Agenda
Campus Curricula Committee Meeting
September 7, 2010 Meeting
3:15 p.m. Room 117 Fulton Hall

Review of submitted DC forms:
DC 0365, Computer Science, Master of Science, deleting the Bioinformatics Emphasis, effective Fall 2010.

DC 0366, Finance Minor, effective Spring 2011. A proposal to modify the current curriculum for the minor in Finance.

DC 0367, Geology/Geophysics, Master of Science, effective Fall 2011. The Geology/Geophysics Master of Science degree would like to add the option for a Master of Science degree with a non-thesis option.

DC 0368, Civil Engineering, Bachelor of Science, effective Fall 2011. Adding courses to the depth and technical elective requirements.

Review of submitted CC forms:
CC 8022, Business 421, Teambuilding and Leadership, effective Spring 2011.

CC 8023, Geological Engineering 207, Geology and Engineering of Ancient and Modern Peru, effective Spring 2011.

CC 8024, Chemistry 241, Physical Chemistry, effective Spring 2011.

CC 8025, Chemistry 244, Physical Chemistry Laboratory, effective Spring 2011.

CC 8026, Chemistry 343, Introduction to Quantum Chemistry, effective Spring 2011.

CC 8027, Chemistry 355, Instrumental Methods of Chemical Analysis, effective Spring 2011.

CC 8028, Civil Engineering 230, Elementary Fluid Mechanics, effective Spring 2011.

CC 8029, Chemical Engineering 420, Applied Mathematics in Chemical Engineering, effective Spring 2011.
CC 8030, Civil Engineering 263, Chemical Fundamentals of Environmental Engineering, effective Spring 2011.

CC 8031, Geological Engineering 434, Granite and Rhyolite Petrogenesis, effective Fall 2010.

CC 8032, Geological Engineering 422, Analytical Structural Geology, effective Spring 2011.

CC 8033, Geology 322, Advanced Structural Geology, effective Spring 2011.

CC 8034, Theatre 90, Theatre Appreciation, effective Fall 2010.

CC 8048, Biological Sciences 175, Introduction to Biological Design and Innovation, effective Fall 2010.

CC 8049, Biological Sciences 188, Introduction to Biomedical Problems, effective Fall 2010.

CC 8050, Biological Sciences 146, Introduction to Human Anatomy and Physiology II, effective Fall 2010.

CC 8051, Biological Sciences 144, Introduction to Human Anatomy and Physiology I, effective Fall 2010.

CC 8053, Biological Sciences 375, Advanced Biology Lab Techniques I, effective Fall 2010.

CC 8054, Biological Sciences 246, Human Anatomy and Physiology II, effective Fall 2010.

CC 8055, Biological Sciences 247, Human Anatomy and Physiology II Laboratory, effective Spring 2011.

CC 8056, Biological Sciences 244, Human Anatomy and Physiology I, effective Fall 2010.

CC 8057, Biological Sciences 245, Human Anatomy & Physiology I Laboratory, effective Fall 2011.
Review of submitted EC forms:
EC 2252, Mechanical Engineering 301, Signal Processing for Instrumentation and Control, effective Fall 2010.

EC 2260, MSE 401, Modeling in Materials Processing, effective Spring 2011.

EC 2262, History 301, The Reformation, effective Spring 2011.

EC 2263, History 301, Twentieth-Century War and Gender in Europe, effective Spring 2011.

EC 2264, History 301, Making of Modern Germany, effective Spring 2011.

EC 2265, Electrical Engineering 301, Introduction to Scientific Measurement & Instrumentation, effective Spring 2011.

EC 2266, Electrical Engineering 301, Electric-Drive Vehicles, effective Spring 2011.


EC 2268, Education 301, Improving Student Achievement in Elementary Mathematics, effective Spring 2011.

EC 2269, Education 301, Differentiated Instruction, effective Spring 2011.

EC 2270, Education 301, Transition from School to Post Secondary Placement, effective Spring 2011.

EC 2271, Education 301, Reaching Students From Poverty, effective Spring 2011.


EC 2273, Biological Sciences 401, Principles of the Biomedical Sciences, effective Fall 2010.

EC 2274, Biological Sciences 401, Medical Interventions, effective Fall 2010.

EC 2275, Biological Sciences 401, Human Body Systems, effective Fall 2010.

EC 2276, Biological Sciences 401, Biomedical Innovation, effective Fall 2010.
EC 2277, Chemistry 401, Mass Spectrometry of Macromolecules, effective Spring 2011.

EC 2278, Art 101, Women in the Arts, effective Fall 2011.

EC 2279, Art 201, Art in the Community, effective Spring 2011.


EC 2281, Technical Communication 301, Help Authoring, effective Spring 2011.

**Tabled Items:**
CC 8004, Aerospace Engineering 319, Advanced Thermodynamics. **Tabled**

CC 8017, Finance 490, Graduate Research, effective Fall 2010. **Tabled**
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:
Current: Bioinformatics (MS)
Proposed: None

Department: Computer Science

Briefly describe action requested (Attach documentation as appropriate):
Delete emphasis area; Bioinformatics is no longer supported adequately by campus personnel.

Recommended by Department: ____________________________ (Chair signature)
Date: April 5, 2010

Recommended by: ____________________________
Discipline Specific Curricula Committee (Chair signature)
Date: 04/19/2010

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

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

04/05/10 (Revised 1/31/2008)
PROGRAM CHANGE FORM

1. Submitted by: ROLLA
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
   - [X] 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)
   - [X] 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>Title of Old Program or Certificate Option</td>
<td>Degree</td>
</tr>
<tr>
<td>Bioinformatics</td>
<td>MS</td>
</tr>
<tr>
<td>Title of New Program or Certificate Option</td>
<td>Degree</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 data of program change, additional options, or "Inactive Status":

   August, 2010

   Month/Year

AUTHORIZATION

Bruce McMillin / Acting Chair of Comp Sci. / Bruce McMillin
Name/Title of Institutional Officer  Signature  Date

[Signature]

Person to Contact for More Information: Bruce McMillin
Telephone Number: 573-341-6435

Rationale

Bioinformatics is no longer supported adequately by campus personnel.
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:
Minor in Finance

Department: Business and Information Technology

Briefly describe action requested (Attach documentation as appropriate):
Drop Econ 323 International Finance as a course option from the minor. This is required for AACSB accreditation because all business (finance, but not economics) courses that we offer for our students must be under the control of the department. The revision also removes courses that have not been created and replaces them with requirements for 300-level FIN courses.

Minor in Finance
A minor in Finance* requires the following 15 hours of course work:
1) Econ 121 - Principles of Microeconomics or Econ 122 - Principles of Macroeconomics
2) FIN 250 - Corporate Finance I
and 9 hours of FIN courses at the 300-level (FIN 390, Undergraduate Research, is acceptable).

* At least 6 hours of the minor course work must be taken in residence at Missouri S&T.

Recommended by Department: __________________________    Date: 4/22/10
(Chair signature)

Recommended by: __________________________    Date: 4/29/2010
Discipline Specific Curricula Committee    (Chair signature)

Approved by Curricula Committee: __________________________    (Chair signature)

Approved by Faculty Senate: __________________________    (Chair signature)

04/22/10

(Revised 1/31/2008)
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:  
B.S. in Civil Engineering

Department: CARE

Briefly describe action requested (Attach documentation as appropriate):

The following new courses have been approved as Depth Electives (DE) or Technical Electives (TE) by the Civil Engineering Undergraduate Program Committee and Faculty in the CARE Department.

They should eventually be added to CAPS report as DE or TE.

- CE 348 - Green Engineering  
- CE 332 - Transport Processes in Environmental Flows  
- CE 366 - Indoor Air Pollution  
- CE 342 - Construction Planning and Scheduling

Recommended by Department: ___________________________  
(Chair signature)  
Date: 6/8/10

Recommended by: ___________________________  
Discipline Specific Curricula Committee  
(Chair signature)  
Date: 7/30/10

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

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

06/08/10

(Revised 1/31/2008)

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Effective Year: The
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:
Geology/Geophysics program
Master of Science--Non-thesis

Department: Geological Sciences & Engineering

Briefly describe action requested (Attach documentation as appropriate):
The Geology/Geophysics program in the Department of Geological Sciences & Engineering presently offers a Master of Science degree with a thesis requirement. The department would like to add the option for a Master of Science degree with a non-thesis option.

The non-thesis option will conform to guidelines established on page 21 of the Graduate Catalog with one additional requirement. There are three options for the additional requirement as follows:
A. Participate in a formal internship with an established company or government agency.
B. Present a formal presentation (oral or poster) with abstract to an established scientific society.
C. Present a formal oral presentation with abstract to the Geology/Geophysics program seminar.

Recommended by Department: ____________
(Chair signature) Date: ____________

Recommended by: ____________
Discipline Specific Curriculum Committee
(Chair signature) Date: ____________

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

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

(Revised 1/31/2008)

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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: Business & Information Technology
2. Discipline and Course Number: Present: BUS 421 Proposed:
3. Course Title: Present: Teambuilding and Leadership 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: As the first course in the MBA program, this class will teach students how to work well in teams and help teams become effective. Leadership, management, networking, presentation, and workplace social skills will be covered.

   Proposed: This class will teach students how to work well in teams and lead teams and organizations. Management, networking, presentation skills, and sustainable business practices will be covered.

5. If course requires field trip check box: □
6. Credit Hours:
   Present: Lecture: 3.0 Lab: Total: 3.0
   Proposed: Lecture: Lab: Total:

7. Prerequisites:
   Present: Admission into the MBA program.

   Proposed: Admission into the MBA or the Management of Sustainable Business Graduate Certificate program

8. Required for Majors: □ Elective for Majors: □
9. Justification: We want to include this course in the graduate certificate program; the graduate faculty requires us to change the description to get the program moved forward.

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)
   Date: 4/16/10

   Recommended by Discipline Specific Curricula Committee
   (Chair signature)
   Date: 4/28/10

   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: Geological Sciences and Eng G.E.
2. Discipline and Course Number: Present: 201 Proposed: 207
3. Course Title:
   Present: Geology and Engineering of Ancient and Modern Peru
   Proposed: Geology and Engineering of Ancient and Modern Peru
   Abbreviated Course Title: Geo Engineering of Peru
   (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 geological engineering of the Cuzco-Machu Picchu corridor, including the interrelations of geology, climate, archaeology, and history. A technical report and a week-long field trip to Peru during Spring Break are required.
   Proposed: A study of the geological engineering of the Cuzco-Machu Picchu corridor, including the interrelations of geology, climate, archaeology, and history. A technical report and a week-long field trip to Peru during Spring Break are required.

5. If course requires field trip check box: ☑
6. Credit Hours:
   Present: Lecture: 1 Lab: Lab Total:
   Proposed: Lecture: 1 Lab: Lab Total:
7. Prerequisites:
   Present:
   Proposed:
8. Required for Majors: ☐ Elective for Majors: ☑
9. Justification:

10. Semesters previously offered as an experimental course (101, 201, 301, 401): Sp 2009, Sp 2010
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: 4/16/2010
Date: 7/26/10
Date:

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(Revised 1/28/09)
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: Chemistry
2. Discipline and Course Number: Present: Chem 241  Proposed:
3. Course Title: Present: Physical Chemistry  Proposed:
   Abbreviated Course Title: (24 Spaces or Less. Only needed for New Courses or Title Changes.)
   Present: A study of the laws of thermodynamics and their applications to the states of matter, solutions, and equilibria.
   Proposed:

5. If course requires field trip check box: □
6. Credit Hours: Present: Lecture: 3.0  Lab:  □
   Proposed: Lecture:  □  Lab:  □
   Total: 3.0
7. Prerequisites:
   Present: Math 22, Physics 25
   Proposed: Math 22, Physics 24 or Physics 25

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) □  6) □

Recommended by Department  
(Chair signature)  
Date:  8/29/2010

Recommended by Discipline Specific Curricula Committee  
(Discipline Chair)  
Date:  8/19/2010

Approved by Curricula Committee:  
(Chair signature)  
Date:  

Approved by Faculty Senate:  
(Chair signature)  
Date:  

(Revised 1/29/09)

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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.)

1. Department: Chemistry

2. Discipline and Course Number: Present: Chem 244 Proposed: 

3. Course Title: Present: Physical Chemistry Laboratory 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 continuation of Chem 242. Proposed: 

5. If course requires field trip check box: 

6. Credit Hours: Present: Lecture: Lab: 1.0 Total: 1.0 Proposed: Lecture: Lab: Total: 

7. Prerequisites:
   Present: Preceded or accompanied by Chem 243 or 240 and Chem 4 or an equivalent training program approved by S&T. Proposed: Preceded or accompanied by Chem 243 and preceded or accompanied by Chem 4 or an equivalent training program approved by S&T. 

8. Required for Majors:  
   Elective for Majors: 

9. Justification: Chem 240 has been deleted from the catalog and is no longer a valid prerequisite. Clarify that of the prerequisites only Chem 4 can be replaced by an equivalent training program approved by S&T. 

10. Semesters previously offered as an experimental course (101, 201, 301, 401):
   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: 8/7/10 
Date: 8/18/2010 

(Revised 1/29/09)
Effective Year: 2011
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: Chemistry
2. Discipline and Course Number: Present: Chem 343 Proposed:
3. Course Title: Present: Introduction to Quantum Chemistry Proposed:
   Abbreviated Course Title: (24 Spaces or Less. Only needed for New Courses or Title Changes.)
   Present: A study of molecular structures and spectroscopy, statistical thermodynamics, kinetic theory, chemical kinetics, crystals, and liquids.
   Proposed:

5. If course requires field trip check box: □
6. Credit Hours: Present: Lecture: 3.0 Lab: Total: 3.0
   Proposed: Lecture: Lab: Total: 3.0

7. Prerequisites: Present: Math 22 & Physics 25 or equivalents.
   Proposed: Math 22, Physics 24 or Physics 25

8. Required for Majors: □ Elective for Majors: □
9. Justification: Change in physics prerequisites to clarify equivalents. Engineering students generally take Physics 24, Engineering Physics II. Chemistry and other science majors take Physics 25, General Physics II.

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) [Signature]
   Date: 5/7/2010
   Recommended by Discipline Specific Curricula Committee (Chair signature) [Signature]
   Date: 5/17/2010
   Approved by Curricula Committee: [Signature]
   Date: [Date]
   Approved by Faculty Senate: [Signature]
   Date: [Date]

(Revised 1/29/09)

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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: Chemistry

2. Discipline and Course Number: Present: Chem 355 Proposed:

3. Course Title: Present: Instrumental Methods of Chemical Analysis 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: Principles and analytical applications of molecular spectroscopy, chromatographic separations, mass spectrometry, and radiochemistry. A brief overview of instrument electronics, signal generation and processing, and automated analysis is also provided.
   - Proposed:

5. If course requires field trip check box: □

6. Credit Hours:
   - Present: Lecture: 3.0 Lab: 1.0 Total: 4.0
   - Proposed: Lecture: Lab: Total:

7. Prerequisites:

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

9. Justification: Change in prerequisites to conform to current department course offerings. Chem 51 (lec) and Chem 52 (lab) have been replaced in our chemistry curriculum by Chem 151 (lec & lab). Chem 52 is no longer being taught.

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) Daniel Ficht

   Recommended by Discipline Specific Curricula Committee
   (Chair signature)

   Approved by Curricula Committee: ________________________
   (Chair signature)

   Approved by Faculty Senate: ________________________
   (Chair signature)

   Date: 8/19/2010

(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: Civil

2. Discipline and Course Number:  Present: CE 230  Proposed:

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

4. Catalog Description (40 Words or Less)
   Present: A study of the principles governing the behavior of fluids at rest and in motion. Emphasizes methods employed in the development of general relationships in the statics, kinematics, and kinetics of fluids. An introduction to similitude and dimensional analysis. Prerequisite: IDE 150 or IDE 140 with a grade of "C" or better.
   Proposed: Study of fluids at rest and in motion. Topics include fluid properties, statics of fluids, and the control volume approach to conservation of mass, momentum and energy. Applications include flow in pipes, pipe systems, external flow, and fluid flow measurements. Prerequisites: IDE 150 or IDE 140 and Math 204 with a grade of "C" or better.

5. If course requires field trip check box: □

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

7. Prerequisites:
   Present: IDE 150 or IDE 140 with a grade of "C" or better
   Proposed: IDE 150 or IDE 140 and Math 204 with a grade of "C" or better

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

9. Justification:
   Prerequisite change: The generalized use of differential equations for presenting the basic principles of fluid mechanics requires material covered in Math 204.
   Course Title change: To reflect better the nature, content and intent of the course.
   Catalog Description Change: To offer an improved description of the nature and content of CE 230.

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)  Date: 5/3/10

Recommended by Department ____________________________ (Chair signature)

Recommended by Discipline Specific Curricula Committee
                        ____________________________ (Chair signature)  Date: 5/20/10

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

Approved by Faculty Senate: ____________________________  Date:  

02/01/09

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

Course Changes
(Change 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: Chemical & Biological Engineering

2. Discipline and Course Number: Present: 420 Proposed:

3. Course Title: Present: Applied Mathematics in Chemical Engineering Proposed:

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

4. Catalog Description (40 Words or Less)
   Present: Application of ordinary and partial differential equations in the solution of chemical engineering problems, particularly in the unit operations. Infinite series, numerical analysis, graphical methods, theory of errors, and precision of measurements are included.

   Proposed: An introduction to numerical methods for ordinary and partial differential equations arising in chemical engineering, bioengineering, and environmental engineering applications. Topics include finite difference and finite element methods; other numerical and analytical methods if time permits.

5. If course requires field trip check box: □

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

   Proposed: Lecture: Lab: Total:

7. Prerequisites:
   Present: Proposed:

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

9. Justification: Required for MS and PhD majors and elective for Undergraduate majors. This course prepares the students for the graduate courses ChE 383 and ChE 433. Both ChE 383 and ChE 433 are required graduate courses for MS and PhD students in chemical engineering.

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 ____________________________ Date: 5/31/10
(Chair signature)

Recommended by Discipline Specific Curricula Committee ____________________________ Date: 7/30/10
(Chair signature)

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

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

04/30/10

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Effective Year: 2011
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: Civil Architectural and Enviro
2. Discipline and Course Number: Present: CE 263 Proposed:
3. Course Title: Presents Chemical Fundamentals of Environmental Engineering 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 the key chemical and physical concepts integral to environmental systems and processes. This course provides a fundamental background in those chemical and environmental engineering principles that are common to all environmental engineering disciplines.

   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: Chem 3, Physics 23, Math 22.
   Proposed:

8. Required for Majors: ☐ Elective for Majors: ☑
9. Justification: The Civil Engineering Undergraduate Program Committee approved to remove the co-listing with EnVE 263 due to not qualifying as a depth or technical elective. Therefore it should be removed from the course listing under the Civil Engineering program in the Catalog.

10. Semesters previously offered as an experimental course (101, 201, 301, 401):
    11. List all co-listed courses, initial 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: 5/14/2010
    Date: 7/30/16
    Date:
    Date:

(Revised 1/29/08)
**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:** Geological Sciences and Engine
2. **Discipline and Course Number:** Present: 434
3. **Course Title:**
   - Present: Granite and Rhyolite Petrogenesis
   - Proposed: Granite and Rhyolite Petrogenesis
4. **Abbreviated Course Title:** Gran Rhy Pet
5. **Catalog Description (20 Words or Less)**
   - Present: The origin of granites and rhyolites with respect to extreme fractionation, crustal anatexis, magma mixing, and tectonic setting will be explored through critical reading of the literature and examination of hand sample and thin sections from classic geologic terranes. A research paper is required as well as a field trip at the students expense.

6. **If course requires field trip check box:**
7. **Credit Hours:**
   - Present: Lecture: 3, Lab: 1, Total: 4
   - Proposed: Lecture: 3, Lab: 1, Total: 4
8. **Prerequisites:**
   - Present:
   - Proposed:
9. **Required for Majors:**
   - Elective for Majors:
10. **Justification:**
   - This course is needed for the graduate program (400 level) and will meet at the same time as the undergraduate class (330) which is on the books. Graduate students will complete a research paper and present the topic to the class, in addition to other assignments.
11. **Semesters previously offered as an experimental course (101, 201, 301, 401):**

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

   **Recommended by Department:**
   - (Chair signature)
   - Date: 5/19/2010

   **Recommended by Discipline Specific Curricula Committee:**
   - (Chair signature)
   - Date: 12/10

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

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

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(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**: Geological Sciences and Engine
2. **Discipline and Course Number**: Present: 420 422
   Proposed: 
3. **Course Title**: Present:
   Proposed: Analytical Structural Geology
4. **Abbreviated Course Title**: Analyt Structural Geo
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
5. **Catalog Description (40 Words or Less)**
   Present:
   Proposed: The course provides theoretical background, analytical techniques, and hands-on experience, for quantifying processes that lead to the formation and evolution of rocks and structures produced as a result of deformation at a variety of scales - hand sample to global. Poster- and oral- presentations, and a research paper required.
6. **If course requires field trip check box**: ☑
   (when possible)
7. **Credit Hours**:
   Present: 3
   Proposed: 2
   Lecture: 2
   Lab: 1
   Total: 3
8. **Prerequisites**:
   Present: Geology 220, Geophysics 381
   Proposed:
9. **Required for Majors**: ☑
   **Elective for Majors**: ☑
10. **Justification**: This course is needed for the graduate program and will meet at the same time as the undergraduate class (320). Graduate students will complete a research paper and present the topic to the class, in addition to other assignments.
11. **Semesters previously offered as an experimental course (101, 201, 301, 401)**:
    1) 2008
    2) 2009
    3) 2010
    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)

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(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: Geological Sciences and Engineering
2. Discipline and Course Number: Present: 320 32 2
   Proposed: 320 32 2
3. Course Title: Present:
   Proposed: Advanced Structural Geology
   Abbreviated Course Title: Adv Structural Geology
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (40 Words or Less)
   Present:
   Proposed: The course provides theoretical background, analytical techniques, and hands-on experience, for analyzing geologic structures at a variety of scales - hand sample to global.

5. If course requires field trip check box: ☑️ (When possible)
6. Credit Hours:
   Present: 3
   Lecture: 3
   Lab: 0
   Total: 3
6. Credit Hours:
   Proposed: 3
   Lecture: 2
   Lab: 1
   Total: 3
7. Prerequisites:
   Present: Geology 220, Geophysics 381
   Proposed:

8. Required for Majors: ☐
   Elective for Majors: ☑️
9. Justification: Considerable interest from undergraduate students to have an advanced course in structural geology. This course will meet with the graduate class (420), but with different expectations for assignments and assessment for both groups.
10. Semesters previously offered as an experimental course (101, 201, 301, 401):
   1) 2008
   2) 2009
   3) 2010
   4) 2010

   5) 2010

   6) 2010

   Recommended by Department: [Signature]
   Chair Signature

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

   Approved by Curricula Committee: [Signature]
   Chair Signature

   Approved by Faculty Senate: [Signature]
   Chair Signature

   Date: 5/10/2010

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(Revised 1/31/08)
Effective Year: 2010
Term: Summer ☐ Fall ☒ Spring ☐

CC File #: 8034-2010-Thur-90-33

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** (1-6 Must Be Completed. Leave "Proposed" items blank if no change is being made.)

1. Department: TH
2. Discipline and Course Number: Present: TH 90
   Proposed: TH 90
3. Course Title: Present: Theatre Appreciation
   Proposed: Theatre via Video
   **Abbreviated Course Title:** Vido theatre
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   **Present:** Provides basic knowledge of theatre, and styles - Focuses on creative work and joy that are
   involved in theatre from playwright, director and actor, to designer, technician and critic.
   Introduces some of the world's great plays and actors
   **Proposed:** Provides knowledge and internal understanding of theatre and its processes via watching
   plays on video and live productions - works will include videos from Aristophones to Beckett to
   Sondheim
5. If course requires field trip check box: ☒
6. Credit Hours:
   **Present:** Lecture: 3
   **Proposed:** Lecture: 3
   Lab: 0
   **Total:** 3
7. Prerequisites:
   **Present:** None
   **Proposed:** None - **Entrace Req.**
8. Required for Majors: ☐
   Elective for Majors: ☐
9. Justification: Theatre Appreciation does not accurately reflect the coursework, nor does it elicit
   interest in students. Though the content is pretty much identical, the addition of the
   word Video, will be much more marketable for students who are looking for a
   humanities credit.
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: 7/19/10

(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: BioSci
2. Discipline and Course Number: Present:                  Proposed: Bio 175
3. Course Title: Present:
               Proposed: Introduction to Biological Design and Innovation
               Abbreviated Course Title: Intro to BioDesign
               (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   Present:
   Proposed: Students will identify problems in biomedical sciences, and then design and implement innovative solutions using advanced techniques. Students will present and defend their proposals and results.

5. If course requires field trip check box: ❋
6. Credit Hours:
   Present:                  Lecture:                  Lab:                  Total:
   Proposed: Lecture: 0 Lab: 3 Total: 3
7. Prerequisites:
   Present:
   Proposed: Bio 188

8. Required for Majors: ❋ Elective for Majors: ❋
9. Justification: SEE ATTACHED

10. Semesters previously offered as an experimental course (101, 201, 301, 401): NONE
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) [Signature]
 Recommended by Discipline Specific Curricula Committee
 (Chair signature) [Signature]
 Approved by Curricula Committee:
 (Chair signature)
 Approved by Faculty Senate:
 (Chair signature)
 Date: 6/1/10
 Date: 6/23/2010

(Revised 1/29/09)
Justification for the CC forms of Bio Sci 175, 188, 146, and 144

The PLTW – Biomedical Sciences is an innovative and unique offering that is being widely adopted and S&T has played a seminal role in its adoption.

Quality is a paramount concern, and (according to Jay Goff, who worked with us on this proposal) is one reason S&T has been loath to participate in dual credit programs. Our justification is based on the unique participation of S&T Biological Sciences to this program. Quality is assured by:
1. We are one of only 3 program affiliates, and all teachers in the mid-west receive their training at S&T.

2. S&T has worked with PLTW Engineering for 10 years, and is intimately familiar with their programs and philosophy.

3. We are familiar with the content of the courses and have judged that the material they cover is consistent with introductory college level biology courses.

4. S&T performs site visit to all schools (and instructors) in the region offering these courses. Reaccreditation is required on a rotating schedule.

5. A nationally administered assessment exam will eventually be required for college credit (as it is presently in the engineering program). However, this is still under development for the biomedical sciences (we are playing a role in this process), and it will be at least a couple years before it is validated.

All students in the program must take the regular college preparatory science (biology, chemistry, physics) and mathematics courses. PLTW is an additional curriculum that emphasizes creativity and critical thinking as it pertains to human health questions. (As per your suggestion, we will make biology a co-requisite for the first course).

The number of credits offered has been considered carefully. The justification is that the number of classroom hours required to complete a PLTW course is more than 4 times the numbers of hours required for an equivalent college course. The content of the courses (what the students actually do) is very similar to what would be done in collegiate introductory biology courses. The reason we need 100 level courses, and the prime characteristic that distinguishes these courses from our upper level courses, is the lack of molecular detail that we would expect in upper level biology courses. Most colleges will accept these credits as lower level biology electives (this is how they will be treated by our department). So, the biggest question is why any student would want to accumulate so many lower level biology credits. The practical answer here is that they don’t have the chemical background yet for higher level offerings. Realistically, we expect very few students will apply for credit for more than 1 or 2 courses, and they will perform a lot of work to receive this credit. Again the things that they do and learn (gene
separations, nucleotide blotting and probing, dissection, enzyme kinetics) are indistinguishable from what we have our students do in Bio 112 and 212 (for example).

There are no special student requirements for this sequence. Note, however, that these courses are in addition to a full load of college preparatory courses in science and mathematics, and by their nature do not attract weak students.

PLTW instructors must go through 80 hours of training. S&T is one of 3 national training sites. Instructors are observed by PLTW state affiliate directors (Ralph Flori and myself) as part of an ongoing accreditation process. Most of the teachers we have seen are experienced master teachers with M.S. degrees. Graduate credit is available for teachers completing our summer teacher training institutes.

The justification for skipping the EC stage is that the material in these courses (Anatomy, Physiology, Human Medical Problems, Biological Innovation) is an integral component of the biology curriculum, and as such has been offered countless times on this campus – there is nothing experimental about the course content. For this reason, we initially proposed co-listing them at the 100 level with existing relevant upper level courses. The major difference is that the approach is less involved at the molecular level, thus the prerequisites and precise learning objectives would have to be appropriately modified. We do not feel that designating them as experimental courses would achieve anything, and would certainly make the courses less valuable to the students as transcriptable S&T credit. Transcripts containing experimental courses listed as “Special Topics” instead of the actual course content would not be easily recognized as containing introductory college course material. Moreover, it is not clear how we would progress from the EC to regular course designation.

In summary, PLTW-Biomedical Sciences is a creative expansion and acceleration of biological training, and one in which S&T will continue to play an important role. Along with PLTW-Engineering, this represent one of the most exciting innovations in the secondary science curriculum (which hasn’t changed much in at least 40 years), and S&T should continue to support its adoption.
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 Number □ Co-listing □
Course Title Catalog Description

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

1. Department: BioSci
2. Discipline and Course Number: Present: BioSci 188
   Proposed: Bio 188
3. Course Title: Present:
   Proposed: Introduction to Biomedical Problems
   Abbreviated Course Title: Intro to Biomed Problems
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   Present:
   Proposed: Problem based learning approach to issues in medical science. Students will work in groups
   and individually to answer problems related to diagnosis, testing and evaluation of diseases
   and other medical conditions.

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: Bio 146

8. Required for Majors: □ Elective for Majors: □
9. Justification: SEE ATTACHED

10. Semesters previously offered as an experimental course (101, 201, 301, 401): NONE
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: 6/1/10
Date: 8/23/2010
Date: _________
Date: _________

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Course Change Form (CC)

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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:

2. Discipline and Course Number: Present: Bio 146
   Proposed: Bio 146

3. Course Title: Present:
   Proposed: Introduction to Human Anatomy and Physiology II
   Abbreviated Course Title: Intro to Human A&P II
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)
   Present:
   Proposed: Second semester of a two-semester sequence of the study of the structure and function of human organ systems, including the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive 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:
   Proposed: Introduction to Human Anatomy & Physiology I (Bio 144)

8. Required for Majors: ☐
   Elective for Majors ☑

9. Justification: SEE ATTACHED

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

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]
   Date: 8/10/10

   Recommended by Discipline Specific Curricula Committee: [Signature]
   Date: 8/23/2010

   Approved by Curricula Committee: [Signature]
   Date: 

   Approved by Faculty Senate: [Signature]
   Date: 

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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
- 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: BioSci

2. Discipline and Course Number: Present: Proposed: Bio 144

3. Course Title: Present:
   Proposed: Introduction to Human Anatomy and Physiology I
   Abbreviated Course Title: Intro to Human A&P I
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)
   Present:
   Proposed: First semester of a two-semester sequence dealing with the structure and function of human organ systems. Includes the study of cells, tissues, and the integumentary, skeletal, muscular and nervous systems.

5. If course requires field trip check box: □

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

7. Prerequisites:
   Present:
   Proposed: ANY HIGH SCHOOL OR COLLEGE BIOLOGY COURSE

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

9. Justification: SEE ATTACHED

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

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]
   (Chair signature)
   Date: 6/16/10
   Recommended by Discipline Specific Curricula Committee: [Signature]
   (Chair signature)
   Date: 8/27/10
   Approved by Curricula Committee:
   (Chair signature)
   Date: 
   Approved by Faculty Senate:
   (Chair signature)
   Date: 

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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: BioSci
2. Discipline and Course Number: Present: Bio 375 Proposed:
3. Course Title: Present: Advanced Biology Lab Techniques I Proposed: Biological Design and Innovation I
   Abbreviated Course Title: BioDesign I
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   Present: Advanced level laboratory designed to acquaint students of cellular and molecular biology
   with techniques employed in current research. Students select one to three miniprojects, each
designed to involve 40 to 45 hours of library and laboratory work.
   Proposed: Students identify significant problems in biological/biomedical sciences, and then design and
   implement innovative solutions using advanced techniques. Students present and defend
   proposals and results.

5. If course requires field trip check box: ☐
6. Credit Hours:
   Present: Lab: Total: 1-3
   Proposed: Lecture: IND Lecture: Lab: 3 Total: 3
7. Prerequisites:
   Present: Junior or senior standing in Biological Sciences or related area plus consent of
   instructor.
   Proposed: Bio Design I (Bio 375)
8. Required for Majors: ☐ Elective for Majors: ☒
9. Justification: This capstone course that will be taken by students in our Honors program and
   students participating in the iGEM design team. The present course description is too
   restrictive and the design to directed.

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) Date: 6/1/10
   Recommended by Discipline Specific Curricula Committee ____________________________ (Chair signature) Date: 8/17/2010
   Approved by Curricula Committee: ____________________________ (Chair signature)
   Approved by Faculty Senate: ____________________________ (Chair signature)
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:
2. Discipline and Course Number: Present: Proposed: Bio 246
3. Course Title: Present: Proposed: Human Anatomy and Physiology II
   Abbreviated Course Title: A&P II
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.) Present:
   Proposed: Second semester of a two-semester sequence of the study of the structure and function of human organ systems, including the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems.
5. If course requires field trip check box: □
6. Credit Hours: Present: Proposed: Lecture: 3 Lab: Total:
7. Prerequisites: Present: Proposed: Anatomy & Physiology I (Bio 244)
8. Required for Majors: □ Elective for Majors: □
9. Justification: Note: Human Anatomy & Physiology I and II with their associated labs will replace Human Anatomy [Bio 241] and Human Physiology [Bio 242/243]. This will bring us into conformity with similar offerings at most other institutions. Separation of lecture and lab classes allows scheduling flexibility.
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: 8/17/2010
Date: 6/1/10

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

This form is for creating or modifying permanent courses.

Course Changes
(1) New Course □ Course Deletion □ Credit Hours □ Prerequisites □
(2) 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:

2. Discipline and Course Number:
   - Present:
   - Proposed: Bio 247

3. Course Title:
   - Present:
   - Proposed: Human Anatomy and Physiology II Laboratory
   - Abbreviated Course Title: A&P II Lab
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)

4. Catalog Description (300 Character Spaces or Less.)
   - Present:
   - Proposed: Laboratory accompanying Human Anatomy and Physiology II (Bio 246). This course may be taken separately at a later date

5. If course requires field trip check box: □

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

7. Prerequisites:
   - Present:
   - Proposed: Preceded or accompanied by Anatomy and Physiology II (Bio 246)

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

9. Justification:
   - Note: Human Anatomy & Physiology I and II with their associated labs will replace Human Anatomy [Bio 241] and Human Physiology [Bio 242/243]. This will bring us into conformity with similar offerings at other institutions. Separation of lecture and lab classes allows scheduling flexibility.

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)
   Date: 9/6/10

   Recommended by Discipline Specific Curricula Committee: __________________________ (Chair signature)
   Date: 9/19/2010

   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: BioSci
2. Discipline and Course Number:    Present:          Proposed: Bio 244
3. Course Title:    Present: Proposed: Human Anatomy and Physiology I

Abbreviated Course Title: A&P I
(24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. Catalog Description (300 Character Spaces or Less.)
   Present:

   Proposed: First semester of a two-semester sequence dealing with the structure and function of human organ systems. Includes the study of cells, tissues, and the integumentary, skeletal, muscular and nervous systems.

5. If course requires field trip check box: □

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

7. Prerequisites:
   Present:

   Proposed: Bio 110 or Bio 111 or Bio 211

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

9. Justification:    Note: Human Anatomy & Physiology I and II with their associated labs will replace Human Anatomy [Bio 241] and Human Physiology and lab [Bio 242/243]. This will bring us into conformity with offerings at most other institutions. Separation of lecture and lab classes allows scheduling flexibility.

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: 6/1/10

Date: 8/19/2010

Date: ________

Date: ________

(Revised 1/29/99)
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:** BioSci
2. **Discipline and Course Number:** Present: BioSci 245
   Proposed: Bio Sci 245
3. **Course Title:** Present:
   Proposed: Human Anatomy & Physiology I Laboratory
   **Abbreviated Course Title:** A&P I Lab
   (24 Spaces or Less. Only needed for New Courses or Title Changes.)
4. **Catalog Description** (300 Character Spaces or Less.)
   Present:
   Proposed: Laboratory accompanying Human Anatomy and Physiology I (Bio 244). This course may be taken separately at a later date.

5. **If course requires field trip check box:** □
6. **Credit Hours:**
   Present: Lecture: Lab: Total:
   Proposed: Lecture: Lab: Total:
7. **Prerequisites:**
   Present:
   Proposed: Preceded or accompanied by Anatomy and Physiology I (Bio 244)

8. **Required for Majors:** □
7. **Elective for Majors:** ◐
9. **Justification:** Note: Human Anatomy & Physiology I and II with their associated labs will replace Human Anatomy [Bio 241] and Human Physiology [Bio 242/243]. This will bring us into conformity with similar offerings at most other institutions. Separation of lecture and lab classes allows scheduling flexibility.

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:**

(Chair signature)

Date: 8/19/10

Date: 8/23/2010

Date: ________

Date: ________

(Revised 1/29/09)
Jennifer,

Here are 10 forms for the course changes we discussed.

Anatomy and Physiology I and II with labs (Bio 244, 245, 246, 247). These replace Human Anatomy and Human Physiology (Bio 241, 242, 243), they just slice the pie up differently (i.e., don't separate structure and function, and separate labs and lectures).

Advanced Biology Lab Techniques I and II (Bio 375 and 376) will be renamed to Biological Design and Innovation I and II (same numbers), with slightly altered course descriptions.

There are 4 new 100 level courses suitable for beginning students that will be colisted with upper level courses, as follows:

144 and 146, Introduction to Human Anatomy and Physiology I and II (colisted w/ug Bio244 and 246, respectively in the renumbered scheme listed above).

188 Introduction to Biomedical Problems colisted with Bio 388 Biomedical Problems)

175 Introduction to Biological Design and Innovation colisted with Bio 375 Biological Design and Innovation I (see above).

There is no way I did this correctly. Please let me know what you think. What can we change in order to facilitate approval?

Thanks,

Bob
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: Materials Science & Engineering
Discipline and Course Number: MSE 401
Course Title: Modeling in Materials Processing
Abbreviated Title (24 spaces or less): Modeling in Matis Proc
Instructor(s): Dr. Lifeng Zhang
Credit Hours: Lecture: 3.0 Lab: 0.0 Total: 3.0
Prerequisites: Met 204

Semester(s) previously taught: 0

Brief Course Description: (40 words or less)
Introduce the fundamental models of fluid flow, heat and mass transfer and solidification. Apply these models to the problems of metallurgical and materials industries. Understanding mathematical calculation and using CFD software to solve problems in metallurgical and materials processing. Course to be taught every other year in the spring.

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: 3/5/10
Discipline Specific Curricula Committee: ________________________________ (Chair Signature) Date: 3/30/10
Curricula Committee: ________________________________ (Chair Signature) Date: ________________________________

(Revised 1/31/2008)

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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: History and Political Science
Discipline and Course Number: 301
Course Title: The Reformation
Abbreviated Title (24 spaces or less): The Reformation
Instructor(s): Dr. Michael Bruening
Credit Hours: Lecture: 3.0 Lab: 0 Total: 3.0
Prerequisites: Hist 111 or Hist 112

Semester(s) previously taught: Spring 2009
Brief Course Description: (40 words or less)
This course will cover the sixteenth-century Reformation, its background, and impact. It will explore the social, cultural, and political aspects of the movement that created Protestant Christianity and, hence, modern Western religious pluralism.

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

Date: 5/20/10
Date: 7/19/10

(Revised 1/31/2008)
Effective Year: 2011  
Effective Term: Summer □  Fall □  Spring □

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: History & Political Science  
Discipline and Course Number: History 301  
Course Title: Twentieth-Century War and Gender in Europe  
Abbreviated Title (24 spaces or less): European War & Gender  
Instructor(s): Shannon Fogg  
Credit Hours: Lecture: 3  Lab:  Total: 3  
Prerequisites: Hist 112

Semester(s) previously taught: Spring 2006  
Brief Course Description: (40 words or less)
This course explores men and women's experiences in France and Germany between 1914 and 1945. Ideas about society changed in the twentieth century due to war, these changes were reflected in politics, and changed relationships between men and women.

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

Date: 5/7/10  Date: 7/19/10

05/07/10  
(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 and college dean's notation, by the appropriate deadline. Filing deadlines for inclusion in the pre-registration Schedule of Classes are as follows:

Summer and Fall Semester Offerings - January 1
Winter Semester Offerings - August 1

Filing deadlines for inclusion in the Revised Schedule of Classes are April 30 and October 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.

School or College: College of Arts and Science

Department: History

Discipline and Course Number: 301
Course Title: Making of Modern Germany

Abbreviated Title (24 spaces or less): Making of Modern Germany

Instructor(s): Petra DeWitt
Credit Hours: Lecture: 3 Lab: Total: 3
Prerequisites: History 112, History 176

Semester(s) previously taught: 1

Brief Course Description: (40 words or less)
A survey of modern Germany from 1815 through the present. Major themes include political, economic, intellectual, social, and cultural developments in modern and contemporary Germany with emphasis on constructed identities.

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: 
Date: 5/2/10
Chair Signature

College/School Dean: 
Date: 7/19/10
Dean Signature

UMR Curricula Committee: 
Date: ____________________
Chair Signature

(Revised 2/14/2002)
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: Electrical & Computer Engineering

Discipline and Course Number: EE 301

Course Title: Introduction to Scientific Measurement & Instrumentation

Abbreviated Title (24 spaces or less): Intro Sci Meas & Instr

Instructor(s): Hai Xiao

Credit Hours: Lecture: 3 Lab: Total: 3

Prerequisites: EE 253 & Stat 217

Semester(s) previously taught: SP 2008 / Approved SP 2010 but not taught

Brief Course Description: (40 words or less)
Introduction to the fundamental principles and theories of scientific measurement. Establishment of a systematic approach in analysis, design, calibration and characterization of sensors and measurement instruments. Survey of the latest sensor technologies for measuring various physical and chemical quantities.

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: 2/11/10

Discipline Specific Curricula Committee: [Signature] Date: 1/30/10

Curricula Committee: [Signature] Date: 

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(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: Electrical and Computer Engineering

Discipline and Course Number: EE 301

Course Title: Electric-Drive Vehicles

Abbreviated Title (24 spaces or less): Electric-Drive Vehicles

Instructor(s): Ferdowsi

Credit Hours: Lecture: 3 Lab: Total: 3

Prerequisites: Senior Standing in Science or Engineering

Semester(s) previously taught: SP 2010

Brief Course Description: (40 words or less)
This course covers introductory topics related to the understanding and analysis of electric, hybrid, and plug-in hybrid power trains. In specific, classification of hybrid drivetrains, driving cycles, energy storage systems, mechanical coupling devices, automotive applications of fuel cells, and introduction to power converters will be covered.

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: 2-3-2010

Discipline Specific Curricula Committee: [Signature] Date: 7-30-10

Curricula Committee: [Signature] Date: 

(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:

Winter and Spring 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: Electrical and Computer Engineering
Discipline and Course Number: EE 401
Course Title: Power Converter Modeling and Design
Abbreviated Title (24 spaces or less): Pwr Conv Model & Design
Instructor(s): Jonathan Kimball
Credit Hours: Lecture: 3  Lab:  Total: 3
Prerequisites: EE 353 or equivalent

Semester(s) previously taught: SP 2009

Brief Course Description: (40 words or less)
Students will learn electrical, magnetic, and thermal modeling techniques for switching power converters that are applicable to both simulation and analysis. Students will then learn a generic framework to design optimal converters using these models.

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: 5-26-10

Discipline Specific Curricula Committee: [Signature]
Date: 7-30-10

Curricula Committee: [Signature]
Date: [Blank]

(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: EDU

Discipline and Course Number: EDU301

Course Title: Improving Student Achievement in Elementary Mathematics

Abbreviated Title (24 spaces or less): Elementary Math

Instructor(s): John Lewis

Credit Hours: Lecture: 2 Lab: 0 Total: 2

Prerequisites: Graduate Standing

Semester(s) previously taught:

Brief Course Description: (40 words or less)
This course will provide participants with best instructional practices designed to increase learning of elementary students in the core area of mathematics. Students will examine the important mathematical concepts in each core-curricular strand as they practice hands-on and engaging ways for students to internalize mathematics. The class will be highly interactive. Topics to be addressed include National Council of Teachers of Mathematics recommendations for math instruction, the use of manipulative materials, and evaluation and assessment methods.

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

Department Chair: John Lewis

Discipline Specific Curricula Committee: (Chair Signature)

Curricula Committee: (Chair Signature)

Date: 5/27/2010
Date: 7/19/10

(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: EDU

Discipline and Course Number: EDU301

Course Title: Differentiated Instruction

Abbreviated Title (24 spaces or less): DI Academy

Instructor(s): Dr. Winona Anderson / Sandy Majchrzak

Credit Hours: Lecture: 2  Lab: 0  Total: 2

Prerequisites: Graduate Standing

Semester(s) previously taught:

Brief Course Description: (40 words or less)
This course will be based upon a study of current research on differentiating instruction to meet the diverse learning needs of students in today's classrooms. The course will be filled with a number of classroom-tested methods, strategies, and materials that are geared toward improving the performance of all students. It will include a study of brain-based and gender-based differences in learning, flexible student groupings, student engagement, and differentiating instruction for students from poverty.

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

1)  

2)

3)

4)

5)

Department Chair: [Signature]

Date: 05/26/2010

Discipline Specific Curricula Committee: [Signature]

Date: 05/19/2010
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: EDU
Discipline and Course Number: EDU301
Course Title: Transition from School to Post Secondary Placement
Abbreviated Title (24 spaces or less): Transition Academy
Instructor(s): Sandy Majchrzak
Credit Hours: Lecture: 1 Lab: 0 Total: 1
Prerequisites: Graduate Standing

Semester(s) previously taught:

Brief Course Description: (40 words or less)
The Individuals with Disabilities Education Act (IDEA) of 2004 requires all states to report annually on transition services available to students with disabilities ages 16 and above that will reasonably enable the student to meet postsecondary goals. This course will enable students to interact with presenters and colleagues to share transition approaches and strategies as they gain information about state and community resources and transition based school programs. The course will focus on planning effective transition programs.

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

1) 2) 3)

4)

Department Chair: Jana Neis

Discipline Specific Curricula Committee: [Signature]

Curricula Committee: [Signature]

Date: 5/26/2010

Date: 7/19/10

Date: __________

05/26/10

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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: EDU

Discipline and Course Number: EDU301

Course Title: Reaching Students From Poverty

Abbreviated Title (24 spaces or less): Poverty Academy

Instructor(s): John Edgar

Credit Hours: Lecture: 1 Lab: 0 Total: 1

Prerequisites: Graduate Standing

Semester(s) previously taught:

Brief Course Description: (40 words or less)
This course is based upon Dr. Ruby Payne's "A Framework for Understanding Poverty." The course is designed to enable students to understand generational poverty and the hidden rules that educators must be aware of in order to teach all children. Students in the course will learn strategies focused on classroom behavior, relationships, and instruction, that are designed to remove the barriers imposed by generational poverty and enable all students to learn at high levels.

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) 05/26/10
Discipline Specific Curricula Committee: (Chair signature) Date: 7/19/10
Curricula Committee: (Chair Signature) Date:

(Revised 1/31/2008)

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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:** Electrical & Computer Engineering  
**Discipline and Course Number:** EE 401  
**Course Title:** Adaptive Control Theory  
**Abbreviated Title (24 spaces or less):** Adaptive Control  
**Instructor(s):** Dr. Kevin Wise  
**Credit Hours:** Lecture: 3  
**Lab:**  
**Total:**  
**Prerequisites:** EE 431 (Linear Control Systems)  
**Semester(s) previously taught:** Spring 2010  
**Brief Course Description:** (40 words or less)  
A self-contained mathematical treatment of robust adaptive control theory and its current state of the art. Throughout the course both theoretical and application aspects of robust adaptive control design for uncertain dynamical systems will be presented. Homework will include analytical as well as Matlab-based design, simulation, and analysis projects.

**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)

06/10/10

(Revised 1/31/2008)
Curriculum committee: ___________________________(Chair, Signature)

Date: ____________________________

Discipline specific curriculum committee: __________________________

Date: ____________________________

Department Chairs:

Date: ____________________________

Let all Co-listed courses include initials of Dept. Chair(s). Signature is not already included below.

Let all co-listed courses include initials of Dept. Chair(s). Signature is not already included below.

Course Description: (40 words or less)

Semester(s) previously taught:

Pre-requisites: Secondary teaching certification

Credit Hours: Lecture: 3

Lab: 0

Instructor(s): Robert S. Armstrong

Abbreviated Title (24 spaces or less): PBS - PLTW

Course Title: Principles of Biomedical Sciences

Department and Course Number: Bio 401

Biomedical Sciences

Course Title Description:
The course provides an overview of the field of biomedical sciences, focusing on the relationships between biology, medicine, and technology. Students will explore the ethical, legal, and professional issues associated with biomedical research and practice.

An experimental course that is required should be submitted on a CC Form. Co-listed offerings should be submitted on a CC Form. Co-listed offerings should be submitted on a CC Form.

An EC Form must be submitted each semester. It is to be offered, not to exceed two offerings.

Spring Semester Offerings - August 1

Summer and Fall Semester Offerings - January 1

This form must be filed with the secretary to the campus curriculum committee, after the initial release of the schedule of classes as follows:

Experimental Course Form (EC)
Curriculum Committee:

Date: 8/19/2010

Chair Signature:

Department Chair:

Date: 6/2/10

(Chair Signature)

Discipline Specific Curriculum Committee:

(Chair Signature)

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

Teaching candidates 60 hours of project lead the way training for the Medical Interactions.

Brief Course Description: (40 words or less)

Semester(s) Previously Taught:

Pre-requisites:

Secondary Teaching Certification:

Credit Hours: 3

Instructor(s): Robert S. Aronson

Abreviature Title (24 spaces or less): MLW - PLTW

Course Title: Medical Interactions

Discipline and Course Number: BIO 401

Department: Biological Sciences

This form must be filled with the Secretary to the Campus Curriculum Committee, after the

Experimental Course Form (EC)

EC File # 2010-05-31

Effective Term: Summer 2010

Effective Year: 2010

Date: 5/31/2010

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<table>
<thead>
<tr>
<th>Course Title</th>
<th>Human Body Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours</td>
<td>3</td>
</tr>
<tr>
<td>Lab</td>
<td></td>
</tr>
<tr>
<td>Co-listed courses</td>
<td>Bio 401</td>
</tr>
</tbody>
</table>

**Semester(s) previously taught:**
- Fall 2010
- Spring 2010

**Brief Course Description:**

Teachers complete 90 hours of project lead the Way, training for the Human Body Systems curriculum, including all projects, protocols and exit evaluation.

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

---

**Department Chair:**

**Curriculum Committee:**

(Chair Signature)
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 experimental course that is required should be submitted on an EC form. Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Biological Sciences
Discipline and Course Number: Bio 401
Course Title: Biomedical Innovation
Credit Hours: Total: 3
Instructor(s): Robert S. Anstholm
Prerequisites: secondary teaching certification

Semester(s) previously taught:

Brief Course Description: (40 words or less)

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

Department Chair: [Signature]
Curricula Committee: [Signature]

Date: [DD/MM/YY]
Curriculum Committee:

Discipline Specific Curriculum Committee:

Department Chair:

Date: 8/7/2010

List all co-listed courses. Include initials of Dept Chair. Signatures is not already included below.

The course will provide an overview of mass spectrometric applications in biomacromolecules and

currently, the characterization of biochemical complexes and synthetic polymers.

Semester(s) previously taught: SP2009

Prerequisites: Graduate standing; Chem 355 or equivalent

Credit Hours: Lecture 3

Instructor(s): Shubhender Kapila

Abbreviated Title (24 spaces or less): Mass Spectrometry of Macromolecules

Course Title: Mass Spectrometry of Macromolecules

Discipline and Course Number: Chem 401

Department: Chemistry

should be submitted on one form. omissions from the primary discipline.

An experimental course that is required should be submitted on a different form. Co-listed offerings

An EC form must be submitted each semester it is to be offered, not to exceed two offerings.

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

Initial release of the schedule of classes are as follows:

This form must be filed with the secretary to the Campus Curriculum Committee, after the

Experiential Course Form (EC)

EC File # A267-SP2011-Jam-101

Effective Term: Spring 2011

From: 573 341 4362 Page: 24/32 Date: 7/18/2010 11:32:20 AM

This fax was received by GFI FAXmaker fax server. For more information, visit: http://www.gfi.com
Course Title: Women in the Arts
Abbreviated Title (24 spaces or less): Women in the Arts
Department: Arts, Languages, & Philosophy
Course Number: 101
Credit Hours: 3
Lab: 1
Lecture: 2
Instructor(s): Luce Myers
Semester(s) Previously Taught: None
Prerequisites:

Brief Course Description: (40 words or less)
This course explores the contributions of women in the arts, in context with cultural and political influences. Cullinane with a group art performance or work.

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

Curricula Committee:
Date: 2/23/10
Date: 2/16/10
Date: 2/3/10

Discipline Specific Curricula Committee:

Department Chair:

4) 3)
2) 1)

Chair Signature:
Chair Signature:
Chair Signature:

(Revised 1/31/2000)

College of Arts and Sciences
Experiential Course Form (EC)

EC File # 8278-153011-A4-10

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

Effective Term: Summer 2011
Effective Year: 2011

This fax was received by GFI FAXmaker fax server. For more information, visit: http://www.gfi.com
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: Arts, Languages, & Philosophy

Discipline and Course Number: Art 201

Course Title: Art in the Community

Abbreviated Title (24 spaces or less): Community Arts Services

Instructor(s): Luce Myers

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

Prerequisites: Painting I or Drawing I

Semester(s) previously taught: -

Brief Course Description: (40 words or less)
This course involves students designing and creating art for the local community such as mural painting and supporting local schools and public services.

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: 2/23/10

Discipline Specific Curricula Committee: [Signature] (Chair signature) Date: 2/23/10

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

02/22/10

(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: English/Tech Com

Discipline and Course Number: English 301

Course Title: Readings in Science Fiction, 1871-1953: Evolution of Superman Myth

Abbreviated Title (24 spaces or less): Superman Myth

Instructor(s): Sullivan

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

Prerequisites: English 20 and a semester of college literature

Semester(s) previously taught: n/a

Brief Course Description: (40 words or less)
We will explore the hypothesis that posthumanism has its roots in early science fiction's superman myth: humans will control their own evolution and ascend to a higher order of being. Readings include: Nietzsche, Wells, Shaw, C.S. Lewis, Arthur C. Clark.

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: 7/5/10

Discipline Specific Curricula Committee: [Signature] Date: 7/19/10

Curricula Committee: [Signature] Date: 

(Revised 1/31/2008)

07/25/10

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Experimental Course Form (EC)

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Spring Semester Offerings - August 1

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Department: English/Tech Comm

Discipline and Course Number: Technical Communication 301

Course Title: Help Authoring

Abbreviated Title (24 spaces or less): Help Authoring

Instructor(s): Wright

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

Prerequisites: English 65

Semester(s) previously taught: [SP09]

Brief Course Description: (40 words or less)
Students will work with various media to create documentation and help files, primarily for software products and work processes. The course will incorporate print, video, and web-based materials.

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: 7/13/10

Discipline Specific Curricula Committee: [Signature]  Date: 7/19/10

Curricula Committee: [Signature]  Date: 

07/08/10

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