Agenda
Campus Curricula Committee Meeting
September 7, 2011
12 a.m. Room 117 Fulton Hall

Approval of the August 15, 2011 minutes.

Review of submitted DC forms:
DC 0392, Aerospace Engineering, Bachelor of Science, effective Fall 2011.
DC 0393, History, Bachelor of Arts, Secondary Education Emphasis, effective Fall 2012.
DC 0394, Earth Sciences, Master of Science for Teachers, effective Fall 2011.
DC 0395, Aerospace Engineering, Bachelor of Science, effective Fall 2011.

Review of submitted CC forms:
CC 8150, Computer Engineering 311, Introduction to VLSI Design, effective Fall 2012
CC 8153, Technical Communication 334, Usability Studies, effective Spring 2012
CC 8154, Systems Engineering 470, Software Intensive Systems Architecting, effective Spring 2012
CC 8158, Economics 348, Sustainable Economics, effective Spring 2012.
CC 8159, Ceramic Engineering 392, X-Ray Diffraction Laboratory, effective Fall 2012.
CC 8161, Engineering Management 409, Design for Six Sigma, effective Spring 2012.


CC 8165, Aerospace Engineering 231, Aerodynamics I, effective Spring 2012.

CC 8166, Biological Sciences 334, Genomics, effective Spring 2012.

CC 8167, Electrical Engineering 446, Wireless Communications, effective Spring 2012.

CC 8168, Psychology 377, Psychology in Media, effective Fall 2012.

Review of submitted EC forms:

EC 2345, Electrical Engineering 301, Autonomous Mobile Robots, effective Spring 2012.

EC 2346, Computer Engineering 301, Electrical Engineering 301, Systems Engineering, Evolvable Hardware, effective Spring 2012.

EC 2347, Biological Sciences 301, Microbial Metabolism, effective Spring 2012.

EC 2348, Explosives Engineering 301, Computer Fired Pyrotechnic Show Design and Firing System, effective Spring 2012.

EC 2352, English 201, Creative Nonfiction Writing, effective Spring 2012.

EC 2353, Biological Sciences 401, Advanced Modeling in Biology and Medicine, effective Spring 2012.

EC 2354, Biological Sciences 301, Modeling in Biology and Medicine, effective Spring 2012.

EC 2355, Statistics 401, Design and Analysis of Epidemiological Studies, effective Fall 2012.
Effective Year: 2011
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:
Aerospace Engineering

Department: Mechanical and Aerospace Engineering

Briefly describe action requested (Attach documentation as appropriate):
Remove the requirement of taking the Fundamentals of Engineering Examination prior to graduation. This requirement has been replaced by a departmental Exit Exam that all graduating senior must take prior to their graduation. The purpose of this exam is to assess and evaluate the degree to which the undergraduate Aerospace Engineering Program outcomes are being achieved by students upon their graduation.

Recommended by Department:

(Chair signature)

Date: 3/18/2011

Recommended by:

Discipline Specific Curricula Committee

(Chair signature)

Date: 7/18/2011

Approved by Curricula Committee:

(Chair signature)

Date:

Approved by Faculty Senate:

(Chair signature)

Date:

(Revised 3/31/2008)

03/01/11

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Effective Year: 2012
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:
History B.A., Secondary Education Emphasis

Department: History and Political Science

Briefly describe action requested (Attach documentation as appropriate):
The Department of History and Political Science wishes to add History 10, Introduction to History. In a review of our program, the department faculty members see the need for a course to help beginning students better understand the discipline of history and the nature of historical study and research. In addition to that one-hour course, the department wishes to change another requirement in the program. Rather than three elective courses in history, the department wishes to require two elective courses and History 397 as a capstone course. Students enrolling in the course would work with a faculty member on a senior research paper. Adding these two requirements will give the department three courses—History 10, History 299 (Historiography), and History 397—that will provide an opportunity to assess our majors' learning of the research and writing skills essential to a successful experience in our program. This degree change applies to the majors seeking a B.A. with a Secondary Education Emphasis as well as those who are simply a B.A. degree.

Recommended by Department: [Signature]
Date: 6/21/11

Recommended by:
Discipline Specific Curricula Committee [Signature]
Date: 6/21/11

Approved by Curricula Committee: [Signature]
Date: 

Approved by Faculty Senate: [Signature]
Date: 

05/10/11

(Revised 1/31/2008)
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:
Earth Sciences MST

Department: Geological Sciences and Engineering

Briefly describe action requested (Attach documentation as appropriate):
This degree program has never had enrollees. It is being eliminated as part of the campus' MDHE program productivity review.

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: 6/20/11

Date: 7/18/11

Date:

Date:

(Revised 1/31/2008)
MEMORANDUM

TO: Provost Wray
FROM: R. E. Flori
DATE: October 28, 2010
SUBJECT: Termination of Earth Sciences MS Program

The Earth Sciences MST degree has not had any students enrolled or graduated from the degree program in many years. Consequently, it is my recommendation that this degree program be terminated. With your concurrence, I will initiate the termination process this semester.

c: Dr. Oboh-Ikuenobe
    Ms. Patty Robertson
Missouri Department of Higher Education
EXISTING ACADEMIC PROGRAM REVIEW
REQUEST FOR PRODUCTIVITY INFORMATION AND JUSTIFICATIONS
Missouri University of Science and Technology

Program Name  __Earth Sciences__  Degree Designation (BA, BS, MS, MST, PhD, ...)  __MS__

CHECK ANY OF THE FOLLOWING TO DESCRIBE ACTION(S) THE INSTITUTION WILL TAKE CONCERNING THIS PROGRAM AND ATTACH REQUIRED DOCUMENTATION (X all that apply)

1. **X**  Program has been or will be voluntarily terminated (submit copy of MDHE program deletion form or other official documentation that program elimination is in process)

2. ____  MDHE data are inaccurate; program meets criteria/standards for productivity (document discrepancy in data and identify source)

3. ____  New program approved within the past five years and is exempt from program review process (provide documentation with program initiation date)

4. ____  Program is critical to mission and will be retained (provide supporting documentation)

5. ____  Program contains courses that support general education and/or other programs (provide documentation to show how the low-productivity program supports other programs)

6. ____  Interdisciplinary program (provide evidence of percentage of the required courses in the curriculum that are unique to program)

7. ____  Program shares a substantial number of courses and faculty with other similar programs (provide CIP codes for other programs and evidence of shared resources)

8. ____  Student or employer demand, or demand for intellectual property is high and external funding will be jeopardized by program closure (provide evidence and cite sources of demand or funding)

9. ____  Program provides unique access to an underserved population or geographical area (provide justification)

10. ____  Program meets a unique need in the region, state, or nation (provide justification)

11. ____  Joint/consortium program in which combined number of graduates meets productivity standards (provide copy of consortium agreement and enrollments in other programs)

12. ____  Other (e.g., development plan to increase completion rate with specific date for results; revenue-producing program; potential for collaborative program; program being put on inactive status; master's program in same discipline as a PhD with sufficient graduates, etc.)
MDHE
Missouri Department of Higher Education
Building Missouri's future...by degrees

PROGRAM CHANGE FORM

1. Submitted by: Missouri S&T (Dr. Ralph Flori, Chair of GSE Department)
   Name of Institution (Campus or off-campus residential center in the case of multi-campus institutions)

2. Type of Program Change (Check those that apply):
   - Title change only
   - Combination program created out of closely allied existing programs
   - Option(s) added to existing program(s)
   - Addition of certificate program developed from approved existing parent degree
   - Addition of free-standing single-semester certificate program
   - Delete program(s)
   - Delete option(s)
   - Program placed on "Inactive Status" list

3. Indicate Program Change or Addition of Options:

<table>
<thead>
<tr>
<th>Before the Proposed Change</th>
<th>After the Proposed Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of Old Program or Certificate Option</strong></td>
<td><strong>Title of New Program or Certificate Option</strong></td>
</tr>
<tr>
<td><strong>Degree</strong></td>
<td><strong>Degree</strong></td>
</tr>
<tr>
<td><strong>CIP Code</strong></td>
<td><strong>CIP Code</strong></td>
</tr>
</tbody>
</table>

4. Attach a copy of the "before and after" curriculum, as applicable, and a rationale for the proposed change.

5. Intended date of program change, additional options, or "Inactive Status":

   Fall 2011

   Month/Year

**AUTHORIZATION**

Ralph E. Flori, Chair, GSE Department

Name/Title of Institutional Officer

Signature

Date

Ralph E. Flori

Person to Contact for More Information

www.dhe.mo.gov • info@dhe.mo.gov

205 Jefferson Street, P. O. Box 1489, Jefferson City, MO 65102 • (573) 751-2361 • (800) 473-8757 • Fax (573) 751-6635

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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:
Aerospace Engineering

Department: Mechanical and Aerospace Engineering

Briefly describe action requested (Attach documentation as appropriate):
Change the prerequisites on three required AE courses as follow:

AE 161: A grade of "C" or better in Physics 23 and Math 15
AE 180: A grade of "C" or better in AE 161 — Needs added to Footnote #4
AE 231: A grade of "C" or better in AE 161 and a "C" or better in Math 14, 15, 22, Physics 23, and ME 219

Recommended by Department: [Signature]  
(Chair signature)  
Date: 7/14/2011

Recommended by: [Signature]  
Discipline Specific Curricula Committee  
(Chair signature)  
Date: 7/13/11

Approved by Curricula Committee: [Signature]  
(Chair signature)  
Date: 

Approved by Faculty Senate: [Signature]  
(Chair signature)  
Date: 

07/14/11  
(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: CpE
2. Discipline and Course Number: Present: 311
   Proposed: 311
3. Course Title: Present: Introduction To VLSI Design
   Proposed: Introduction To VLSI Design

Abbreviated Course Title:
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   Present: An introduction to the design and implementation of very large scale integrated systems. Procedures for designing and implementing digital integrated systems, structured design methodology, stick diagrams, scalable design rules, and use of computer aided design tools.
   Proposed: An introduction to the design and analysis of digital integrated circuits (ICs). Topics include basic manufacturing techniques, transistor-level design and analysis of logic and memory circuits, logic timing, and parasitics. Computer aided design tools are used to develop circuits in the lab.

5. If course requires field trip check box: □

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

7. Prerequisites:
   Present: CpE 213
   Proposed: EE 121 (Introduction to Electronic Devices) and CpE 111 (Introduction to Computer Engineering)

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

9. Justification: EE 121 and CpE 111 are more appropriate prerequisites for CpE 311, since they deal directly with CpE 311 content, while the previous prerequisite, CpE 213, does not. The new catalog description better reflects the current course content.

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

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: 1/8/11
Date: 7/18/11
Date:
Date:

(Revised 1/29/09)
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: EMSE

2. Discipline and Course Number: Present: EMGT 124  Proposed: EMGT 124

3. Course Title: Present: Principles of Engineering Management
Proposed: Practical Concepts for Technical Managers

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

4. Catalog Description (300 Character Spaces or Less.)
Present: This course is an introduction to engineering management principles and concepts and will address issues that are relevant to today successful engineering managers. Topics covered include management practices; communications, working in teams, project management, ethics,

Proposed: This course introduces topics relevant to the technical manager in the 21st Century. Topics covered include management practices, leadership, communications, project management, working in the global environment, risk management, systems engineering, product development, and quality management

5. If course requires field trip check box: ☐

6. Credit Hours:
Present: Lecture: 1  Lab:  Total: 1
Proposed: Lecture: 1  Lab:  Total: 1

7. Prerequisites:
Present: None
Proposed: None

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

9. Justification: This is a required course for majors from a number of other engineering departments. The current title and description have created confusion among the students as to what this course really is. The title and description changes will help reduce this confusion and set the right expectations.

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: 1/4/14

Recommended by Discipline Specific Curricula Committee  
(Chair signature)
Date: 7/18/14

Approved by Curricula Committee:  
(Chair signature)
Date: 

Approved by Faculty Senate:  
(Chair signature)
Date: 

(Revised 1/29/09)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course 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: English and Tech Com
2. Discipline and Course Number: Present: Tech Com 3XX  Proposed: Tech Com 334
3. Course Title: Present:
   - Proposed: Usability Studies
   Abbreviated Course Title: Usability Studies
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   Present:
   - Proposed: Students in this course will study and apply methods used by technical communicators to evaluate usability. Students will study methods used to evaluate human interaction with communication tools and how to make those products more suitable for human use.

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:
   - Proposed: One semester of college writing or technical writing.

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

9. Justification: This is one of four courses required of students pursuing the graduate certificate in Technical Communication.

10. Semesters previously offered as an experimental course (101, 201, 301, 401): FS09, FS10
11. List all co-listed courses, initiated by Dept. Chair, if signature does not appear below.

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

Signed by Department:

Chair signature: 
Date: 6/21/11

Recommended by Discipline Specific Curricula Committee:

Chair signature: 
Date: 6/21/11

Approved by Curricula Committee:

Chair signature: 
Date: 

Approved by Faculty Senate:

Chair signature: 

Course Change Form (CC)

This form is for creating or modifying permanent courses.

**Course Changes**

- New Course [ ]
- Course Deletion [ ]
- Credit Hours [ ]
- Prerequisites [ ]

**Course Information**

1. Department: Eng Mgt & Sys Eng
2. Discipline and Course Number: Present: Proposed: SYS ENG 470
3. Course Title: Proposed: Software Intensive Systems Architecting
   
   **Abbreviated Course Title:** Software Architecting
   
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   
   Proposed: Basic tools and concepts of architecting complex software intensive systems are introduced. The following topics are covered under four main sections, namely: Architecting Process, Architecting Heuristics, Architecting Patterns and Frameworks, and Architecture Assessment.

5. If course requires field trip check box: [ ]
6. Credit Hours:
   - Present:
   - Proposed:
   - Lecture: 
   - Lab: 
   - Total: 

7. Prerequisites:
   - Present:
   - Proposed: Graduate Standing

8. Required for Majors: [ ]
   - Elective for Majors: [x]

9. Justification: The course is one of the courses of the Systems and Software Architecting Graduate certificate associated with Systems Engineering and Computer Science MS degrees and requested by Lockheed Martin company.

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) 

   **Recommended by Department:** [Signature]

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

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

   **Approved by Faculty Senate:** [Signature]

   Date: 04/20/11

   Date: 07/11/11

   (Revised 1/29/09)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course Changes
(Choose 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.)
2. Discipline and Course Number: Present: Proposed: Ae Eng 370
3. Course Title: Present:
   Proposed: Plasma Physics I
   Abbreviated Course Title: Plasma Physics I
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description
   (300 Character Spaces or Less.)
   Present:
   Proposed: Single particle orbits in electric and magnetic fields, moments of Boltzmann equation and introduction to fluid theory. Diffusion of plasma in electric and magnetic fields. Analysis of laboratory plasmas and magnetic confinement devices. Introduction to plasma kinetic theory.
5. If course requires field trip check box: □
6. Credit Hours:
   Present: Lecture: 3
   Proposed: Lecture: 3
   Lab: 0
   Total: 3
7. Prerequisites:
   Present:
   Proposed: Ae Eng 231 or Mc Eng 231 or Physics 221 or Nuc Eng 221 or El Eng 271
8. Required for Majors: □
   Elective for Majors: □
9. Justification: Course has been offered twice with enrollments of 22 and 29.
11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.
   1) Mc Eng 370  2) Nu Eng 370  3) Phys 370
   4)  5)  6)

   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: 4/21/10
   Date: 4/21/10

(Revised 1/29/09)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course 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: Civil, Arch, and Environmental

2. Discipline and Course Number: Proposed: ArchE 372

3. Course Title: Present: Renewable Power Systems
   Proposed:
   Abbreviated Course Title: Renew Pwr Syst
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)
   Present: The fundamental equations for modeling renewable power systems capable of producing
electric and thermal energy are developed and discussed. Models will be used to design,
fabricate and test renewable residential power systems.
   Proposed:

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

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

7. Prerequisites:
   Present: 
   Proposed: Senior standing and consent of instructor, or ME 227, or CE 242

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

9. Justification:
   Renewable power systems is a topic of national importance. The 301 course offerings
had 10-12 students each time they were offered. The course will serve as an
important technical elective for Architectural Engineering students. It has a broad
focus, including solar, wind and geothermal applications.

10. Semesters previously offered as an experimental course (101, 201, 301, 401): SP 2008, SP 2009

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

   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: 4/20/11
Date: 7/18/11
Date: 
Date: 

(Revised 1/29/09)
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: Economics
   Proposed: Econ

2. Discipline and Course Number: Present: 348
   Proposed: 348

3. Course Title: Sustainable Economics
   Proposed:
   Abbreviated Course Title: Sustainable Econ
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)
   Present:
   Proposed:
   This course covers economics of sustainable development practices in the private sector and in government. Topics include the role of business and government in sustainability, natural resources scarcity, externalities, and problems of pollution.

5. If course requires field trip check box: □

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

7. Prerequisites:
   Present:
   Proposed:
   Principles of microeconomics or macroeconomics.

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

9. Justification: This is a required course in the proposal for the new Minor in Business Sustainability.

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)
   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: 5/16/11

   Date: 7/1/11

   Date: 

   Date: 

   (Revised 1/25/09)
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" item's blank if no change is being made.)

1. Department: Materials Science and Engineering

2. Discipline and Course Number: Present: Cer 392

3. Course Title: Present: X-Ray Diffraction Laboratory

   Proposed: X-Ray Diffraction Analysis

   Abbreviated Course Title: X-Ray Diffraction

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

4. Catalog Description (300 Character Spaces or Less.)

   Present: Practical aspects of sample preparation, instrument set-up, data collection, and analysis are covered. Students cannot receive credit for Cr Eng 292 and Cr Eng 392.

   Proposed: Theory and practical aspects of x-ray diffraction analysis are covered including diffraction theory, qualitative and quantitative analysis techniques, electronic databases, and operation of modern powder diffractometers. Students cannot receive credit for both Cr 292 and Cr Eng 392.

5. If course requires field trip check box: □

6. Credit Hours:
   - Present: Lecture: 0 Lab: 1 Total: 1
   - Proposed: Lecture: 2 Lab: 1 Total: 3

7. Prerequisites:
   - Present: Prerequisite: Preceded or accompanied by Cr Eng 291 or Cr Eng 477, or an advanced crystallography class.

   Proposed: Prerequisite: preceded or accompanied by Cr Eng 291 or Instructor consent.

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

9. Justification: Cr Eng 392 is being modified to become a 3 hour upper level technical elective for undergraduates or an elective for graduate students. X-ray diffraction is one of the principal characterization techniques used in materials science, so an improved course will instruct students in methods that are used in industry and basic research.

10. Semesters previously offered as an experimental course (101, 201, 301, 401): None

11. List all co-listed courses,初中ized 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: 5/9/11
Date: 7/8/11
Date: [ ]

(Revised 1/29/09)
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 Information** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. **Department:** Chemistry
2. **Discipline and Course Number:**
   - **Present:**
   - **Proposed:** Chem 459
3. **Course Title:**
   - **Present:**
   - **Proposed:** Mass Spectrometry of Macromolecules
   - **Abbreviated Course Title:** Macromolecular MS
   - **(24 Spaces or Less. Only needed for New Courses or Title Changes.)**
4. **Catalog Description**
   - **(300 Character Spaces or Less.)**
   - **Present:**
   - **Proposed:** 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.

5. **If course requires field trip check box:** [ ]
6. **Credit Hours:**
   - **Present:**
   - **Proposed:** Lecture: 3 Lab: Total: 3
7. **Prerequisites:**
   - **Present:**
   - **Proposed:** Chem 355 or equivalent.
8. **Required for Majors:** [ ]
   - **Elective for Majors:** [x]
9. **Justification:** During the past 15 years mass spectrometry has played a pivotal role in structure elucidation of biomolecules such as peptides, proteins, polynucleotides and the technique is being utilized in many diverse fields. Hence there is a need to impart understanding of the fundamentals & developments in mass spectrometry of macromolecules to students seeking advanced degrees in chemistry & biochemistry.
10. **Semesters previously offered as an experimental course (101, 201, 301, 401):** SP2009 & SP2011
11. **List all co-listed courses, initiated by Dept. Chair, if signature does not appear below.**
   - 1)
   - 2)
   - 3)
   - 4)
   - 5)
   - 6)

   **Recommended by Department**
   - (Chair signature)
   - Date: 5/19/11

   **Recommended by Discipline Specific Curricula Committee**
   - (Chair signature)
   - Date: 7/14/11

   **Approved by Curricula Committee**
   - (Chair signature)
   - Date:

   **Approved by Faculty Senate**
   - (Chair signature)
   - Date:

(Revised 1/29/09)
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.)


2. Discipline and Course Number: Present: EMgt 409  Proposed:

3. Course Title: Present: Design for Six Sigma  Proposed:
   Abbreviated Course Title:
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (40 Words or Less)
   Present: The course will cover modern design methodology based on the Six Sigma paradigm. Design for Six Sigma (DFSS) is a roadmap for the development of robust products.
   Proposed: Principles of Design for Six Sigma for product development. Topics include tools and methods including quality function deployment, concept generation, concept selection, product modeling, process development, DFX strategies, failure mode and effects analysis, design of experiments, TRIZ, and robust design.

5. If course requires field trip check box: ☐

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

7. Prerequisites:
   Present: EMgt 375 and EMgt 309
   Proposed: EMgt 309

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

9. Justification: Proposed description more thoroughly reflects the topics covered in the course. The material from EMgt 375 is not necessary for this course.

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: 05/26/14
Recommended by Discipline Specific Curricula Committee ____________________________ (Chair signature)  Date: 07/18/11
Approved by Curricula Committee: ____________________________ (Chair signature)  Date: ________
Approved by Faculty Senate: ____________________________ (Chair signature)  Date: ________
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: N/A  Proposed: GE 202
3. Course Title: Present: Cooperative Work Training  Proposed:
   Abbreviated Course Title: Coop
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (40 Words or Less)
   Present: N/A
   Proposed: On the job experience gained through cooperative education with industry with credit arranged through program co-op advisor. Grade received depends on quality of reports submitted and work supervisor's evaluation.

5. If course requires field trip check box: □
6. Credit Hours:
   Present:  Lecture: 1-3
   Proposed:
   Lab: Total:
7. Prerequisites:
   Present:
   Proposed:
8. Required for Majors: □  Elective for Majors: □
9. Justification: To provide college credit for co-operative work experience.

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

   Recommended by Department
   (Chair signature)  Date: May 19/11

   Recommended by Discipline Specific Curricula Committee
   (Chair signature)  Date: 7/18/11

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

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

2. Discipline and Course Number: Present: AE 180  Proposed:

3. Course Title: Present: Introduction to Aerospace Design  Proposed:

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

4. Catalog Description (300 Character Spaces or Less.)
   Present: Introduction to methodology of aerospace vehicle design ........

   Proposed:

5. If course requires field trip check box: ☐

6. Credit Hours:
   Present: Lecture:  Lab: 2  Total: 2
   Proposed: Lecture:  Lab:  Total:

7. Prerequisites:
   Present: AE 161

   Proposed: A grade of "C" or better in AE 161

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


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

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

   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: 6/10/2011
   Date: 7/18/11

   Date: _____
   Date: _____

(Revised 1/29/09)
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: MAE
2. Discipline and Course Number:
   - Present: AE 161
   - Proposed:
3. Course Title:
   - Present: Aerospace Vehicle Performance
   - Proposed:
   Abbreviated Course Title:
   - (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   - Present: Nature and theory of lift and drag
   - Proposed:

5. If course requires field trip check box: □
6. Credit Hours:
   - Present: Lecture: 3, Lab: 0, Total: 3
   - Proposed: Lecture: , Lab: , Total:
7. Prerequisites:
   - Present: Physics 23
   - Proposed: A grade of "C" or better in Physics 23 and Math 15
8. Required for Majors: □
9. Elective for Majors: □
10. Justification:
11. Semesters previously offered as an experimental course (101, 201, 301, 401):
12. 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: 6/10/2011
   Recommended by Discipline Specific Curricula Committee
   (Chair signature)
   Date: 7/18/11
   Approved by Curricula Committee:
   (Chair signature)
   Date:
   Approved by Faculty Senate:
   (Chair signature)
   Date:

(Revised 1/29/09)
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: MAE
2. Discipline and Course Number: Present: AE 231 Proposed:
3. Course Title: Present: Aerodynamics I Proposed:

Abbreviated Course Title:
(24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
Present: A study of the fundamental concepts of fluid mechanics as applied to aerodynamics .......... Proposed:

5. If course requires field trip check box: ☐
6. Credit Hours:
   Present: Lecture: 3 Lab: 0 Total: 3
   Proposed: Lecture: Lab: Total:
7. Prerequisites:
   Present: Accompanied or preceded by AE 161 and a "C" or better in Math 14, 15, 22, Physics 23, and ME 219.
   Proposed: A grade of "C" or better in AE 161 and a "C" or better in Math 14, 15, 22, Physics 23, and ME 219
8. Required for Majors: ☒ Elective for Majors: ☐
9. Justification: new requirements in prerequisites are needed for adequate preparation.

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)
Recommended by Discipline Specific Curricula Committee
   (Chair signature)
Approved by Curricula Committee:
   (Chair signature)
Approved by Faculty Senate:
   (Chair signature)

Date: 6/10/2011
Date: 7/18/11
Date: 
Date: 

(Revised 1/29/09)
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: Biological Sciences
3. Course Title: Present:
   Proposed: Genomics
   Abbreviated Course Title: Genomics
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (40 Words or Less)
   Present:
   Proposed: This course offers a general overview of the field of genomics. Topics covered include genome sequencing and annotation, transcriptomics, proteomics, metabolomics, genomic variation, and an overview of human, several animal, plant, and microbial genome projects.
5. If course requires field trip check box: ☐
6. Credit Hours: Present: Lecture: 3 Lab: NA Total: 3
   Proposed: Lecture: 3 Lab: NA Total: 3
7. Prerequisites: Present:
   Proposed: BioSci 331
8. Required for Majors ☐ Elective for Majors ☒
9. Justification: Course has been taught twice as 301 and is now being given a regular number.
10. Semesters previously offered as an experimental course (301, 201, 301, 401): SP 2010, SP 2011
11. List all co-listed courses, Initiated by Dept. Chair, if signature does not appear below.
   1) 2) 3)
4) 5) 6)
   Recommended by Department
   Chair signature
   Date: 6/23/11
   Recommended by Discipline Specific Curricula Committee
   Chair signature
   Date: 8/3/2011
   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: Electrical & Computer Engr
2. Discipline and Course Number: Present: EE 401 Proposed: EE 446
3. Course Title: Present: Wireless Communications Proposed: Same
   Abbreviated Course Title: Wireless Communications (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   Present: Introduction to the principle of wireless communication systems in modern cellular & satellite communication systems. Topics include: wireless channel characteristics, cellular concepts, capacity analysis, transceiver architectures, diversity techniques, multiple access schemes, practical wireless systems
   Proposed: Introduction to the principle of wireless communication systems. Topics include: wireless channel characteristics, cellular concepts, channel capacity analysis, transceiver architectures, diversity techniques, multiple access schemes, and practical wireless systems

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: EE 343; EE 344 or Stat 343
   Proposed: EE 343 or EE 344 or equivalent
8. Required for Majors: ☐ Elective for Majors: ☒
9. Justification: This course covers physical layer wireless communication while EE 443 emphasises network aspects. This course will compliment the existing course EE 443 Wireless Ad Hoc & Sensor Networks.
10. Semesters previously offered as an experimental course (101, 201, 301, 401): SP 2010 & FS 2007
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 Kehin Etim
   (Chair signature)
   Date: 7/12/11

   Recommended by Discipline Specific Curricula Committee
   (Chair signature)
   Date: 7/12/11

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

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

(Revised 1/29/09)
Course Change Form (CC)

This form is for creating or modifying permanent courses.

Course Changes
(Check all changes.)
New Course ☑ Course Deletion ☐
Course Title ☐ Catalog Description ☐

Credit Hours ☐ Prerequisites ☐
Course Number ☑ Co-listing ☐

Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)
1. Department: Psychological Science
2. Discipline and Course Number: Present: PSYCH 301 Proposed: PSYCH 377
3. Course Title: Present: Psychology in Media Proposed: Psychology in Media
   Abbreviated Course Title: Psych in Media
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   Present: Examples drawn from the media (e.g., television, movies, newspapers) will be used as the basis for discussing a wide variety of psychological phenomena, principles, and theories, and their applicability to everyday life.
   Proposed: Examples drawn from the media (e.g., television, movies, newspapers) will be used as the basis for discussing a wide variety of psychological phenomena, principles, and theories, and their applicability to everyday life.
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: PSYCH 50
   Proposed: PSYCH 50
8. Required for Majors: ☐ Elective for Majors: ☑
9. Justification: This has been offered as an experimental course twice.
10. Semesters previously offered as an experimental course (101, 201, 301, 401): F2008; Sp2011

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

   Recommended by Department
   Date: ____________

   Recommended by Discipline Specific Curricula Committee
   Date: ____________

   Approved by Curricula Committee:
   Date: ____________

   Approved by Faculty Senate:
   Date: ____________

(Revised 1/29/09)
Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number.

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Elec and Computer Engineering

Discipline and Course Number: EE 301

Course Title: Autonomous Mobile Robots

Abbreviated Title (24 spaces or less): Auto Mobile Robots

Instructor(s): Travis Dierks

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

Prerequisites: EE 231 or equivalent and Stat 217 or equivalent, or consent of instructor

Semester(s) previously taught: 0

Brief Course Description: (40 words or less)
This course will provide an introduction to mobile robots and current approaches to robot autonomy. Topics include mobile robot systems, modeling and control, sensors and estimation, localization and mapping, and motion planning.

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: 15/04/2011

Discipline Specific Curricula Committee:

(Chair Signature)

Date: 7/18/11

Curricula Committee:

(Chair Signature)

Date: 

(Revised 10/12/2010)
Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number.

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Electrical & Computer Engr

Discipline and Course Number: CpE 301

Course Title: Evolvable Hardware

Abbreviated Title (24 spaces or less): Evolvable Hardware

Instructor(s): Dr. G. Kumar Venayagamoorthy

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

Prerequisites: CpE 367 or EE 367

Semester(s) previously taught: SP2007, SP 2010

Brief Course Description: (40 words or less)
This course deals with evolvable devices, circuits & systems operating in an uncertain changing environment. These devices, circuits & systems are endowed with the ability to learn & adapt autonomously. Their implementations are on any reconfigurable platforms (analog, digital or chemical)

List all co-listed courses: Include initials of Dept. Chair, if signature is not already included below.
1) EE 301
2) SysE 301  (Chair)
3)......

Department Chair: Karl Enck (Chair Signature) Date: 16 Jun 2011

Discipline Specific Curricula Committee: Steve Vothman (Chair signature) Date: 7/18/11

Curricula Committee: (Chair Signature) Date: _____

(Revised 10/12/2010)
Justification for allowing CpE/EE 301 – Evolvable Hardware to be taught 3rd time as an EC course.

CpE/EE 301 – Evolvable Hardware has been offered in the Spring 2007 and Spring 2010 semesters with enrollments of 13 and 6, respectively. The course was scheduled to be offered in Spring 2009 (once in two years) and was not, potentially impacting student enrollment in the 2010 offering. A third offering of this experimental course is sought to determine if there is sufficient enrollment to allow the course to be offered and sustained as a permanent course for the Computer Engineering undergraduate and graduate programs. This course provides students with theory and applications in computer, electrical and systems engineering related to devices, circuits and systems that are required today to sense their environment and adapt their behavior accordingly without any human intervention.
Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number.

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Biological Sciences

Discipline and Course Number: BioSci 301

Course Title: Microbial Metabolism

Abbreviated Title (24 spaces or less): Microbial Metabolism

Instructor(s): Mormile and Westenberg

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

Prerequisites: BioSci 221

Semester(s) previously taught:

Brief Course Description: (40 words or less)
A survey of diverse metabolic properties of microorganisms. Course material will emphasize major metabolic pathways and how they relate to microbial diversity and microbial ecology. A research proposal is not required for this class.

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

1) 2) 3) 4) 5)

Department Chair: Robert A. Armstrong
(Chair Signature) Date: June 21, 2011

Discipline Specific Curricula Committee: David J. Smith
(Chair Signature) Date: 8/3/2011

Curricula Committee: 
(Chair Signature) Date: 

06/21/11 (Revised 10/12/2010)

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Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms
approved SP2009 or later allow the course to be offered twice at any time during the following
three year period. After an experimental course has been offered twice, a CC form may be
submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may
be submitted on a CC form to receive a permanent course number.

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Mining and Nuclear Engineering

Discipline and Course Number: ExpEng 301

Course Title: Computer fired pyrotechnic show design and firing system

Abbreviated Title (24 spaces or less): Pyrotechnic show design

Instructor(s): Paul Worsey & Matt Sutcliffe

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

Prerequisites: ExpEng 309 or 313 and successful background check

Semester(s) previously taught:

Brief Course Description: (40 words or less)
This course is the logical extension of 2 pre-existing pyrotechnic classes ExpEng 309 and 313. We
now own and experienced with a digital firing system making this course possible. Note: this is the
merge of 2 previous 1.5 hr each experimental classes (Min 301) from fall 2010 and spring 2011.

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: 06/20/11

Discipline Specific Curricula Committee: [Signature] Date: 7/18/11

Curricula Committee: [Signature] Date: 

(Revised 10/12/2010)
Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three-year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number.

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: English and Tech Com
Discipline and Course Number: English 201
Course Title: Creative Nonfiction Writing
Abbreviated Title (24 spaces or less): Creative Nonfiction
Instructor(s): Kelly Tate
Credit Hours: Lecture: 3 Lab: 0 Total: 3
Prerequisites: English 20
Semester(s) previously taught: N/A

Brief Course Description: (40 words or less)
Students will write creative nonfiction essays about their experiences and the experiences of others. The course will emphasize the revision process, focusing on both sentence-level and global issues. Additionally, this course will introduce students to published writers’ rhetorical choices.

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: 7/25/11
Discipline Specific Curricula Committee: [Signature] (Chair signature) Date: 5/4/2011
Curricula Committee: __________________________________________ (Chair Signature)

07/25/11 (Revised 10/12/2010)
Missouri University of Science and Technology
Creative Nonfiction Writing

Spring 2012

Instructor: Kelly Tate
Office: 208 HSS
Office Hours: M 1-2:30, T 11-12:30 or by appointment
E-mail: etakej@mst.edu

Prerequisite: English 20

Required Texts: Tell It Slant, by Miller & Paola
Touchstone Anthology of Creative Nonfiction by Williford and Martone

Goals: The general goal of this course is to introduce undergraduate writers to the art and
craft of essay writing. The specific goal includes developing students’ ability to write essays
about their own experiences and the experiences of others. Additionally, this course will
introduce students to the rhetorical choices made by published writers and help students
become better readers of the creative nonfiction essay. Students will also develop a toolkit
of rhetorical choices to use in their own writing and they will learn to offer specific,
insightful feedback on their peers’ essays. The course will emphasize the importance of the
revision process, focusing on both sentence-level and global choices.

Academic Honesty: See page 30 of the Student Academic Regulations Handbook

Plagiarism, simply defined, means you have submitted in fulfillment of class assignments
material under your own name that you have not written yourself. All work you do for this
course must be your own. Plagiarizing or cheating on any assignment in English 20 will
result in a zero for that assignment, and may result in an F in the course. In all cases in
which academic dishonesty occurs, a letter of notification describing the incident is drafted
and sent to Vice Provost Dr. Harvest Collier in the Office of Undergraduate Studies.

Classroom Courtesy: The use of a cell phone or other electronic device in class (including
one ringing, beeping, or making other noises) is unacceptable. You are expected to show
respect for your instructor and your fellow classmates.

Attendance Policy: You will not lose points for missing class. However, you will lose points
for not completing in-class writing assignments. You may not make up in-class assignments.
Journals may not be turned in late in most cases. Your attendance and participation is vital.
Eight or more absences may result in failure of the course.

Writing Journals: You will hand in ten writing journal entries throughout the semester.
Dates and topics may be found on the syllabus. The entries will not be graded on grammar,
spelling, and punctuation (unless either or both obscure your meaning). Rather, your grade
will be determined by the amount of effort and thought which will ideally be evident by the quality, and perhaps the quantity, of your entries.

**Workshops:** Your workshop grade will be determined by your handing in of drafts when they are due, as well as the quality and appropriateness of your constructive comments given to fellow students. Your advice in regard to each essay should: 1) address the essay not the author, 2) offer a critique of what works and what does not.

**Essays:** All essays must be printed on 8.5 x 11 inch sheets of white paper. Essays should be double-spaced with the student's name, the instructor's name, the title of the course, and the date in the upper left corner of the first page of each paper. The student should submit two copies of each essay, making sure the individual copies are paper-clipped. Late essays will be accepted for one week, and the grade will be reduced by one third of a letter grade for each late day. If you need to be absent for a university-sanctioned event, you are required to inform the instructor ahead of time and to make arrangements to turn in your assignment on time.

**Attendance & Assignments:** Because this is a writing class, we will be doing much work during each meeting to prepare you for the writing of each essay. You will not receive points for occupying a seat. However, late work will not be accepted except for essays and only then under the conditions described above. All assignments to be completed outside of the classroom are due at the beginning of class meetings as indicated by the instructor. All assignments completed inside the classroom are due at the end of class meetings unless indicated otherwise by the instructor.

**Syllabus:** The syllabus is subject to change. The student must be in class to receive notice of a changed syllabus. If the student misses class, for any reason, it is his/her responsibility to inquire about and obtain any modified syllabi. It is advised that students obtain a classmate's e-mail address or phone number for such situations.

**Deadlines:**

- January 16: Last day to register or add a course
- January 26: Last day to drop a full semester course without receiving a grade of "W" on the official record
- March 27: Last day to drop a full semester course
- March 16-20: Spring Break
- April 30: Last day of classes
- May 2-8: Final Exams

**Grading:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Component</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>Reading Journals</td>
<td>90-100 A</td>
</tr>
<tr>
<td>15%</td>
<td>Unit One Essay</td>
<td>80-89 B</td>
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<td>Unit Two Essay</td>
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<td>Unit Three Essay</td>
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<td>Unit Four Essay</td>
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<td>In-class assignments/Quizzes/Homework/Participation</td>
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<td>Workshops</td>
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Available Help:

Writing Center
The Writing Center is an excellent resource, and I encourage you to use it this semester. Find more information about the Writing Center at: http://writingcenter.mst.edu/

Academic Alert System: http://academicalert.mst.edu
The purpose of the Academic Alert System is to improve the overall academic success of students by improving communication among students, instructors and advisors; reducing the time required for students to be informed of their academic status; and informing students of actions necessary by them in order to meet the academic requirements in their courses.

Disability Support Services: http://dss.mst.edu
Any student inquiring about academic accommodations because of a disability should be referred to Disability Support Services so that appropriate and reasonable accommodative services can be determined and recommended. Disability Support Services is located in 204 Norwood Hall. Their phone number is 341-4211 and their email is dss@mst.edu.

If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with me early in the semester. You will need to request that the Disability Services staff send a letter to me verifying your disability and specifying the accommodation you will need before I can arrange your accommodation.
Creative Nonfiction: Essay Writing
Schedule
Spring 2012

(NOTE: All assignments are to be completed by the dates by which they are listed. This schedule is tentative and subject to change. Additional readings will be required.)

(Additionally: Website readings may be found at www.mhhe.com/tellitslant. When a website reading is due, please print the specified piece, read it, and bring it to class.)

Introduction

Week One

M (1/12)  Introduction to the course

W (1/14)  Read "Introduction: Where to Begin" (p. 1-5)
Read Chapter 1: "The Basics of Good Writing in Any Form" (p. 8-21)
Read Jo Ann Beard, "The Fourth State of Matter" (p. 234-49)

Unit One: The Personal Essay

Week Two

M (1/19)  No Class- MLK Day

W (1/21)  Read Chapter 2: "The Particular Challenges of Creative Nonfiction"
Read Chapter 9: "The Personal Essay" (p. 127-41)
Read Andre Dubus, "Love in the Morning" on textbook website

Writing Journal 1: Write 1-3 pages in response to one of the following writing prompts: #2 (p. 22) or #5 (p. 23)28-46
Writing Journal 2: Write 1-3 pages in response to writing prompt #3 (p. 46)

Week Three

M (1/26)  Read David Sedaris "The Drama Bug" (p. 387-94)
Read Chapter 12: "The Writing Process and Revision" (p. 181-88)
Writing Journal 3: Write 1-3 pages in response to one of the following writing prompts: #3, #6, #9 or #10 (p. 142-43)

W (1/28)  Read Chapter 3: "The Body of Memory" (p. 50-60)
Read Bernard Cooper, “The Fine Art of Sighing” (p. 261-62)
Writing Journal 4: Write 1-3 pages in response to one of the following writing prompts: #3, #4, #6, or #7 (p. 61)

Week Four
M (2/2)  Writing Workshop: Small Group
W (2/4)  Writing Workshop: Large Group

Unit Two: The Lyric Essay

Week Five
         Due: Essay 1 (The Personal Essay)

W (2/11) Happy Valentine’s Day!
         Read Brenda Miller, “Basha Leah” (web)
         Writing Journal 5: Write 1-3 pages in response to writing prompt #3 or #4 (p. 157)

Week Six
M (2/16)  Writing Exercises, In-Class Reading

W (2/18)  Read Lawrence Sutin, “A Postcard Memoir” (p. 410-13)
         Writing Journal 6: Write 1-3 pages in response to writing prompt #7 or #12 (p.158-9)

Week Seven
M (2/23)  Writing Workshop: Small Group
W (2/25)  Writing Workshop: Large Group

Unit Three: The Spiritual Autobiography

Week Eight
M (3/2)  Read “Writing the Spiritual Autobiography” (web)
         Read Wendell Berry, “An Entrance to the Woods” (p. 250-60)
         Due: Essay 2 (The Lyric Essays)

W (3/4)  Read Chapter 5: “Taking Place: Writing the Physical World” (p. 77-87)
         Read Joan Didion, “Goodbye to All That” (p. 263-71)
         Writing Journal 7: Write 1-3 pages in response to any one writing prompt (p. 87-90)
Week Nine

M (3/9) Read Chapter 4: “Writing the Family” (p. 66-73)
      Read Will Baker, “My Children Explain the Big Issues” (p.205-208)

      Writing Journal 8: Write 1-3 pages in response to writing prompt #6 or
      #8 (p. 74-75)

M (3/16) Spring Break

W (3/18) Spring Break

Week Ten

M (3/23) Writing Workshop: Small Group

W (3/25) Writing Workshop: Large Group

Unit Four: Personal Reportage

Week Eleven

      Due: Essay 3 (Spiritual Autobiography)

W (4/1) Read Chapter 6: “Gathering the Threads of History” (p. 92-97)
      Read Terry Tempest Williams, “The Clan of One-Breasted Women”
      (p. 426-33)
      Writing Journal 9: Write 1-3 pages (total) in response to writing
      prompts #4 AND #5 (p. 98-99)

Week Twelve

M (4/6) Read Chapter 8: “Writing the Larger World” (p. 112-120)

W (4/8) Read: Alice Walker, “Becoming What We’re Called” (p. 272-83)

Week Thirteen

M (4/13) Read James Baldwin, “Notes of a Native Son” (p. 208-225)
      Writing Exercises

W (4/15) Writing Exercises

Week Fourteen

M (4/20) Writing Workshop: Small Group

W (4/22) Writing Workshop: Large Group

Week Fifteen

M (4/27) Writing Exercises
      Discuss Revision
Writing Journal 10: Write 1-3 pages on the ways in which you have improved as a writer. Be specific. Discuss the challenges that you still face as well as the successes that you have had in your writing this semester.

W (4/29) Read “Epilogue: Last Words” (p. 191-93)
Due: Essay 4 (Ethnography)
Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number.

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Biological Sciences

Discipline and Course Number: BioSci 401

Course Title: Advanced Modeling in Biology and Medicine

Abbreviated Title (24 spaces or less): Adv Modeling in Biology

Instructor(s): Chen Hou

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

Prerequisites: BioSci 242 or 244

Semester(s) previously taught: 0

Brief Course Description: (40 words or less)
Students will learn how to use mathematical and statistical tools together with the physical principles to develop predictive models, with emphasis on quantitative understanding of complexity in multiple fields. Paper discussions and projects 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: 7/5/11

Discipline Specific Curricula Committee: [Signature] Date: 8/16/2011

Curricula Committee: [Signature] Date: 

07/15/11 (Revised 10/12/2010)
Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number.

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Biological Sciences

Discipline and Course Number: BioSci 301

Course Title: Modeling in Biology and Medicine

Abbreviated Title (24 spaces or less): Modeling in Biology

Instructor(s): Chen Hou

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

Prerequisites: BioSci 242 or 244

Semester(s) previously taught: 0

Brief Course Description: (40 words or less)

Students will learn how to use simple mathematical and statistical tools together with the physical principles to develop predictive models. Emphasis is placed on quantitative understanding of complexity in the fields of physiology, immunology, and ecology.

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: 7/5/14

Discipline Specific Curricula Committee: [Signature] Date: 8/6/2011

Curricula Committee: [Signature] Date: 

(Révised 10/12/2010)
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:** Mathematics and Statistics

**Discipline and Course Number:** Stat 401

**Course Title:** Design and Analysis of Epidemiological Studies

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

**Instructor(s):** Robert Paige

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

**Prerequisites:** Stat 343 and 344 and one of Stat 346, 444 or 453

**Semester(s) previously taught:** None

**Brief Course Description: (40 words or less)**

An introduction to epidemiological studies (cohort, case-control and longitudinal) and their design; potential outcomes; causality; adjustment for confounding, selection bias and measurement bias.

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: 7/28/2011

**Discipline Specific Curricula Committee:** [Signature]

Date: 8/1/2011

**Curricula Committee:** [Signature]

Date: [ ]

(Revised 1/31/2008)