM
   218, THTR 218.

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   MLI 125. (Asia 125) Immortal Images: Traditional Chinese Literature
   in Translation (4)
   Explore age-old themes in literature as diverse as pre-modern novels, ghost
   stories, poetry, divination manuals, and medical texts. Students interested in
   setting up a corollary Chinese language component for credit as Chin 251,
   may discuss this with the professor. (HU)
   Rationale.

5. Impacts of course changes
   No impacts.

Modern Languages and Literature
Course changes
1. Courses dropped
   None
2. **Courses added**
   
   MLL 260, (GERM 260, GCP 260) **Multicultural Germany (4)**
   A look at Germany from the perspective of its “others”—the immigrants. We will read literary and cultural texts and watch films on the topic of ethnic diversity and integration. (HU)
   
   **Rationale:** Course developed as part of the Global Citizenship Faculty seminar, in conjunction with MLI and GERM.

3. **Other changes (number, title, credits, or distribution designation)**
   
   None

4. **Changes in description**
   
   MLI 127 (Asia 127) **ORIENTations: Approaches to Modern Asia (4)**
   A survey of the rapid economic, political, and social changes occurring in East, South, and Southeast Asian countries. How do the contemporary societies and historical traditions of Asian countries differ from the West? What distinguishes our perspectives?
   
   **Rationale:**

5. **Impacts of course changes**
   
   No impacts.

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**Modern Languages and Literature**

**Course changes**

1. **Courses dropped**
   
   None

2. **Courses added**
   
   None

3. **Other changes (number, title, credits, or distribution designation)**
   
   Course changes for **Minor in International Communication:** (Courses: Required)
   
   Negotiating across Cultures (MLL 90 or 124) or Globalization and Cultures (MLL 6).
   
   **Rationale:** This change will bring catalog description in line with approved minor program.

4. **Changes in description**
   
   **Minor in International Communication**
   
   (Description) Students must take MLL 90/124 or MLL 6 as a core course, ...
   
   **Rationale:** This change will bring catalog description in line with approved minor program.

5. **Impacts of course changes**
   
   None
Modern Languages and Literature

Course changes
1. Courses dropped
   None

2. Courses added
   None

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   Russ 2. Elementary Russian II (4) spring
   Continuation of Russ 1. Prerequisite: Russ 1 or equivalent. (HU)
   Rationale: Changes make it possible to place heritage students of the language in the correct section.

   Russ 11. Intermediate Russian I (4) fall
   Classroom and laboratory practice in conversation. Development of reading and writing skills. Prerequisite: Russ 2 or equivalent. (HU)
   Rationale: Changes make it possible to place heritage students of the language in the correct section.

   Russ 141. Conversation and Composition I (4) fall
   Intensive practice in oral and written Russian; laboratory practice in oral comprehension. Readings and discussions on Russian literature and culture. Prerequisite: Russ 12 or equivalent. (HU)
   Rationale: Changes make it possible to place heritage students of the language in the correct section.

   Russ 142. Conversation and Composition II (4) spring
   Continuation of Russ 141. Prerequisite: Russ 141 or equivalent. (HU)
   Rationale: Changes make it possible to place heritage students of the language in the correct section.

   Russ 251. Special Topics (1-4) fall
   Intensive study of literary or linguistic topics. Prerequisite: Russ 142 or equivalent. May be repeated for credit. Nicholas. (HU)
   Rationale: Changes make it possible to place heritage students of the language in the correct section.

   Russ 252. Special Topics (1-4) spring
   Intensive study of literary or linguistic topics. Prerequisite: Russ 142, 251, or equivalent. May be repeated for credit. Nicholas. (HU)
   Rationale: Changes make it possible to place heritage students of the language in the correct section.

5. Impacts of course changes
   None
Modern Languages and Literature

Course changes

1. Courses dropped

   None

2. Courses added

   Span 275. (WS 275) Introduction to Hispanic Women Writers (4)
   The objective of this class is to introduce students to Hispanic contemporary
   female authors from Latin America, Spain, and the United States through the
   analysis of all literary genres (novel, short story, poetry, essay, and drama).
   This class provides students with a solid introduction to both Hispanic
   women's writing from the last years of the Nineteenth Century to the present,
   as well as to feminist literary theory. Portela. (HU)
   Rationale: New, permanent number adopted from experimental classes (Fall
   2003 and Fall 2005). This class reflects the area of expertise of the new
   assistant professor.

   Span 345. Testimonial Writing of the Hispanic World (4)
   This course explores the genre testimonio, which confronts the official
   history of the Latin American and Spanish dictatorships and portrays the
   experiences and struggles of those who suffered political repression. The
   course focuses on the analysis of both literary and visual testimonios from
   the Hispanic world, as well as on theoretical issues concerning discourses of
   truth. Portela. (HU)
   Rationale: New, permanent number adopted from experimental class (Fall
   2004). This class reflects the area of expertise of the new assistant professor.

   Span 346. (WS 346) Contemporary Hispanic Women Writers: The
   Novelists (4)
   This course explores the works of Hispanic women writers who have been
   oppositional to hegemonic cultural politics during the Twentieth Century in
   Latin America and Spain. Grounding the readings in their particular contexts,
   the class discusses the issues these writers define as important in their work,
   the impact of their creations in both the literary canon as well as in the
   politics of their countries, the use of literature as a weapon to empower
   minority positions, and the effect of their narratives on the changing literary
   canon. Special attention will be paid to issues related to interpretations of
   history, exile, different forms of violence and repression, expressions of
   desire, and sexuality. Portela. (HU)
   Rationale

3. Other changes (number, title, credits, or distribution designation)

   None

4. Changes in description

   None

5. Impacts of course changes

   Expansion of the curriculum. No monetary/personnel implications.
Music

Course changes
1. Courses dropped
   MUS 140: Jazz Improvisation (1)
   Rationale: The director has determined that students would benefit more from small jazz group participation than in a class with unpredictable enrollments and distribution of instruments covered.

2. Courses added
   MUS 65: Class Guitar for Beginners (1) fall-spring
   Beginning techniques and skills for guitar, either acoustic or electric. For students with less than a year of guitar instruction. Students supply their own instruments (HU)
   Rationale: Class instruction allows us to offer guitar within our very limited space constraints.

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None

5. Impacts of course changes
   By dropping MUS 140: Jazz Improvisation, the Jazz Concentration will have to include four semesters of small group jazz (already in catalog) in place of Jazz Improvisation.
   MUS 65: Added courses actually claim less time and space in Zoellner by teaching several beginning students simultaneously.

Music

Course changes
1. Courses dropped
   None

2. Courses added
   MUS 67: Class Drum Set for Beginners (1) fall-spring
   Rudiments of drum set playing for students with less than a year of drum instruction. (HU)
   Rationale: Class instruction allows us to offer drum set within our very limited space constraints.

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None
5. **Impacts of course changes**
   MUS 66: Added courses actually claim less time and space in Zoellner by teaching several beginning students simultaneously.

**Music**

**Course changes**
1. **Courses dropped**
   None

2. **Courses added**
   None

3. **Other changes (number, title, credits, or distribution designation)**
   Change title from
   MUS 33: Overtones to MUS 33: Glee Club
   **Rationale:**

4. **Changes in description**
   None

5. **Impacts of course changes**
   None

**Music**

**Course changes**
1. **Courses dropped**
   None

2. **Courses added**
   None

3. **Other changes (number, title, credits, or distribution designation)**
   Change prerequisites from
   MUS 128: Jazz History I Prereq MUS 10, 11 or permission to no prereq
   MUS 129: Jazz History II Prereq MUS 10, 11 or permission to no prereq
   **Rationale:**

4. **Changes in description**
   None

5. **Impacts of course changes**
   None

**Music**

**Course changes**
1. **Courses dropped**
   None
2. **Courses added**

   MUS 34: Freshman Lab Choir (0) Fall
   Required of all first-year students accepted in the University Choir. Focus on sight-singing and repertoire. (ND)

   **Rationale**: Freshmen are reauditioned at the end of the fall semester to make sure they are able to maintain the pace of the choir's schedule. This class gives them additional exposure to the music and to choral singing. The class has been run the past two fall semesters under a temporary number.

3. **Other changes (number, title, credits, or distribution designation)**

   None

4. **Changes in description**

   None

5. **Impacts of course changes**

   Course taught as part of Prof. of Practice duties

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**Peace Studies**

1. **Proposed Peace Studies Minor**

   **Description**

   In a series of courses in the humanities and social-sciences, the Peace Studies Minor will focus, for one of its two main components, on the history, theory, and practice of nonviolent direct action in its various forms, as employed by such leaders as Gandhi and King. In its second component students will gain an understanding of the causes of armed conflict and the policy processes that influence the escalation and de-escalation of hostilities. A central course (Hum 180) will introduce key concepts by which practitioners, using both these approaches, seek to create peace in a violent world. Both components will also be pursued through carefully chosen elective courses.

   Initial program advisors will be Addison Bross (English) and Chaim Kaufmann (International Relations).

   For catalogue purposes, the minor should be listed under "Humanities."

   **Rationale**

   Programs in peace studies in the United States date from 1948 (Manchester College in Indiana). In 1999 there were more than 160 undergraduate programs in peace-studies and conflict-resolution in this country; graduate programs numbered over 80.
Interest in this program among Lehigh students and faculty was indicated in Spring 2004, when students from Professor Bross’s Freshman Seminar (Considering Peace and Nonviolence) and some from the Progressive Students’ Alliance received strong support for a petition, which they composed and circulated on their own initiative, urging that such a program be established. At that time Professor Gordon Baren, Director of the Humanities Center, agreed that that campus entity would host this minor (as it has been hosting two others, one in Medieval Studies and one in Ethics) until such time as Peace Studies might find a home in some academic department.

Requirements for Completion of the Minor

Four 4-credit courses, including:
1. Hum 180. Introduction to Peace Advocacy
2. 1 course from the non-violence/peace advocacy list below;
3. 1 course from the conflict/policy process list below;
4. 1 course from either list.

Non-violence/peace advocacy/practice of advocacy
Hum 181. LEPOCO Internship.*
IR 346. Ethics in International Relations.
IR 391. U.N. or other IGO/NOO internship approved by program advisor.*
MIL 124. Negotiating Across Cultures.
Religion 3 (Philosophy 3). Religion, Ethics and Society.
Religion 68. Practical Justice: From Social Systems to Responsible Community.
Religion 167. Engaged Buddhism.
POLS 230. Movements and Legacies of the 1960s
POLS 326 Democracy Workshop.
POLS 370. The Citizen Versus the Administrative State.

* No more than one internship can be counted toward the minor.

Conflict/policy process/foreign policy
History 110. American Military History.
History 349. Revolutions in Modern European History.
IR 34. Society, Technology and War.
IR 36. International Terrorism.
IR 74. American Foreign Policy.
IR 120. Globalization.
IR 132. Nationalism and Ethnic Conflict.
IR 142. International Law.
POLS 329. Propaganda, Media, and American Politics.
SSP 105. Social Origins of Terrorism.
2. Proposed course number, title, course description, and credits (as it will appear in course catalogue):

Humanities 180. Introduction to Peace Studies (4)

Offers an overview of the field from the perspective of various disciplines in the humanities and social sciences. Among issues to be explored are the contested concepts of "peace," "war," and "violence" (overt and systemic); methods for establishing "negative" and "positive" peace; the theory and evolution of "direct action" as a means to nonviolent social change as practiced by Gandhi, King, and others; the causes of armed conflict; methods for reducing, through diplomacy, the tensions that lead to war, for de-escalating hostilities and restoring peace; the validity of Just War theory and challenges to it. Since attempts to establish peace must take into account the political and social environment in which peace advocates must operate, several guest lectures by faculty from International Relations and other departments will be included. Bross (HU)

Humanities 181. Internship with Lehigh-Pocono Committee of Concern (LEPOCO) (4)

Supervised practical work with this volunteer peace-and-justice organization located in Bethlehem, PA, combined with a sequence of supervised readings in the history and theory of nonviolent methods of resolving conflict. Requirements include journal-keeping, periodical consultations with the advisor, and a final essay on the student's response to the readings and assessment of his or her practical work. Bross.

3. Nature of proposed change(s)

A. Course title change? If so, provide rationale below:
NONE.

B. Course number change? If so, provide rationale below:
NONE.

C. Change in course credits? If so, provide rationale below: n/a
NONE.

D. Change in course description? If so, provide rationale below:
NONE.
E. Other change(s)? If so, please describe below and provide rationale for each change.

New courses: Hum 180 will serve as the core course for the minor; Hum 181 will be an elective course.

3. Resource Impact

A. Provide impact statements in the four areas listed below:

(1) Library impact statement (attach statement, if provided by LIS)
NONE.

(2) Computer impact statement (attach statement, if provided by LIS)
NONE.

(3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)
Addison Bross will teach the core course (Hum 180) once per year in place of another course. He will take on the IEP/OCO internship (Hum 181) as an overload.

Chaim Kaufmann will give 2-3 lectures per year in Hum 180 and other guest lecturers one each, in addition to their regular teaching load. Six additional volunteers have already agreed to participate, and we anticipate recruiting a few more.

Bross and Kaufmann will share advising and other administrative duties in addition to their regular administrative duties.

The minor could shift some student enrollment toward the elective courses, but the impact on any one course should be small.

(4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
NONE.
Philosophy

Course Changes

1. Courses dropped

None

Rationale: None

2. Courses added

Philosophy 8 - Ethics in Global Perspectives (GCP 8) (4)
Economic, political, cultural, and ideological globalization presents two ethical challenges: (1) Are there universally justifiable moral standards, principles, and values that would establish universally acceptable answers to the question of how humans should live their lives? That is, can there be a global ethics? (2) What are justifiable responses to the variety of moral issues facing the peoples of the world as a result of current globalization?
This course addresses the first question by examining the moral perspectives of a variety of different ethical outlooks, including Euro-American, Hindu, Buddhist, Confucian, African, and Islamic traditions. The second question is addressed by examining a number of serious moral problems arising from globalization, including the increasing gap between the rich so-called First World nations and the poor so-called Third World nations, global environmental degradation, and war and terrorism. Dillon (HU)
Rationale: "New course represents expanded teaching interests as a result of my participation in the Global Citizenship faculty seminar in spring 2005. The course connects my scholarly interests in ethics with the needs of the Global Citizenship program, while also expanding the philosophy department's offerings of ethics and first-year courses. No other course offered treats ethical theory and issues in a global perspective."

Phil 3XX - American Religious Thinkers (Rel 3XX and AMST 3XX)
An examination of the writings of key figures in the history of American religious thought (such as Edwards, Emerson, Bushnell, Peirce, James, Royce, Dewey and the Niebuhrs). Attention will be directed both to the historical reception of these writings and to their contemporary significance. Raposa (HU)
Rationale: The bulk of Raposa's scholarly work over the last 25 years has been devoted to the material that would be treated in this seminar. Yet none of the courses that he presently teaches deals explicitly with these texts/thinkers. Moreover, there is no regular course offered either in American studies or in Philosophy that treats the major figures in the history of American philosophy and theology. This would be such a course, accessible both to advanced undergraduates and to graduate students.

3. Other changes (number, title, credits, or distribution designation)

The following philosophy course is to be cross-listed with AMST (Africana Studies): Phil 117 - Race and Philosophy (4) Instructor: Gordon Bean (HU) Description is in the current catalog, Phil 217 - Figures/Themes in Race and Philosophy (4) Instructor: Gordon Bean (HU)
Rationale: Both of these courses seek a philosophical description and evaluation of anti-black racism. In the past when they were taught, they were
in fact cross listed with Africana Studies, so it only makes sense to bring the catalog into line with our actual practice.

4. Changes in description
   None

5. Impacts of course changes
   Phil 8/GCP 8: An opportunity for Philosophy to participate in the Global Initiative. Also provides another much-needed philosophy course at the 000-level that is open to freshmen. Robin Dillon will be able to teach Phil 8 without relinquishing or reducing the frequency of any course required for the major or minor.

   Phil 3XX/Rc/3XX/AMST3XX: Offered by the Religion Studies Department; cross-listed by Philosophy. We have no “regular” 300-level courses (we have only independent projects such as senior thesis, advanced independent study, and independent ethics project at that level). This is a course that we can offer to our advanced majors. Will not require philosophy resources.

   This 300-level course will provide Professor Michael Raposa an opportunity to contribute to both Religion Studies and American Studies (he is the Fife/Hild Chair in American Studies) while he serves a 2&1/2-year stint as Associate Dean in the College of Arts and Sciences. The course opens up a graduate teaching opportunity, which is a benefit to the Religion Studies department, and it should attract a healthy enrollment from students interested in American religion and philosophy. The course should make no unusual demands on library acquisitions; it could easily use texts readily available in print; and pose no financial difficulties for the Philosophy Department.

   Phi 117/AMST 117 and Phil 217/AMST 217: Already existing Philosophy courses to be cross-listed with Africana Studies. Will enhance the offerings of Africana Studies without creating a need for new resources.

Political Science

Course changes

1. Courses dropped
   None

2. Courses added
   POLS 105: Environmental Policy and Planning (4)
   Rationale: This course has been offered previously with an experimental number and always cross-listed with Environmental Studies 101. The Political Science Department and the Environmental Studies Department both agree that a permanent listing for Political Science is in order due to the success of the course and its importance to the major in each department.
POLS 106: Environmental Values and Ethics (4)

Rationale: This course has been offered previously with an experimental number and always cross-listed with Environmental Studies 102. The Political Science Department and the Environmental Studies Department both agree that a permanent listing for Political Science is in order due to the success of the course and its importance to the major in each department.

3. Other changes (number, title, credits, or distribution designation)
   Officially add to the catalog and cross-list with ES 105v & 106 (formerly ES 101 & 102)

   Rationale:

4. Changes in description
   None

5. Impacts of course changes
   These additions/changes to the catalog will enhance all programs involved without requiring additional resources or personnel.

Political Science

Course changes

6. Courses dropped
   None

7. Courses added
   None

8. Other changes (number, title, credits, or distribution designation)
   POLS 106: Environmental Values and Ethics (4)

   Change distribution from Humanities to Social Science
   Add course to list of electives that fulfill the Political Theory and Comparative Politics requirement.

   Rationale: Instructor and each department agree that the course is more suitable as a Social Science requirement and should fulfill elective requirements for Political Science majors.

   POLS 108: Citizenship and its Discontents (4)
   Cross-list as GCP 108

   Rationale: This course is relevant to the GCP program and will increase the course options for GC students

   POLS 111: Politics of the Environment (4 credits)
   Number to be changed to POLS 107 and cross-listed with ES 107 (new course)

   Rationale: This will arrange the ES/POLS cross-listed courses in numerical sequence and allow these courses to have the same number in each department.
POLS 326/426 Democracy Workshop
Change course title to Organizing for Democracy
Rationale: This is a more descriptively more accurate title for the course.

9. Changes in description
   None

10. Impacts of course changes
    These additions/changes to the catalog will enhance all programs involved without requiring additional resources or personnel.

Psychology

Course changes

1. Courses dropped
   None

2. Courses added
   Psych 3xx Children, Psychology, and the Law (4)
   Covers psychological research on child witnesses, child victims, juvenile crime, children's rights and decision-making capabilities, divorce and custody. Implications of psychological research for social policy and legal reform will be discussed. Prerequisite: Psych 107. Barrett, (SS) (Advanced Psychology Seminar)
   Rationale: New advanced seminar offering

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None

5. Impacts of course changes
   Prof. Barrett regularly teaches upper division undergraduate seminars. As faculty develop new interests or reshape older ones, new seminars are added to the list of department seminars that fulfill major requirements. The number of seminars the department offers on an annual basis remains at a fairly constant level to meet the needs of our undergraduates. Adding this course to the list of department offerings does not require any additional instructional resource. Prof. Barrett will offer this course as part of her standard teaching load.

Psychology

Course changes

1. Courses dropped
   None
2. **Courses added**

   **Psy 3xx. Attachment Theory & Research: The study of close relationships across the lifespan (4)**
   This course will examine the influence of close relationships across the lifespan on personality development. We will examine the influence of parents, peers, siblings, and romantic relationships using traditional attachment theory. In addition, we will also explore how attachment quality is measured and the clinical applications of attachment theory. Prerequisite: Psych 167. Deborah Laible (SS)
   (Advanced Psychology Seminar)

   **Rationale:**

3. **Other changes (number, title, credits, or distribution designation)**
   None

4. **Changes in description**
   None

5. **Impacts of course changes**
   New hire teaching in her area of specialization

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**Psychology**

**Course changes**

1. **Courses dropped**
   None

2. **Courses added**

   **Psy 3xx. Attention and Attentional Failures (4)**
   Attention allows us to function in complex environments where there is more information than we could possibly process all at once and failures of attention can have drastic consequences. Experimental and neuropsychological evidence will be surveyed for topics including basic attentional phenomena, the role of attention in everyday tasks, and the impact of attentional failures from mind wandering to neuropsychological deficits like ADHD. Prerequisite: Psych 117 or Psych 176 or Cogs 7 Arrington (SS)
   (Advanced Psychology Seminar)

   **Rationale:**

3. **Other changes (number, title, credits, or distribution designation)**
   None

4. **Changes in description**
   None

5. **Impacts of course changes**
   New hire teaching in her area of specialization
Psychology

Course changes

1. Courses dropped
   None

2. Courses added
   Psyc 5xx. Theories in Social Psychology (4)
   This course will compare the contributions and limitations of major
   theoretical perspectives on social behavior, and examine the nature of theory-
   construction and theory-testing in psychology generally. We will discuss
   broad theories of social behavior (Behaviorism, Gestalt, Psychodynamics,
   Symbolic Interactionism), as well as more specific theories of social
   phenomena, such as social perception, self-perception, and social influence.
   Prerequisite: Psyc 121 or consent of instructor. Grant (SS) (Advanced
   Psychology Seminar)
   Rationale:

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None

5. Impacts of course changes
   New hire teaching in her area of specialization

Psychology

Course changes

1. Courses dropped
   None

2. Courses added
   None

3. Other changes (number, title, credits, or distribution designation)
   Change in title: Psyc/SSP 314  Social Cognition
   Rationale: shortened title

4. Changes in description
   None

5. Impacts of course changes
   None

Psychology

Course changes

1. Courses dropped
   None
2. **Courses added**  
   None

3. **Other changes (number, title, credits, or distribution designation)**  
   None

4. **Changes in description**  
   **Psyc/SSP 314 Social Cognition (4)**  
   Examines the cognitive processes through which people make sense of social groups, individual others, themselves, and the world. Topics include judgment and decision making, attitudes and persuasion, ordinary personology, stereotyping and prejudice, and the self. Prerequisite: Psyc 110 or SR 111. Gill (SS) (Advanced Psychology Seminar)  
   **Rationale**: Updated description to reflect course content

5. **Impacts of course changes**  
   None

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**Psychology**

**Course changes**  
1. **Courses dropped**  
   None

2. **Courses added**  
   None

3. **Other changes (number, title, credits, or distribution designation)**  
   None

4. **Changes in description**  
   **Psyc 351 Cognitive Development (4)**  
   Covers Piaget, Vygotsky, and contemporary theoretical perspectives on cognitive development as well as current research in areas such as memory, conceptual understanding of biological and physical concepts, mathematics, problem-solving and literacy. The implications of research in cognitive development for instructional practices will be discussed.  
   Prerequisite: Psyc 107, 117, or COGS 7. Barrett (SS)  
   (Advanced Psychology Seminar)  
   **Rationale**: Updated description to reflect course content

5. **Impacts of course changes**  
   None

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**Psychology**

**Course changes**  
1. **Courses dropped**  
   None
2. **Courses added**
   None

3. **Other changes (number, title, credits, or distribution designation)**
   None

4. **Changes in description**
   *Psych/SPP 153  Personality (4)*
   Examination of the major theoretical frameworks psychologists use to understand human thought, feeling, and behavior. Whereas these frameworks each emphasize very different concepts (e.g., the unconscious mind vs. culture vs. neurotransmitters), they are united in their effort to answer the question: Why does a given individual think, feel, or behave as she does? **Prerequisite:** Psych 1 or SPP 1. **Gill (SS)**
   **Rationale:** Updated description to reflect course content.

5. **Impacts of course changes**
   None

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**Religious Studies**

**Course changes**

1. **Courses dropped**
   None

2. **Courses added**
   *Rel 1XX (GCP 1XX) Islam Across Cultures (4)*
   Explores the Muslim world's diversity and dynamism in multiple cultural contexts from the Middle East and North Africa, to Asia and America—through literature, ethnography, and films. Topics include: travel and trade networks; education; women and gender; Islam and cultural pluralism; colonialism; and identity politics. **Rezehal HU**
   **Rationale:** I am increasingly aware of the importance and efficacy of literature in religion courses. By focusing on fictional accounts (and personal narratives) by Muslim authors in diverse cultural/historical settings, I hope to stimulate new kinds of conversations. I see this class as a complement to my introductory Islam class( "The Islamic Tradition", REL/ASIA 77). "Islam Across Cultures" would be organized thematically—focusing on a range of topics, and drawing on a diverse group of writers. In order to communicate historical context, the course would couple Muslim novels with relevant scholarly articles and films. Ideally, the class would be small in size (under 30 students). It could be taught at either the 100 or 200-level; in my mind, it would also be ideally suited for a "writing intensive" seminar.

   *Rel 3XX (Phil 3XX) American Religious Thinkers (4)*
   An examination of the writings of key figures in the history of American religious thought (such as Edwards, Emerson, Bushnell, Peirce, James,
Royce, Dewey and the Niebuhrs). Attention will be directed both to the historical reception of these writings and to their contemporary significance. **Rationale:** The bulk of Raposa’s scholarly work over the last 25 years has been devoted to the material that would be treated in this seminar. Yet none of the courses that he presently teaches deals explicitly with these texts/thinkers. Moreover, there is no regular course offered either in American studies or in Philosophy that treats the major figures in the history of American philosophy and theology. This would be such a course, accessible both to advanced undergraduates and to graduate students. 

Raposa EU

3. **Other changes (number, title, credits, or distribution designation)**

   Cross-listing
   (The following courses are being cross-listed with the new Global Citizenship Program)
   REL 145 (ASIA 145, GCP 145) Islam in the Modern World

   **Rationale:**

4. **Changes in description**

   None

5. **Impacts of course changes**

   **Rel 1XX (GCP 1XX) Islam Across Cultures:** This course is focusing on literature to expose students to Islam in various cultural contexts. The course is integral to Professor Rozehnal’s program of course offerings related to Islam, and it exposes some of the methodological diversity of the Religion Studies field. The course should require minimal support from the library and should make a minimal impact on any financial support requests—the course is focused on literature and not film, and texts should be readily available. The course is aimed at attracting students interested in Religion Studies, Literature and Global Citizenship, which will be a cross-listing. (English might be another cross-listing possibility.) The course contributes to our Religion Studies offerings in religion and should provide an attractive offering in our over-all curricular strategy.

   **Rel 3XX (Phil 3XX) American Religious Thinkers:** This 300 level course will provide Professor Michael Raposa an opportunity to contribute to both Religion Studies and American Studies (he is the Fairchild Chair in American Studies) while he serves a 2 & 1/2 year stint as Associate Dean in the College of Arts and Sciences. The course opens up a graduate teaching opportunity, which is a benefit to the Religion Studies department, and it should attract a healthy enrollment from students interested in American religion and philosophy. The course should make no unusual demands on library acquisitions; it could easily use texts readily available in print; and pose no financial difficulties for the Religion Studies Department.
Science, Technology and Society Program

Course changes

6. Courses dropped
   STS 382 Senior Project
   (To be dropped after the 2006-7 academic year, to allow any current majors to
take this course if they so choose.)
   Rationale: Course no longer needed; indirectly replaced by Honors Thesis option
   (see below).

7. Courses added
   STS 391 Honors Thesis (1) Fall
   Preparation for honors research thesis (STS 392). Identification of topic,
preliminary compilation of source materials, and preparation of a proposal.
Program permission required. (ND)
   STS 392 Honors Thesis (3) Spring
   Directed undergraduate research thesis required of students who apply and
qualified for graduation with program honors. Prerequisite: STS 391, or concurrent
with STS 392. (ND)
   Rationale: supplied by description of program changes below

8. Other changes (number, title, credits, or distribution designation)
   Change in Number and Requirement within program:
   STS 12 to STS 112 Engineering and Society (4) (SS)
   Rationale: The STS field is evolving, and the course no longer serves its original
intended purpose. Thus, the course is no longer appropriate as part of the
required core in the STS Program; however, it will be periodically offered as an
 elective at a slightly higher level apropos of the change in content and
expectations of the student knowledge level required—see description below.

9. Changes in description
   STS 12. Engineering and Society (4)
   An examination of the social, political, commercial, and cultural factors
that determine the problems engineers are asked to solve as well as the
terms of acceptable solutions to those problems. This is a discussion-based
course using a mix of books, articles, and videos. (SS)
   Rationale: New description more accurately describes current content of the
course

10. Impacts of course changes
    See program change impact below

Program changes
   The STS program wants to replace the required STS 382 Senior Project course with an
optional Honors Thesis, which we believe will be attractive to our very best research oriented
majors. Dropping the required Senior Project should make the STS major more attractive to
those students less interested in research. The program will retain its Independent Study option
for those students wishing to pursue a research project, but not at the honors level. To graduate
with honors, a major in STS must maintain a 3.2 overall average, attain a 3.5 average in the major program, and complete an honors thesis in the senior year.

**Impact:** There will be no discernable impact on faculty resources in terms of increased load, as the net change of the course restructuring will in effect be zero. If anything, not requiring STS 12 of the majors will make scheduling that course an elective easier. There will be no impact on the library or computing facilities.

Dropping the requirements of STS 12 and STS 382 would leave a student with less than 30 core credits required, so an additional elective course will be required of all majors with a total requirement of at least 30 credits in the core. The additional subject area “concentration,” which can also be met with a double major or an official minor program, will be retained.

**Sociology and Anthropology**

**Course changes**

1. **Courses dropped**
   - Anth/Clss 180 - Cultures of the Greeks and Romans
   **Rationale:** This course has been substantially replaced by other Classical Civilizations courses (such as Clss 52), which cover much of the same ground.

2. **Courses added**
   - Anth/AAS 183 Peoples and Cultures of Africa (4) SS Staff
   **Rationale:** Studies African modernity through a close reading of ethnographies, social stories, novels, and African feature films. As of Spr. 2006 the course will have been taught two times under an experimental number. Supports AAS major and minor and is an ethnographic area course for Anth.

3. **Other changes (number, title, credits, or distribution designation)**
   **None**

4. **Changes in description**
   **None**

5. **Impacts of course changes**
   Minimal effect on budget (books, films). One of the few courses that focuses on the African continent.

**Sociology and Anthropology**

**Course changes**

1. **Courses dropped**
   **None**

2. **Courses added**
   - Anth 188 Southeast Asians in Southeast Asia and America
   **Rationale:** In this course we explore the ways in which different peoples lived in Southeast Asia, why they moved to America, and the ways in which this
move affected their cultures. Topics explored include: aspects of their
culture, particularly religion and social organizations; motivations for
migrating including war, political, and economic reasons; and their
adaptations to America and American responses to their presences. No
prerequisites. Tannenbaum. SS.
Rationale: I've taught this course once as a first year seminar and twice with
a temporary course number. I plan to teach it every other year, alternating
with the Peoples of Southeast Asia course (Anth 187).

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None

5. Impacts of course changes
   Limited impact. It will decrease the frequency of Peoples of Southeast Asia,
   but both are area courses and cross listed with Asian Studies. No effect on
   budget.

Sociology and Anthropology

Course changes
1. Courses dropped
   None

2. Courses added
   None

3. Other changes (number, title, credits, or distribution designation)
   a. ANTH 001 – cross list with Global Citizenship 001 (registrar to check that
      GCP 001 is ok to use) – SS – Staff (4)
   b. ANTH 120
      Change title of Anth 120 from “Culture and Globalization” to “Anthropology
      of Globalization” and cross list it with GCP 120 (4). No prerequisites. Vann,
      SS
   c. ANTH 320 – cross list with Global Citizenship (GCP) (registrar to assign
      # for the GCF) – SS – Vann (4)
   Rationale: a. and c. Rationale: to support Global Citizenship Program
   b. Rationale: MLI has a course with similar title: “Globalization and
      Culture”
   Cross list is to support Global Citizenship Program

4. Changes in description
   None

5. Impacts of course changes
   b. Course content will not change, only title and crosslist. Vann will remain
      sole instructor for this course. No effect on departmental budget.
Sociology and Anthropology

Course changes

1. Courses dropped
   None

2. Courses added
   SSP 365 / WS 365 Inequalities at Work (4)
   Primary focus is on race, gender, and class as axes of disadvantage and
   privilege in work and employment. We will explore both theories and
   empirical studies of inequality as well as their social, political, and practical
   ramifications for the workplace. The course will be conducted seminar-style
   with most classes relying heavily on student participation with guidance from
   the instructor. Krasas SS
   Rationale: New, permanent course offered by the Director of Women's
   Studies and Associate Professor of Sociology and Anthropology.

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None

5. Impacts of course changes
   Enhancement of offerings in sociology major and women's studies
   minor.

Sociology and Anthropology

Course changes

1. Courses dropped
   None

2. Courses added
   None

3. Other changes (number, title, credits, or distribution designation)
   SSP 105 – cross list this course with GCP 105 (4) – Munson - SS
   Rationale: to support Global Citizenship Program

4. Changes in description
   None

5. Impacts of course changes
   No impact. Course content will not change. Munson will remain sole
   instructor for this course.
Sociology and Anthropology

Course changes

1. Courses dropped
   None

2. Courses added
   None

3. Other changes (number, title, credits, or distribution designation)
   SSP/WS 128 — name of instructor should be Krasas — no other changes
   Rationale:

4. Changes in description
   None

5. Impacts of course changes
   None

Sociology and Anthropology

Course changes

1 Courses dropped
   None

2 Courses added
   None

3 Other changes (number, title, credits, or distribution designation)
   Psy/SSP 314 — Title has changed to Social Cognition
   Examines the cognitive processes through which people make sense of social
   groups, individual others, themselves, and the world. Topics include
   judgment and decision making, attitudes and persuasion, ordinary
   personality, stereotyping and prejudice, and the self. Prerequisite: Psy 110
   or SR 111. Gill (SS) (Advanced Psychology Seminar) 4 credits
   Rationale: to conform to Psy. Listing

4. Changes in description
   Psy/SSP 153 - "Personality"
   Description has changed and reads as follows:
   Examination of the major theoretical frameworks psychologists use to
   understand human thought, feeling, and behavior. Whereas these
   frameworks each emphasize very different concepts (e.g., the unconscious
   min
   Rationale: to conform with the Psy. Listing

5. Impacts of course changes
   None
COURSES TO ADD:

Theatre 2xx, Breaking into the Business, 4 cr.
This course will explore the world of the professional actor with comprehensive coverage of all aspects of the acting profession. Abundant information on auditioning techniques, the tools of the actor, the acting unions, professional theater companies, graduate and professional training programs and the world of film & television will be examined. Students will research and perform two audition pieces developed during the course of the semester. Prerequisite: TH 11

RATIONALE:
- We have been offering this course as a 298 for two years now, and need to move it into the catalog.

CHANGE IN DESCRIPTION: THEATRE 11

FROM:
- Preparation for scene study and characterization. Recommended for students with little or no prior experience. (HU)

TO:
- Preparation for scene study and characterization. (HU)

RATIONALE:
- This course is targeted for all students, including those with high-school or college acting experience.

CHANGE IN DESCRIPTION: Theatre 20 through 31, and 45, 47
- Remove “Department Permission” from catalog entry for all these courses

RATIONALE:
- We no longer control enrollment via the catalog.

CHANGE IN PREREQUISITE THEATRE 260, Design Practicum

FROM:
- Any 200-level Design course

TO:
- Department permission

RATIONALE:
- There is a large variety of ways to prepare for this experience.
CROSS LIST: Theatre 60, Dramatic Action (4) with Global Citizenship.

RATIONALE:
- Professor Ripa, who teaches this course, completed the GC Seminar and submitted this course to the GC program for inclusion.

IMPACT OF COURSE CHANGES

The one course added has been taught for several years now as a provisional course, and does not constitute an addition of effort by the department. The other changes are mostly housekeeping issues related to modern methods of registration and such.

CURRICULUM CHANGES

CHANGE IN MAJOR IN THEATRE

REMOVE from coursework required of all majors:
- Production, any two of the following three: 67—Stagecraft (2), 68—Costume Construction (2), 69—Stage Electrics (2)

ADD to coursework required of all majors:
- Theatre 1—Introduction to Theatre (4)

Catalog change to “Coursework required of all majors:”

DELETE:
THTR: Production, any two of the following three: 67 (2)—Stagecraft, 68 (2)—Costume Construction, 69 (2)—Stage Electrics (2).

REPLACE WITH:
THTR 1: Introduction to Theatre (4)

RATIONALE
- We will extend the unified philosophical approach of our recently changed and design curriculum to our introductory experience in theatre production. We will focus the content of the revised Theatre 1 course on the area of production, and serve it as a common experience for all beginning theatre majors. In it they will be exposed to the various areas of technical production formerly encompassed in our prior major requirement, but in a unified and standard manner—which is most appropriate to fundamental-level instruction. We believe will fulfill our accreditation requirement to expose students to theatre production techniques better via the unified approach. We expect a larger enrollment which will be services via lecture and extensive lab work in various production areas, and which will be administered by a team of instructors.
IMPACT OF CURRICULAR CHANGES

The same four faculty members who used to offer Theatre 1, 67, 68, 69 will participate in this new version of Theatre 1. This move will streamline and unify delivery of basic material, and we hope create even greater senses of ownership and camaraderie among the larger, combined group each semester.

The major will not change fundamentally—we will retain the 4-credit core requirement in production, but deliver it differently. The major will retain

Women's Studies

Course changes

1. Courses dropped

   WS 152 (CLSS152, HIST 152) Women in Antiquity (4)
   *Rationale:* Robert Phillips has not taught this course for more than sixteen years. He is not able to include it in his offerings.

2. Courses added

   WS 090 (SSP090, GCP 090) Women's Work in Global Perspectives (4)
   This course brings to the forefront the intersections of race, class, gender, and nation with women’s employment around the world. We will examine women’s paid and unpaid work in the U.S., Europe, Asia, Latin America, and Africa in an effort to understand the striking persistence of gender inequality over time and across the world. Not only will we examine the different types of work performed by different women around the world, but we will also look at how women’s work in the United States is linked to the global marketplace. Topics of study include: work and family relations; women’s domestic labor; factory work; and agribusiness. In addition we will explore the ways in which women have organized for changes in work and in their communities in order to conceive of possibilities for the future of women’s work. Krasas SS
   *Rationale:* New Freshman Seminar required for Sociology and Anthropology. Krasas is a new faculty member with expertise in this area

   WS 275 (SPAN 275) Introduction to Hispanic Women Writers (4)
   The objective of this class is to introduce students to Hispanic contemporary female authors from Latin America, Spain, and the United States through the analysis of all literary genres (novel, short story, poetry, essay, and drama). This class provides students with a solid introduction to both Hispanic women’s writing from the last years of the Nineteenth Century to the present, as well as to feminist literary theory. Portela HU
   *Rationale:* New, permanent number adopted from experimental classes (Fall 2003 and Fall 2005). This class reflects the area of expertise of the new assistant professor
WS 346 (SPAN 346) Contemporary Hispanic Women Writers: The Novelists (4)
This course explores the works of Hispanic women writers who have been oppositional to hegemonic cultural politics during the Twentieth Century in Latin America and Spain. Grounding the readings in their particular contexts, the class discusses the issues these writers define as important in their work, the impact of their creations in both the literary canon as well as in the politics of their countries, the use of literature as a weapon to empower minority positions, and the effect of their narratives on the changing literary canon. Special attention will be paid to issues related to interpretations of history, exile, different forms of violence and repression, expressions of desire, and sexuality. Portola
HU
Rationale: New, permanent number adopted from experimental class. This class reflects the area of expertise of the new assistant professor.

WS 365 (SST365) Inequalities at Work (4)
This course's primary focus is on race, gender, and class as axes of disadvantage and privilege in work and employment. We will explore both theories and empirical studies of inequality as well as their social, political, and practical ramifications for the workplace. The course will be conducted seminar-style with most classes relying heavily on student participation with guidance from the instructor. Krasas SS
Rationale: New, permanent course offered by the Director of Women's Studies and Associate Professor of Sociology and Anthropology in her area of expertise. Experimental course offered Summer '05.

WS 387 (ENG 387) Gender and Sexuality in the Horror Film (4)
Horror films are centrally concerned with issues of masculinity, femininity, heterosexuality, homosexuality, bisexuality, and less defined queerness. This course will explore these topics with reference to subgenres like the slasher film, the vampire film, the psychological horror film, and the science fiction horror film. Films screened include Dracula, Aliens, The Silence of the Lambs, Cat People, and Halloween. Doty HU
Rationale: A request from the English Department to cross-list this course. Course content intersects well with Women's Studies.

3. Other changes (number, title, credits, or distribution designation)
   None

4. Changes in description
   None

5. Impacts of course changes
   None
Women's Studies

Course changes
1. Courses dropped
   None

2. Courses added
   None

3. Other changes (number, title, credits, or distribution designation)
   Change in name of Professor from Krasas-Rogers to Krasas:
   WS 198 (SOP 198) Race, Gender, and Work (4)
   Rationale:

4. Changes in description
   None

5. Impacts of course changes
   None

Women's Studies

Course changes
1. Courses dropped
   None

2. Courses added
   None

3. Other changes (number, title, credits, or distribution designation)
   WS 373 Internship in Women's Studies (1-3) Handler SS
   Name of course to be changed to: WS 373 Internship in Women's Center
   Rationale: To differentiate between WS 330 (any WS internship) and WS
   373 (specific internship to take place in the Women's Center.)

4. Changes in description
   WS 373 (ML 73, ASIA 73) Film, Fiction, and Gender in Modern China
   (4)
   Study of the struggle for an individual "modern" identity out of traditionally
   defined roles for men and women as depicted by Chinese writers and
   filmmakers. Class, texts, and films in English. Students interested in setting
   up a corollary Chinese language

   WS 121 (ART 121) Women in Art (3)
   A history of women artists from the Renaissance to present day, with an
   emphasis on artists of the 20th and 21st century from a global perspective.
   We explore attitudes toward women artists and their work as well as the
   changing role of women in the art world

5. Impacts of course changes
   None
SUMMARY OF UNDERGRADUATE CURRICULUM CHANGES FOR RCEAS 2005 – 2006

Biomedical Engineering
- Program change: BioE 410 and BioE 20 removed from list of required courses.
- Core change:
  - BioE 110 from 3 to 4 credits
  - BioE 210 from 5 to 4 credits
  - BioE 281 name change from Biochemistry Lab to Biophysics/Biophysics Lab

Chemical Engineering
- Delete CHE 301, 312, 360, 370

Computer Science & Business
- Add CSE 316, Internship Electives

Computer Science & Engineering
- Delete CSE 380
- New course: CSE 380, 385, 485, 485

Computer Engineering Program
- Program change for Spring semester:

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Old (18 cr)  New (17 cr)
CRG 257 (3)  CRG 257 (3)
ECE 319 (3)  Approved elective (3)
IES elective (9)  ECE elective (3)
Free elective (3)  Free elective (3)
CSE 360 (3)  
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Electrical and Computer Engineering
- Delete ECE 254, 260, 262, 275, 277
- New course: CRG 257, 258 (see course requisites: ECE 280: Introduction to Cryptography and Network Security)

Engineering Minor
- Catalog description of the minor including listing of all EMC courses

Entrepreneurship Minor
- RCEAS has voted to discontinue this minor

1. Material Engineering degree program
- Change to the degree program: Drop senior year engineering elective requirement and substitute an additional “free elective”.

Information and Systems Engineering degree program
- Changes to degree program include:
  - Drop IS 211
  - Remove IS 340 and 345 as required courses and substitute 2 technical electives

Materials Science and Engineering
- Changes to name and required: MAT 203, 215, 216, 238 to include “mat science”
- Change to the Minor: Materials Science and Engineering: Drop MAT 10 requirement for the minor
Biomedical Engineering  Proposed Program Changes

1. Note the current status of the program: Engineering Program

The program is designed to meet the goals of students seeking educational opportunities in the interface of life science with engineering, humanities, business, social sciences, or other natural sciences. The Biomedical Engineering Program provides a structured curriculum for students interested in working at the interface between engineering and life sciences.

2. Proposed program changes as they will appear in the catalog:
- BioE 110 and BioE 210 will be removed from the list of required courses (p. 118 in the 2005-2006 catalog)

3. Description of proposed change(s):
- Removal of BioE 210 - Biomedical Engineering Sophomore Seminar I: Literature Research
- Removal of BioE 220 - Biomedical Engineering Sophomore Seminar II: Research Proposal

4. Rationale for proposed change(s):

The Biomedical Engineering program originally required all students to complete three semesters of research (Junior Fall, Junior Spring, and Senior Fall). In that context, BioE 110 and BioE 210, two sophomore seminar courses, served the function of preparing students for the research sequence. However, based on student and faculty feedback, and the need for a capstone design experience, we have introduced an alternative and preferred track in which students take the Integrative Product Development (IPD) course in Junior Spring and Senior Fall. This removes the rationale for BioE 110 and BioE 210 for many students. For students that do research for credit through the BioE 222, 232, 242 sequence, the content of BioE 110 and 210 will be incorporated into the planning and report-writing activities associated with these courses.

Additionally, we have found that two of our core Bioengineering courses, BioE 110 (Elements of Biomedical Engineering) and BioE 210 (Biomedical Engineering) need to deliver content that demands more time. The removal of BioE 110 and 210 frees up two credits that we will transfer, one each, to BioE 110 and BioE 210. Thus, there will be no change in the overall credit requirements of the Biomedical Engineering program.

5. Academic Impact Statement

a. Is this proposed program change interdisciplinary? No

b. Identify any known effects of the proposed program change on other programs at the University. No known effects

1. If there are known effects, individuals in charge of the affected programs must be notified about the proposed program change and the following information provided:

2. Who was consulted? The Biomedical Engineering Program Working Group Committee, consisting of 7 faculty members, considered this issue several meetings this fall (2005). All affected departments are represented in the Full Program committee, including Chemical Engineering, Biological Sciences, Physics, Mechanical Engineering and Mechanics, Electrical and Computer Engineering, and Material Science and Engineering.

3. Is the proposed program change acceptable to the affected programs? N/A

4. Will any changes be required for the affected programs? No

5. Identify any known effects of the proposed program change on the University's commitment to diversity. No known effects

6. Responding Department: N/A - no known effects
a. Provide a statement of the following:

(1) Library impact statement
   No impact

(2) Computer impact statement No. 1

(3) Faculty impact statement
   We anticipate no additional impact on faculty. This change removes the need for two seminar courses to be taught. These credits will be added to two existing Bioengineering core courses. We believe that the net effect will be some reduction in the draw on faculty resources.

(4) Facilities impact statement
   No known effect.

b. Provide a statement indicating who will assume financial responsibility for any resources required.
   Bioengineering Program
BIO (110) Elements of Bioengineering (3) Fall
An introduction to the fields of biotechnology and biomedical engineering. The areas include:
biomechanics, biomaterials, bioinstrumentation, medical imaging, rehabilitation engineering, and
bioengineering.

2. Proposed course number and course description (as it will appear in course catalog):
BTOE (110) Elements of Bioengineering (3) Fall
An introduction to the fields of biotechnology and biomedical engineering. The areas include:
biomechanics, biomaterials, bioinstrumentation, medical imaging, rehabilitation engineering,
biochemistry, and tissue engineering.

3. Description of proposed change(s):
Credit hours of increased from 3 credit hours to 4 credit hours.

4. Rationale for proposed change(s):
BIOE (110) Elements of Bioengineering is a broad survey course for sophomores. This is the main
course where students study the field in all its breadth. Because the field is very broad, the course plays a
critical role in defining the identity of the student as a Bioengineer. It has been taught twice now and the
feedback uniformly from students and faculty is that three credit hours are insufficient for the material
the course has to cover. We therefore propose to increase the credit hours to four. The additional credit
hour will be used for a recitation session.

5. Impact Statement:
We anticipate no additional impact on faculty. The extra credit hour comes from the removal of two
required seminar courses. We believe that the net effect will be some reduction in the draw on
faculty resources.
Bioengineering

Proposed Course Changes

1. Current course number and course description (from course catalog):
   BIOE 210 Introduction to Engineering Physiology (3) spring
   Mammalian physiology for bioengineering students, with an emphasis on control mechanisms and
   engineering principles. Basic cell function, biological control systems; muscle, neural, endocrine,
   circulatory, digestive, respiratory, renal, and reproductive systems; regulation of metabolism and
   mechanisms, such as laboratory work. Prerequisite: BioE 110.

2. Proposed course number and course description (as it will appear in course catalog):
   BIOE 210 Introduction to Engineering Physiology (4) spring
   Mammalian physiology for bioengineering students, with an emphasis on control mechanisms and
   engineering principles. Basic cell function, biological control systems; muscle, neural, endocrine,
   circulatory, digestive, respiratory, renal, and reproductive systems; regulation of metabolism and
   mechanisms. Includes laboratory work. Prerequisite: BioE 110.

3. Description of proposed change(s):
   Credit hours changed from 3 credit hours to 4 credit hours.

4. Rationale for proposed change(s):
   BioE 210 is a course on engineering physiology for sophomores. This course provides students with
   critical required knowledge and application of engineering principles to biological systems. It is also
   provides required experience in experimental work on living systems. The level of student effort for the
   course accounting for the laboratory, we find requires an additional credit.

5. Impact Statement:
   We anticipate no additional impact or faculty. The extra credit hour comes from the removal of two
   required seminar courses. We believe that the net effect will be some reduction in the draw on
   faculty resources.
Proposed Course Changes

6. Current course number and description (from course catalog):

BioE 321. Integrated Bioelectronics Laboratory (2) spring
Experiments in microelectronics, microfabrication of MEMS, instrumentation and computer interfaces, lasers, optics, and optical microscopy for use in biomedical applications. Prerequisite: BioE 110 (EE 123 or CH 190) and permission of instructor.

7. Proposed course number and course description (as it will appear in course catalog):

BioE 322. Integrated Bioelectronics/Biophotonics Laboratory (2) spring
Experiments in microelectronics, microfabrication of MEMS, instrumentation and computer interfaces, ultrasound, optics, laser tweezers, and advanced imaging and optical microscopy techniques for biological applications. Prerequisites: Phys 15/22 or 21/22 and ECE 81 or Phys 190, or permission of instructor.

3. Description of proposed change(s):

Name change from Integrated Bioelectronics Laboratory to Integrated Bioelectronics/Biophotonics Laboratory
Course description edited to more fully outline the lab content
BioE 110 and ECE 123 deleted as prerequisites
Phys 15/22 or 21/22 and ECE 81 added as prerequisites

4. Rationale for proposed change(s):

Name change more fully states the area of Bioengineering covered in the lab.
Adding PHYS 13 prerequisite allows qualified bioscience students to take the course.
ECE 81 is more appropriate as a prerequisite than ECE 123.

5. Impact Statement:

Rationale for name change delineates course content and new prerequisite better prepare students for area of Bioengineering covered in BioE 321.
Bioengineering

Proposed Course Changes

3. Current course number and course description (from current catalog):

BioE 331. Integrated Bioelectronics/Laboratory (2) spring
Experiments in microelectronics, micro fabrication of MCM, instrumentation and computer interfaces, optical, laser tweezers and advanced imaging optical microscopy techniques for biological applications. Prerequisites: BioE 110, ECE 123 or PHY 190, and permission of instructor.

3. Proposed course number and course description (as it will appear in future catalog):

BioE 331. Integrated Bioelectronics/Biophotonics Laboratory (2) spring
Experiments in microelectronics, micro fabrication of MCM, instrumentation and computer interfaces, ultrasound, optical, laser tweezers and advanced imaging optical microscopy techniques for biological applications. Prerequisites: Phy 13/22 or 21/22 and ECE 81 or Phy 190, and permission of instructor.

5. Description of proposed change(s):

Name change from Integrated Bioelectronics Laboratory to Integrated Bioelectronics/Biophotonics Laboratory
Course description edited to more fully outline the lab content.
BioE 110 and ECE 123 deleted as prerequisites.
Phy 13/22 or 21/22 and ECE 81 added as prerequisites.

4. Rationale for proposed change(s):

Name change more fully states the area of bioengineering covered in the lab.
Adding PHY 13 prerequisite allows qualified bioscience students to take the course.
ECE 81 is more appropriate as a prerequisite than ECE 123.

5. Impact Statement:

Revised name delineates course content and required prerequisites better, helping students to

of bioengineering covered in BioE 331.
Engineering: Chemical Engineering

Proposed Course Changes

1. Current course number, title, course description, and credits (from present course catalogue):

   CBE 301: Process Design (3)
   Study of the strategy of chemical process design with emphasis on optimum order of steps, flow diagrams, energy balances, recycle ratios and their effect on the economics of the operation.

   Proposed course number, title, course description, and credits (as it will appear in course catalogue):

2. Nature of proposed change(s):

   A. Course title change? If so, provide rationale below:

   B. Course number change? If so, provide rationale below:

   C. Change in course credits? If so, provide rationale below:

   D. Change in course description? If so, provide rationale below:

   E. Other change(s)? If so, please describe below and provide rationale for each change.

Delete course. It has not been given for a long time, and the department has no plans to offer it in the future.

4. Resource impact:

   A. Provide impact statements in the four areas listed below:

      (1) Library impact statement (attach evidence if provided by LTE)

      (2) Computer impact statement (att. statement if provided by LTE)

      (3) Faculty impact statement (how proposed changes affected teaching faculty and new faculty)

      (4) Facilities impact statement (how proposed changes affected existing facilities or new facilities)

   B. Provide a statement indicating who will assume financial responsibility for any new resources required:
Proposed Course Changes

1. Current course number, title, course description, and credits (from present course catalogue):

CHP 512 Fundamentals of Corrosion (3)
Corrosion phenomena and definitions. Electrochemical aspects including reaction mechanisms, thermodynamics, Pourbaix diagrams, kinetics of corrosion processes, polarization, and passivity. Non-electrochemical corrosion including mechanisms, theories, and quantitative descriptions of atmospheric corrosion. Corrosion of metals under stress. Cathodic and anodic protection, coatings, alloys, inhibitors, and passivators. Prerequisite: MAT 205, CHM 181, or equivalent. (Fall)

2. Proposed course number, title, course description, and credits (as it will appear in course catalogue):

3. Nature of proposed change(s):

A. Course title change? If so, provide rationale below:

B. Course number change? If so, provide rationale below:

C. Change in course credits? If so, provide rationale below:

D. Change in course description? If so, provide rationale below:

E. Other change(s)? If so, please describe below and provide rationale for each change.

Delete course. It has not been given for a long time, and the department has no plans to offer it in the future. We are not requiring that the course be removed from the cross-listed department's course list (MAT and CHM). However, we do not plan to offer the course, and it will be their decision to offer or drop it.

4. Resource impact:

A. Provide impact statements in the four areas listed below:

1. Library impact statement (justifies need for new library materials)

2. Computer impact statement (justifies need for new computers or software)

3. Faculty impact statement (justifies need for new or increased faculty)

4. Facilities impact statement (justifies need for new or increased facilities or computer support facilities)

B. Provide a statement indicating who will assume financial responsibility for any new resources required:
Engineering: Chemical Engineering

Proposed Course Changes

1. Current course number, title, course description, and credits (from present course catalogue):

CHE 360, Nuclear Reactor Engineering (3)
A consideration of the engineering problems related to nuclear reactor design and operation. Topics include fundamental properties of atomic and nuclear radiation, reactor fuels and materials, reactor design and operation, thermal aspects, safety and shielding, instrumentation and control. Course includes several design projects stressing the major topics in the course.
Prerequisite: Senior standing in engineering or physical science (EE 2), (EC 1)

2. Proposed course number, title, course description, and credits (as it will appear in course catalogue):

3. Nature of proposed change(s):

   A. Course title change? If so, provide rationale below:
   
   B. Course number change? If so, provide rationale below:
   
   C. Change in course credits? If so, provide rationale below:
   
   D. Change in course description? If so, provide rationale below:
   
   E. Other change(s)? If so, please describe below and provide rationale for each change

Delete course. It has not been given for a long time and the department has no plans to offer it in the future. We are not requiring that the course be removed from the cross listed department’s course list (ME). However, we do not plan to offer the course, and it will be their decision to offer or drop it.

4. Resource impact:

   A. Provide impact statements in the four areas listed below:

      (1) Library impact statement (the statement formulated by LTBE)

      (2) Computer impact statement (the statement formulated by LTBE)

      (3) Faculty impact statement (how proposed program affects faculty and students)

      (4) Facilities impact statement (how proposed program affects facilities)

   B. Provide a statement indicating who will assume financial responsibility for any new resources required:
Engineering: Chemical Engineering

Proposed Course Changes

1. Current course number, title, course description, and credits (from present course catalogue):

CIE 370, Process Safety and Hazard Analysis (3)
A study of the methodology now available for analyzing hazard frequency and level in chemical processes. Applications to real process examples using hazard and operability analysis, fault tree and event tree analysis, "what if" analysis, and preliminary hazard analysis. Also includes a survey of the field of industrial safety. (ES 1.5), (SD 1.5)

2. Proposed course number, title, course description, and credits (as it will appear in course catalogue):

3. Nature of proposed change(s):

   A. Course title change? If so, provide rationale below:
   B. Course number change? If so, provide rationale below:
   C. Change in course credits? If so, provide rationale below:
   D. Change in course description? If so, provide rationale below:
   E. Other change(s)? If so, please describe below and provide rationale for each change:

Delete course: It has not been given for a long time and the department has no plans to offer it in the future.

4. Resource Impact:

   A. Provide impact statements in the four areas listed below:

      (1) Library impact statement (such as: library or computer lab)

      (2) Computer impact statement (such as: computer lab)

      (3) Faculty impact statement (such as: proposed program affects need for, or training of faculty members)

      (4) Facilities impact statement (such as: proposed program affects laboratory or instructional facilities)

   B. Provide a statement indicating who will assume financial responsibility for any new resources required:
RCEAS: CSE Department

Proposed New Course

1. Proposed new course number and course description (as it will appear in course catalogue):

CSB 314, International Practicum (1-3)

A faculty led foreign-based activity to provide students the opportunity to work on consulting, assurance, or other IT-related projects with business organizations, consulting companies, and public accounting firms. Typical projects include systems analysis and design, systems configuration and implementation, database design, user interface design, and internal control assessment. Students complete written reports and make formal presentations to client firms. Prerequisites: Act.311, or CSB 311 or permission of the instructor.

2. Instructional mode (lecture, recitation, laboratory, seminar, independent study, or other) and number of contact hours per week:

Independent Study

3. Rationale for proposed new course:

The Computer Science and Business Program sponsors summer programs in Prague, Budapest, and Shanghai, in which the student have faculty directed internships with various firms. This course provides a framework for that activity.

4. Academic impact on programs affected by new course:

This will benefit the implementation of the summer abroad programs that CSE sponsors

A. Is the proposed course to be cross-listed?

NO

B. Identify any known effects of the proposed new course on other programs at the University.

In the "Lehigh in Shanghai" summer program, this course will be offered to the enrolled students

Also, this course may be taken by students in Lehigh's Ireland program

C. If there are known effects, individuals in charge of the affected programs must be consulted about the proposed new courses and the following information provided:

(1) Who was consulted?

Couise Cook, director of the Lehigh in Shanghai Program

Vince Munley, director of the Lehigh in Ireland Summer Program

(2) Is the proposed new course acceptable to all other programs affected?

NO

(3) Will any changes be required in the affected programs? If so, please describe below:

NO

D. Does the proposed new course affect the University's commitment to diversity in any way?

If so, please describe below:

NO

5. Resource Impact

None

A. Provide impact statements in the four areas listed below:

(1) Library impact statement (must indicate if provided by LTS)

N/A

(2) Computer Impact statement (must indicate if provided by LTS)

N/A

(3) Faculty Impact statement (few proposed programs affect the scheduling faculty or required new faculty)

NOTA. The course will only be offered during the summer.

(4) Facilities Impact statement (how proposed program affects the facilities required for new facilities)

None

B. Provide a statement indicating who will assume financial responsibility for any new resources required:

None required
RCEAS: CSE Department

**Proposed Course Changes**

1. **Current course number, title, course description, and credits (from present course catalogue):**

CSE 330, Advanced Software Engineering Tools (3)

CA3U tools; portability and reusability of software; experimental methods in software engineering; automatic programming. Prerequisite: CSE 216.

2. **Proposed course number, title, course description, and credits (as it will appear in course catalogue):**

3. **Nature of proposed change(s):**

   A. Course title change? If so, please provide rationale below:
   
   B. Course number change? If so, please provide rationale below:
   
   C. Change in course credits? If so, provide rationale below:
   
   D. Change in course description? If so, please provide rationale below:
   
   E. Other change(s)? If so, please describe below and provide rationale for each change.

   We have not taught the course for many years.

4. **Resource Impact**

   A. Provide impact statements in the four areas listed below:

      (1) Library impact statement (attach letter provided by LTS)

      (2) Computer impact statement (attach statement provided by LTS)

      (3) Faculty impact statement (if program change will affect faculty; include number of new faculty)

      (4) Facilities impact statement (if program will affect use of existing facilities or require new facilities)

   B. Provide a statement indicating who will assume financial responsibility for any new resources required:
CSE 386 Bioinformatics: Issues and Algorithms (3)
Computational problems and their associated algorithms arising from the creation, analysis, and management of bioinformatics data. Genetic sequence comparison and alignment, physical mapping, genome sequencing and assembly, clustering of DNA microarray results in gene expression studies, computation of genomic rearrangements and evolutionary trees. Credit will not be given for both CSE 386 and CSE 408. No prior background in biology is assumed. Prerequisite: CSE 340 or ECE 170 or permission of the instructor.

2. Instructional mode (lecture, recitation, lab, etc.; seminar, independent study, or other) and number of contact hours per week:
Lecture/seminar, three hours/week.

3. Rationale for proposed new course:
As demonstrated by enrollment in experimental versions of this course in Spring 2004 and Spring 2005, there is strong demand for a course in this area.

4. Academic impact on programs affected by new course:

A. Is the proposed course to be cross-listed?
No.

B. Identify any known effects of the proposed new course on other programs at the University. May provide an elective for bioengineering students.

C. If there are known effects, individuals in charge of the affected programs must be consulted about the proposed new course and the following information provided:
(1) Who was consulted?

(2) Is the proposed new course acceptable to all other programs affected?

(3) Will any changes be required in the affected programs? If so, please describe below.

D. Does the proposed new course affect the University’s commitment to diversity in any way? If so, please describe below:

5. Resource Impact:
A. Provide impact statements for the items listed below:

(1) Library impact statement (attach statement if provided by LIS)
None expected.

(2) Computer impact statement (attach statement if provided by LIS)
None expected.

(3) Faculty impact statement (how proposed new course affects load or existing faculty or requires new faculty)
None expected.
4. Facilities impact statement (how proposed can be facilitated or existing facilities or requires new facility)

Not as expected

B. Provide a statement indicating who will assume financial responsibility for any new resources required.

Not as expected
Proposed New Course

1. Proposed new course number and course description (i.e., it will appear in course catalog)
   CSE 326 Pattern Recognition (3)
   Bayesian decision theory and the design of parametric and nonparametric classifiers: linear (perceptrons), quadratic, nearest-neighbor, neural nets. Machine learning techniques: boosting, bagging. High-performance machine vision systems: segmentation, contextual analysis, adaptation. Students carry out projects, e.g., on digital libraries and vision-based Turing tests. Credit will not be given for both CSE 325 and CSE 426. Prerequisites: CSE 109, CSE 440, Math 205, and Math 211, or consent of instructor.

2. Instructional mode (i.e., lecture, recitation, laboratory, seminar, independent study, etc.) and number of contact hours per week:
   lecture/seminar, 3 hours per week

3. Rationale for proposed new course:
   This course has been taught twice before as an experimental course by Dr. Baird, who specializes in this area. It very much strengthens the department's offerings in pattern recognition.

4. Academic impact on programs affected by new course:
   a. Is this proposed new course cross-listed? Yes
   b. Is the proposed new course acceptable to all affected programs? Yes

5. Identify any known effects of the proposed new course on the University's commitment to diversity:
   None

5. Resource Impact Statement:

   a. Provide each of the following:

      (1) Library impact statement:
          The course will not require any additional library books.

      (2) Computer impact statement:
          Students will use their own and the department computer to complete programming assignments.

      (3) Facility impact statement:
          Dr. Baird will teach this course every other year as part of his regular course load.

      (4) Facilities impact statement:
          No additional facilities beyond a classroom are required.

   b. Provide a statement indicating who will assume financial responsibility for any new resources required:
      No additional resources are required.
RGEAS: Computer Science and Engineering

Proposed New Course

1. Proposed new course number and course description (as it will appear in course catalogue):

CSE 348 AI Game Programming (3)

Contemporary computer games techniques for implementing the program controlling the computer opponent; using Artificial Intelligence in contemporary computer games to enhance the gaming experience; pathfinding and navigation systems, group movement and tactics, adaptive games, game genres, machine learning language for game designers, and player modeling. Credit will not be given for both CSE 348 and CSE 448. Prerequisites: CSE 347 or CSE 348 or senior standing.

2. Instructional mode (lecture, recitation, laboratory, seminar, independent study, or other) and number of contact hours per week:
The instructional mode will be 3 hours of lecture per week.

3. Rationale for proposed new course:
According to several media sources including the San Francisco Chronicle edition of Saturday, December 14, 2013, the computer game industry is a growing industry in the Hollywood (movie making) industry. Programming the “AI” (roughly the program controlling the computer opponent) of games is a crucial technology for computer games. In fact, one third of the annual Game Developers Conference (GDC), the leading meeting of game developers, is devoted to “AI” topics. In this course, we will look at contemporary computer games, explore techniques for implementing the “AI” (from the perspective of the game industry) and study opportunities to use AI (from the research perspective) to enhance the gaming experience.

4. Academic impact on programs affected by new course:
   A. Is the proposed course to be cross-listed?
      No

   B. Identify any known effects of the proposed new program on other programs at the University.
      None

   C. If there are known effects, individuals in charge of the affected programs must be consulted about the proposed new program and the following information provided:
      (1) Who was consulted?

      (2) Will the proposed new program acceptable to all other programs affected?

      (3) Will any changes be required in the affected programs? If so, please describe below:

   D. Does the proposed new program affect the University’s commitment to diversity in any way? If so, please describe below:
      None

5. Resource impact
   A. Provide impact statements in the four areas listed below:
      (1) Library impact statement (attach statement if provided by LTS)

      None

      (2) Computer impact statement (attach statement if provided by LTS)

      All software is downloadable from the web. We received a software donation from a gaming company and this is handed to the students. Judging from the time this course has been taught, all students work their projects in their personal computers.
(3) Faculty impact statement (how program will impact course load of existing faculty or if new faculty)

Prof. Brown has taught this course twice. It is part of his normal teaching load.

(4) Facilities impact statement (how proposed program affects existing facilities or requires new facilities)

Please see answer to 5.1. However, the software is usually installed by students on their personal computers.

B. Provide a statement indicating who will assume financial responsibility for any new resources required:

No new resources are expected. The course has been taught twice and all the material needed is already available. In the unlikely situation that new resources are needed, the CSE Department will assume financial responsibility.
RCEAS: Computer Science and Engineering

Proposed New Course

1. Proposed new course number and course description (as it will appear in course catalogue):
   CSE 363: Network Systems Design
   Design principles and issues of network systems. Traditional protocol processing systems and latest network processor/processing technologies. Packet processing, protocol processing, classification and forwarding, switching fabrics, network processors, and network systems design tradeoffs. Prerequisite: CSE 342, or CSE 404, or Instructor's permission.

2. Instructional mode (lecture, recitation, laboratory, seminar, independent study, or other) and number of contact hours per week:
The instructional mode will be a combination of lectures and lab sessions. The course will meet twice a week for 75 minutes each, or three times a week for 50 minutes each. The course will last a whole semester.

3. Rationale for proposed new course:
   This course is an area that has become very prominent in Computer Engineering over the last decade, and it considerably strengthens our offerings in this area.

4. Academic impact on programs affected by new course:
   A. Is the proposed course to be cross-listed? 
      No.
   B. Identify any known effects of the proposed new program on other programs at the University.
      N/A.
   C. If there are known effects, individuals in charge of the affected programs must be consulted about the proposed new program and the following information provided:
      1) Who was consulted?
         N/A.
      2) Is the proposed new program acceptable to all other programs affected?
         N/A.
      3) Will any changes be required in the affected programs? If so, please describe below.
         N/A.
   D. Does the proposed new program affect the University's commitment to diversity in any way? If so, please describe below.
      N/A.

5. Resource impact
   A. Provide impact statements in the four areas listed below:
      1) Library impact statement (attach statement if provided by LTS)
         The library has adequate resources on network systems design.
      2) Computer impact statement (attach statement if provided by LTS)
         Will require computers for lab sessions. When this course was offered in Fall 2003 and Spring 2004 semesters, computers of the CSE Sandbox lab had been used for the lab sessions. We can continue to do so.
      3) Faculty impact statement (how proposed program affects hiring or retaining faculty or new faculty)
         It will be taught by Liang Cheng. It has been offered by Liang Cheng in Fall 2003 and Spring 2004 semesters.
      4) Facilities impact statement (how proposed program affects land or existing facilities or requires new facilities)
         We currently have adequate classroom and laboratory space for this course.
   B. Provide a statement indicating who will assume financial responsibility for any new resources required:
      We do not anticipate needing new resources.
CSE and ECE Departments: Proposed Change in Computer Engineering Program

Name and summary of current program:
Major in Computer Engineering

Proposed program changes (as they will appear in the catalog):
Senior Year, Second Semester (18 credit hours)
CENG 227: Senior Lab I (3)
CSE 311: Digital System Design (3)
CSE 303: Operating System Design (3)
PSS elective (6)
Free elective (3)

Senior Year, Second Semester (17 credit hours)
CENG 258: Senior Lab Project II (3)
Free technical elective* (5)
PSS elective (6)
Free elective (3)

Description of proposed change(s):
Require CENG 257 & 258 in place of CSE 257 & 258

Rationale for proposed change(s):
Enroll Computer Engineering in senior projects more like that of other departments.

Academic Impact Statement:
Is this proposal program change interdisciplinary? NO

Identify any known effects of the proposed program change on the University:
NONE

If there are known effects, individuals in charge of the affected programs must be consulted about the proposed program change and the following information provided:
NONE

Who was consulted? Is the proposed program change acceptable to the affected programs? Will any changes be required in the affected programs? If so, describe:
NONE

Identify any known effects of the proposed program change on the University's commitment to diversity:
NONE

Known Effects:
NONE

Resource Impact Statement:
Provide each of the following:
Library impact statement: NONE
Computer impact statement: NONE
Faculty impact statement: NONE
Facilities impact statement: NONE

Provide a statement indicating who will assume financial responsibility for any new resources required: None required
Engineering: Electrical and Computer Engineering

**Proposed Course Changes** (delete)

1. **Current course number, title, course description, and credits (from present course catalogue):**

   **ECF 254 Microwave Lightwave Laboratory (2)**
   Basic microwave and optical measurement techniques, design procedures and practical concepts. Practical aspects of fiber optics, optical transmission, and modulation. Two three-hour sessions per week. Co-requisite: ECF 346.

2. **Proposed course number, title, course description, and credits (as it will appear in course catalogue):**

3. **Nature of proposed change(s):**

   A. Course title change? If so, provide rationale below:
   
   B. Course number change? If so, provide rationale below:
   
   C. Change in course credits? If so, provide rationale below:
   
   D. Change in course description? If so, provide rationale below:
   
   E. Other change(s)? If so, please describe below and provide rationale for each change.

Delete course. This was designed as a companion course for ECE 546 which is no longer offered

4. **Resource impact:**

   A. Provide Impact statements in the four areas listed below:

      (1) **Library impact statement:** (its statement is provided by LTB)

      (2) **Computer impact statement:** (its statement is provided by LTB)

      (3) **Faculty impact statement:** (its proposal and program affects hiring faculty and new faculty)

      (4) **Facilities impact statement:** (its proposal and program affects no hiring facilities or maintaining new facilities)

   B. Provide a statement indicating who will assume financial responsibility for any new resources required:

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Engineering: Electrical and Computer Engineering
ECE 340 Adaptive Signal Processing (3)
Introduction to the uses and practice of modern adaptive signal processing. Theory and design of discrete-time optimum linear filters and adaptive filters. AR, MA, and ARMA processes are introduced. Common adaptive filtering algorithms are derived and discussed for transversal and ladder structures, including LMS, Least Squares, and RLS algorithms. Kalman filtering is introduced with some applications. Some programming will be required, using preferably Maple or Matlab. Prerequisites: ECE 125 and MATH 231 or MATH 309. Frey.

3. Nature of proposed changes:

A. Course title change? If so, provide rationale below:

B. Course number change? If so, provide rationale below:

C. Change in course credits? If so, provide rationale below:

D. Change in course description? If so, provide rationale below:

E. Other change(s)? If so, please describe below and provide rationale for each change.

D. Int. course: It is offered only occasionally and should be re-designated in any event

4. Resource impact

A. Provide impact statements in the four areas listed below:

(1) Library impact statement (if statement is provided by LTS)

(2) Computer impact statement (if statement is provided by LTS)

(3) Faculty impact statement (if new proposed program affects faculty, including faculty requiring new funding)

(4) Facilities impact statement (if new proposed program affects facilities or requires new facilities)

B. Provide a statement indicating who will assume financial responsibility for any new resources required:

Engineering: Electrical and Computer Engineering

Proposed Course Changes (delete)
1. Current course number, title, course description, and credits (from present course catalogue):

ECE 546 Microwave Circuits and Techniques (3)
Description and analysis of the processing steps involved in microelectronic material fabrication. Emphasis will be placed on the chemistry of the fabrication steps, mathematical modeling of the transport and chemical reaction phenomena, and interpretation of experimental methods and data. Prerequisite: a course in thermodynamics and senior standing.

2. Proposed course number, title, course description, and credits (as it will appear in course catalogue):

3. Nature of proposed change(s)

A. Course title change? If so, provide rationale below:

B. Course number change? If so, provide rationale below:

C. Change in course credits? If so, provide rationale below:

D. Change in course description? If so, provide rationale below:

E. Other change(s)? If so, please describe below and provide rationale for each change:

Delete course. It has not been given for a long time and, according to the Materials Science and Engineering department, it is anticipated that it will not be given again. This course has always been taught by a faculty member of the Materials Science and Engineering and the Chemical Engineering department has no interest in offering this course.

4. Resource Impact

A. Provide impact statements in the four areas listed below:

(1) Library impact statement (attach statement if provided by LTS)
(2) Computer impact statement (attach statement, if provided by LTS)
(3) Faculty impact statement (new proposed program affects load on existing faculty or requires new faculty)
(4) Facilities impact statement (new proposed program affects or requires facilities) (attach new Facilities Impact statement if necessary)

B. Provide a statement indicating who will assume financial responsibility for any new resources required:

Engineering: Electrical and Computer Engineering

Proposed Course Changes (delete)
ECE 373 Optical Communications Laboratory (2)
Fundamental optical instrumentation used for test and measurement in optical communications. The theoretical principles of operation of the instruments and the significance of the parameters measured in optical communications will be covered. Fields of measurement include: optical power, optical spectrum analysis, wavelength measurement, laser diode characterization, polarization analysis, modulation analysis, insertion loss measurements, optical reflectometry for component characterization, optical time domain reflectometry and backscatter measurements, dispersion measurement, and characterization of fiber amplifiers. Prerequisite: ECE 347 or ECE 348 or ECE 371 or ECE 372, or equivalent

2. Proposed course number, title, course description, and credits (as it will appear in course catalogue):

3. Nature of proposed change(s)
   A. Course title change? If so, provide rationale below:
   B. Course number change? If so, provide rationale below:
   C. Change in course credits? If so, provide rationale below:
   D. Change in course description? If so, provide rationale below:
   E. Other change(s)? If so, please describe below and provide rationale for each change.

Deleted: the laboratory space no longer exists.

4. Resource Impact
   A. Provide impact statements in the four areas listed below:
      (1) Library impact statement (library support for new course)
      (2) Computer impact statement (computer support for new course)
      (3) Faculty impact statement (impact on faculty time and equipment)
      (4) Facilities impact statement (impact on physical space available for course)
   B. Provide a statement indicating who will assume financial responsibility for any new resources required:

Engineering: Electrical and Computer Engineering

Proposed Course Changes (delete)
1. Current course number, title, course description, and credits (from present course catalogue):

ECE 375 Computer Vision (3)
Acquisition and processing of digital images; interpretation of vision modalities; intermediate level vision, including segmentation, texture, and shape representation. Three-dimensional scene understanding from stereo, texture, shading and photometric stereo. Basics of high level vision. Prerequisite: ECE 108 or equivalent or consent of instructor.

2. Proposed course number, title, course description, and credits (as it will appear in course catalogue):

3. Nature of proposed change(s):

   A. Course title change? If so, provide rationale below:
   
   B. Course number change? If so, provide rationale below:
   
   C. Change in course credits? If so, provide rationale below:
   
   D. Change in course description? If so, provide rationale below:
   
   E. Other change(s)? If so, please describe below and provide rationale for each change.

Date: Course: This course is not supported by the current faculty

4. Resource Impact:

   A. Provide impact statements in the four areas listed below:

      (1) Library impact statement

      (2) Computer impact statement

      (3) Faculty impact statement (i.e., proposed program cost is being absorbed by the institution)

      (4) Facilities impact statement (i.e., proposed program impact is being absorbed by the institution)

   B. Provide a statement indicating who will assume financial responsibility for any new resources required:
RCEAS: Computer Science and Engineering/Electrical and Computer Engineering

Proposed New Course

1. Proposed new course number and course description (as it will appear in course catalogue):
   CREG 258. Senior Lab Project I (3) With CREG 258, a complete design, experience for Computer
   Engineers. Research, planning, and completion of the initial design for a capstone project that integrates
   the many facets of the undergraduate Computer Engineering program. The project, carried forward to
   completion in CREG 258, must involve the integration of hardware and software within a single system.
   Technical writing, product development, ethics and professional engineering, and presentation of design
   and research. May not be taken with ECE 257 for credit.

2. Instructional mode (lecture, recitation, laboratory, seminar, independent study, or other) and
   number of contact hours per week:
   Two three-hour sessions and one additional two-hour session per week.

3. Rationale for proposed new course:
   Computer Engineers currently take ECE 257 & ECE 258. The new course, by segregating the Computer
   Engineers from the Electrical Engineers, enable us to more efficiently administer the two pairs of courses.

4. Academic impact on programs affected by new course:
   A. Is the proposed course to be cross-listed?
      No.
   B. Identify any known effects of the proposed new program on other programs at the
      University.
      None.
   C. If there are known effects, individuals in charge of the affected programs must be
      consulted about the proposed new program and the following information provided:
      (1) Who was consulted?
      Both ECE and CSE.
      (2) Is the proposed new program acceptable to all other programs affected?
      Yes.
      (3) Will any changes be required in the affected programs? If so, please describe below.
      Simply change the requirement for Computer Engineers from ECE 257 to CREG 258.
   D. Does the proposed new program affect the University's commitment to diversity in
      any way? If so, please describe below.
      No.

5. Resource Impact
   A. Provide impact statements in the four areas listed below:
      (1) Library Impact statement (which statement is provided: LBS)
      None.
      (2) Computer Impact statement (which statement is provided: LBS)
      None.
      (3) Faculty Impact statement (how proposed program affects faculty or requires a new faculty)
      None.
      (4) Facilities Impact statement (how proposed program affects and extends existing
          facilities or requires new facilities)
      None.

   B. Provide statement indicating who will assume financial responsibility for any new
      resources required.
      There is no additional financial responsibility.
RCEAS: Computer Science and Engineering/Electrical and Computer Engineering

Proposed New Course

1. Proposed new course number and course description (as it will appear in course catalogue):
   CREG 258 Senior Lab Project II (2) Continuation of CREG 257 Complete design, construction, and
testing of projects selected and developed in CREG 257. Final design reviews and project presentations;
final written report; development issues; including manufacture, patents, and ethics. Prerequisites:
   CREG 257 or department approval. May not be taken with SCE 258 for credits.
2. Instructional mode (lecture, recitation, laboratory, seminar, independent study, or other) and
   number of contact hours per week:
   Two three hour sessions and one additional two hour session per week.
3. Rationale for proposed new course:
   Computer Engineers currently take SCE 257 & ECE 258. The new courses by segregating the Computer Engineers
   from the Electrical Engineers, enables us to more efficiently administer the two pair of courses.
4. Academic impact on programs affected by new course:
   A. Is the proposed course to be cross-listed?
      No.
   B. Identify any known effects of the proposed new program on other programs at the
      University.
      None.
   C. If there are known effects, individuals in charge of the affected programs must be
      consulted about the proposed new program and the following information provided:
      (1) Who was consulted?
         Both ECE and CSB.
         (2) Is the proposed new program acceptable to all other programs affected?
            Yes.
         (3) Will any changes be required in the affected programs? If so, please describe
            below:
            Simply change the term for Computer Engineers from ECE 257 to ECE 258.
   D. Does the proposed new program affect the University's commitment to diversity in any
      way? If so, please describe below:
      No.
5. Resource Impact
   A. Provide impact statements in the four areas listed below:
      (1) Library impact statement (attach statement if provided by LTS)
         None.
      (2) Computer impact statement (attach statement if provided by LTS)
         None.
      (3) Faculty impact statement (if any existing program affects head of existing faculty or requires
         new faculty)
         None.
      (4) Facilities impact statement (how proposed program affects load on existing
         facilities or requires new facilities)
         None.
   B. Provide a statement indicating who will assume financial responsibility for any new
      resources required:
      There is no additional financial responsibility.
Electrical and Computer Engineering

Proposed New Course for APC

1. Proposed new course number and course description (as is it will appear in course catalog): ECE 569: Introduction to Cryptography and Network Security (3) Introduction to cryptography, classical cipher systems, cryptanalysis, perfect secrecy and the one time pad, DES and AES, public key cryptography covering systems based on discrete logarithm, the RSA, and the elliptic curve systems, and various applications of cryptography. May not be taken with ECE 508 for credit. Prerequisite: Junior or Senior standing.

2. Instructional mode (i.e., lecture, laboratory, seminar, independent study or other) and number of contact hours per week:

Lecture
3 hours/week

3. Need and justification for proposed new course:

The need for data security has been accelerated by the Internet and wireless communications. This course has been taught more than once in the past and there has been significant interest.

4. Academic impact on programs affected by new course:

Is this proposed new course cross-listed? No
Is the proposed new course acceptable to all affected programs? Yes
If there are known effects, individuals in charge of the affected programs must be consulted about the changes and the following information provided: The course will affect students from electrical engineering, computer engineering, and computer science programs. Professor Mooi Choo Chuah in the Department of Computer Science and Engineering offers a course in network security. The proposed course may become a prerequisite course for Professor Chuah's course.
Who was consulted? Professor Mooi Choo Chuah
Is the proposed new course acceptable to the affected program? Yes
Will any changes be required in the affected programs? No.
It is possible new courses may be needed on the University's commitment to diversity. There are no known effects on the University's commitment to diversity.

5. Resource Impact Statement:

Provide each of the following:
Library impact statement: None
Computer impact statement: None
Faculty impact statement: Dr. Zhiyuan Tan will teach this course. It will have a positive impact on his teaching.
Facilities impact statement: None

Provide a statement indicating who will assume financial responsibility for any new resources required: N/A
CATALOG DESCRIPTION

MINOR IN ENGINEERING

A minor in engineering is available to students in the Colleges of Arts and Sciences and in the College of Business and Economics. The courses that comprise the minor cannot be taken by students in the College of Engineering and Applied Sciences. The purpose of the minor is to educate non-engineering students about engineering methodology, especially how engineers solve problems, to develop design, manufacture, and analyze, and how factors such as economics, safety, and environmental issues affect the process. The program will result in an engineering education, but an education about engineering, not in the minor and "integrated" zone is specific to an engineering discipline.

The minor has two corequisites: a mathematics course (Math 51 or equivalent) and 1 physics course (Physics 5 or equivalent). There are two required courses in the minor: EMC 101 and EMC 102.

EMC 1: Macro and micro view of engineering - 3 credits
A course designed to be exciting and stimulate a student's further interest in the engineering minor. Hands-on experience with engineering problem solving, modeling, simulation, and analysis tools. Macro view of what engineering is and what engineers do. Labratory with practicing engineers visits to local engineering facilities.
Corequisites: None

EMC 2: Engineering Practicum - 3 credits
Techniques and processes used in the creation of engineered products. Exposure to engineering tasks and processes in a hands-on laboratory, mechanical and electronic manufacturing, and fabrication techniques. Disassembly and reassembly of common engineered products to assess how they work and are manufactured.
Corequisites: Physics 5 and Math 51 or permission of instructor

An additional three elective courses must be taken. At least one course must be taken from each category.

LIST OF COURSES

Category 1
(A) Engineering Fundamentals
- EMC 105: Engineering Structures and Strength
- EMC 110: Energy Engineering
- EMC 115: Engineering Materials and Electronics
- EMC 120: Systems Engineering

(B) Integrated Engineering
- EMC 150: Information and Knowledge engineering
- EMC 160: Enterprise engineering
- EMC 165: Computer aided engineering and control systems
- EMC 166: Computer & Network Engineering
- EMC 170: Software Engineering & Collaborative Environments

Category 2
EMC 115 Engineering Materials and Electronics – 3 credits
"Materials" are the "stuff" from which we build TVs, cell phones, cars, skyscrapers, etc. and affect design, performance, costs, and environmental impacts. Case studies, demonstrations, and hands-on experiments to see how electronics, communications, and structures depend on advances in materials engineering: understanding of materials behavior, modeling and simulation of materials properties and performance, methods and database for materials selection, and engineering processes to control material composition and structure.
Corequisites: EMC1 and EMC2

EMC 120 Systems Engineering – 3 credits
An application-oriented course that emphasizes the systems approach to problem solving in fields such as environmental planning; large-scale infrastructure systems; manufacturing, telecommunications; and delivery of services. Understanding systems analysis concepts and their relation to the determination of preferred plans and designs of complex, large-scale engineering systems. How to incorporate performance and cost into project engineering decisions that achieve a balance of resource investments across the major stages of life of an engineering system. Development of functional requirements and satisfactory designs.
Prerequisites: EMC1, Corequisites: EMC2

(B) Integrated engineering

EMC 150 Information and Knowledge Engineering – 3 credits
This course exposes how computers manages information for making decisions automatically or for advising decision makers. Characterization of database systems; on-line technologies; multimedia, and of the relationships among them. Various representations of knowledge and the use of artificial techniques, including rule-based systems, for manipulating these representations. Example systems: automatic help-desk systems and computer generation of project plans.
Corequisites: EMC1 and EMC2

EMC 155 Enterprise Engineering – 3 credits
An application-oriented course that produces an understanding of the key elements of modeling and engineering the corporation. Enterprise engineering, decision analysis, application of quantitative methods to facilitate planning, engineering economy, production planning and control, forecasting, material requirements planning, and agile business practices.
Corequisites: EMC1 and EMC2

EMC 160 Computer aided engineering and control systems – 3 credits
Learn about the use of computer-based technologies for design and manufacture products. The design cycle for creating product concepts. Analysis of product design. Development of specifications for the control of manufacturing processes. How control systems are used in creating agile manufacturing environment: discrete and analog signals, applying to digital conversion and application case studies. Hands-on application(s) and sample exercises from real-world examples.
Corequisites: EMC1 and EMC2

EMC 165 Computer & Network Engineering – 3 credits
Computer and Network Engineering is the discipline essential in designing and constructing intelligent buildings, intelligent transportation systems, and modern communication networks. Design and development of technologies involved in integrated sensor, communication, and computer networks. How fiber optics, cell phones, GPS, sensors work. Architecture, protocols, and implementations of wired and wireless networks: Wi-Fi hotspots, high-speed broadband access, internetworking, cellular networks, smart buildings & bridges and intelligent car and transportation systems. The impact of communication systems on society.
Corequisites: EMC1 and EMC2

EMC 170 Software Engineering & Collaborative Environments – 3 credits
Introduction to software engineering with its distinct and integrated approach to development, testing, and ongoing (24-7) modification. Discuss why building large software systems is very different from using large databases, or designing products such as automobiles with CAD, etc. Design and implementation of a large team project involving complex data management in a collaborative environment. Learn why and how collaborative environments are becoming essential to modern engineering projects and require the tools and techniques of software engineering to succeed.
Corequisites: EMC1 and EMC2
Entrepreneurship

Program Management CSE and RCEL faculty committee

Minor in Entrepreneurship

The purpose of the entrepreneurship minor is to enable students to supplement their major with knowledge and skills that increase their ability to realize their entrepreneurial goals and/or make them more marketable upon graduation. It will also work to create an environment and campus center of gravity that fosters an entrepreneurial spirit and mindset among students and also serve as a locus for community building among entrepreneurial students, faculty, and alumni. This minor is available for students at Lehigh University.

Required prerequisite course:
- ECO 1 Principles of Economics (4 credit hours) ECO 1 must be completed prior to entering the entrepreneurship minor program.

Required Courses:
- ENTP 101. Entrepreneurship (3 credit hours) Pre-requisite: ECO 1.
- ENTP 201. Entrepreneurship and Practice (3 credit hours) Pre-requisite: ENTP 101 permission of minor program director.
- One of the following three options: (3 credit hours)
  - ENTP 311: Entrepreneurship: Practicum (3)
  - JBS 395: Corporate Projects 1 (3)
  - MGT 312: UNAC Management Assistance: Counseling (3)
- One other independent project approved by the minor program director.
- ENTP 312: Launching Entrepreneurial Ventures (3 credit hours) Pre-requisite: Junior standing, ENTP 311, or equivalent PRI option, or permission of minor program director.

Required and Additional Courses
- ACC 108: 152/152
- Law 201 and 202
- MGT 308
- MKT 211 and 319
- SCM 309
Students must complete the minor sequence with an average GPA of at least 2.0 in those courses in order to qualify for the minor. Courses in the Entrepreneurship minor cannot be used towards the Engineering Minor or the Business Minor.

Entrepreneurship Courses:

ENFT 101 Entrepreneurship (3 credit hours)
Introduction to the nature and process of entrepreneurship. Emphasizes entrepreneurial opportunities, creativity, innovation and vision, and pursuit of opportunities beyond resources. Topics include: concepts of entrepreneurship; attributes of entrepreneurs; new venture creation; introduction to entrepreneurial finance and marketing in resource-constrained environments; intellectual property; entrepreneurship planning for both emerging and existing enterprises.

ENFT 201 Entrepreneurship and Enterprise (3 credit hours)
Investigates skills and steps for entrepreneurial success: mindset; opportunity; planning and screening; informal networking; finding and managing external resources; managing risk; developing marketing plans; sales; investors; debt and venture capital; horizontal management; developing a leadership team and culture; technology cycles; structuring and managing change, ethics, exit strategies. Cross-functional team based experiential practice and discussions with entrepreneurs. Prerequisites: ENFT 101 or permission of minor program director.

ENFT 311 Entrepreneurship Practice (3 credit hours)
Cross-disciplinary teams of 2-6 students with faculty and alumni analyzing and providing financial planning, business and technical feasibility of products or service. Students may work on projects related to LU intellectual property, or ideas from outside entrepreneurs, or on their own projects. Oral and written presentations and discussions with guest speakers are integral parts of the course. Prerequisites: Junior standing and ENFT 201, or permission of minor program director.
Proposed Program Changes for APC

Name and summary of current program:
Industrial Engineering (IE) is concerned with the analysis, design, and implementation of integrated systems of people, materials, information, and equipment to accomplish useful work. The discipline of industrial engineering is applied in nearly all industries, whether the industry involves manufacturing of a product or delivery of a service. Job functions performed by IE includes systems analysis, cost estimation, capital equipment selection, engineering economy, facilities planning, production planning and scheduling, inventory control, quality control, information systems, project management, operations management, engineering management, as well as methods analysis and work measurement. The IE degree requires 123 credit hours.

Proposed program changes (as they will appear in the catalog)
Senior year, second semester (18 credit hours)
IE 154 Senior Project (3)
IE 305 Simulation (3)
IE elective (5)**
IE elective (3)**
ENGR engineering elective (9)**
FA free elective (3)

Senior year, second semester (18 credit hours)
IE 154 Senior Project (3)
IE 305 Simulation (3)
IE elective (3)**
IE elective (3)**
FA free elective (6)

Description of proposed change(s):
Replace the Engineering Elective with free elective credit

Rationale for proposed change(s):
The Engineering Elective is a holdover from former ABET (accreditation) requirements. Currently, any course from KCEAS will meet this requirement. Under the new accreditation guidelines, the course does not count as an engineering course because not all courses taught within KCEAS fall under the engineering category. In addition, new minors such as the Business Minor and the Entrepreneurship Minor are appealing to IE students. Presently, they must overload to complete these minors. By replacing this requirement with a free elective, the minors will now be possible without an overload. Furthermore, the accreditation status will not be impacted.

Academic Impact Statement

Is this proposed program change interdisciplinary? No

Identify any known effects of the proposed program change on other programs at the University. None.

If there are known effects, individuals in charge of the affected programs must be consulted about the proposed program change and the following information provided:
Who was consulted?
Is the proposed program change acceptable to the affected programs?
Will any changes be required in the affected programs? If so, describe.

Identify any known effects of the proposed program change on the University's commitment to diversity. None identified.
Resource Impact Statement

Provide each of the following:

Library impact statement: No impact on library services
Computer impact statement: No impact on computing services
Faculty impact statement
Facilities impact statement

Provide a statement indicating who will assume financial responsibility for any new resources required:

[Insert statement here]
Proposed Program Changes for APC

Name and Summary of Current Program:
Information and Systems Engineering (ISE) is a bachelor of science degree program that produces graduates who understand the complex issues of modern information systems and the integration of these systems in industrial, service, and financial organizations. The degree program, offered through the Department of Industrial and Systems Engineering, consists of a broad-based curriculum focusing on three core areas: (1) Information Economics, (2) Quantitative Systems Analysis, and (3) Information Technology. The core areas are coupled with general engineering and business background courses.

The first full class of graduates completed the program in May, 2005. Based on feedback from students and employers, there is a need to make the program more flexible. These changes will accomplish that goal. There will be no change to the total number of credit hours (132 credits) for the degree.

Proposed Changes (in italics will appear in the catalog)

Existing Catalog:
Junior year, first semester (17 credits total)
IE 122 Software Tools (1)
IE 220 Introduction to Operations Research (3)
IE 224 Information Systems Analysis and Design (3)
ISE 211 Management Information Systems (3)
ECON 202 Principles of Economics I (4)
MECH 202/1 Elementary Engineering M:1, M:2 (3)
or ME 114/1 Thermodynamics I (3)
or MAT 30 Engineering Materials Processing (3)

Junior year, second semester (18-19 credit hours)
IE 225 Engineering Economy (3)
IE 275 Fundamentals of Web Applications (3)
IE 303 Simulation (3)
HSS Humanities/Social Sciences Elective (3-7)*
FF free elective (3)

Senior year, first semester (15-16 credit hours)
IE 315 Advanced Operations Research Techniques (3)
IE 345 Manufacturing Information Systems (3)
IE 372 Systems Engineering Design (3)
TE Technical Elective (3)
HSS Humanities/Social Sciences Elective (3-4)*

Senior year, second semester (18 credit hours)
IE 154 Senior Project (3)
IE 306 Stochastic Models
IE 541 Data Communication System Analysis and Design (3)
TE Technical Elective (3)
HSS Humanities/Social Sciences Elective (3)*
FF free elective (3)

Proposed Catalog:
Junior year, first semester (17 credits total)
IE 122 Software Tools (1)
IE 220 Introduction to Operations Research (3)
IE 224 Information Systems Analysis and Design (3)
FF Free Elective (3)
ECON 202 Principles of Economics (3)
MECH 202 Elementary Engineering M:1, M:2 (3)
or ME 114 Thermodynamics I (3)
or MAT 30 Engineering Materials Processing (3)

Senior year, second semester (18-19 credit hours)
IE 225 Engineering Economy (3)
IE 275 Fundamentals of Web Applications (3)
IE 303 Simulation (3)
HSS Humanities/Social Sciences Elective (3-7)*
FF Free Elective (3)

Senior year, first semester (15-16 credit hours)
IE 315 Advanced Operations Research Techniques (3)
IE 372 Systems Engineering Design (3)
TE Technical Elective (3)
HSS Humanities/Social Sciences Elective (3-4)*

Senior year, second semester (18 credit hours)
IE 154 Senior Project (3)
IE 306 Stochastic Models
TE Technical Elective (3)
HSS Humanities/Social Sciences Elective (3)*
FF Free Elective (3)
Description of proposed change(s):

1. Drop BIS 211 from the curriculum and replace it with 3 credits of free elective.
2. Drop IE 241 as a required course and replace it with a technical elective.
3. Drop IE 245 as a required course and replace it with a technical elective.

Rationale for proposed change(s):

When the IDEE degree program was designed, it was recognized that the students would not have many choices for technical and non-technical electives. After graduating and receiving feedback from the first class of students and talking with employers, the department has decided that there is a need for additional flexibility in the program. New minors such as the Business Minor and the Entrepreneurship Minor, technical minors and BIS minors are valuable to graduates and employers. In the present form of the degree, non of these minors can be completed without overloading. In the revised form, it will be possible to do most minors without an overload.

1. The original IDEE curriculum included BIS 211 Management of Information Systems. This course is no longer taught by BIS. They have replaced it with BIS 111 Introduction to Information Systems. BIS 111 is taught at a more introductory level than BIS 211 and the material overlaps significantly with IE 224. Information Systems Analysis and Design. Because of the overlap between BIS 111 and IE 224, changing the BIS 211 requirement to BIS 111 is not practical. By replacing it with free elective credits, it is possible to complete the minor outside of IDEE. This will increase the free elective requirement from 6 to 9.

2. While IE 241 provides a background for students in data communications and networking, the job trends have been more toward the financial sector and require less background in data communications. By changing this to a technical elective, students can design and pursue a program that is better suited towards their goals and make it easier to complete a technical minor. The current degree program has only 2 technical electives. It's below that of most other programs in the college. This change, along with change (3),

3. While IE 245 provides a background in manufacturing applications, the job trends have been more toward the financial sector with few in the manufacturing sector. By changing this to a technical elective, students can design and pursue a program that is better suited towards their goals and make it easier to complete a technical minor. The current degree program only has 2 technical electives, well below that of most other programs in the college. This change, along with change (2), will increase the technical electives to 4 courses and bring it into line with other programs in the college.

Academic Impact Statement:

Is this proposed program change interdisciplinary? No.

Identify any known effects of the proposed program change on other programs at the University:

It will reduce the number of students in BIS 111.

If there are known effects, individuals in charge of the affected programs must be consulted about the proposed program change and the following information provided:

Who will be affected? Sue Sheedy, Director of BIS

Is the proposed program change acceptable to the affected programs? Yes, very much in favor of it.

Will any changes be required in the affected program? No. If so, describe:

Identify any known effects of the proposed program change on the University's commitment to diversity. None identified.

Resource Impact Statement:

Provide each of the following:
Proposed Course Change for AIC

F. C. Rollin College of Engineering and Applied Science
Department of Materials Science and Engineering
BS in Materials Science and Engineering

Kind of Change: Change of course name and course description

Proposed Name and Course Description:

MAT 218 - Materials Structure at the Nanoscale (3) spring
The structure of metals, ceramics, semiconductors and polymers at the atomic scale. Materials structures at the nanoscale and macoscale. Crystallography, nanocrystals, liquid crystalline, and amorphous (glassy) states. Crystal structures and fundamental aspects of crystallography. Point, line, and planar crystal defects. Materials characterization by x-ray diffraction, light and electron microscopy, and other techniques. Prerequisites: CHEM 21, MAT 33 previously or concurrently. MAT 10 or permission of instructor, Eades

Old Name and Course Description:

MAT 203 - Structure and Characterization of Materials (3) spring
Atomic structure and types of bonding. Crystalline and amorphous states. Crystal structures, and fundamental aspects of crystallography (space lattice, Miller indices, symmetry elements). Crystal defects (point, line, and planar). Basic principles of structure determination by x-ray diffraction. Microscopic techniques (light and electron optical) and their application to material characterization. Prerequisites: CHEM 21, MAT 10 and MAT 33 previously or concurrently. Eades

Description of proposed changes:

Updated name and description of existing course. Metals, ceramics, semiconductors and polymers are explicitly included. Semicrystalline and liquid crystalline materials are now included in the description. MAT 10 can now be waived as a prerequisite for MAT 203, upon the discretion of the instructor.

Rationale for proposed changes:

Name and description is updated to accurately reflect current course content. Name now reflects the atomic and near-atomic scale of the structures discussed. Bonding is no longer covered. A small shift of course content (not evident in the description) from MAT 203 to MAT 218 has allowed coverage of the new topics in MAT 203. Multiple materials classes are now specifically mentioned in the course description to show departure from the older metallurgical focus, and to inform non-Materials majors of cross-disciplinary topics that may be of interest. The waiver of MAT 10 is intended to allow non-Materials majors greater flexibility to take courses in Materials. Only a portion of the labwork in MAT 203 depends on skills learned in MAT 10, and that fraction can be performed in a lab with Materials majors who have had MAT 10, thereby removing the need for the requirement for non-majors.

Academic Impact Statement:

- Is this proposed program change interdisciplinary?
  Yes, in the sense that it is intended to allow non-majors to take more MAT courses.

- Identify any known effects of the proposed program change on other programs at the University.
  None.

- If there are known effects, individually in charge of the affected programs must be consulted about the proposed program change and the following information provided:
  N/A
  Who was consulted?
  N/A
  Is the proposed program change acceptable to the affected programs?
  N/A
  Will any changes be required in the affected programs? If so, describe.
Library impact statement No impact on Library services

Computer impact statement No impact on computing services

Faculty impact statement Focusing sections of EE 341 and EE 345 will be taught less frequently freeing up faculty for other assignments such as EM, Engr, etc

Facilities impact statement No impact to facilities

Provide a statement indicating who will assume financial responsibility for any new resources required: ISEE department will assume financial responsibility for new resources that are required.
Kind of Change: Change of course name and course description

Imported Name and Course Description:

MAT 205 Thermodynamics of Macro/Nanoscale Materials (3) spring
The three laws of thermodynamics. Gibbs free energy and conditions of equilibrium. Effects of scale on material behavior. Binary and ternary equilibrium phase diagrams. Application of thermodynamics to materials problems, with examples from nanotechnology, biotechnology, and structural materials. Prerequisite: MATH 25 and MATH 33, previously or concurrently. Vinci

Old Name and Course Description:

MAT 205 Thermodynamics and Phase Diagrams (3) spring
The three laws of thermodynamics. Gibbs free energy and thermodynamic basis for equilibrium. Solution thermodynamics. Binary and ternary equilibrium phase diagrams. Application of thermodynamics to materials problems. Lectures and laboratories. Prerequisite: MATH 25 and MATH 33, previously or concurrently. Vinci

Description of proposed changes:
Updated name and description of existing course. New “nano-science content explicitly included” in title and description. Unproportionate emphasis on solution thermodynamics removed. New cross-disciplinary examples included. Laboratories no longer required, no mention removed.

Rationale for proposed changes:
Name and descriptions are updated to accurately reflect current course contents. New nano-science content explicitly included. Title and description. Unproportionate emphasis on solution thermodynamics removed. New cross-disciplinary examples included. Laboratories no longer required, no mention removed.

Academic Impact Statement:
- **Is this proposed program change interdisciplinary?**
  - Yes, in the sense that it reflects new interdisciplinary content.
- **Identify any known effects of the proposed program change on other programs at the University.**
  - None.
- **If there are known effects, individuals in charge of the affected programs must be consulted about the proposed program change and the following information provided:**
  - **N/A**
  - Who was consulted?
  - **N/A**
  - Is the program program change acceptable to the affected program(s)?
  - **N/A**
  - Will any changes be required in the affected program(s)? If so, describe.
  - **N/A**
- **Identify any known effects of the proposed program change on the University’s commitment to diversity.**
  - None.

Resource Impact Statement
N/A

- Identify any known effects of the proposed program change on the University's commitment to diversity.
  Note

Resource Impact Statement:
- Provide each of the following:
  - Library impact statement: No effect
  - Computer impact statement: No effect
  - Faculty impact statement: No effect
  - Facilities impact statement: No effect

- Provide a statement indicating who will assume financial responsibility for any new resources required:
  No effect
Proposed Course Change for AE

Department of Materials Science and Engineering
BS in Materials Science and Engineering

Kind of Change: Change of course name and course description

Proposed Name and Course Description:

Mat 210. Macro, Micro and Nanoscale Materials Processing Laboratory (2) spring
Processes for different materials classes and size scales. Direct experience with current and emerging materials. Class lectures to introduce principles and applications, followed by laboratory experiments such as synthesis and characterization of ceramic nanoparticle systems forming of polymeric and polymer-based nanocomposite materials, and fabrication and heat treatment of metal systems. Prerequisites: MAT 204, 206, and 214 taken previously or concurrently

Old Name and Course Description:

MAT 210 M10 Materials Processing Laboratory (2) spring
Introduction to the practice of fabrication methods for creating metals, and polymers. Includes topics such as melt processing, deformation processing, gas-phase processing, etc. Contains hands-on processing labs and a reverse engineering design project that allows students to examine a particular process in depth. Prerequisites: MAT 204, 206, and 214 taken previously or concurrently.

Description of proposed changes:
Updated name and description of existing course. New explicitly mentioned range of size and classes of novel materials. Current laboratory projects accurately described.

Rationale for proposed changes:
Name and description is updated to accurately reflect current course content. Name now reflects the scale range and topics associated with the current projects.

Academic Impact Statement:
• Is this proposed program change interdisciplinary?
  No.
• Identify any known effects of the proposed program change on other programs at the University.
  None.
• If there are known effects, individuals in charge of the affected programs must be consulted about the proposed program change and the following information provided:
  N/A
  Who was consulted?
  N/A
  Is the proposed program change acceptable to the affected programs?
  N/A
  Will any changes be required in the affected programs? If so, describe.
  N/A
• Identify any known effects of the proposed program change on the University's commitment to diversity.
  None.

Resources Impact Statement:
• Provide each of the following:
  Library impact statement: No effect
  Computer impact statement: No effect
  Faculty impact statement: No effect
  Facilities impact statement: No effect

• Provide a statement indicating who will assume financial responsibility for any new resources required:
  No effect
Proposed Course Change for AIC
I. C. Rose in College of Engineering and Applied Science
Department of Materials Science and Engineering
BS in Materials Science and Engineering

Kind of Change: Change of course number and course description

Proposed IN and Out Description:

MAT 218: Mechanical Behavior of Macro/Nanoscale Materials (3) Fall
Elasticity, plasticity, and fracture of metals, ceramics, polymers, and composites. Theories of defects and size scale on mechanical response. Strengthening and toughening mechanisms in solids. Static and time-dependent failures from microstructural and fracture mechanics viewpoints. Lectures and laboratory.
Prerequisites: MECH 2, MAT 35, MAT 10 or permission of instructor Vinci

Old Name and Course Description:

MAT 218: Mechanical Behavior of Materials (3) Fall
Prerequisites: MECH 2, MAT 203 Vinci

Description of proposed changes:
Updated name and description of existing course. Now explicitly mentioned: metals, ceramics, polymers and composites; importance of defects; toughening; and effect of size scale on behavior. Removal of "fatigue" as separate topic. Laboratories now mentioned. MAT 10 can now be waived as a prerequisite for MAT 218. Upon the discretion of the instructor, MAT 203 prerequisites removed. MAT 35 prerequisite added.

Rationale for proposed changes:
Name and description is updated to accurately reflect current course content. Name name reflects the scale of structure discussed, and the new emphasis on novel behavior emerging at the nanoscale. Multiple materials classes are now specifically mentioned in the course description to show departure from the older metallurgical focus, and to inform non-Materials majors of cross-disciplinary topics that may be of interest. "Fatigue" is deemed a subset of "time-dependent failure" and therefore does not merit separate mention. The waiver of MAT 10 is intended to allow non-Materials majors greater flexibility to take courses in Materials. Only a portion of the lab work in MAT 203 depends on skills learned in MAT 10, and that fraction can be performed in a team with Materials majors who have had MAT 10, thereby removing the need for the requirement for non-majors. A small shift of course content (not evident in the description) from MAT 203 to MAT 218 removes the need for MAT 203 as a prerequisite. MAT 35 was not mentioned before because it is a prerequisite for MAT 203.

Academic Impact Statement:
- Is this proposed program change interdisciplinary?
  Yes, in the sense that it is intended to allow non-majors to take some MAT courses, and it reflects new interdisciplinary content.
- Identify any known effects of the proposed program change on other programs at the University.
  None.
- If there are unknown effects, individuals in charge of the affected programs must be consulted about the proposed program change and the following information provided:
  N/A
  Who was consulted?
  N/A
• Provide each of the following:
  Library impact statement: No effect
  Computer impact statement: No effect
  Faculty impact statement: No effect
  Facilities impact statement: No effect

• Provide a statement indicating who will assume financial responsibility for any new resources required:
  No effect
MAT 308  Composite Materials (3)  MECH 2
MAT 314  Metal Forming Processes (3)  MEI 208 or instr. consent
MAT 344  Metal Machining Analysis (3)  IF 111 or ME 210 or Mat 205
MAT 342  Inorganic Classes (3)  CHM 187 or MAT 205
MAT 393  Physical Polymer Science (3)

*Note: The prerequisite of Mat 10 for Mat 205 is for Materials Science and Engineering majors only.
When other students take the course requiring Mat 10 as a prerequisite (e.g., Mat 203, 216, 218, etc.),
the non-majors must not use equipment with which they are unfamiliar. These students will be paired in
labs with materials science majors who will use the departmental lab equipment.

Description of proposed changes:
The prerequisite of Mat 10 for Mat 205 has been dropped for non-majors.

Rationale for proposed changes:
The removal of Mat 10 as a required course should encourage a larger number of students from other
departments to sign up for this minor.

Advocacy Impact Statement:
- Is this proposed program change interdisciplinary?
  Yes. It involves non-majors in courses given within the Materials Science and Engineering Department.
- Identify any known effects of the proposed program change on other programs at the University:
  This is a relaxation of requirements. Without the pre-requisite requirement of Mat 10, many
  additional courses can now usually be taken by non-majors.
- If there are known effects, individuals in charge of the affected programs must be consulted about
  the proposed program change and the following information provided:
  Who was consulted?
  The Undergraduate Curriculum Committee of the Department of Materials Science and
  Engineering and the Chair and Associate Chair of the Department of Mechanical Engineering and
  Mechanics.
  Is the proposed program change acceptable to the affected programs?
  Yes.
  Will any changes be made in the affected programs? If so, describe.
  No
- Identify any known effects of the proposed program change on the University's
  commitment to diversity.
  None.

Resume Impact Statement:
- Provide each of the following:
  Library impact statement: No effect
  Computer impact statement: No impact
  Faculty impact statement: A slight increase in the materials science and
  engineering departmental teaching load; probably only 1-2 students per year.
  Facilities impact statement: No effect

- Provide a statement indicating who will assume financial responsibility for any
  new resources required:
  NA
Proposed Change of Program
J. C. Rouxel College of Engineering and Applied Sciences
Department of Materials Science and Engineering
Minor in Materials Science and Engineering

Kind of Change: Relaxation of requirements for the current minor in Materials Science and Engineering (for non-materials majors)

Current catalog description of the minor:
Minor in Materials Science and Engineering
The Department of Materials Science and Engineering offers a minor for students majoring in other subjects. The Department is enthusiastic in its support of students who wish to broaden their education by taking a minor. To obtain a minor in Materials Science and Engineering, a student must complete two required courses (MAT 10, 1 credit, and MAI 35, 3 credits) and four other three-credit courses for a total of 15 credit hours. The four courses may be chosen from a long list of 200- and 300-level courses relevant to various engineering disciplines.

Revised catalog description of the minor:
Minor in Materials Science and Engineering
The Department of Materials Science and Engineering offers a technical minor for students majoring in other disciplines. To obtain a minor in Materials Science and Engineering, a student must complete one required course (MAI 35, 3 credits) and four other three-credit courses for a total of 15 credit hours. The four courses may be chosen from a departmental list of 200- and 300-level materials courses relevant to various engineering disciplines.

OTHER INFORMATION RELATED TO THIS CHANGE

Minor Requirements:
- Minimum 15 credits from the lists below
- One required course plus electives

Required Course:
MAI 35: Engineering Materials and Processes (3)

Electives:
Drawn from a wide variety of elective courses, the courses below reflect selections of interest to students in following engineering disciplines: Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial and Systems Engineering, and Mechanical Engineering.

Course                                      Pre-requisites
MAT 10: Materials Laboratory (1)  (see important note below)
MAT 205: Structures & Characterization of Metals (3)  (MAT 10 preq. & ENG 104)
MAT 206: Thermodynamics and Phase Diagrams (3)
MAT 215: Diffusion and Phase Transformations (3)  (MAI 103, MAI 201)
MAT 216: Mechanical Behavior of Materials (3)  (MECH 2, MAI 203)
MAT 204: Processing and Properties of Polymeric Materials (3)
MAT 206: Processing and Properties of Metals (3)  (MAI 215, MAI 216)
MAT 214: Processing and Properties of Ceramic Materials (3)
MAT 221: Materials in the Development of Man (3)
MAT 201: Physical Properties of Materials (3)  (MAT 205)
MAT 301: Electronic Properties of Materials (3)  (MAT 201)
MAT 226: Materials Selection in Design (3)  (MECH 2 or instr. consent)
In the proposed program change, applicable to the affected programs?
N/A

Will any changes be required in the affected programs? If so, describe.
N/A

- Identify any known effects of the proposed program change on the University's commitment to diversity.
  None

Resource Impact Statement:

- Provide each of the following:
  - Library impact statement: No effect
  - Computer impact statement: No effect
  - Faculty impact statement: No effect
  - Facilities impact statement: No effect

- Provide a statement indicating who will assume financial responsibility for any new resources required:
  No effect
Environmental Initiative

PROPOSED NEW CERTIFICATE PROGRAM IN
Environmental Law & Policy
Submitted October 2005
Revised and Resubmitted February 2006

1. Title of new certificate program

Environmental Law & Policy

2. Mission statement

The certificate in Environmental Law & Policy fulfills a unique part of the Environmental Initiative's mission to provide both the University and the community at large with access to the interdisciplinary study of the natural world. Like the BA in Environmental Studies and the planned MA in Environmental Policy Design & Analysis, the certificate in Environmental Law & Policy will provide students with comprehensive instruction on how ethics, politics, and science policy influence the natural environment and shape human relationships to it, at local, national and international levels of organization. Through these programs, students will have the unique opportunity to learn how to analyze present law and to address its deficiencies by creating new policy designs. The certificate will focus on an immediately practical and career-oriented part of this greater effort by providing expertise in the existing positive law that regulates environmental pollution, planning and land use. This certificate and its courses will therefore eventually become a component part of the new MA in Policy Design and Analysis (still being developed) so that the Environmental Initiative will be able to offer three new academic programs: The B.A. in Environmental Studies; The Certificate in Environmental Law & Policy and the M.A. in Policy Design & Analysis.

3. Identify the proposed market and/or clients this proposed certificate program is designed to address:

The market here includes the traditional certificate market of working adults, as well as individuals who have a background in law, business, environmental studies/science (including those enrolled in graduate degree programs in environmental science and engineering fields here at Lehigh) who might benefit from a credential in environmental law. This may be a special area of interest, or it may be a step in someone's preparation for further studies in law, policy, or politics or for professional positions in the private or public sector. Overall, because the certificate is designed to enhance a person's existing skills and interest in the environment, with a new expertise in the law, it would be of interest to anyone who wants basic and practical training in environmental law, for career or further study. It is especially valuable to those established in various environmental fields who come in contact with the law in the course of their work, to policy-makers at all levels of government that must routinely handle legal affairs but lack the time or the need for a professional law degree, to lawyers without specific training in environmental law and to private business people who hope to avoid legal confrontations by gaining knowledge of what the law says about the legality of their business's impact on the natural environment.

4. Rationale for proposed certificate program

Currently, there is no law school in the Lehigh Valley, and no accessible law school in either New York or Philadelphia that grant a separate credential with basic courses in Pollution Abatement, Risk and Natural Resources Law and Policy. Not only do other institutions in the area lack a specialized graduate program of less than three full years duration, it is also the case that not all law schools teach environmental law and even fewer have courses in natural resource and public lands law or risk policy and the law. Thus, there exists a sizable market for a compact course of study that will treat the American constitutional, legislative, common case, and administrative law of environment and natural resources, as well as comparative and international environmental law, policy and analysis in combination with the basics of legal methods and argument. The Environmental Initiative's capacity to offer these courses provides a unique opportunity for this institution to benefit from the environment's current and growing reputation as a matter of important public concern. The certificate offers a practical program that can service our students, students throughout the Lehigh Valley, and professionals working in various public and private environmental fields in a wider commuter area.