Subject: Proposed Graduate Course and Curricula Changes
Date: Thu, 10 Mar 2005 12:44:29 -0500
From: 'President's Office' <pres@Lehigh.EDU>
To: LU Faculty List <luf-l@Lehigh.EDU>

The following course and curricular change will be proposed at the 21 March 2005 Faculty Meeting.

Date: February 22, 2005
From: Graduate & Research Committee
       Jill Schneider, Chair
To: Lehigh University Faculty
Re: Course and Curricula Changes

The GRC is forwarding for faculty consideration proposals from the E.C. Rossin College of Engineering & Applied Science and the the College of Business and Economics. Each proposal has been approved by the faculties of their respective colleges, as well as by the Graduate and Research Committee.

Proposals are posted on the Registrar's website under Faculty Motions.
http://www.lehigh.edu/~irrgrs/collabex.shtml

Summary of Proposals:

F.C. Rossin College of Engineering & Applied Science

Materials Science and Engineering (Proposals #3 and #5)

New Course: MAT 4xx: Materials for Nanotechnology
New Course: MAT 4yy: Strategies for Nanocharacterization
New Course: MAT 4ww: Thin Films and Nanostructured Materials

College of Business & Economics

Proposal to increase the number of credit hours required for the MBA Marketing Concentration from 9 to 12 and update the course selection.

Course Title and Description Change:
GBUS 465: Creating Breakthrough Innovation (3)

Course Title Change:
GBUS 471: Strategic Brand Management (3)

Course Deletion: GBUS 461: Advertising and Promotion Management

New Course: GBUS 462: Pharmaceutical Marketing (3)
Subject: Proposed Graduate Course and Curricula Changes

Date: Thu, 10 Mar 2005 14:53:37 -0500

From: 'President's Office' <prcs@lehigh.edu>

To: 'IU Faculty List' <luf-l@lehigh.edu>

The following course and curriculum changes will be proposed at the 21 March 2005 Faculty Meeting.

Date: February 15, 2005

From: Graduate & Research Committee.

Jill Schneider, Chair

To: Lehigh University Faculty

Re: Course and Curricula Changes

The CRC is forwarding for faculty consideration proposals from the College of Education and the P.C. Rossin College of Engineering & Applied Science. Each proposal has been approved by the faculties of their respective colleges, as well as by the Graduate and Research Committee.

Proposals are posted on the Registrar's website under Faculty Motions. http://www.lehigh.edu/~irzgs/ccindex.shtml

Summary of proposals:

College of Education

Education and Human Services: Educational Technology Program

Proposal to change the name of the degree, M.S. in Educational Technology, to M.S. in Instructional Technology

P.C. Rossin College of Engineering & Applied Science

Computer Science & Engineering (Proposals #1, #4)

New Course: CSE 4xx: Semantic Web Topics
New Course: CSE 447: Data Mining
New Course: CSE 422: Mobile Robotics
New Course: CSE 44v: Network Security

Course Changes:
Drop CSE 413: Robotics and Intelligent Machines
Drop CSE 415: Database Topics
Drop CSE 453: Advanced Issues in Natural Language Processing
Drop CSE 465: Seminar in Natural Language Processing

Civil & Environmental Engineering (Proposal #2)

Course Changes:
CSE 459: Advanced Topics in Plastic Theory. Prerequisite change
CSE 463: Advanced Mechanics of Reinforced Concrete. Prerequisite change
CSE 470: Reaction Kinetics in Environmental Engineering. Increase in number of credits from 2 to 3
Industrial & Systems Engineering (Proposal #6)

Proposal to change core courses of the M.S. and M.Eng. in Information and Systems Engineering degrees from: IE 316, 341, 404 and 412 to: IE 426 (replacing 316), IE 341, and IE 362 (replacing 412). IE 404 will be dropped.

Proposal to change core courses and update the list of electives for the XBASE Concentration in Industrial Engineering. Core courses change from: IE 305 or 316, IE 340 or 342, and IE 328 if no background in stats, to: IE 404 or 426, IE 319, 340 or 341, and IE 328 if no background in stats. The courses IE 305, 316, 338, and 415 will be dropped from the list of electives; the courses IE 311, 362, 404, 406, 409, 412, 425, 426, 629, 434, and 445 will be added to the list of electives.

Course Changes:
Drop IE 415: Manufacturing Management
New Title & Update Description: IE 442: Manufacturing Management

Electrical & Computer Engineering (Proposal #7)

New Course: ECE 4xx: Spread Spectrum and CDMA
GRADUATE & RESEARCH COMMITTEE

COURSE AND CURRICULUM CHANGES

UNIVERSITY FACULTY MEETING
March 21, 2005

CCE MOTIONS
College of Education: Department of Education and Human Services
Educational Technology Program

Proposed New Course

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

EdT 472, Integrating Technology into Classroom Teaching: [Topic varies] (3 credits) Fostering teacher awareness of the potential of a particular technology or set of technologies for use with students. Teachers in the course will experience hands-on work with promising technologies and enhance their skills at incorporating such technologies into teaching and learning. Sample technologies (course topics) include the World Wide Web, handheld devices, GIS applications, online databases, and the like.

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

Either completely online (when done internationally), completely face-to-face (when done locally on campus), or a combination of the two. 3 hours per week, or equivalent time commitment spread across a longer period of time (such as more than 15 weeks) or compressed into a shorter time period (such as a one-week face-to-face seminar).

3. Rationale for proposed new course:

Research demonstrates that skill and comfort with using various technologies in the classroom constitute the first step to attaining broader view of technology’s usefulness in the curriculum. This course, therefore, is designed to enhance both awareness and skill in using technologies that may prove useful in the classroom.

The course proposed here is part of a new comprehensive Technology Use in the Schools certificate program. (For more details see the certificate program’s rationale in the attached Proposed New Educational Technology Certificate Program form.) This course addresses one known need of this population and is designed to enhance their skills with technology as a foundation to enhancing the integration of technology into teaching and learning.

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.

None anticipated. This course may be an attractive elective for students in degree programs in the College of Education, particularly master’s programs in the Technology-based Teacher Education and Educational Technology programs. It may also be used as an elective for students in the International Doctoral Degree offered through the College of Education’s International Program (unsure of specific terms here).

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?

Not applicable.

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

Not applicable.

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

Not applicable.

Graduate & Research Committee: (Rev. 7/06/04)
D. Does the proposed new course affect the University’s commitment to diversity in any way? If so, please describe below:

The only likely effects are positive. Because the certificate is likely to have international appeal, it may draw a more culturally diverse population.

5. Resource Impact

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

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

This course should not require additions to existing library resources. The library already has substantial holdings on technology use in education as part of support for existing degree programs in Educational Technology and Technology-based Teacher Education.

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

Because possible modes for offering this course may include online offerings, the course may require technology assistance from LTS staff in the form of support for Centra and Blackboard. The LTS technology consultants in the College of Education would supply such support. Because the University holds a Blackboard site license, there should be no additional expense incurred. This course will impose some additional demands on the Blackboard server and course management support systems (setting up new courses, backing up, recycling, and the like). This is within normal expectations for course offerings. However, equipment for instructor use already exists and instructors in the Educational Technology program have extensive experience in delivering completely online courses.

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

None. Sufficient faculty are available for teaching the course. The course would be part of the regular load of a fulltime faculty or would be taught by a qualified adjunct when such was not available. Faculty in Technology-based Teacher Education may also have an interest in teaching the course in future.

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

No specialized facilities are required and present instructional space can accommodate this course when offered face-to-face on campus.

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

As noted above, the only likely new resources involved would be license fees for Centra and adjunct costs when one was employed. These are normal costs for such courses and would be covered by the College of Education as part of its regular budget.
1. Title of new certificate program

*Technology Use in the Schools*

2. Mission statement

The *Technology Use in the Schools* certificate program is designed to help teachers and other school professionals develop the knowledge, skills, and abilities needed to integrate technology into teaching and learning effectively. Certificate program students will learn best practices and how to apply them in school settings.

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

This certificate program is targeted toward educators in a variety of roles who wish to incorporate technology in their schools or are already doing so but wish to do so more effectively.

Those who might benefit include:

- Pre-service (future) teachers who expect to work in a teaching position that requires them to integrate technology into teaching and learning.
- In-service (current) teachers who wish to enhance their skills in using technology in the classroom.
- Technology coordinators or curriculum lead teachers who would plan for technology use in the schools, train teachers and others to use technology, or coordinate the use of technology in the schools.
- Administrators who manage teachers and need practical strategies and tools to enhance their performance as educational leaders.
- Individuals who anticipate assuming administrative responsibilities as the 'next step' in their career advancement.

4. Rationale for proposed certificate program

There is much pressure on teachers and schools to incorporate technology more directly in the schools, particularly in light of demands of '21st century workforce needs.' In addition, schools handle a wider range of student abilities and differences today than they have ever handled in the past. Technology offers promise as a tool to help enhance what teachers can do, but many teachers are not well prepared to use technology. Traditional in-service training tends to focus on smaller-scale issues, like how to operate a particular piece of equipment or use a specific piece of software. Other in-service programs focus more on what is termed productivity software (like word processors and spreadsheets) than on instructional software or instructional uses of the World Wide Web. Seldom do teachers (or 'technology support' staff and administrators) get a broader view of technology's potential role in the schools.

This certificate is designed to move from the micro level (*Integrating Technology into Classroom Teaching*) to the macro level (*Planning for Implementing Technology in School Settings and Technology across the Curriculum*).

There appears to be demand for such a certificate, particularly in the international schools community. A shortage of local resources in some international schools may make it more difficult to provide "traditional" in-service programs or to help existing staff develop expertise to move up to higher levels of responsibility in coordinating or planning for technology use. This certificate should also have local appeal, however. Current teachers wishing to move up the pay scale/schedule may wish to pursue this certificate, as may those who are not quite ready to pursue a master's degree, but who might be interested in taking coursework to move from Instructional I to Instructional II level certification. The possibility of taking all or part of these courses online may appeal to teachers in the region who find the drive to Lehigh for night classes challenging.

We anticipate using the certificate program to attract new students for College of Education degree programs, particularly master's programs in Educational Technology and Technology-based Teacher Education. Students who complete certificate courses should be able to apply these courses to existing master's degrees.
6. Description of proposed new certificate program

The 12-credit-hour certificate is a post-baccalaureate program offered by the Educational Technology Program in the College of Education. Participants in the certificate program will develop the knowledge and skills necessary to effectively integrate technology into teaching and learning.

Students will move through the certificate program in cohorts with one entry point per year in the summer. Most of the program will be delivered using a hybrid model of face-to-face, online synchronous (Central) and asynchronous (Blackboard) sessions. In addition to the online components, students will meet face-to-face for a week-long course at two points during the program.

In addition to the traditional “for credit” program, a “non-credit” option will be available. Only those students taking the courses for credit will be awarded a Technology Use in the Schools certificate. Non-credit students will receive a certificate of completion issued by the College of Education.

The Technology Use in the Schools certificate program is a post-baccalaureate degree program. Students already enrolled in a graduate program in the College of Education may enroll in the certificate program without meeting additional requirements. New graduate students who are not already enrolled in a graduate program at Lehigh must meet the admissions requirements for graduate studies in one of the six degree programs within the College of Education before enrolling in the Technology Use in the Schools certificate program. Non-credit students must have a 4-year degree from an accredited college or university.

B. Specific program requirements, including specific required and elective courses

(See graduate certificates guidelines document for rules about number and level of courses. If new courses to be added, attach a completed new course proposal form for each.)

The Technology Use in the Schools certificate program consists of four 3-credit courses that are delivered throughout a calendar year. Our initial schedule will be July through June but different start and end dates may be used. Students will be able to complete this 12-credit program in roughly one calendar year. The first three courses listed below are existing courses. See attached Proposed New Course form for details on EdT 472.

- EdT 401. Foundations of Educational Technology (3 credits) History and overview of the field with consideration of key learning theories and principles that guide designers and developers. Identification of prominent figures and organizations, key issues and terms, and useful resources in the field. Consideration of forces affecting adoption of innovation with a focus on future directions in teaching and learning with technology.

- EdT 470. Technology Across the Curriculum (3 credits) Curricular issues related to using technology in various school settings. Technology's varying roles in schools. Emphasis on instructional and curricular concerns and how technology affects educational decisions.


- EdT 472. Integrating Technology into Classroom Teaching: [Topic varies] (3 credits) [new course] Fostering teacher awareness of the potential of a particular technology or set of technologies for use with students. Teachers in the course will experience hands-on work with promising technologies and enhance their skills in incorporating such technologies into teaching and learning. Sample technologies (course topics) include the World Wide Web, handheld devices, GIS applications, online databases, and the like.

Students will be required to take EdT 401 and at least two of the three remaining courses listed above. Students may, with permission of the Educational Technology Program Coordinator, substitute an appropriate elective course for their final 3 credits.
6. Academic Impact

A. Is the proposed new program interdisciplinary?

Not expressly. However, as is often the case between our two programs, there is some content overlap in these courses between the Educational Technology and Technology-based Teacher Education programs. The two programs are highly collaboratively and some of our students already take coursework in each other’s programs. In fact, for several years we even required common courses of all students, courses taught by faculty drawn from both programs.

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

We anticipate marginal effects on other programs at the University. It is conceivable that some students may choose to take the Technology Use in the Schools certificate program instead of doing coursework within the Technology-based Teacher Education Program, although it is also possible that faculty in that program may wish to teach one or more of these courses in future.

However, we expect students within the Technology-based Teacher Education program are more likely to view the opportunity to receive this certificate as an added value to their education and that, as a result, it may well serve as a graduate recruitment tool for existing programs. In addition, the certificate program might attract students who may subsequently become interested in pursuing a master’s degree in either Educational Technology or Technology-based Teacher Education.

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?

This certificate program was developed by the Educational Technology faculty.

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:

No. Three of the four proposed courses are existing courses, one of which has been taught in the past. The fourth new course has also been taught in the past as an advanced seminar course (EDUC 491).

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

While the Technology Use in the Schools certificate is not likely to have a direct effect on the University’s commitment to diversity, it could be argued that any new program that diversifies our educational offerings helps to broaden our prospective student pool. Its appeal to international schools personnel means it may attract a more culturally aware and diverse population of students.

7. Resource Impact

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

1. Library impact statement (attach statement if provided by LTS)

This program should not require additions to existing library resources. The library already has substantial holdings to support educational technology programs in the College of Education.
(2) Computer impact statement (attach statement if provided by LTS)

Because possible modes for offering courses may include online offerings, the certificate program may require technology assistance from LTS staff in the form of support for Centra and Blackboard. The LTS technology consultants in the College of Education would supply such support. Because the University holds a Blackboard site license, there should be no additional expense incurred. Online courses do impose some additional demands on the Blackboard server and course management support systems (setting up new courses, backing up, recycling, and the like). This is within normal expectations for course offerings, however. Equipment for instructor use already exists and instructors in the Educational Technology program have extensive experience in delivering completely online courses.

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

Since the certificate program is made up largely of existing courses, we do not anticipate adding the certificate program will have any effect on faculty resources within the College of Education. Sufficient faculty are available for teaching these courses and they would be part of the regular load of a fulltime faculty or would be taught by a qualified adjunct when such was not available. Faculty in Technology-based Teacher Education may also have an interest in teaching one or more of these courses in future.

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

Half of this program is offered online and will not require Lohio facilities. While there may occasionally be some week-long, face-to-face workshops offered on campus, they will be held over the summer months and are not expected to draw facility resources away from other programs.

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

As noted above, the only likely new resources involved would be license fees for Centra and adjunct costs when one was employed. These are normal costs for such courses and would be covered by the College of Education as part of its regular budget.
College Of Education: Counseling Psychology Program
Proposed New Course

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

CPsy [ # Needed] (4) Elementary & Secondary School Counseling - III. Theory and methods of consultation; development and implementation of student assistance programs; intra- and inter-agency collaborations. The course will also include observations in schools.

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

The proposed 4-credit course will include 3 hours of lecture and didactic instruction per week during the fall and spring semesters as well as a minimal number of practicum hours or school-based observation time. An equivalent number of contact hours will be required on the occasion that the course is taught in the summer.

3. Rationale for proposed new course:

The proposed course responds to recently revised Pennsylvania Department of Education certification requirements, new national standards in elementary and secondary counseling programs, legal issues, the social and cultural context for intervention and intervention strategies.

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 anticipated.

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) Is 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:

This course will teach students fundamental professional skills relevant to working with students in a K-12 setting who represent diverse cultural and social backgrounds. As a consequence, students will increase their understanding of social advocacy, diversity and the cultural/social contexts in which elementary and secondary school counselor's work.

Graduate & Research Committee: (Rev 7/06/04)
5. Resource Impact

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

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

The current library electronic resources as well as library holdings are sufficient to support this course. No additional counseling journals are required to support the instruction of this course.

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

No apparent effect.

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

Initially the course will require adjunct faculty who can teach in the summer session. However, it will eventually be absorbed into the standard course offerings and teaching loads of the core counseling faculty. The course has been taught one time by adjunct faculty (a School Counselor from a local school district) under the CPsy 466, Special Topics title. In the future the course will be scheduled one time per academic year based on student demands and because it will be required for all School Counseling Master’s students. The course will be incorporated into the standard summer schedule of course offerings.

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

The course will affect facilities in that it will require an on campus room assignment. The classroom will need to be equipped with instructional technology (i.e. LCD projector, computer) in order to aid the faculty member in disseminating the course content. The addition of a new course will create minor scheduling/room assignment challenges.

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

Dean, College of Education will assume responsibility for any new resources required to teach the course. However, there is no apparent reason for financial liabilities.
College Of Education: Counseling Psychology Program
Proposed New Course

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

CPSY [If Needed] (3) Helping Skills. Helping Skills is a course designed to provide counselor trainees with didactic and experiential learning opportunities to facilitate and enhance beginning counseling skills. Counselor trainees will begin to develop an understanding of the counselor's role in assisting or inhibiting client change. This course utilizes such techniques as modeling, role-playing, audiotape feedback, as well as other learning modalities. Particular emphasis is given to theoretical frameworks, cultural competency and self-understanding.

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

The proposed 3 credit course will include 3 hours of lecture and didactic instruction per week during the fall and spring semesters and the equivalent number of contact hours when offered in summer.

3. Rationale for proposed new course:

The proposed course responds to recently revised Pennsylvania Department of Education certification requirements, new national standards in elementary and secondary counseling programs and Pennsylvania state licensure requirements.

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 anticipated.

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) Is 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:

This course will teach students fundamental counseling skills relevant to working with clients who represent diverse cultural and social backgrounds. As a consequence, students will increase their understanding of diversity and the cultural and social context of elementary and secondary school counseling as well as counseling psychology.

Graduate & Research Committee: (Rev. 7/06/04)
A. Provide impact statements in the four areas listed below:

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

This course has been offered previously and as such, all necessary materials have already been procured and are readily available. It is not foreseen that any additional resources will be required.

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

No apparent effect.

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

This course has been offered 3 times over the last 2 academic years as a special topics seminar with the C?sy 466 course number. The course has been taught by 2 of the core faculty members in the Counseling Program and can be taught by at least 4 of the 5 faculty members in Counseling. It will be scheduled two times per academic year based on student demands and because it will be required for all Counseling Master’s students. The course will be incorporated into standard schedule of course offerings and current faculty teaching loads.

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

The course will affect facilities in that it will require an on campus room assignment. The classroom will need to be equipped with instructional technology (i.e., LCD projector computer) in order to aid the faculty member in disseminating the course content. However, because the course has been taught before, it will only create a minimal room assignment challenge.

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

Dean, College of Education, will assume responsibility for any new resources required to teach the course. However, there is no apparent reason for financial liabilities.
College Of Education: Counseling Psychology Program
Proposed Course Changes

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

Course 1. CPsy 445 (3) Elementary School Counseling – Emphasizes concerns of the elementary school counselor in working with teachers, parents, administrators, and other specialists. Policies, practices, and curriculum concerns as they affect the development of the child.

Course 2. CPsy 448 (3) Secondary School Counseling – Establishing an effective secondary counseling and guidance program within the framework of the school setting. Policies, procedures, and curriculum concerns as they affect the student. Professional approaches to involve students, teachers, administrators, and parents in the counseling and guidance activities of the secondary school.

Course 3. CPsy 430 (4) Professional Seminar – Professional, ethical, and legal issues in counseling. Management and delivery of counseling services in a culturally diverse society. Professional development, certification, licensure, and role identification. A required one-credit laboratory extends counseling skill acquisition and examines ethical and legal issues in counseling cases.

Course 4. CPsy 429 (1) Diagnostic Interview Laboratory – Principles of psychological measurement (e.g., tests construction, technology, validity, reliability, functional utility). Ethical, legal, and cultural issues in the administration and interpretation of psychological tests. Case conceptualization, reporting, and presentation.

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

Course Changes:

Course 1. CPsy 445 (4) Elementary & Secondary School Counseling – I. Overview of the history, philosophy, and current trends in elementary and secondary school counseling. Emphasis is placed on (a) professional, ethical, and legal issues in counseling; (b) management and delivery of counseling services in a school setting and culturally diverse society; (c) professional development, certification and role identification; (d) collaboration and consultation with teachers, parents, and administrators. Students will be involved in a pre-practicum observation of school counselors in a K-12 setting.

Course 2. CPsy 448 (4) Elementary & Secondary School Counseling – II. Emphasis on the social and cultural context of elementary and secondary school counseling. Includes ethical, legal, and cultural issues in the administration and interpretation of psychological tests used in K-12 settings.

Graduate & Research Committee: Course Changes (7/6/04 rev)
[This form not used to propose new courses, programs, or certificates. Each of those has its own form.]
Focus on a special topic such as school violence or substance abuse prevention, school and community interaction, and the social and cultural context of school counseling etc. The course will also include observations in schools.

**Course 3. CPsy 430 (3) Professional Seminar** – Professional, ethical, and legal issues in counseling. Management and delivery of counseling services in a culturally diverse society. Professional development, certification, licensure, and role identification. A required one-credit laboratory extends counseling skill acquisition and examines ethical and legal issues in counseling cases.

### 3. Nature of proposed change(s)

**Course 1. CPsy 445 (4) Elementary & Secondary School Counseling**

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

1. The course title will be changed to reflect the fact that elementary and secondary school content will be included in this course.
2. The course will be a shared core requirement of all elementary and secondary school counseling students in the Master's program.
3. The new title change also reflects the fact that this course is part one of a three-course sequence in school course sequence in the school counseling program.

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

Not applicable; the course number will be retained.

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

1. The number of credits for the course will increase from 3 to 4 credits.
2. The increase is a reasonable adjustment given that students will be required to master professional content related to both elementary and secondary school counseling which approximately doubles the content quantity for the course.
3. Students will be required to complete a pre-practicum observational training experience in a local school district. This is a notable increase in work compared to the original course.

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

1. Course description reflects the recently revised Pennsylvania Department of Education certification guidelines and new national standards for elementary and secondary counseling programs.
2. The change in course description reflects one aspect of comprehensive enhancement and improvements of the school counseling program curriculum.

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Graduate & Research Committee. Course Changes (7/6/04 rev)

[This form not used to propose new courses, programs, or certificates. Each of those has its own form.]
3. The new course description and its content will make it easier for all school counseling students to obtain dual certification.
4. The description of the course also reflects the addition of a pre-practicum requirement that is a significant extension of the course.

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

Not applicable.

Course 2. CPsy 448 (4) Elementary & Secondary School Counseling - II

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

1. The course title will be changed to reflect the fact that elementary and secondary school content will be included in this course.
2. The course will be a shared core requirement of all elementary and secondary school counseling students in the Master's program.
3. The new title change also reflects the fact that this course is part one of a three course sequence in school course sequence in the school counseling program.

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

Not applicable; the course number will be retained.

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

1. The number of credits for the course will increase from 3 to 4 credits.
2. The increase is a reasonable adjustment given that students will be required to master professional content related both elementary and secondary school counseling which approximately doubles the content quantity for the course.
3. The description of the course also reflects the addition of a school observations requirement that will supplement the special topical emphasis of the course. This is a notable increase in contact hours for the course compared to the original course.

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

1. Course description reflects the recently revised Pennsylvania Department of Education certification guidelines and new national standards for elementary and secondary counseling programs.
2. The change in course description reflects one aspect of comprehensive enhancement and improvements of the school counseling program curriculum.
3. The new course description and its content will make it easier for all school counseling students to obtain dual certification.
E. Other change(s)? If so, please describe below and provide rationale for each change.

Not applicable.

Course 3. CPsy 430 (3) Professional Seminar

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

Not applicable.

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

Not applicable

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

1. The course will be changed to a 3 credit course because the course will no longer combine the ethical and professional content of Human Services Counselors and School Guidance Counselors.
2. Removing the School Guidance content will effectively reduce the quantity of professional identity and ethics subject matter included in the course.
3. The contact hours for the course will be consistent with number of hours required for a 3 credit graduate course.

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

Not applicable.

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

Not applicable.

Course 4. CPsy 429 Lab will be dropped from the course catalogue and as a requirement for Counseling Program.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

Graduate & Research Committee: Course Changes (7/8/04 rev)

[This form not used to propose new courses, programs or certificates. Each of those has its own form.]
E. Other change(s)? If so, please describe below and provide rationale for each change.

This one credit lab course is no longer needed because the content requirements of: (a) principles of psychological measurement (e.g., tests construction, technology, validity, reliability, functional utility) (b) ethical, legal, and cultural issues in the administration and interpretation of psychological tests and (c) case conceptualization, reporting and presentation. are covered in the following courses: CPsy 427 – Standardized Test and Measurement and CPsy 448 – Elementary and Secondary School Counseling II.

4. Resource Impact

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

(1) Library impact statement (attach statement, if provided by LTS)

It is not foreseen that any additional library resources will be required in offering CPsy 445, 448 and 430 courses. These courses have been offered previously and as such, all necessary materials have already been procured and are readily available.

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

No apparent effect.

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

The CPsy 445, 448 and 430 courses have been offered one time annually by a combination of core faculty members or an adjunct faculty over the past 10 years. Each of the courses will continue to be offered with the same annual frequency using the existing faculty resources. Thus, the faculty impact will be minimal.

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

Offering the CPsy 445, 448 and 430 courses only affect facilities in a minimal way because the courses have been taught on an annual basis. Each of the courses requires on campus room assignments. The classroom will need to be equipped with instructional technology (i.e., LCD projector, computer) in order to aid the faculty member in disseminating the course content. However, this does not reflect new facility demands.
B. Provide a statement indicating who will assume financial responsibility for any new resources required:

Dean, College of Education, will assume responsibility for any new resources required to teach the course. However, there is no apparent reason for financial liabilities.
College Of Education:
Counseling Psychology Program

Proposed New Course

1. Proposed new course number and course description (as it will appear in course catalogue):
CPsy 4 (3) Counseling Issues and Skills: Building Healthy Communities: The objectives of this course are for students to develop proficiency in counseling skills and gaining knowledge related to constructing prevention programs for children and adolescents that include (a) substance abuse, (b) sexually transmitted disease and teen pregnancy, (c) eating disorders, (d) violence prevention and (e) resiliency and competency promotion programs. Special focus will be paid to understanding the components of an effective crisis management plan.

2. Instructional mode (lecture, recitation, laboratory, seminar, independent study, or other) and number of contact hours per week:
Instructional mode will be a lecture format with laboratory. This course will be conducted over a 1-2 week period and will consist of 42-45 contact hours. In addition to the required class contact hours for the course, major assignments/papers may have an additional 1-2 week extended deadline so that students will have sufficient time to read, write, or reflect on the course materials.

3. Rationale for proposed new course:
This course is integral to the newly proposed Master's degree in International Counseling, offered through the Counseling Psychology Program. Furthermore, it has also been offered as a special topic within the context of the Certificate program in Counseling for the international community. This course responds to counselor and teacher education in the international arena. It is designed specifically to focus on development of prevention and intervention programs in order to respond to the growing clinical needs of the international education school communities.

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.
Not that we anticipate

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:
No

Graduate & Research Committee: (Rev 7/06/04)
D. Does the proposed new program affect the University's commitment to diversity in any way? If so, please describe below:
It should increase understanding of diversity, exposure to diversity groups, and understanding of cultural and social contexts in a global international environment.

5. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS)
There are no new library resources required for this course currently. Given the existence of the current counseling program, which is fully accredited by APA, the proposed course will draw on these existing resources.

(2) Computer impact statement (attach statement if provided by LTS)
Given that this course will be taught on-site, no apparent effect is expected.

(3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)
The courses will be offered by existing faculty in the department as part of their standard teaching load or as summer/January term courses. In particular, all of the faculty of the counseling psychology program in the COE have expertise in cross-cultural education and many also have international teaching experience. When the core Counseling Psychology faculty teach the courses in the fall or spring semesters, the International Program will offer funds that will support adjunct instructors for other courses taught in the Counseling Psychology Program.

(4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
This proposal has no impact on facilities.

B. Provide a statement indicating who will assume financial responsibility for any new resources required:
The proposed course can be implemented using existing faculty resources. Costs associated with additional adjunct faculty would be provided through the College of Education within the International Education budget.
College Of Education:  
Counseling Psychology Program

**Proposed New Course**

1. **Proposed new course number and course description (as it will appear in course catalogue):**
   
   **Psy 4** (3) Counseling Issues and Skills: Facilitating Healthy Adjustment: Course assists counselors in developing proficiency in helping skills and an understanding of the counselor's role in facilitating or inhibiting client change. Focus is on gaining knowledge related to mental health issues for third culture children and adolescents that include (a) cultural adjustment, (b) eating disorders, (c) depression and suicidality, (e) anxiety, (d) substance abuse, (f) family dysfunction, and (h) career development.

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

   Instructional mode will be a lecture format with laboratory. This course will be conducted over a 1-2 week period and will consist of 42-45 contact hours. In addition to the required class contact hours for the course, major assignments/papers may have an additional 1-2 week extended deadline so that students will have sufficient time to read, write, or reflect on the course materials.

3. **Rationale for proposed new course:**

   This course is integral to the newly proposed Master's degree in International Counseling, offered through the Counseling Psychology Program. Furthermore, it has been offered as a special topic within the context of the Certificate program in Counseling for the International community. This course responds to counselor and teacher education in the international arena. It is designed specifically to focus on issues of counseling within the international education school communities.

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.
      
      Not that we anticipate

   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:
      
      No

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

      It should increase understanding of diversity, exposure to diversity groups and understanding of cultural and social contexts in a global international environment

Graduate & Research Committee (Rev 7/06/04)
5. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS)
There are no new library resources required for this course. Given the existence of the current counseling program which is fully accredited by APA, the proposed course will draw on these existing resources.

(2) Computer impact statement (attach statement if provided by LTS)
Given that this course will be taught on site, no apparent effect is expected.

(3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)
The courses will be offered by existing faculty in the department as part of their standard teaching load or as summer/semester term courses. In particular, all of the faculty of the counseling psychology program in the COE have expertise in cross-cultural education and many also have international teaching experience. When the core Counseling Psychology faculty teach the courses in the fall or spring semesters the International Program will offer funds that will support adjunct instructors for other courses taught in the Counseling Psychology Program.

(4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
This proposal has no impact on facilities.

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

The proposed course can be implemented using existing faculty resources. Costs associated with additional adjunct faculty would be provided through the College of Education within the International Education budget.
Proposed New Degree Program

College Of Education: Counseling Psychology Program
Master’s in International Counseling

1. Proposed new program mission statement
The Master’s program in International Counseling at Lehigh University prepares students to function in professional roles that include three key targets of intervention settings: the community, the school, and the family. The faculty seeks to produce counselors who can conceptualize and intervene in preventative, developmental, and therapeutic ways to assist a broad cultural cross-section of individuals to improve their understanding, adjustment, and daily functioning across the lifespan. Students are sought who will both appreciate and embrace the scientific and empirical underpinnings of the counseling field, and work to apply them in culturally appropriate ways. A student may elect to emphasize one of the three roles in their training, but will be expected to be familiar in all three. A successful graduate may be employed in a variety of settings such as elementary, middle or secondary schools, and/or mental health agencies.

2. Rationale for proposed new program
The College of Education has moved aggressively into the international arena by providing certificate and degree programs for educational leaders, such as principals and school headmasters at American International Schools. In 2003, a certificate program was developed in international counseling to address the needs of current counselors and counselors-to-be in the overseas schools. The changes in the overseas schools and the American communities abroad are foreshadowing the major shift in the restructuring of the world’s political economy. Within this context, family life and schooling of international communities differs from those experienced by local communities. The third culture experience abroad impinges differently on the daily lives of children and families of diplomats, missionaries etc. Based on the attendance for the certificate courses (people from South America, India, Japan, etc.), and expressed interest in a Master’s program, we believe an international counseling program would be well received in the international community. In addition to the need for such a program, there are no known competing programs that are offered internationally. We believe that this program will enhance the existing College of Education curriculum and programs.

3. Description of proposed new program

A. Admissions criteria (required for graduate programs only)
   (1) minimum requirements
       Same requirements as existing Master’s degree for international students.
       UG GPA = 3.00

   (2) background courses required
       None
3. Required examinations (for example, GRE, GMAT and the like)

None

4. Language requirements for foreign students

Consistent with requirements for admission for programs in COE:

TOEFL (minimum scores: 600 (paper-based), 250 computer); reading (56 paper, 22 computer), Listening (56 paper, 22 computer), structure/writing 55 paper, 22 writing)

IELTS (must attain scores of at least 50 within one year of starting program)

5. Application process for interdisciplinary programs

Not applicable.

6. Admission deadline

Rolling admissions, no specific deadlines.

B. Specific degree requirements

Master's Degree (if that is the proposed new degree program):

1. New and/or existing course/credit requirements (attach new course proposal for each new graduate course)

CPsy 430: Professional Seminar (3)
CPsy 436: Culture-Centered Career Interventions (3)
CPsy 440: Introduction to Family Counseling (3)
CPsy 442: Counseling & Therapeutic Approaches (3)
CPsy 4xx: Counseling Issues and Skills: Facilitating Healthy Adjustment (3)
CPsy 4xx: Counseling Issues and Skills: Building Healthy Communities (3)
CPsy 471: Diversity and Multicultural Perspectives (3)
CPsy 480: Practicum (3)
CPsy 483: Fieldwork (3)
Elective: 3 credits

**NOTE**: 4 of the above courses will be offered online

2. Thesis requirement

None

3. Comprehensive examination requirement

None

Doctoral Degree (if that is the proposed new degree program):

1. Language requirement
(2) Qualifying and/or general examination requirements (if both required, describe each below)

(3) Course/credit requirements (attach new course proposal for each new graduate course)

(4) Master's degree requirements (if student fails to complete doctorate)

(5) Faculty available to direct dissertations

(6) Expected time to complete the degree

C. Details of the Proposed Program (any information not supplied elsewhere on this form but important to the consideration of the proposed program)

D. Implementation Plan (how the degree will be put into place, including initial admissions)

4. Academic impact

A. Is the proposed new program interdisciplinary?
   The program is not interdisciplinary.

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

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:
   The proposed program concentrates on issues of counseling within the international school communities. The present counseling psychology program has as its core identity a multicultural perspective. The emphasis throughout the counseling program is for students to understand counseling within a cultural context. As such the program will have a strong link to developing deep and rich understanding of diverse cultures, language, and race across the world.
5. Resource Impact

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

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

There are no new library resources required for this program currently. Given the existence of the current counseling program which is fully accredited by APA, the proposed program will draw on these existing resources.

According to LTS Consultant (Jean Johnson), distance teaching and learning may necessitate additional spending on library collections as journals, books, databases and videos appropriate for academic use transition to online access. While virtual library collections are particularly important for distance learners, the costs and benefits impact the entire campus community.

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

The addition of several new courses to be taught online will require additional technical support. After consulting with LTS consultant it has been determined that will be provided in three ways. First, the program will draw on the expertise within the COE through the current Library and Technical Services consultant for technical support. Second, the University new "Lehigh Lab" will offer opportunities for instructors to receive the needed support to bring courses online. Third, the COE has hired an individual who has partial responsibility for facilitating on line instruction for faculty teaching in the International program.

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

The courses in the proposed program will be offered by existing faculty in the department. In particular, most of the counseling courses in the proposed program will be taught by existing faculty as part of their standard teaching load or as summer/January term courses. In particular, all of the faculty of the counseling psychology program in the COE have expertise in cross-cultural education and many also have international teaching experience. When the core Counseling Psychology faculty teach the courses in the fall or spring semesters the International Program will offer funds that will support adjunct instructors for other courses taught in the Counseling Psychology Program. In the event that the program grows as anticipated, additional support will be examined (e.g., additional faculty member such as a Professor of Practice).

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

This proposal has no impact on facilities.
B. Provide a statement indicating who will assume financial responsibility for any new resources required:

The proposed program primary can be implemented using existing faculty resources. Costs associated with additional adjunct faculty will be needed to offset faculty teaching dedicated to this program, and those resources would be provided through the College of Education within the International Education budget.
Proposed New Course

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

EdL 463, Designing Systems of Action. (3 credits) Implementation of action research project. Building understanding of how the project impacts and is influenced by school and community systems. Explores the application of learning theory as related to leadership. Continued development of leadership concepts and tools.

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

The proposed course will be taught face-to-face in classroom settings. The course will be kicked off with three half-day sessions during the summer. Throughout the fall, the course will meet for four hours every other week. The summer sessions of this course will be taught on Lehigh's campus in the College of Education. The fall sessions of this course will be taught in space provided by the Carbon Lehigh Intermediate Unit.

3. Rationale for proposed new course:

The proposed course has been developed as part of a sequence of courses designed for the Teacher Leader certificate program. The action research project will be implemented. Students will work collectively to examine and understand their projects in the context of the school system. Learning theory as it relates to leadership roles and behaviors will be examined.

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.

None anticipated

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?

N/A

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

N/A

Graduate & Research Committee (Rev. 7/06/04)
(3) Will any changes be required in the affected programs? If so, please describe below:
N/A

D. Does the proposed new course affect the University’s commitment to diversity in any way?
If so, please describe below:
Individual teachers from urban districts in IU 21 will be a part of the cohort and superintendents and principals in these districts will be encouraged to identify teachers from diverse backgrounds and under represented groups for participation.

5. Resource Impact

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

(1) Library impact statement
This course should not require additions to existing library resources. The library already has substantial holdings to support the Educational Leadership program in the College of Education.

(2) Computer impact statement
This course may require technology assistance from LTS staff in the form of support for Blackboard. Because the University holds a Blackboard site license, there should not be any additional expenses incurred.

(3) Faculty impact statement
This course will be taught by a current Professor of Practice in the Educational Leadership program as part of his regular faculty load or by one of the Educational Leadership program approved adjuncts.

(4) Facilities impact statement
No specialized facilities are required and present instructional space can accommodate this course when offered face-to-face on campus.

B. Provide a statement indicating who will assume financial responsibility for any new resources required:
The cost of instructional materials for this course will be provided by the Educational Leadership program and Intermediate Unit 21, our partner in the Teacher Leader Certificate program. There will be no additional cost beyond start up costs associated with this course.
Proposed New Course

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

EdL 462. Transforming the Learner. (2 credits) Exploration of the integration of social, personal, cognitive, and knowledge-building dimensions to support learning and literacy. Focusing on the metacognitive conversations with self and others essential for developing learning and leadership.

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

The proposed course will be taught face-to-face in classroom settings. The course will meet for four hours every other week throughout the semester. This course will be taught in space provided by the Carbon Lehigh Intermediate Unit.

3. Rationale for proposed new course:

The proposed course has been developed as part of a sequence of courses designed for the Teacher Leader certificate program. Teachers will have the opportunity to develop expertise in their content areas while focusing on developing literacy. Work on their action research project will continue.

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.

None anticipated

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?
   N/A

   (2) Is the proposed new course 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 course affect the University's commitment to diversity in any way? If so, please describe below:
Individual teachers from urban districts in IU 21 will be a part of the cohort and superintendents and principals in these districts will be encouraged to identify teachers from diverse backgrounds and underrepresented groups for participation

5. Resource Impact

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

(1) Library impact statement
This course should not require additions to existing library resources. The library already has substantial holdings to support the Educational Leadership program in the College of Education

(2) Computer impact statement
This course may require technology assistance from LTS staff in the form of support for Blackboard. Because the University holds a Blackboard site license, there should not be any additional expenses incurred.

(3) Faculty impact statement
This course will be taught by a current Professor of Practice in the Educational Leadership program as part of his regular faculty load or by one of the Educational Leadership program approved adjuncts.

(4) Facilities impact statement
No specialized facilities are required and present instructional space can accommodate this course when offered face-to-face on campus.

B. Provide a statement indicating who will assume financial responsibility for any new resources required:
The cost of instructional materials for this course will be provided by the Educational Leadership program and Intermediate Unit 21, our partner in the Teacher Leader Certificate program. There will be no additional cost beyond start up costs associated with this course.
College of Education  
Department of Education and Human Service  

Proposed New Course  

1. Proposed new course number and course description (as it will appear in course catalogue):  
   
   EdL 461. Facilitating Organizational Inquiry (2 credits). Exploration into the use of reflective practice and inquiry for professional development and school improvement. Development of group facilitation skills for collective inquiry. Reflection and inquiry will serve as the foundation for development of an action research project.  

2. Instructional mode (lecture, recitation, laboratory, seminar, independent study, or other) and number of contact hours per week:  
   
   The proposed course will be taught face-to-face in classroom settings. The course will meet for four hours every other week throughout the semester. This course will be taught in space provided by the Carbon Lehigh Intermediate Unit.  

3. Rationale for proposed new course:  
   
   The proposed course has been developed as part of a sequence of courses designed for the Teacher Leader certificate program. This course provides a foundation for continuous development of organizational inquiry skills. Continuous school improvement is dependent upon leaders in the system examining their practice, reflecting, inquiring, and dialoguing with others about potential solutions. A practical result of personal and professional inquiry will be the development of an action research project which will continue throughout the program.  

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.  
      None anticipated  

   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?  
      N/A  

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

Graduate & Research Committee (Rev. 7/06/04)
(3) Will any changes be required in the affected programs? If so, please describe below:
N/A

D. Does the proposed new course affect the University’s commitment to diversity in any way? If so, please describe below:
Individual teachers from urban districts in IU 21 will be a part of the cohort and superintendents and principals in these districts will be encouraged to identify teachers from diverse backgrounds and under represented groups for participation.

5. Resource Impact

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

(1) Library impact statement
This course should not require additions to existing library resources. The library already has substantial holdings to support the Educational Leadership program in the College of Education.

(2) Computer impact statement
This course may require technology assistance from LTS staff in the form of support for Blackboard. Because the University holds a Blackboard site license there should not be any additional expenses incurred.

(3) Faculty impact statement
This course will be taught by a current Professor of Practice in the Educational Leadership program as part of his regular faculty load.

(4) Facilities impact statement
No specialized facilities are required and present instructional space can accommodate this course when offered face-to-face on campus.

B. Provide a statement indicating who will assume financial responsibility for any new resources required:
The cost of instructional materials for this course will be provided by the Educational Leadership program and Intermediate Unit 21, our partner in the Teacher Leader Certificate program. There will be no additional cost beyond start up costs associated with this course.

Graduate & Research Committee: (Rev. 7/06/04)
 Proposed New Certificate Program in Teacher Leadership

1. Title of new certificate program: TEACHER LEADER CERTIFICATE PROGRAM

2. Mission statement:

The Teacher Leader Certificate program is designed to prepare a cadre of teacher leaders to work in a distributive leadership school environment. The program will enable teachers to remain in the classroom setting while assuming major peer leadership roles at the school level.

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

This certificate program is targeted toward K-12 classroom teachers who wish to acquire school leadership skills without having to leave teaching. Candidates will be identified by their superintendents and/or principals.

4. Rationale for proposed certificate program

The leadership capacity of schools is greatly enhanced by the development of teacher leaders. Teachers become more active learners in an environment where they are leaders. When teachers lead, principals extend their leadership capacity. In this sense, leadership refers to the momentum and repertoire of continuous learning interactions toward the shared sense of purpose—improved instruction and student achievement. Distributed leadership is not equated to a position of formal authority. Linda Lambert states in Building Leadership Capacity in Schools: “School leadership needs to be a broad concept that is separated from person, role, and a discrete set of individual behaviors. It needs to be embedded in the school community as a whole. Such a broadening of the concept of leadership suggests a shared responsibility for a shared purpose of community.”

Schools are facing increased pressure to meet accountability standards. As the demands increase, there is a growing awareness that the few individuals in formal leadership roles can not lead alone. The Carbon Lehigh Intermediate Unit (IU 21) Superintendent's Council approached the Educational Leadership program faculty in July 2003 with the idea of developing a certificate program for teacher leaders. The Superintendents of IU 21 recognize the untapped leadership capacity in their teachers. Developing their teachers as leaders will support continuous school improvement. Potential roles of teacher leaders include curriculum consultants, advisor-mentors, professional development facilitators, and change agents. Each year the leadership resource pool for the IU and surrounding districts will continue to grow.

5. Description of proposed new certificate program

The 15-credit-hour certificate is a post-baccalaureate program offered through the Educational Leadership Program in the College of Education. Participants in the certificate program will develop increased capacity for participating in leading school improvement efforts.
A. Admissions criteria:

In addition to the College of Education admission requirements and a 3.0 undergraduate or graduate GPA students will be required to be nominated by either their principal or superintendent for a position in the cohort.

B. Specific program requirements, including specific required and elective courses

The Teacher Leader Certificate program consists of six courses delivered over a two-year period. Each cohort will begin in the summer. The first two courses listed below are existing courses. See attached Proposed New Course forms for details on EdL 461, 462, 463, 464 (all new numbers are proposed).

- **EdL 460. Introduction to Organizational Leadership: Theory and Practice (3 credits)**
  Development of theories of leadership and applications in educational institutions. Behaviors for teacher leaders in organizational settings stressing tools for decision making, evaluation, and conflict resolution. [Summer]

- **EdL 420. Leading and Managing Curriculum in Instructional Programs. (3 credits)**
  Exploration of theory, research and practice associated with an effective curriculum and instructional program. Emphasis on critical topics including field based research and data based decision making in program design and evaluation. [Summer]

- **EdL 461 (Proposed new number). Facilitating Organizational Inquiry (2 credits)**
  Exploration into the use of reflective practice and inquiry for professional development and school improvement. Development of group facilitation skills for collective inquiry. Reflection and inquiry will serve as the foundation for development of an action research project. [Fall]

- **EdL 462 (Proposed new number). Transforming the Learner (2 credits)**
  Exploration of the integration of social, personal, cognitive, and knowledge-building dimensions to support learning and literacy. Focusing on the metacognitive conversations with self and others essential for developing learning and leadership. [Spring]

- **EdL 463 (Proposed new number). Designing Systems of Action (3 credits)**
  Implementation of action research project. Building understanding of how the project impacts and is influenced by school and community systems. Explores the application of learning theory as related to leadership. Continued development of leadership concept and tools. [Summer/Fall]

- **EdL 464 (Proposed new number). Sustaining Learning Communities (2 credits)**
  Completion of action research. Design and facilitation of a symposium of inquiry results. Review the behaviors of leadership that sustain learning in the classroom, school and community. [Spring]

All six courses are required for the Teacher Leader certificate program. In addition there will be two community activities. During the first Summer, the Grand Lessons of Leadership: A Conference for Teachers will provide the opportunity for the teachers in the first and second cohort to come together and share insights, lessons, and dialogue around the concept of teacher leadership. As the culminating project for the certificate program, teachers will present the findings of their action research project at the Action Research Fair: A Resource of Literacy and Best Practices. The Action Research Fair will be open to the public.
6. Academic Impact

A. Is the proposed new program interdisciplinary? No.

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

There are no known effects on other programs in the University. We anticipate recruiting new students to the Educational Leadership Program. The Teacher Leader certificate program will attract students who may subsequently become interested in pursuing a master's degree in Educational Leadership. Therefore, the course work is designed to fulfill specific requirements of the Masters program.

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?

The Teacher Leader certificate program was developed collaboratively between Educational Leadership faculty and representatives from the Carbon Lehigh Intermediate Unit. No other faculties from the University were involved in the planning as the program will have no direct impact on other programs.

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:

While the Teacher Leader certificate program is not likely to have a direct effect on the University's commitment to diversity, it could be argued that any new program that diversifies our educational offerings helps to broaden our prospective student pool. Individual teachers from urban districts in IU 21 will be a part of the cohort and superintendents and principals in these districts will be encouraged to identify teachers from diverse backgrounds and under represented groups for participation.

7. Resource Impact

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

1) Library impact statement

The Teacher Leader certificate program should not require additions to existing library resources. The library already has substantial holdings to support the Educational Leadership program in the College of Education. An initial orientation focusing on the resources and use of the library will be offered to each Teacher Leader cohort at the beginning of the program.
(2) Computer impact statement

The Teacher Leader certificate program may require technology assistance from LTS staff in the form of support for Blackboard. This support will take the form of an initial orientation on the use of Blackboard for each Teacher Leader Cohort. Because the University holds a Blackboard site license, there should not be any additional expenses incurred.

(3) Faculty impact statement:

The two existing courses will be part of the regular faculty load in the summers. The new courses will be taught by existing POP's and members of the existing Educational Leadership Adjunct corps. No new faculty lines are required to support this program.

(4) Facilities impact statement:

Summer courses will be taught at Lehigh during our regular summer programming. During the academic year courses will be taught at the IU as well as on campus. Sufficient classroom capacity exists both in the summer and academic year to accommodate this new program.

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

No additional fiscal resources will be required to support this program other than having some additional adjuncts teaching during the academic year. The cost of the adjuncts will be supported through the Departmental budget.
1. Proposed new course number and course description (as it will appear in course catalogue):

EdL 464. Sustaining Learning Communities. (2 credits) Completion of action research. Design and facilitation of a symposium of inquiry results. Review the behaviors of leadership that sustain learning in the classroom, school, and community.

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

The proposed course will be taught face-to-face in classroom settings. The course will meet for four hours every other week throughout the semester. This course will be taught in space provided by the Carbon Lehigh Intermediate Unit.

3. Rationale for proposed new course:

The proposed course has been developed as part of a sequence of courses designed for the Teacher Leader certificate program. The action research project will be completed during this course. Leadership skills and tools will be put to use as the students design and implement a symposium for sharing their action research project results.

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.

None anticipated

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?

N/A

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

N/A

Graduate & Research Committee: (Rev. 7/06/04)
(3) Will any changes be required in the affected programs? If so, please describe below: 
N/A

D. Does the proposed new course affect the University's commitment to diversity in any way? 
If so, please describe below:
Individual teachers from urban districts in IU 21 will be a part of the cohort and superintendents and 
principals in these districts will be encouraged to identify teachers from diverse backgrounds and under 
represented groups for participation.

5. Resource Impact

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

(1) Library impact statement
This course should not require additions to existing library resources. The library already has substantial 
holdings to support the Educational Leadership program in the College of Education

(2) Computer impact statement
This course may require technology assistance from LTS staff in the form of support for Blackboard. 
Because the University holds a Blackboard site license there should not be any additional expenses 
incurred

(3) Faculty impact statement
This course will be taught by a current Professor of Practice in the Educational Leadership program as 
part of his regular faculty load or by one of the Educational Leadership program approved adjuncts.

(4) Facilities impact statement
No specialized facilities are required and present instructional space can accommodate this course when 
offered face-to-face on campus

B. Provide a statement indicating who will assume financial responsibility for any new 
resources required:
The cost of instructional materials for this course will be provided by the Educational Leadership program 
and Intermediate Unit 21, our partner in the Teacher Leader Certificate program. There will be no 
additional cost beyond start up costs associated with this course.
GRADUATE & RESEARCH COMMITTEE

COURSE AND CURRICULUM CHANGES

UNIVERSITY FACULTY MEETING
March 21, 2005

CBE MOTIONS
College of Business & Economics

INCREASING THE NUMBER OF CREDIT HOURS REQUIRED FOR MARKETING
CONCENTRATION FROM 9 TO 12

Proposal

Increasing the number of credits required to complete the MBA "marketing concentration" from 9 credit hours to 12 credit hours and clarify the courses that can be taken for a marketing concentration.

Rationale

This recommendation is a continuation of changes that began two years ago. As we recruit new faculty and assess the means of offering superior value, we are able to implement these changes. Further changes will be made within two years as new faculty join and other programmatic initiatives are put in place.

The knowledge base in marketing is expanding rapidly and we believe that by requiring additional coursework marketing students will be better prepared to realize anticipated career opportunities. This increase in credit hours along with a clearer articulation of courses in the marketing concentration, and the planned continuous improvements in our courses will result in a more rigorous curriculum and graduates with superior preparation. With more marketing courses being offered on a regular basis, we are now in a position to implement these changes.

The Requirements for MBA Concentration in Marketing

12 credits from the following 3 credit courses

GBUS 454 E-Commerce and Marketing Strategy
GBUS 460 Strategic Marketing Management
GBUS 454 Business-to-Business Marketing
GBUS 465 Creating Breakthrough Innovations

(please see attached proposal to rename the title and description of the course)

GBUS 456 Marketing Research and Analysis
GBUS 470 Marketing Communications Strategies
GBUS 471 Strategic Brand Management

(please see attached proposal to rename the title of the course)

GBUS 472 Strategies for Services Marketing
GBUS 475 Global Marketing Strategies
GBUS 4XX Pharmaceutical Marketing

Up to 3 credits can be used to take courses in other areas with the consent of the marketing faculty and the MBA Office to enable the student to make course selections consistent with career plans and to achieve a coherent portfolio of courses.
4. Academic Impact

A. Is the proposed new program interdisciplinary?
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) Is 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:
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 (how proposed program affects load on 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:
No change.
PROPOSED NEW DESCRIPTION FOR GBUS 465 (Marketing Strategies for New Products and Services – 3 credits)

Proposed Course Changes

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

GBUS 465 Marketing Strategies for New Products and Services

This course focuses on strategies for the development and marketing of new products and services. Illustrative topics covered in the course include diffusion of innovations, new product adoption models, the role of marketing research in various stages of new product development and marketing, product development in technologically intensive environment, and so on. Prerequisite: MBA 404

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

GBUS 465. Creating Breakthrough Innovation

Most products and services either fail or do average business, but some are phenomenally successful. Such products and services that provide phenomenal financial returns and become market leaders can be called “Breakthrough Products and Services”. The main objective of the course is to improve our understanding of the process of creating breakthrough products and services. It is accomplished by in-class discussions of cases, assignments, and the state-of-the-art research work in academia and industry. The course concludes with a term-paper that integrates the concepts learned from class discussions, reference books, and research papers and applies them to a real product. (Prerequisites: Graduate student status plus two years of post-graduate work experience)

3. Nature of proposed change(s)

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

Yes, to reflect the coverage of topics in the course.

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

No.
C. Change in course credits? If so, provide rationale below:

No.

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

Yes. This course covers the topic of innovation from a more balanced perspective (i.e., business, technology, and engineering). Courses on the topic of innovation have been predominantly driven from a technology perspective and focus on the general process of commercialization of breakthrough technology. This course looks at all sources of breakthrough financial success (i.e., marketing, operations, manufacturing, technology etc.). It provides an opportunity for the Lehigh MBA program to further differentiate itself from other MBA programs. To the best of our knowledge there are no other MBA programs in the tri-state area that offer a course that provides such a comprehensive perspective on creating breakthrough innovations.

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

No.

4. 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 (how proposed program affects load on existing faculty or require 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:

No new resources are required.
College of Business & Economics

PROPOSED NEW TITLE FOR GBUS 471 (Product and Brand Management – 3 credits)

Proposed Course Changes

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

GBUS 471 Product and Brand Management (3)
This course will focus on theories, models, and other tools to manage brands, products, and product lines. Specific attention will be focused on building, measuring, and managing brand equity. The course will be a mixture of lectures, discussions, case analyses, and group exercises (Prerequisite: MBA 404)

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

GBUS 471 Strategic Brand Management (3)
This course will focus on theories, models, and other tools to manage brands, products, and product lines. Specific attention will be focused on building, measuring, and managing brand equity. The course will be a mixture of lectures, discussions, case analyses, and group exercises (Prerequisite: MBA 404)

3. Nature of proposed change(s)

   A. Course title change? If so, provide rationale below:
   Yes, to reflect the coverage of strategic topics in the course.

   B. Course number change? If so, provide rationale below:
   No.

   C. Change in course credits? If so, provide rationale below:
   No.

   D. Change in course description? If so, provide rationale below:
   No.

   E. Other change(s)? If so, please describe below and provide rationale for each change:
   No.
4. 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** (how proposed program affects load on 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:

No new resources are required.
College of Business & Economics

Proposed Course Changes

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

GBUS 461 Advertising and Promotion Management (3)
A broad overview of managerial decisions involved in developing, planning, presenting, and implementing advertising and promotional activities for business and not-for-profit organizations. Analysis of current campaigns and a term project are semester assignments. Prerequisite: MBA 404.

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

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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.
Deletion of Course from the Catalog because GBUS470, Marketing Communication Strategies will cover the content of GBUS461.

4. 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 (how proposed program affects load on 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:
Not applicable
Proposed New Course

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

GBUS 462 Pharmaceutical Marketing (3 credits)
The course provides an introduction and overview of the various healthcare system components as they relate to the pharmaceutical industry. This course will (1) focus on product decisions of the firm, requiring an occasional shift in focus from that of corporate management to that of operating managers of new product activities or established brands; (2) recognize the importance of marketing research as input to product decisions; (3) take a managerial orientation; (4) recognize the need to tailor product policy approaches to the characteristics of the decision-maker and the firm. Prerequisites: Graduate student status.

2. Instructional mode (lecture, recitation, laboratory, seminar, independent study, or other) and number of contact hours per week:
The course will be a mixture of lectures, discussions, case analyses, and group exercises. Contact hours per week: 3

3. Rationale for proposed new course:
The offering of this course is consistent with the proposed enhancements in the MBA marketing concentration, and with College level initiatives in bio and pharma areas. In addition, this course has been offered on an experimental basis during the last two years as a special topics course. This proposal aims to formalize the offering

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.

This course will be a component in the new M.S. program in health economics.
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:

Not applicable as this is only a formalizing an existing course

(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:

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 (how proposed program affects load on existing faculty or requires new faculty)

None.

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

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

No change; the course is being already taught as an experimental course
College of Business & Economics

Proposed Course Changes

1. Current course number, title, course description, and credits (from present course catalogue):
   GBUS 421 – Advanced Investments (3 credits)
   GBUS 422 – Derivatives and Risk Management (3 credits)
   GBUS 425 – Real Estate Financing and Investing (3 credits)
   GBUS 426 – Financial Markets and Institutions (3 credits)

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.

   Rationale: These are downstream electives for the Finance Concentration in the MBA, the MS in Analytical Finance, and other master programs within the College of Business and Economics. With the recent changes in the graduate curriculum and proposed degree programs, the courses need to allow students more flexibility in course selection.

4. 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 (how proposed program affects load on 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:
      No new resources required

Graduate & Research Committee: Course Changes (7/6/04 rev)
[This form not used to propose new courses, programs, or certificates. Each of those has its own form.]
College of Business & Economics

Proposed Course Changes

1. Current course number, title, course description, and credits (from present course catalogue):
   - GBUS 423 – Advanced Topics in Financial Management (3 credits)
   - GBUS 431 – Quantitative Finance (3 credits)
   - GBUS 473 – International Finance (3 credits)

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.
   Change in prerequisites: From GBUS 420 – Investments & Portfolio Analysis and GBUS 419 – Financial Management or Designated Finance Faculty Representative Approval
   To: GBUS 419 – Financial Management or Designated Finance Faculty Representative Approval

Rationale: These are downstream electives for the Finance Concentration in the MBA, the MS in Analytical Finance, and other master programs within the College of Business and Economics. With the recent changes in the graduate curriculum and proposed degree programs, the courses need to allow students more flexibility in course selection.

4. 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 (how proposed program affects load or 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:
      No new resources required

Graduate & Research Committee Course Changes (7/6/04 rev)
[This form not used to propose new courses, programs, or certificates. Each of those has its own form.]
College of Business & Economics

Proposed Program Changes

1. Nature of Proposed Change

Eliminate the Management Concentration from the MBA Program

2. Rationale

When the MBA Program initially proposed this concentration, there were no niche based concentrations in Management. In recent years, we have developed concentrations in Supply Chain Management, Managing Information Systems, Entrepreneurship, Project Management, Management of Technology and Organizational Leadership. The general management concentration is no longer needed and few students select this concentration.

3. Resource Impact

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

   (1) Library impact statement (attach statement if provided by LTS)
       No impact.

   (2) Computer impact statement (attach statement if provided by LTS)
       No impact.

   (3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)
       No Impact.

   (4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
       No impact.

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

   No new resources required. Most of the courses in this concentration are utilized in other, more focused concentrations. The change will not impact the number or types of courses offered, faculty resources, computer or library resources or facilities.
GRADUATE & RESEARCH COMMITTEE

COURSE AND CURRICULUM CHANGES

UNIVERSITY FACULTY MEETING
March 21, 2005

RCEAS MOTIONS
ROSSIN COLLEGE OF ENGINEERING AND APPLIED SCIENCE:
Department of Materials Science and Engineering

Proposed New Course

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

MAT 4XX. Materials for Nanotechnology (3)
Viewing the nanoworld through transmission electron microscopy and scanning probe microscopies. Why nanoscale materials have different physical properties from their bulk counterparts. Classes of nanostructured materials. Fullerenes, carbon nanotubes, nanoparticles and wires of metals and semiconductors, inorganic nanoparticles and nanoporous materials. "Top-down" and "bottom-up" nanofabrication. Current and potential future uses of nanomaterials. Graduate version of 3XX involving additional project work. Credit will not be given for both MAT 3XX and MAT 4XX. Prerequisite: MAT 33 or permission of instructor. Kiely.

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

3. Rationale for proposed new course:
Nanotechnology is emerging as one of the most influential and exciting scientific endeavors of our generation. It is important that we educate our engineers and scientists to understand the materials science issues that relate to this rapidly developing and highly interdisciplinary field.

The course was developed and delivered by Professor Chris Kiely on an experimental basis in the Spring 03 and Spring 04 semesters. In Spring 03 it was offered as a MatPac course and was delivered by internet, broadcast to 7 Penn State graduate students in addition to 12 Lehigh students. In Spring 04 it was not offered as a MatPac course but still attracted 9 Lehigh students, two attendees from local industry (Agere and Minerals Technologies) and 2 other Lehigh staff members who audited the course. The student overall ratings were 4.5 and 4.8 in Spring 03 and Spring 04 respectively.

4. Academic impact on programs affected by new course:

A. Is the proposed course to be cross-listed?
   It is not cross listed yet but may be in the future.

B. Identify any known effects of the proposed new program on other programs at the University.
   This course should not affect other programs, although it will draw students from other science and engineering departments in the university. No equivalent Lehigh course exists at present. This course is slated to become one of two required core courses in the new Graduate Certificate Program in Nanomaterials proposed by the Department of Materials Science and Engineering. It will also play a key role in the minor in nanotechnology.
C. If there are known effects, individuals in charge of the affected program must be consulted about the proposed new program and the following information provided:

(1) Who was consulted?

(2) Is 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:
This new course will not have any negative impact on the University’s commitment to diversity.

5. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS – SEE BELOW)
To complement the recent subscriptions to some Nanotechnology oriented journals (e.g. Advanced Materials, Advanced Functional Materials, Nanoletters, Journal of Nanoparticle Research) the library will also need to stock up on a small selection of Nanotechnology texts that have been appearing in print over the past year or two.

Statement from Sharon Siegel, LTS:
These courses play to our collective strengths and no new journals are needed. The library routinely acquires new titles in nanotechnology, electron microscopy, and logical applications. Faculty who teach these courses should also submit requests for useful additional material.

(2) Computer impact statement (attach statement if provided by LTS)
No impact expected.

(3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)
Prof. Kiely will continue to deliver the course as part of his normal lecturing duties

(4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
The intention is to offer this course (via the internet) to other MarPac universities (e.g. Penn State) as well as to our own Lehigh students. This requires the use of the video conferencing classroom (#451) in Whitaker Laboratory.

B. Provide a statement indicating who will assume financial responsibility for any new resources required:
No new resources are required to run this course.
**Proposed New Course**

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

MAT 4YY. Strategies for Nanocharacterization (3)
Nanocharacterization techniques: their suitability for specific measurements. Special attention to spatial resolution, detection limits and accuracy for scanning electron microscopy, transmission electron microscopy, X-ray analysis, diffraction analysis, ion beam techniques, surface techniques, atomic force microscopy and other scanning probe microscopies, and light microscopies and spectroscopies. Graduate version of 3YY involving additional project work. Credit will not be given for both MAT 3YY and MA1 4YY. Prerequisites: MAT 463 (may be taken concurrently) or consent of instructor.

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

Standard 3 hours of lectures per week.

**3. Rationale for proposed new course:**

Lehigh is nationally and internationally famous in scanning electron microscopy and transmission electron microscopy, and these subjects are well covered by existing courses. However, we should not allow our students to imagine that these are the only techniques available for nanocharacterization. This course provides information on a broad sweep of a myriad of techniques that contribute in different and complementary ways. The course will also serve as a significant contribution to the growing interest in nanotechnology on this campus.

**4. Academic impact on programs affected by new course:**

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

Not at present - but we are open to offers.

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

This course, as well as serving many students in the doctoral programs at Lehigh, will contribute specifically to both the Minor in Nanotechnology and to the Graduate Certificate Program in Nanomaterials.

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?

The committee that prepared the Minor in Nanotechnology and the committee that prepared the Graduate Certificate in Nanomaterials and the faculty of the department.

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

Yes.

Graduate & Research Committee: Course Changes (7/6/04 rev)  
[This form not used to propose new courses, programs, or certificates. Each of those has its own form]
(3) Will any changes be required in the affected programs? If so, please describe below:

The programs might be compromised without it.

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

There is no negative impact on the commitment to diversity.

5. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS – SEE BELOW)

Additional books required for this course will be books that the library will acquire anyway, either for general research use or in connection with the course Materials for Nanotechnology.

Statement from Sharon Siegler, LTS:
These courses play to our collective strengths and no new journals are needed. The Library routinely acquires new titles in nanotechnology, electron microscopy, and logical applications. Faculty who teach these courses should also submit requests for useful additional material.

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

None.

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

This course will normally be given by Charles Lyman and Alwyn Eades and can be fitted into their schedules and that of the Department.

(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:

This will be a standard elective in the Department of Materials Science and Engineering. That Department will assume responsibility for the course.
Engineering: Materials Science and Engineering

Proposed New Course

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

MAT 4WW Thin Films and Nanostructured Materials (3)
Connections between processing techniques, structure, and mechanical behavior of materials with characteristic dimensions (e.g., thickness or grain size) at the micrometer or nanometer scale. Epitaxial thin films, polycrystalline films, patterned films, nanoparticles, and bulk materials with nanocrystalline structure. Graduate version of 3WW involving additional project work. Credit will not be given for both MAT 3WW and MAT 4WW. Prerequisite: MAT 33 and MECH 2, or equivalents.

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

Standard three hours of lecture format.

3. Rationale for proposed new course:

Many areas of technology are based on thin film structures. Correspondingly, it is a major area of research in materials science. There is significant activity in this field in the Department. Providing an elective in the field for our students is logical and desirable.

4. Academic impact on programs affected by new course:
   A. Is the proposed course to be cross-listed?

   The course will not be cross-listed.

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

   The course will serve as an elective for students in Materials Science and Engineering, and as an elective for the Minor in Nanotechnology.

   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?

      The Department of Materials Science and Engineering.

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

      They are delighted.

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

Graduate & Research Committee: (Rev. 7/06/04)
No.

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)

      This topic is already well covered by the library.

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

      None.

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

      The course has been given before and fits well into the departmental course structure.

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

      The will be no such impact.

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

      Responsibility will be assumed by the Department of Materials Science and Engineering.
Proposed Program Changes -- ISE

Name and summary of current program: M.S. and M.Eng. in Information & Systems Engineering

Proposed program changes (as they will appear in the catalog): Core courses of the program are:
IE 426 Optimization Models and Applications (3)
IE 341 Data Communication Systems Analysis and Design (3)
IE 362 Logistics and Supply Chain Management (3)

Description of proposed change(s): This is a change of three original core courses, as IE 362 has replaced IE 412 (Quantitative Methods in Supply Chain Mgmt), IE 426 has replaced IE 316 (Advanced OR Techniques), and IE 404 (Simulation) has been removed.

Rationale for proposed change(s):
- IE 362 has been substituted as it is more appropriate for first year M.S. students (than IE 412), especially those not coming from IE backgrounds.
- IE 426 is merely the graduate level version of IE 316.
- IE 404 has been removed as the three above courses are deemed to be more appropriate for teaching via satellite, whereas IE 404, due to its heavy software content, is not. IE 404 is now an elective in the Quantitative Systems Analysis grouping.

Academic Impact Statement:

Is this proposed program change interdisciplinary? Although the program references courses in Computer Science and the CBE, the program’s core is taught entirely in the ISE department. Thus, the changes are not interdisciplinary, as the changes are only to the core.

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

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. No known effects.
Resource Impact Statement:
Provide each of the following:
Library impact statement: No changes.

Computer impact statement: No changes.

Faculty impact statement: No changes.

Facilities impact statement: No changes.

Provide a statement indicating who will assume financial responsibility for any new resources required: As the ISE department administers the program, it will continue to be financially responsible for it.
Proposed Program Changes

Name and summary of current program: MBA&E concentration in Industrial Engineering.

Proposed program changes (as they will appear in the catalog): For the core requirements, students must take:
1. IE 404 or IE 426
2. IE 319, IE 340 or IE 341
3. IE 328 if no background in statistics
   The remaining 3 or 6 credits come from:

Description of proposed change(s): This is a change of original core courses, as IE 305 or IE 316 has been replaced with IE 404 or IE 426. Further, IE 319 and IE 341 have been added and IE 342 has been removed. Electives have been updated accordingly with changes in ISE offerings.

Rationale for proposed change(s):
- IE 404 and IE 426 are merely the graduate level versions of IE 305 and IE 316.
- The offerings of IE 319, 340, and 341 better reflect the current options in our department: logistics, manufacturing systems, and information systems.
- The electives merely reflect updates from the catalog.

Academic Impact Statement:

Is this proposed program change interdisciplinary? While the MBA&E degree is by definition interdisciplinary, the changes are merely to the ISE option to better reflect the department’s current focus.

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

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.** No known effects.

**Resource Impact Statement:**

Provide each of the following:

- **Library impact statement:** No changes.
- **Computer impact statement:** No changes.
- **Faculty impact statement:** No changes.
- **Facilities impact statement:** No changes.

**Provide a statement indicating who will assume financial responsibility for any new resources required:** As the ISE department administers this portion of the program, it will continue to be financially responsible for it.
Proposed Course Changes

1. Current course number, title, course description, and credits:
IE 415 - Manufacturing Management (3)
Analysis of the factors entering into the development of manufacturing management philosophy; decision-making process in areas of organization, planning, and control of manufacturing. Influence of the social, technical, and economic environment upon manufacturing management decisions.

2. Proposed course number, title, course description, and credits:
IE 415 will be dropped. IE 442 title and description are changed to encompass IE 415 and IE 442. See other course change form for information on IE 442 changes.

3 Nature of proposed change(s)
   A. Course title change?

   B. Course number change?

   C. Change in course credits? If so, provide rationale below: None.

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

   E. Other change(s)? Drop 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) No known changes.

      (2) Computer impact statement (attach statement if provided by LTS) No known changes.

      (3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty) Similar course will continue to be taught as IE 442 so no change in load.

      (4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities) No known changes.

   B. Provide a statement indicating who will assume financial responsibility for any new resources required: None required.
Proposed Course Changes

1. Current course number, title, course description, and credits:
IE 442 - Total Quality Management (3)
Principles and techniques of TQM; principles of Deming, Juran, Taguchi, and others;
standards, metrics, costs, benchmarking, quality circles, and continuous improvement;
Malcolm Baldrige and other awards, ISO 9000, case studies.

2. Proposed course number, title, course description and credits:
IE 442 Manufacturing Management (3)
Study of factors affecting the development of a manufacturing management philosophy;
decision-making process in areas of organization, planning, and control of
manufacturing. The principles and techniques of TQM, Deming and others; metrics,
costs, benchmarking, quality circles, and continuous improvement. Influence of the
social, technical, and economic environment upon manufacturing management decisions.
Case studies.

3. Nature of proposed change(s)
   A. Course title change? If so, provide rationale below: To reflect the
      comprehensive nature of manufacturing management, of which TQM is a
      part.
   B. Course number change? If so, provide rationale below: IE 442
      and IE 415 will be combined into a single course with the number IE 442. IE
      442 has been selected as the new number as the course is used in a variety
      of programs (i.e. MS in Quality Management). This will reduce the number
      of program changes required.
   C. Change in course credits? If so, provide rationale below: None.
   D. Change in course description? If so, provide rationale below: The
      course descriptions of IE 415 and IE 442 are combined to reflect the more
      intense and comprehensive coverage in the new course.
   E. Other change(s)? If so, please describe below and provide
      rationale for each change. The changes are designed to eliminate some
      redundancies in the curriculum. IE 415 is dropped (see other proposed
      course change)

4. Resource Impact
   A. Provide impact statements in the four areas listed below:
      (1) Library impact statement (attach statement if provided by LTS) No known
      changes
      (2) Computer impact statement (attach statement if provided by LTS) No known
      changes
(3) **Faculty impact statement** (how proposed program affects load on existing faculty or requires new faculty) The frequency of offering of IE 442 will be approximately the same as that of IE 416 and IE 442 combined so there will be no change in faculty loading.

(4) **Facilities impact statement** (how proposed program affects load on existing facilities or requires new facilities) No known changes.

B. Provide a statement indicating who will assume financial responsibility for any new resources required: None required.
Proposed New Course for APC

1. Proposed new course number and course description (as it will appear in course catalog):
   ECE 4xx Spread Spectrum and CDMA (3)

   Fading and dispersive channel model, direct sequence spread spectrum, frequency hopping spread spectrum, DS-CDMA, FH-CDMA, spread sequences and their properties, multi-user detection, PN code acquisition, wireless communication systems, industrial standards (IS-95, WCDMA, CDMA2000).

   Prerequisite: ECE341 or ECE342 or ECE410 or consent of instructor

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

   Lecture
   3 hours/week

3. Rationale for proposed new course:

   There is a critical need for this course due to the advances in communications and the expansion of the wireless program. Such a course has been taught at Lehigh in the past as an advanced topic course.

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: There are no known effects outside ECE.
   Who was consulted?
   Is the proposed new course acceptable to the affected program?
   Will any changes be required in the affected programs? If so, describe.
   Identify any known effects of the proposed new course 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. Tiffany Jing Li will teach this course. It will have a positive impact on her teaching.
   Facilities impact statement: None

   Provide a statement indicating who will assume financial responsibility for any new resources required: N/A
Proposed New Course

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

CSE 4xx. Semantic Web Topics (3)
Theory, architecture and applications of the Semantic Web. Issues in designing distributed knowledge representation languages, ontology development, knowledge acquisition, scalable reasoning, integrating heterogeneous data sources, and web-based agents.

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

lecture/ seminar, 3 hours per week

3. Rationale for proposed new course:
The Semantic Web is an emerging application that has the potential to revolutionize the way people use the World Wide Web. By associating semantics with web data, thus making it easier for software to perform complex operations that would normally require human intervention. The concept of the Semantic Web is being pushed by the World Wide Web Consortium (W3C), the standards body for the Web, and has support from numerous companies and academic institutions. Jeff Heflin has been directly involved in these efforts, and has used his experience to teach the class experimentally twice before. In both cases, the classes believed that the course should be made a regular offering by Lehigh. As such, it would give Lehigh students the ability to attain skills that are only offered at a handful of institutions around the world.

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) Is 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:

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 (how proposed program affects load on existing faculty or requires new faculty)
This course has already been taught twice as an experimental course and will be part of Prof. Heflin's regular course load

(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:

CSE will assume financial responsibility for the change.
RCEAS: CSE Department

Proposed New Course

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

CSE 447 Data Mining
Modern data mining techniques: data cleaning; attribute and subset selection; model construction, evaluation and application. Algorithms for decision trees, covering algorithms, association rule mining, statistical modeling, model and regression trees, neural networks, instance-based learning and clustering covered. This course, a version of CSE 347 for graduate students, requires research projects and advanced assignments. Credit will not be given for both CSE 347 and CSE 447. Prerequisites: Math 231 or permission of the instructor.

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

Lecture, three hours/week.

3. Rationale for proposed new course:

As demonstrated by enrollment in an experimental version of this course in Fall '04, there is significant demand for a grad-level version of the undergrad version of this course.

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) Is 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:

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 (how proposed program affects load on 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:

   No new resources are required.
College NAME: CSE

Proposed New Course

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

CSE 4zz Mobile Robotics (3)
Algorithms employed in mobile robotics for navigation, sensing, and estimation. Common sensor systems, motion planning, robust estimation, Bayesian estimation techniques, Kalman and particle filters, localization and mapping. This course, a version of CSE 3zz for graduate students will require an independent project to be presented in class. Credit will not be given for both CSE 3zz and CSE 4zz. Prerequisites: Math 205 and CSE 109 or their equivalents

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

Lecture three hours a week, supplemented with a few laboratory exercises

3. Rationale for proposed new course:

This course is consistent with engineering school goals of fostering education in Autonomous and Intelligent Systems (AIS). The course was offered in Fall '03 for the first time with an enrollment of 18 students. A follow-on course is being offered this semester. Enrollment as of 1 Sep is 23 students

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) Is 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:

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** (how proposed program affects load on existing faculty or requires new faculty)

This course has already been taught twice as an experimental course and will be part of Prof. Spletzer's regular course load.

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

**NONE** The necessary facilities are already in place.

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

CSE will assume financial responsibility for the change
RCEAS: Computer Science and Engineering

Proposed Course Changes

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

CSE 413. Robotics and Intelligent Machines (3)
Software aspects of robot and intelligent machine controls. Fundamental control issues through language and artificial intelligence implementations.

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

3. Nature of proposed change(s)

Other change(s)? If so, please describe below and provide rationale for each change.
DROP.
Rationale: We have not offered the course in a number of years, nor do we intend to offer it again.

4. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS)
N/A

(2) Computer impact statement (attach statement if provided by LTS)
N/A

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

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

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

Proposed Course Changes

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

CSE 415. Database Topics (3)
Design issues in integrated database systems. Database entities and their relationships.
Prerequisite: CSE 241 or equivalent

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

3. Nature of proposed change(s)

Other change(s)? If so, please describe below and provide rationale for each change. DROP.
Rationale: We infrequently offer the course. When we do, we would more properly offer it as a special topics course.

4. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS)
N/A

(2) Computer impact statement (attach statement if provided by LTS)
N/A

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

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

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

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

   CSE 463, Advanced Issues in Natural Language Processing (3)
   Advanced techniques and current applications of natural language systems. Complex syntax and semantics, discourse coherence and planning, natural language interfaces and other applications. Prerequisite: CSE 365 or CSE 465. Blank.

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

3. Nature of proposed change(s)

   Other change(s)? If so, please describe below and provide rationale for each change.
   DROP.
   Rationale: We have not offered the course in a number of years, nor do we intend to offer it again.

4. Resource Impact

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

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

      N/A

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

      N/A

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

      N/A

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

      N/A

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

      N/A
CSE 465. Seminar in Natural Language Processing (3)
Writing and presenting reviews of research issues in natural language, knowledge representation, speech processing and other applications. Requires concurrent attendance in CSE 365, Natural Language Processing.

3. Nature of proposed change(s)

Other change(s)? If so, please describe below and provide rationale for each change.
DROP.
Rationale: We have not offered the course in a number of years, nor do we intend to offer it again.

4. Resource impact

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

   (1) Library impact statement (attach statement, if provided by LTS)

   N/A

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

   N/A

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

   N/A

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

   N/A

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

   N/A
Proposed Course Changes

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

CEE 459. Advanced Topics in Plastic Theory (3) fall
Fundamentals of the mathematical theory of plasticity; the general theorems of limit analysis and their applications to beams under combined loading, arches, space frames, plates and shells. Limit analysis of two- and three-dimensional problems in soil, concrete, rock, and metal. Current developments. Prerequisite: CEE 359.

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

CEE 459. Advanced Topics in Plastic Theory (3) fall
Fundamentals of the mathematical theory of plasticity; the general theorems of limit analysis and their applications to beams under combined loading, arches, space frames, plates and shells. Limit analysis of two- and three-dimensional problems in soil, concrete, rock, and metal. Current developments. Prerequisite: CEE 413

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.

The prerequisite (CEE 359) was dropped from the catalog. This proposed entry uses a more appropriate prerequisite.

4. Resource Impact

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

   (1) Library impact statement (attach statement, if provided by LTS)

   No impact.

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

   No impact.

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

   No impact.

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

   No impact.

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

   No additional resources required.

Graduate & Research Committee: Course Changes (7/6/04 rev)
[This form not used to propose new courses, programs or certificates. Each of those has its own form.]
Rossin College of Engineering and Applied Science  
Department of Civil & Environmental Engineering  
Proposed Course Changes

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

CEE 463. Advanced Mechanics of Reinforced Concrete (3)
Consistent mechanics for the design of reinforced concrete with or without prestress. Limit theorems of the theory of plasticity and their application to beams, slabs, and disturbed regions. Applications may include beams in flexure and combined flexure, axial load, and torsion; slabs (strip method, yield line analysis); corbels, deep beams, and other disturbed regions (truss models, strut-and-tie models, and associated failure mechanisms).
Prerequisites: CEE 263 or equivalent.

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

CEE 463. Advanced Mechanics of Reinforced Concrete (3)
Consistent mechanics for the design of reinforced concrete with or without prestress. Limit theorems of the theory of plasticity and their application to beams, slabs, and disturbed regions. Applications may include beams in flexure and combined flexure, axial load, and torsion; slabs (strip method, yield line analysis); corbels, deep beams, and other disturbed regions (truss models, strut-and-tie models, and associated failure mechanisms).
Prerequisites: CEE 264 and CEE 413, or equivalent.

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.

The proposed prerequisite is more appropriate based on the use of the word “Advanced” in the title.

4. Resource Impact

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

(1) Library impact statement (attach statement, if provided by LTS)
No impact.

(2) Computer impact statement (attach statement, if provided by LTS)
No impact.

(3) Faculty Impact statement (how proposed program affects load on existing faculty or requires new faculty)
No impact.

(4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
No impact

B. Provide a statement indicating who will assume financial responsibility for any new resources required:
No additional resources required

Graduate & Research Committee. Course Changes (7/8/04 rev)  
[This form not used to propose new courses, programs or certificates. Each of those has its own form.]
Proposed Course Changes

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

CEE 470, Reaction Kinetics in Environmental Engineering (2)
Theory of reaction kinetics and its application to the design and operation of chemical, physico-chemical and biological reactors in water and wastewater treatment. Basic design equations for various types of reactors and migration of pollutants in the environment.

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

CEE 470, Reaction Kinetics in Environmental Engineering (3)
Theory of reaction kinetics and its application to the design and operation of chemical, physico-chemical and biological reactors in water and wastewater treatment. Basic design equations for various types of reactors and migration of pollutants in the environment.

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:
The course curriculum is being updated and is being turned into a 3-credit course.

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.

4. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS)
No impact

(2) Computer impact statement (attach statement if provided by LTS)
No impact

(3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)
No impact

(4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
No impact

Graduate & Research Committee: Course Changes (7/6/04 rev)
[This form not used to propose new courses, programs, or certificates. Each of those has its own form]
B. Provide a statement indicating who will assume financial responsibility for any new resources required:

No additional resources required.
RCEAS: Computer Science and Engineering

Proposed New Course

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

CSE 492: Network Security (3)
Overview of network security threats and vulnerabilities. Techniques and tools for detecting, responding to and recovering from security incidents. Fundamentals of cryptography. Hands-on experience with programming techniques for security protocols. This course, a version of CSE 392 for graduate students, requires research projects and advanced assignments. Credit will not be given for both CSE 392 and CSE 492. Prerequisite: CSE 342 or CSE 303 or CSE 403 or ECE 404.

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

Three hours of lecture per week.

3. Rationale for proposed new course:

The course reflects the background of the instructor and fills a previously unmet need to have network courses in the CSE curriculum. The course has been taught twice before, with good enrollments.

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 that we are aware of.
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) Is 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:

Yes. The person hired to teach the course is female and a member of an under-represented minority.

5. Resource Impact

A. Provide impact statements in the four areas listed below:
   (1) Library impact statement (attach statement if provided by LTS)
   No impact. All relevant material is available on line.
   (2) Computer impact statement (attach statement if provided by LTS)
   No impact. We have the resources for course.
   (3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)
   A new faculty member has already been hired to propose and teach network courses.
   (4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
   No impact.

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

The Computer Science and Engineering Department is assuming financial responsibility.

Graduate & Research Committee: (Rev 7/04/04)
Proposed Degree Program Name Change

1. Current program title and description (from present course catalogue):

M.S. in Educational Technology

2. Proposed program title (as it will appear in course catalogue):

M.S. in Instructional Technology

3. Nature of proposed change(s)

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

_Instructional technology_ is a term often used to describe the use of technology to enhance teaching and learning, principally in school settings. It has two major components: planning and implementation. The broader field of educational technology may be viewed as the combination of _instructional design and development_ and _instructional technology_. These are two halves of the same equation. Educational Technology encompasses the entire process, from the initial development of an instructional goal through final implementation and integration of the technology in either a formal or informal educational setting.

The Educational Technology academic program in the College of Education has an existing M.S. degree in _Instructional Design and Development_, as well as a graduate certificate in _Project Management_ with the College of Business and Economics. We have recently added a graduate certificate program in _Technology Use in the Schools_ as well as a new concentration in _Instructional Design and Development_ as part of the new _Learning Sciences and Technology_ Ph.D. degree. These additions are a reflection of two trends in our program: niche marketing and a greater emphasis on international offerings.

Unfortunately, the name of one of our degree programs has not kept up with these trends. Having an academic program with the name “Educational Technology” with one of its degree programs carrying the very same name is confusing. As our academic program seeks to differentiate among its various degree programs and certificates, it becomes important that the title each carries is discrete and descriptive and makes clear which things go together. Changing this degree’s name to _Instructional Technology_ makes it possible to position our new _Technology Use in the Schools_ grad certificate as a stepping-stone to a master’s degree in _Instructional Technology_. Similarly, one can view both our _Project Management_ grad certificates and our present master’s degree in _Instructional Design and Development_ as stepping-stones to the _Learning Sciences and Technology_ concentration of the same name.

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

N/A

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

N/A

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

N/A

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

N/A
4. 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 (how proposed program affects load on 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:
No new responsibilities.
Proposed New Course

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

   MAT 4XX. Materials for Nanotechnology (3)
   Viewing the nanoworld through transmission electron microscopy and scanning probe microscopies. Why nanoscale materials have different physical properties from their bulk counterparts. Classes of nanostructured materials. Fullerenes, carbon nanotubes, nanoparticles and wires of metals and semiconductors, inorganic nanoparticles, and nanoporous materials. ‘Top-down’ and ‘bottom-up’ nanofabrication. Current and potential future uses of nanomaterials. Graduate version of 3XX involving additional project work. Credit will not be given for both MAT 3XX and MAT 4XX. Prerequisite: MAT 33 or permission of instructor. Kiely.

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

3. Rationale for proposed new course:
   Nanotechnology is emerging as one of the most influential and exciting scientific endeavors of our generation. It is important that we educate our engineers and scientists to understand the materials science issues that relate to this rapidly developing and highly interdisciplinary field.

The course was developed and delivered by Professor Chris Kiely on an experimental basis in the Spring 03 and Spring 04 semesters. In Spring 03 it was offered as a MatPac course and was delivered by Internet, broadcast to 7 Penn State graduate students in addition to 12 Lehigh students. In Spring 04 it was not offered as a MatPac course but still attracted 9 Lehigh students, two attendees from local industry (Agere and Minerals Technologies) and 2 other Lehigh staff members who audited the course. The student overall ratings were 4.5 and 4.8 in Spring 03 and Spring 04 respectively.

4. Academic impact on programs affected by new course:

   A. Is the proposed course to be cross-listed?
      It is not cross listed yet but may be in the future.

   B. Identify any known effects of the proposed new program on other programs at the University.
      This course should not affect other programs, although it will draw students from other science and engineering departments in the university. No equivalent Lehigh course exists at present. This course is slated to become one of two required core courses in the new Graduate Certificate Program in Nanomaterials proposed by the Department of Materials Science and Engineering. It will also play a key role in the minor in nanotechnology.
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) Is 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:
This new course will not have any negative impact on the University’s commitment to diversity.

5. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS – SEE BELOW)
To complement the recent subscriptions to some Nanotechnology oriented journals (e.g. Advanced Materials, Advanced Functional Materials, Nanoletters, Journal of Nanoparticle Research) the library will also need to stock up on a small selection of Nanotechnology texts that have been appearing in print over the past year or two.

Statement from Sharon Siegler, LTS:
These courses play to our collective strengths and no new journals are needed. The library routinely acquires new titles in nanotechnology, electron microscopy, and logical applications. Faculty who teach these courses should also submit requests for useful additional material.

(2) Computer impact statement (attach statement if provided by LTS)
No impact expected.

(3) Faculty impact statement (how proposed program affects load on existing faculty or requires new faculty)
Prof. Kicly will continue to deliver the course as part of his normal lecturing duties.

(4) Facilities impact statement (how proposed program affects load on existing facilities or requires new facilities)
The intention is to offer this course (via the internet) to other MatPac universities (e.g. Penn State) as well as to our own Lehigh students. This requires the use of the video conferencing classroom (#451) in Whitaker Laboratory.

B. Provide a statement indicating who will assume financial responsibility for any new resources required:
No new resources are required to run this course.
Engineering: Materials Science and Engineering

Proposed New Course

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

MAT 4YY. Strategies for Nanocharacterization (3)
Nanocharacterization techniques: their suitability for specific measurements. Special attention to spatial resolution, detection limits and accuracy for scanning electron microscopy, transmission electron microscopy, X-ray analysis, diffraction analysis, ion beam techniques, surface techniques, atomic force microscopy and other scanning probe microscopies, and light microscopies and spectroscopies. Graduate version of 3YY involving additional project work. Credit will not be given for both MAT 3YY and MAT 4YY. Prerequisites: MAT 403 (may be taken concurrently) or consent of instructor.

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

Standard 3 hours of lectures per week.

3. Rationale for proposed new course:

Lehigh is nationally and internationally famous in scanning electron microscopy and transmission electron microscopy, and these subjects are well covered by existing courses. However, we should not allow our students to imagine that these are the only techniques available for nanocharacterization. This course provides information on a broad sweep of a myriad of techniques that contribute in different and complementary ways. The course will also serve as a significant contribution to the growing interest in nanotechnology on this campus.

4. Academic impact on programs affected by new course:

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

Not at present - but we are open to offers.

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

This course, as well as serving many students in the doctoral programs at Lehigh will contribute specifically to both the Minor in Nanotechnology and to the Graduate Certificate Program in Nanomaterials

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?

The committee that prepared the Minor in Nanotechnology and the committee that prepared the Graduate Certificate in Nanomaterials and the faculty of the department.

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

Yes.

Graduate & Research Committee: Course Changes (7/6/04 rev)
[This form not used to propose new courses programs, or certificates. Each of those has its own form.]
(3) Will any changes be required in the affected programs? If so, please describe below:

The programs might be compromised without it.

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

There is no negative impact on the commitment to diversity.

5. Resource Impact

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

(1) Library impact statement (attach statement if provided by LTS – SEE BELOW)

Additional books required for this course will be books that the library will acquire anyway, either for general research use or in connection with the course Materials for Nanotechnology.

Statement from Sharon Siegler, LTS:
These courses play to our collective strengths and no new journals are needed. The Library routinely acquires new titles in nanotechnology, electron microscopy, and logical applications. Faculty who teach these courses should also submit requests for useful additional material.

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

None

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

This course will normally be given by Charles Lyman and Alwyn Eades and can be fitted into their schedules and that of the Department.

(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:

This will be a standard elective in the Department of Materials Science and Engineering. That Department will assume responsibility for the course.