Agenda
Campus Curricula Committee Meeting
November 4, 2008 Meeting
3:00 p.m. Room 117 Fulton Hall

Approval of October 7, 2008 minutes.

Review of submitted DC forms:
DC 0302, Architectural Engineering, BS in Architectural Engineering, effective Fall 2009. A proposal to modify the current curriculum for the BS in Architectural Engineering by replacing Eng Mgt 207 with Eng Mgt 137.

Review of submitted CC forms:
CC 7480, Geophysics 320, Computational Geophysics, effective Spring 2009.

CC 7481, Biological Sciences 151, Introduction to Environmental Sciences, effective Fall 2009.

CC 7482, Biological Sciences 150, effective Spring 2009.

CC 7483, Nuclear Engineering, 327, Radiological Engineering, effective Spring 2009.


CC 7485, Mining Engineering 407, Theory of High Explosives, effective Spring 2009.

CC 7486, IDE 20, Engineering Design with Computer Applications, effective Fall 2009.

CC 7487, Physics 494, Co-op Registration, effective Spring 2009.

CC 7488, Civil Engineering 412, Numerical Methods in Geotechnical Engineering, effective Spring 2009.

CC 7489, Civil Engineering 342, Architectural Engineering 342, Construction Planning and Scheduling Strategies, effective Spring 2009.
Review of submitted EC forms:
EC 2117, Biological Sciences 301, Cellular Neurobiology, effective Spring 2009.
EC 2118, Chemistry 401, Mass Spectrometry of Macromolecules, effective Spring 2009.
EC 2119, Engineering 101, Seeds of Success II-Assertive Living, effective Fall 2009.
EC 2120, Engineering 101, Natural Construction, effective Summer 2010.
EC 2121, Engineering 101, Creative Problem Solving, effective Fall 2009.
EC 2122, Spanish 301, Spanish Translation: Theory and Practice, effective Spring 2009.
EC 2124, Geological Engineering 201, Geology and Engineering of Ancient and Modern Peru, effective Spring 2009.
EC 2127, Mining Engineering 401, Blast Mitigation for Structures, effective Spring 2009.

Tabled Items:
DC 0301, ALP, Theatre, approved effective Fall 2009. A proposal to create a new minor in Theatre. **Tabled**

CC 5946 – CC 5959 tabled pending approval of the new BS degree in BioEngineering by UM and CBHE.

EC 2086, Mining Engineering 301, Mineral Processing II, effective Fall 2009. **Tabled**

EC 2087, Mining Engineering 301, Mineral processing II, effective Fall 2009. **Tabled**

EC 2103, Mining Engineering 301, Aggregate Materials Sizing and Characterization, approved effective Fall 2009. **Tabled**

EC 2111, Theatre 201, Acting II, approved effective Spring 2009. **Tabled**

EC 2112, Theatre 101, Acting I, approved effective Fall 2009. **Tabled**
Effective Year: 2009  
Effective Term: Summer □  Fall ☑  Spring □
(Creating or modifying a degree program must be effective for a Fall term)

Degree Change Form (DC)

This form is to be used for creating or modifying degree programs, emphasis areas, and minors.

Title of degree program, emphasis area, or minor:
Architectural Engineering

Department: Civil, Architectural and Environmental Engineering

Briefly describe action requested (Attach documentation as appropriate):
Remove the required course Engineering Management 207, Economic Analysis of Engineering Projects, 2 credits and replace it with Engineering Management 137 Economic Analysis of Engineering Projects, 2 credits.

E Mgt 207 is no longer taught, and E Mgt 137 was developed to replace it. The content is the same and the number of credit hours are the same.

Recommended by Department: [Signature]  
Date: 9/24/08

Recommended by Discipline Specific Curricula Committee: [Signature]  
Date: ________

Approved by Curricula Committee: [Signature]  
Date: ________

Approved by Faculty Senate: [Signature]  
Date: ________

(Revised 1/31/2008)
Course Change Form (CC)
This form is for creating or modifying permanent courses.

Course Changes (Check all changes.)
New Course ☒ Course Deletion ☐ Credit Hours ☐ Prerequisites ☐
Course Title ☒ Catalog Description ☐ Course Number ☒ Co-listing ☒

Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Geological Sciences and Engineering
2. Discipline and Course Number: Present: EC301 Proposed: Geop320
3. Course Title: Present: Special Problems Proposed: Computational Geophysics
   Abbreviated Course Title: Compu Geophysics
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (40 Words or Less)
   Present: Scientific programming in a UNIX environment, with emphasis on solving geophysical problems such as linear and nonlinear inversion, spectral analysis, seismicity, seismic wave attenuation, shear-wave splitting, and seismic tomography.
   Proposed: Scientific programming in a UNIX/Linux environment, with emphasis on solving geophysical problems such as linear and nonlinear inversion, spectral analysis, seismicity, seismic wave attenuation, shear-wave splitting, and seismic tomography.

5. If course requires field trip check box: ☐
6. Credit Hours:
   Present: Lecture: 1 Lab: 2 Total: 3
   Proposed: Lecture: 1 Lab: 2 Total: 3
7. Prerequisites:
   Present: Geophysics 286
   Proposed: Geophysics 270
8. Required for Majors: ☐ Elective for Majors: ☒
9. Justification: Professional-level scientific programming is among the most critical skills for a geophysicist. This course is aimed at giving the students a comprehensive training in the most essential aspects of computational geophysics. The course has been taught twice and were well-received by the students, as evidenced by the high Teacher Effectiveness score of 3.9 (Spring 2007, 4 enrolled) and 4.0 (Spring 2008, 5 enrolled)
10. Semesters previously offered as an experimental course (101, 201, 301, 401): 2
11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.
   1)  2)  3)  4)  5)  6)  Date: 9/8/08
Recommended by Department (Chair signature)
Recommended by Discipline Specific Curricula Committee (Chair signature)
Approved by Curricula Committee: (Chair signature)
Approved by Faculty Senate: (Chair signature)
(Date: ________________)

(Revised 1/31/08)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course Changes
(Check all changes.)
New Course X Course Deletion ☐ Credit Hours ☐ Prerequisites ☐
Course Title ☐ Catalog Description ☐ Course Number ☑ Co-listing ☐

Course Information
(1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Biological Sciences

2. Discipline and Course Number: Present: 101 Proposed: 151

3. Course Title: Present: Introduction to Environmental Sciences
   Proposed:
   Abbreviated Course Title: Environmental Science
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (40 Words or Less)
   Present: An introduction to environmental science, with an emphasis on biological aspects of current environmental problems. Topics range from chemical toxicity to global climate change. Environmental challenges facing local species and ecosystems will be emphasized.
   Proposed:

5. If course requires field trip check box: ☐

6. Credit Hours:
   Present: Lecture: 3 Lab: NA Total: 3
   Proposed: Lecture: Lab: Total:

7. Prerequisites:
   Present: none
   Proposed: none

8. Required for Majors: ☐ Elective for Majors: ☐

9. Justification: Course has been taught twice as 101 and is now being given a regular number.

10. Semesters previously offered as an experimental course (101, 201, 301, 401): SP 2006, SP 2008
11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.
   1) 2) 3) 4) 5) 6)

Recommended by Department 
(Chair signature) Date: 9/23/08

Recommended by Discipline Specific Curricula Committee
(Chair signature)

Approved by Curricula Committee:
(Chair signature) Date:

Approved by Faculty Senate:
(Chair signature) Date:

(Revised 1/31/08)
Effective Year: 2009  
Effective Term: Summer ☐  Fall ☐  Spring ☑  

CC File #: 1482-2008-BioSci-150-10

Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course Changes  (Check all changes.)

New Course ☒  Course Deletion ☐  Credit Hours ☐  Prerequisites ☐
Course Title ☐  Catalog Description ☐  Course Number ☐  Co-listing ☐

Course Information  (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: BIO SCI

2. Discipline and Course Number: Present: 101  Proposed: 150

3. Course Title: Present: Biologywood: Untangling Biology Facts from Fiction at the Movies
              Proposed: Biotechnology in Film

Abbreviated Course Title: Biotech in Film
(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description  (40 Words or Less)

Present:
As advances in biotechnology and biological discoveries increase, so does the inclusion of biology in Hollywood movies. Films that use science-based plots can have a significant impact on society by disseminating scientific facts or by providing misinformation. In this course, popular movies will serve as a starting point for discussing the science behind biology-based...

Proposed:
Popular films that use biology-based plots influence society by disseminating facts and providing misinformation. Popular movies serve as the basis for discussing the biotechnology behind popular movie plots and examining the relationship between public perceptions and biotechnology.

5. If course requires field trip check box: ☐

6. Credit Hours: Present: Lecture: 3  Lab: 0  Total: 3
              Proposed: Lecture: 3  Lab: 0  Total: 3

7. Prerequisites:

Present: none

Proposed: none

8. Required for Majors: ☐  Elective for Majors: ☑

9. Justification: This course provides students with an introduction to biotechnology, including politically-relevant topics such as stem cells, genetic engineering, and cloning. By using popular media, students study advanced topics in a relaxed environment, while also exploring the influences of the media on society and science.

10. Semesters previously offered as an experimental course (101, 201, 301, 401): SP2006, SP2007

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1)  2)  3)  4)  5)  6)

Recommended by Department: ____________________________ Date: 9/26/08
(Chair signature)

Recommended by Discipline Specific Curricula Committee: ____________________________
(Chair signature)

Approved by Curricula Committee: ____________________________ Date: __________
(Chair signature)

Approved by Faculty Senate: ____________________________ Date: __________
(Chair signature)

(Revised 1/31/08)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

**Course Changes** (Check all changes.)
- New Course [ ]
- Course Deletion [ ]
- Credit Hours [ ]
- Prerequisites [ ]
- Course Title [ ]
- Catalog Description [ ]
- Course Number [ ]
- Co-listing [ ]

**Course Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. **School/College:**
   - Department: Mining & Nuclear Engineering

2. **Discipline and Course Number:**
   - Present: NE301
   - Proposed: NE 327

3. **Course Title:**
   - Present: Radiological Engineering
   - Proposed: Radiological Engineering

   **Abbreviated Course Title:** Radiological Engineering

   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. **Catalog Description** (40 Words or Less)
   - Present:
   - Proposed:

5. **Credit Hours:**
   - Present: Lecture: 03  Lab: 03  Total: 03
   - Proposed: Lecture: 03  Lab: 03  Total: 03

6. **Prerequisites:**
   - Present: NE205
   - Proposed: NE205

7. **Required for Majors:** [ ]  **Elective for Majors:** [x]

8. **Justification:** This class was offered twice as experimental course and now we are requesting a permanent number to be assigned to the course.

9. **Semesters previously offered as an experimental course (101, 201, 301, 401):** NE 301  
   - Spring 08
   - Spring 08

10. **List all co-listed courses, initialed by Dept. Chair(s) and Dean(s) if signatures do not appear below.**

    1)  
    2)  
    3)  
    4)  
    5)  
    6)  

**Recommended by Department:**

[Signature]

(Chair signature)

Date: 9/29/08

**Recommended by School/College:**

(Dean signature)

Date:

**Recommended by UMR Curricula Committee:**

(Chair signature)

Date: __________ (Action)

**Recommended by Academic Council:**

(Chair signature)

Date: __________ (Action)

(Revised 2/14/02)
Effective Year: 2009
Effective Term: Summer ☐ Fall ☐ Spring ☑

Course Change Form (CC)
This form is for creating or modifying permanent courses.

Course Changes (Check all changes.)
New Course ☑ Course Deletion ☐ Credit Hours ☐ Prerequisites ☐
Course Title ☐ Catalog Description ☐ Course Number ☐ Co-listing ☐

Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)
1. Department: Engineering Management

2. Discipline and Course Number:
   Present: 301
   Proposed: 418

3. Course Title:
   Present: Leadership for Engineers
   Proposed: Leadership for Engineers

   Abbreviated Course Title: Leadership for Engineers
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (40 Words or Less)
   Present:
   Proposed: Provides engineers a background in leadership concepts and principles; enables students to develop practical skills in leading and managing through a personal inventory analysis. Topics include leadership styles, managing commitments, conflict resolution, change management, emotional intelligence, team dynamics, and business ethics.

5. If course requires field trip check box: ☐

6. Credit Hours:
   Present: Lecture: Lab:
   Proposed: Lecture: 3.0 Lab: 0.0 Total: 3.0

7. Prerequisites:
   Present:
   Proposed: EMGT 313 or Psych 374

8. Required for Majors: ☐ Elective for Majors: ☐

9. Justification:
   This course has been taught twice as EMGT 301. After teaching this course twice, it is felt that this course is better justified at the 400 level; therefore, we are requesting it to be given a 400 course number.

10. Semesters previously offered as an experimental course (101, 201, 301, 401): FS08, SP08

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.
   1) Psychology
   2) 
   3) 
   4) 
   5) 
   6) 

   Recommended by Department: 
   (Chair signature) Date: 9/19/08

   Recommended by Discipline Specific Curricula Committee: 
   (Chair signature) Date: 

   Approved by Curricula Committee: 
   (Chair signature) Date: 

   Approved by Faculty Senate: 
   (Chair signature) Date: 

09/19/08

(Revised 1/31/08)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course Changes  (Check all changes.)
New Course □  Course Deletion □  Credit Hours □  Prerequisites □
Course Title □  Catalog Description □  Course Number □  Co-listing □

Course Information  (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Mining and Nuclear Engineering
2. Discipline and Course Number: Present: Mi Eng407  Proposed: Mi Eng 407
3. Course Title: Present: Theory of High Explosives  Proposed: 
   Abbreviated Course Title:  
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (40 Words or Less)
   Present: Study of the application of chemical thermodynamics and the hydrodynamic theory to determine properties of high explosives; kinetics and reaction rates; application of the above to the blasting action of explosives.
   Proposed: Study of the application of chemical thermodynamics and the hydrodynamic theory to determine the properties of high explosives; application of detonation theory to steady-state detonations in real explosives; application of the above to the blasting action of explosives.

5. If course requires field trip check box: □

6. Credit Hours:
   Present: Lecture: 3  Lab:  Total: 3
   Proposed: Lecture: 3  Lab:  Total: 3

7. Prerequisites:
   Present: Mi Eng 307
   Proposed:

8. Required for Majors: □  Elective for Majors: □

9. Justification: Change of emphasis from chemistry-based work to shock hydrodynamics-based work.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):
11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.
   1) 
   2) 
   3) 
   4) 
   5) 
   6)

   Recommended by Department:  
   (Chair signature)  
   Date: 10/02/08

   Recommended by Discipline Specific Curricula Committee:  
   (Chair signature)  
   Date: 

   Approved by Curricula Committee:  
   (Chair signature)  
   Date: 

   Approved by Faculty Senate:  
   (Chair signature)  
   Date: 

(Revised 1/31/08)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

**Course Changes**
(Check all changes.)

- New Course [ ]
- Course Deletion [ ]
- Credit Hours [ ]
- Prerequisites [ ]
- Course Title [ ]
- Catalog Description [ ]
- Course Number [ ]
- Co-listing [ ]

**Course Information**
(1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. **Department:** Interdisciplinary Engineering

2. **Discipline and Course Number:**
   - **Present:** IDE 20
   - **Proposed:**

3. **Course Title:**
   - **Present:** Engineering Design with Computer Applications
   - **Proposed:** Introduction to Engineering Design

   **Abbreviated Course Title:** Intro. to Engr. Design
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. **Catalog Description** (40 Words or Less)
   - **Present:** Introduction to software tools (computer aided design drafting, computer mathematics, word processing, spreadsheet) with application to professional engineering practice. Principles of engineering design. A semester long group design project is an integral part of the course.
   - **Proposed:** Introduction to a systematic approach to engineering design (problem clarification, concept generation, concept selection, prototyping methods, engineering ethics) and fundamental design communication techniques. Computer aided design tools are introduced to assist in design analysis.

5. If course requires field trip check box: [ ]

6. **Credit Hours:**
   - **Present:** Lecture: 1  Lab: 2  Total: 3
   - **Proposed:** Lecture: 2  Lab: 1  Total: 3

7. **Prerequisites:**
   - **Present:**
   - **Proposed:**

8. **Required for Majors:** [ ]
   **Elective for Majors:** [ ]

9. **Justification:** The IDE 20 course has evolved over the years to focus more on a rigorous engineering design methodology. The computer applications have moved toward solid modeling and 2-D modeling as students no longer need introduction to basic computer applications.

10. **Semesters previously offered as an experimental course (101, 201, 301, 401):**
11. **List all co-listed courses, initialed by Dept. Chair, if signature does not appear below:**
1) 2) 3) 4) 5) 6)

   Recommended by Department

   **Recommended by Discipline Specific Curricula Committee**

   **Approved by Curricula Committee:**

   **Approved by Faculty Senate:**

   Date: 09/15/08

   Date: __________

   Date: __________

   Date: __________

   (Revised 1/31/08)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course Changes (Check all changes.)
- New Course □
- Course Deletion □
- Credit Hours □
- Prerequisites □
- Course Title □
- Catalog Description □
- Course Number □
- Co-listing □

Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Physics
2. Discipline and Course Number: Present: 494
   Proposed:
3. Course Title: Present: Co-op Registration
   Proposed:

   Abbreviated Course Title:
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (40 Words or Less)
   Present: Doctoral candidates participating in a cooperative program with another UM campus must
   enroll for one hour of credit each registration period until degree is completed. Failure to do
   so may invalidate candidacy. Billing is automatic as is registration upon payment.

   Proposed: Doctoral candidates participating in a cooperative program with another UM campus must
   enroll for one hour of credit for their first semester in the program and zero hours of credit
   for successive registration periods until degree is completed. Failure to do so may invalidate
   candidacy. Billing is automatic as is registration upon payment.

5. If course requires field trip check box: □
6. Credit Hours:
   Present: Lecture: Lab: Total: 1.0
   Proposed: Lecture: Lab: Total: 0-1
7. Prerequisites:
   Present: None
   Proposed:

8. Required for Majors: □ Elective for Majors: □
9. Justification: The purpose of this course was to provide a mechanism for tracking UMSL students in
   the cooperative PhD program. Currently they pay ~$300/semester for this. The
   change proposed more accurately reflects the cost to MS&T to provide this
   administrive service.
10. Semesters previously offered as an experimental course (101, 201, 301, 401):
11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.
   1)  
   2)  
   3)  
   4)  
   5)  
   6)  

   Recommended by Department [Signature]

   Recommended by Discipline Specific Curricula Committee [Signature]

   Approved by Curricula Committee: [Signature]

   Approved by Faculty Senate: [Signature]

   Date: 10-7-08

   (Revised 1/31/08)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course Changes (Check all changes.)
New Course □ Course Deletion □ Credit Hours □ Prerequisites □
Course Title □ Catalog Description □ Course Number □ Co-listing □

Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: Department of Civil, Architectural, and Environmental Engineering

2. Discipline and Course Number: Present: CE412 Proposed: CE412

3. Course Title: Present: Numerical Methods in Geotechnical Engineering Proposed: Computer Modeling in Geotechnical Engineering

Abbreviated Course Title: Comp Mod Geotech Eng
(24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (40 Words or Less)

Present: Survey of computer methods of analyzing complex geotechnical engineering problems. Finite element, finite difference and closed form solution techniques. Existing computer models are used to analyze axially and laterally loaded piles, seepage, consolidation and settlement behavior.

Proposed: Survey of computer methods of analyzing and modeling complex geotechnical engineering problems. Computer applications, data analysis, and result interpretations. Topics include constitutive modeling, foundation engineering, seepage, unsaturated flow problem, slope stability analysis, consolidation, excavation, tunneling, and dynamic soil-structure interaction

5. If course requires field trip check box: □

6. Credit Hours:

Present: Lecture: 3 Lab: 0 Total: 3

Proposed: Lecture: 3 Lab: 0 Total: 3

7. Prerequisites:

Present: Graduate standing

Proposed: CE 215 and graduate standing

8. Required for Majors: □ Elective for Majors: □

9. Justification: Offered in FS04, FS06, and FS07, this course has been focused on application of computer software packages to analyzing and modeling complex geotechnical engineering problems instead of thorough discussions on numerical methods.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

1) 2) 3)

4) 5) 6)

Recommended by Department

Recommended by Discipline Specific Curricula Committee

Approved by Curricula Committee:

Approved by Faculty Senate:

Date: 10/2/08

Date: __________

Date: __________

Date: __________

(Chair signature)

(Chair signature)

(Chair signature)

(Revised 1/31/08)

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Course Change Form (CC)

This form is for creating or modifying permanent courses.

**Course Changes**  
(Click all changes.)
- New Course ☑
- Course Deletion ☐
- Credit Hours ☐
- Prerequisites ☐
- Course Title ☐
- Catalog Description ☐
- Course Number ☐
- Co-listing ☐

**Course Information**  
(1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. **Department:** Civil Engineering

2. **Discipline and Course Number:**  
   Present: Civil/ArchE 301  
   Proposed: CE 342

3. **Course Title:**  
   Present: Construction Planning and Scheduling Strategies  
   Proposed: Construction Planning and Scheduling Strategies

   **Abbreviated Course Title:** Scheduling Strategies  
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. **Catalog Description (40 Words or Less)**  
   Present: The goal of this course is to assist participants in gaining an understanding of schedule control techniques and the application of tools such as Primavera Software. Content areas to be addressed include: development of baseline schedules, progress monitoring and updating, recovery schedules, resource application and leveling.  
   Proposed: same as above

5. **If course requires field trip check box:** ☐

6. **Credit Hours:**  
   Present:  
   Lecture: 3  
   Lab: 0  
   Total: 3  
   Proposed:  
   Lecture: 3  
   Lab: 0  
   Total: 3

7. **Prerequisites:**  
   Present: Cv Eng or Arch E 248 or consent of instructor  
   Proposed: Cv Eng or Arch E 248 or consent of instructor

8. **Required for Majors:** ☐  
   Elective for Majors: ☑

9. **Justification:**  
   This course was offered both Spring 2007 and 2008 - with much interest and good enrollment both semesters. This course is also one that can be used toward the MS in Engineering Management with an emphasis in construction management.

10. **Semesters previously offered as an experimental course (101, 201, 301, 401):** Spring 2007, Spring 2008

11. **List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.**
   1) Arch E 342
   2)  
   3)  
   4)  
   5)  
   6)

   **Recommended by Department:** [Signature]  
   Date: 10/7/03

   **Recommended by Discipline Specific Curricula Committee:** [Signature]  
   Date: 

   **Approved by Curricula Committee:** [Signature]  
   Date: 

   **Approved by Faculty Senate:** [Signature]  
   Date: 
Experimental Course Form (EC)

This form must be filed with the Secretary to the Campus Curricula Committee, after the department chair’s notation, by the appropriate deadline. Filing deadlines for inclusion in the initial release of the Schedule of Classes are as follows:

Summer and Fall Semester Offerings – January 1
Spring Semester Offerings – August 1

An EC form must be submitted each semester it is to be offered, not to exceed two offerings. An experimental course that is required should be submitted on a CC form. Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Physics

Discipline and Course Number: Physics 301

Course Title: Transport in Nanostructures: An Introduction

Abbreviated Title (24 spaces or less): Nanostructures

Instructor(s): Alexey Yamilov

Credit Hours: Lecture: 3 Lab: Total: 3

Prerequisites: Physics 107 or Physics 207

Semester(s) previously taught: N/A

Brief Course Description: (40 words or less)
The course overviews how wave interference, energy quantization and tunneling phenomena influence the wave (electron and light) transport in modern nanostructured materials and devices such as quantum dots, quantum wells, quantum wires and photonic crystals.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.
1)  
2)  
3)  
4)  
5)  
6)  

Department Chair: [Signature] (Chair Signature) Date: 9-17-08

Discipline Specific Curricula Committee: [Signature] (Chair signature) Date: 

Curricula Committee: [Signature] (Chair Signature) Date: 

09/16/08 (Revised 1/31/2008)
Experimental Course Form (EC)

This form must be filed with the Secretary to the Campus Curricula Committee, after the department chair’s notation, by the appropriate deadline. Filing deadlines for inclusion in the initial release of the Schedule of Classes are as follows:

- **Summer and Fall Semester Offerings – January 1**
- **Spring Semester Offerings – August 1**

An EC form must be submitted each semester it is to be offered, not to exceed two offerings. An experimental course that is required should be submitted on a CC form. **Co-listed offerings should be submitted on one form, originating from the primary discipline.**

**Department:** Biological Sciences

**Discipline and Course Number:** Bio 301

**Course Title:** Cellular Neurobiology

**Abbreviated Title (24 spaces or less):** Neutobiology

**Instructor(s):** Robert S. Aronstam

**Credit Hours:**
- Lecture: 3
- Lab: 0
- Total: 3

**Prerequisites:** Cellular Biology BioSci 211

**Semester(s) previously taught:** Spring 2007

**Brief Course Description: (40 words or less)**
The biology of nerve cells, particularly neurons as the substrate for higher brain functions. Topics include the electrical properties of cells, synaptic transmission, neural development, neural plasticity, and neuropharmacology.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1)  
2)  
3)  
4)  
5)  
6)  

**Department Chair:**

(Chair Signature)  
**Date:**  9/24/08

**Discipline Specific Curricula Committee:**

(Chair signature)  
**Date:**  

**Curricula Committee:**

(Chair Signature)  
**Date:**  

09/25/08

(Revised 1/31/2008)
Experimental Course Form (EC)

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Department: Chemistry

Discipline and Course Number: Chem 401

Course Title: Mass Spectrometry of Macromolecules

Abbreviated Title (24 spaces or less): Macromolecular MS

Instructor(s): Shubhender Kapila and Rachadaporn Seemamahannop

Credit Hours: Lecture: 3  Lab:  Total:

Prerequisites: Graduate status; Chem 355 or equivalent

Semester(s) previously taught:

Brief Course Description: (40 words or less)
The course will provide an overview of mass spectrometric applications in biomacromolecules and synthetic polymers; particular areas of emphasis are proteomics, genomics, pharmaceutical screening, characterization of biochemical complexes and synthetic polymers.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.
1)  2)  3)  4)  5)  6)

Department Chair: ____________________________ (Chair Signature)  Date: 4/21/08

Discipline Specific Curricula Committee: ____________________________ (Chair signature)  Date: __________

Curricula Committee: ____________________________ (Chair Signature)  Date: __________

09/29/08

(Revised 1/31/2008)
Effective Term: FS 2009

Experimental Course Form (EC)

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Winter Semester Offerings – August 1

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School or College: Residential College

Department: Interdisciplinary Engineering

Discipline and Course Number: ENG 101

Course Title: Seeds of Success II-Assertive Living

Abbreviated Title (24 spaces or less): SoS-Assertive Living

Instructor(s): Bonnie Bachman

Credit Hours: 0.5

Prerequisites: None

Semester(s) previously taught: None

Brief Course Description: (40 words or less)
This course examines assertive behaviors, communication styles, and skills for coping with a variety of situations encountered in student and professional life.

List all co-listed courses: Include initials of Dept. Chair(s) and Dean(s) if signatures are not already included below.
1.
2.
3.
4.
5.
6.

Department Chair: [Signature]

College/School Dean: [Signature]

UMR Curricula Committee: [Signature]

09/30/08

Date: 09/30/08

Date: ____________________________

Date: ____________________________

(Revised 2/14/2002)
Effective Term: SS 2010

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experimental course that is required should be submitted on a CC form. Co-listed offerings
should be submitted on one form, originating from the primary discipline.

School or College: Residential College

Department: Interdisciplinary Engineering

Discipline and Course Number: ENG 101

Course Title: Natural Construction

Abbreviated Title (24 spaces or less): Natural Construction

Instructor(s): Jeff Thomas

Credit Hours: Lecture: 0.5 Lab: 0 Total: 0.5

Prerequisites: None

Semester(s) previously taught: None

Brief Course Description: (40 words or less)
This course examines the availability and suitability of natural materials and energy sources for
residential dwellings. Student teams will design and model building elements for dwellings around
the globe and may include service learning as part of the scope.

List all co-listed courses: Include initials of Dept. Chair(s) and Dean(s) if signatures are not already
included below.
1. 4.
2. 5.
3. 6.

Department Chair: ____________________________ Chair Signature Date: 09/30/08

College/School Dean: ___________________________ Dean Signature

UMR Curricula Committee: ___________________________ Chair Signature

(Revised 2/14/2002)

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School or College: Residential College

Department: Interdisciplinary Engineering

Discipline and Course Number: ENG 101

Course Title: Creative Problem Solving

Abbreviated Title (24 spaces or less): Creative Problem Solving

Instructor(s): Bonnie Bachman / Jeff Thomas

Credit Hours: Lecture: 0.5  Lab: 0  Total: 0.5

Prerequisites: None

Semester(s) previously taught: None

Brief Course Description: (40 words or less)
This course looks at the creative-problem-solving process and how to adapt techniques such as TRIZ, brainstorming, mind mapping, lateral thinking, and convergent/divergent thinking to a variety of situations.

List all co-listed courses: Include initials of Dept. Chair(s) and Dean(s) if signatures are not already included below.
1.
2.
3.

Department Chair: [Signature] Date: 09/30/02

College/School Dean: [Signature]

UMR Curricula Committee: [Signature]

09/30/08

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Department: Ats, Languages and Philosophy

Discipline and Course Number: SPANISH 301

Course Title: Spanish Translation: Theory and Practice

Abbreviated Title (24 spaces or less): Spanish translation

Instructor(s): Jorge Porcel

Credit Hours: Lecture: 2  Lab: 1  Total: 3

Prerequisites: SPANISH 80

Semester(s) previously taught: None

Brief Course Description: (40 words or less)
This course is an introduction to the theory, and practice of translation. The course will address the fundamentals of translation practices to provide advance learners of Spanish with hands-on manipulation of grammatical, lexical, and cultural detail.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.
1)  
2)  
3)  
4)  
5)  
6)  

Department Chair: ____________________________  (Chair Signature)

Discipline Specific Curricula Committee: ____________________________  (Chair signature)

Curricula Committee: ____________________________  (Chair Signature)

Date: 9/24/08

(Revised 1/31/2008)
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Department: Geological Sciences and Engineering

Discipline and Course Number: GE 401

Course Title: Applications of Geological Engineering

Abbreviated Title (24 spaces or less): App. Geol. Engineering

Instructor(s): Myat

Credit Hours: \[\text{Lecture: 2} \quad \text{Lab: 1} \quad \text{Total:} \]

Prerequisites: Permission of instructor. The course is intended for military officers registered in the UMR FLW Masters of Science in Geological Engineering Degree Program.

Semester(s) previously taught: Fall 08 Winter 08

Brief Course Description: (40 words or less)
The course will focus on geological engineering considerations during military-site characterizations. Fundamental topics such as rock mechanics, engineering hazards, environmental issues and site planning will be covered from the perspective of the practicing military engineer operating in a rapid deployment mode.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1) 
2) 
3) 

4) 
5) 
6) 

Department Chair: [Signature] Date: 9/26/08

Discipline Specific Curricula Committee: [Signature] Date: 9/29/08

Curricula Committee: [Signature] Date: 

09/25/08 (Revised 1/31/2008)
Experimental Course Form (EC)

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Department: Geological Sciences and Engineering

Discipline and Course Number: GE 201

Course Title: Geology and Engineering of Ancient and Modern Peru

Abbreviated Title (24 spaces or less): Geo Engineering of Peru

Instructor(s): GE faculty

Credit Hours: Lecture: 1 Lab: Total:

Prerequisites:

Semester(s) previously taught:

Brief Course Description: (40 words or less)

A study of the geological engineering of the Cuzco-Machu Picchu corridor, including the inter-relations of geology, climate, archeology, and history. A technical report and a week-long field trip to Peru during Spring Break are required.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.

1) 2) 3)

4) 5) 6)

Department Chair: [Signature] Date: 7/26/08

Discipline Specific Curricula Committee: [Signature] Date: 9/29/08

Curricula Committee: __________________________ [Signature] Date: __________

09/25/08

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Department: Geological Sciences and Engineering

Discipline and Course Number: GE 201

Course Title: Statics and Mechanics of Geologic Materials

Abbreviated Title (24 spaces or less): Geo Matis Staics & Mech

Instructor(s): TBA

Credit Hours: Lecture: 3 Lab: Total:

Prerequisites: none

Semester(s) previously taught: Fall 08

Brief Course Description: (40 words or less)
Fundamental statics of rigid bodies and mechanics of deformable bodies for entering graduate students, focusing on behavior of rock and soil in engineering situations. Not for students intending to register as professional engineers.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.
1) IDE 201
2) 
3) 
4) 
5) 
6) 

Department Chair: [Signature] 
Date: 9/26/08

Discipline Specific Curricula Committee: [Signature] 
Date: 9/29/08

Curricula Committee: [Signature] 
Date: 

09/25/08

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Department: Geological Sciences and Engineering

Discipline and Course Number: GE 101

Course Title: Mathematical Concepts for Military Engineers

Abbreviated Title (24 spaces or less): Math Concepts, Mil. GE's

Instructor(s): TBA

Credit Hours:  
Lecture: 2  
Lab:  
Total: 

Prerequisites: none

Semester(s) previously taught: Fall 08

Brief Course Description: (40 words or less)

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.
1) Math 101  (M)  9-29-08  2)  
3) 
4) 
5) 
6) 

Department Chair: ___________________________  (Chair Signature)  Date: 7/26/08

Discipline Specific Curricula Committee: ___________________________  (Chair signature)  Date: 9/29/08

Curricula Committee: ___________________________  (Chair Signature)  Date: 

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Department: Mining and Nuclear Engineering

Discipline and Course Number: Min 401

Course Title: Blast Mitigation for Structures

Abbreviated Title (24 spaces or less): Blast Mitigation

Instructor(s): Jason Baird

Credit Hours: 3 Lab: 0 Total: 3

Prerequisites: Min 307

Semester(s) previously taught: None

Brief Course Description: (40 words or less)
Study of the application of energy-absorption, shock impedance mismatch, and hybird materials to meet the challenge of defense against blast energy; use of current blast mitigation techniques to reinforce new and existing structures against close-in small- to medium- size (up to 200 pounds of TNT equivalent) blasts.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.
1) 2) 3) 4) 5) 6)

Department Chair: ____________________________ Date: 10/02/08

(Chair Signature)

Discipline Specific Curricula Committee: ____________________________ Date: ____________

(Chair signature)

Curricula Committee: ____________________________ Date: ____________

(Chair Signature)

10/02/08

(Revised 1/31/2008)
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School or College:

Department: IDE

Discipline and Course Number: IDE 301

Course Title: Renewable Power Systems Design

Abbreviated Title (24 spaces or less): Renewable Power Systems

Instructor(s): Stone, R.; Grantham Lough, K.; Baur, S.  

Credit Hours:  
Lecture: 2  
Lab: 1  
Total: 3

Prerequisites:  IDE 214 or linear systems (EE 265 or ME 211) or consent of instructor

Semester(s) previously taught: Spring 2008

Brief Course Description: (40 words or less)
The fundamental equations for modeling renewable power systems capable of producing electric and thermal energy will be covered. Models will be used to design, fabricate and test renewable residential power systems.

List all co-listed courses: Include initials of Dept. Chair(s) and Dean(s) if signatures are not already included below.

1. SysEngr 301

2. ArchE 301

3.  

Department Chair: ___________________________  
Chair Signature  

College/School Dean: ___________________________  
Dean Signature  

UMR Curricula Committee: ___________________________  
Chair Signature  

Date: 10/1/08

(Revised 2/14/2002)

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Department: Arts, Languages, Philosophy

Discipline and Course Number: Theatre 201

Course Title: Entertainment Design

Abbreviated Title (24 spaces or less): Entertainment Design

Instructor(s): Christopher M. Waller

Credit Hours: Lecture: 1 Lab: 2 Total: 3

Prerequisites: None

Semester(s) previously taught: N/A

Brief Course Description: (40 words or less)
Students will learn the fundamentals of design for live theatre, film, theme parks, clubs, concerts, and dance events.

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.
1) 2) 3) 4) 5) 6)

Department Chair: [Signature] Date: 10/1/08

Discipline Specific Curricula Committee: [Signature] Date: 

Curricula Committee: [Signature] Date: 

(Revised 1/31/2008)