Minutes of the Campus Curricula Committee Meeting
October 31, 2018
9:00am, Bertelsmeyer 110H
(For Faculty Senate Meeting of November 15, 2018)

Attendees: Steve Raper, Barry Flachsbart, Petra Dewitt, Katie Shannon, Ashok Midha, Kyle Perry, Kristy Giacomelli and Brittany Parnell

The following curriculum forms were discussed and approved:

Course Change Forms:
- File: 2032.1   BIO SCI 1982: Introduction to Biomedical Problems
- File: 1186.1   CIV ENG 5513: Traffic Engineering
- File: 4070.15   CIV ENG 5515: Advanced Traffic Operations and Capacity Analysis
- File: 4562   EDUC 3290: Coordination of Cooperative Education
- File: 1314.1   ENGLISH 2243: Science Fiction
- File: 4379.5   EXP ENG 5914: Explosives Manufacturing
- File: 4499.4   FINANCE 5310: Financial Technology and Analytics
- File: 1211.10   GEOLOGY 4630: Systematic Paleontology
- File: 2420.1   NUC ENG 4365: Radiation Protection Engineering
- File: 424.1   NUC ENG 6211: Computational Methods in Nuclear Engineering
- File: 2033.1   NUC ENG 6221: Advanced Nuclear Reactor Design
- File: 738.1   NUC ENG 6281: Probabilistic Risk Assessment II

Experimental Course Forms:
- File: 4573   BIO SCI 5001.003: Forest Insect Diversity & Ecology
- File: 4574   CER ENG 3001.001: Engineering Leadership and Case Studies in Materials Engineering
- File: 4565   ECON 3001.002: Advancing Innovation in Rural Economic Ecosystems
- File: 4572   GEO ENG 5001.003: Geological and Civil Engineering Issues in Southern Africa
- File: 4558   GEOLOGY 5001.002: Introduction to Geoscience Research Methodologies
- File: 4575   GEOLOGY 6001.003: Fossils, Deep Time and Extinctions

Informational discussion on certificates and Core 42.

The meeting adjourned at 9:45am.

Stephen A. Raper, Chair
Missouri S&T Campus Curricula Committee
## Course Change Request

**Date Submitted:** 09/28/18 8:53 am

**Viewing:** BIO SCI 1982 **1993**: Introduction to Biomedical Problems

**File:** 2032.1  
**Last edit:** 10/15/18 2:28 pm  
**Changes proposed by:** shannonk

### Requested Effective Change Date

**Spring 2019 08/01/2014**

**Department:** Biological Sciences  
**Discipline:** Biological Sciences (BIO SCI)  
**Course Number:** 1982 **1993**  
**Title:** Introduction to Biomedical Problems  
**Abbreviated Course Title:** Intro to Biomed Problems  
**Course Title:** BIO SCI 1982: Introduction to Biomedical Problems

**Catalog Description:** Problem based learning approach to issues in medical science. Students will work in groups and individually to answer problems related to diagnostic testing and evaluation of diseases and other medical conditions.

**Prerequisites:** Bio Sci 1953.

**Field Trip Statement:**

**Credit Hours:** LEC: 3  
LAB: 0  
IND: 0  
RSD: 0  
Total: 3

**Required for Majors:** No  
**Elective for Majors:** Yes

**Justification for change:** Course number should be lower than 1983, remove prereq that is no longer required

**Semesters previously offered as an experimental course:**

**Co-Listed Courses:**

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**Course Reviewer Comments**

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**Approval Path**

1. 09/28/18 8:56 am  
   David Duvernell (duvernelld): Approved for RBIOLSCI Chair

2. 09/28/18 10:06 am  
   Brittany Parnell (ershenb): Approved for CCC Secretary

3. 10/16/18 11:42 am  
   Katie Shannon (shannonk): Approved for Sciences DSCC Chair

4. 10/16/18 12:01 pm  
   Brittany Parnell (ershenb): Approved for Pending CCC Agenda post

5. 10/31/18 10:00 am  
   Brittany Parnell (ershenb):

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https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/2032/index.html...  11/1/2018
Course Change Request

Date Submitted: 09/07/18 5:01 pm

Viewing: **CIV ENG 5513 : Traffic Engineering**
File: 1186.1
Last edit: 10/05/18 9:29 am
Changes proposed by: huxian

Other Courses referencing this course

In The Prerequisites:
- CIV ENG 5515 : Advanced Traffic Operations and Capacity Analysis
- CIV ENG 6501 : Transportation Planning
- CIV ENG 6505 : Traffic Modeling and Simulation
- CIV ENG 6509 : Traffic Flow Theory and Characteristics
- CIV ENG 6511 : Transportation Systems Analysis

Requested Effective Change Date
Fall 2019 08/14/2018

Department
Civil, Architectural, and Environmental Engineering

Discipline
Civil Engineering (CIV ENG)

Course Number
5513

Title
Traffic Engineering

Abbreviated Course Title
Traffic Engineering

Catalog Description
Introduction to multimodal transportation systems and the factors that influence the planning, design, control, operation and safety of the systems will be made. This course will also include the discussion of Intelligence Transportation Systems and how emerging technologies are changing transportation systems. Driver, vehicle, and roadway characteristics; traffic control devices; traffic studies; intersection capacity, intersection design, traffic safety, and evaluation of traffic improvements. Traffic laws and ordinances, traffic engineering, traffic circulation, parking design, and forecasting traffic impacts.

Prerequisites
Civ Eng 3500 with a grade of "C" or better.

Field Trip Statement

Credit Hours
LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3

Required for Majors
No

Elective for Majors
Yes No

Justification for change:
Instructor of this course has changed to be a TT faculty, who is systematically redesigning this course and reorganizing the content into five modules, including planning, design, control, operation and safety

Semesters previously offered as an

In Workflow
1. RCIVILEN Chair
2. CCC Secretary
3. Engineering DSCC Chair
4. Pending CCC Chair
5. CCC Meeting Agenda post
6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft Approval Path
1. 09/24/18 5:54 am Joel Burken (burken): Approved for RCIVILEN Chair
2. 09/24/18 11:29 am Brittany Parnell (ershenb): Approved for CCC Secretary
3. 10/08/18 12:35 pm Stephen Raper (sraper): Approved for Engineering DSCC Chair
4. 10/31/18 10:02 am Brittany Parnell (ershenb): Approved for Pending CCC Meeting Agenda
Co-Listed Courses:

<table>
<thead>
<tr>
<th>Course Reviewer</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>sraper (09/27/18 9:13 am)</td>
<td>checked elective for majors.</td>
</tr>
</tbody>
</table>
## Course Change Request

**Date Submitted:** 09/07/18 5:02 pm  
**Viewing:** CIV ENG 5515: Advanced Traffic Operations and Capacity Analysis

### File: 4070.15
- **Last approved:** 02/05/18 3:29 am
- **Last edit:** 10/31/18 10:04 am
- **Changes proposed by:** huxian

#### Requested
- **Fall 2019 08/14/2018**

#### Effective Change Date

#### Department
Civil, Architectural, and Environmental Engineering

#### Discipline
Civil Engineering (CIV ENG)

#### Course Number
5515

#### Title
Advanced Traffic Operations and Capacity Analysis

#### Abbreviated Course Title
Adv Traf Ops & CA [Anly](https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4070/index.html)

#### Field Trip

#### Statement

#### Credit Hours
- LEC: 3
- LAB: 0
- IND: 0
- RSD: 0
- Total: 3

#### Prerequisites
- Civ Eng 3500 with a grade of "C" or better. [Civ Eng 5513](https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4070/index.html)

#### Catalog Description
This course will introduce students to advanced traffic operation and capacity analysis as applied to an urban highway network. It will focus on the operations and management of freeway and arterials where a signalized intersection is one of the key elements affecting traffic flow operation and determining highway capacity.

#### Semesters previously offered as an experimental course

#### Co-Listed Courses:

#### Prerequisites

#### Field Trip

#### Statement

#### Credit Hours
- LEC: 3
- LAB: 0
- IND: 0
- RSD: 0
- Total: 3

#### Required for Majors
No

#### Elective for Majors
Yes

#### Justification for change:
Both CIV_ENG 5513 and 5515 are being redesigned by new transportation faculty, with different focuses. CIV_ENG 5513 will aim to provide a holistic view of traffic engineering, while CIV_ENG 5515 will focus on traffic operation and capacity analysis. With this, it is not necessary for students to take CIV_ENG 5513 prior to taking this course. Additionally, the enrollment of 5515 is usually low due to this prerequisite requirement, hopefully we can attract more students' interest in transportation engineering and better serve employer's needs

#### Semesters previously offered as an experimental course

#### Co-Listed Courses:

#### Course Reviewer Comments
- sraper (09/25/18 9:09 am): added CE 3500 as prerequisite course per instructions from Civ Eng.
sraper (09/26/18 9:35 am): changed prereq according to instructor email.
ershemb (10/31/18 10:04 am): changed "and" to "&" in the abbreviated title.

Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

History
1. Sep 22, 2014 by
   Debbie Benenati
   (dbenenat)
2. Feb 5, 2018 by
   seelyj (4070.7)
EDUC 3290: Coordination of Cooperative Education

Date Submitted: 09/12/18 10:20 am

Requested Effective Change Date: Spring 2019

Department: Teacher Education and Certification

Course Number: 3290

Title: Coordination of Cooperative Education

Abbreviated Course Title: Coord Coop Education

Catalog Description: Explore the coordination and delivery of work-based learning experiences for student learners, including legal aspects, methods, materials, selecting work sites, placement, evaluation of expectations and student follow-up. Develop an implementation plan for cooperative education.

Prerequisites: Educ 1040 and Educ 1104 and Educ 1174.

Field Trip Statement:

Credit Hours: LEC: 3   LAB: 0   IND: 0   RSD: 0   Total: 3

Required for Majors: Yes

Elective for Majors: No

Justification for new course: This course is a requirement of the Missouri Department of Elementary and Secondary Education for certification to teach Business Education at the high school level.

Semesters previously offered as an experimental course:

Co-Listed Courses:

ershenb (10/31/18 10:06 am): Added "and" between the required prerequisites.
<table>
<thead>
<tr>
<th>Course Reviewer</th>
<th>Comments</th>
</tr>
</thead>
</table>

Stephen Raper (sraper): Approved for Campus Curricula Committee Chair

Approved for CCC Meeting Agenda

10/31/18 10:11 am

EDUC 3290: Coordination of Cooperative Education

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4562/index.html...
## Course Change Request

**Date Submitted:** 10/12/18 10:19 am

**Viewing:** ENGLISH 2243 : Science Fiction And Fantasy Literature

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<th>Fall 2019 08/14/2018</th>
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</thead>
<tbody>
<tr>
<td><strong>Department</strong></td>
<td>English and Technical Communication</td>
</tr>
<tr>
<td><strong>Discipline</strong></td>
<td>English (ENGLISH)</td>
</tr>
<tr>
<td><strong>Course Number</strong></td>
<td>2243</td>
</tr>
<tr>
<td><strong>Title</strong></td>
<td>Science Fiction And Fantasy Literature</td>
</tr>
<tr>
<td><strong>Abbreviated Course Title</strong></td>
<td>Sci Fiction Fiction &amp; Fantasy Lit</td>
</tr>
<tr>
<td><strong>Catalog Description</strong></td>
<td>A study of short stories, poems, or novels which represent the development and the techniques of the science fiction fantasy genre.</td>
</tr>
<tr>
<td><strong>Prerequisites</strong></td>
<td>English 1120 and a semester of college literature.</td>
</tr>
<tr>
<td><strong>Field Trip Statement</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Credit Hours</strong></td>
<td>LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3</td>
</tr>
<tr>
<td><strong>Required for Majors</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Elective for Majors</strong></td>
<td>Yes No</td>
</tr>
<tr>
<td><strong>Justification for change:</strong></td>
<td>We have a separate &quot;Fantasy Literature&quot; course, so 2243 is now simply Science Fiction and including &quot;fantasy&quot; in the title is misleading, inaccurate, unnecessary.</td>
</tr>
</tbody>
</table>

**Approval Path**

1. 10/12/18 10:19 am Kristine Swenson (kswenson): Approved for ENGLISH Chair
2. 10/12/18 11:24 am Brittany Parnell (ershenb): Approved for CCC Secretary
3. 10/12/18 12:04 pm Petra Dewitt (dewittp): Approved for Arts & Humanities
4. 10/16/18 9:18 am Brittany Parnell (ershenb): Approved for Pending CCC Agenda post
5. 10/31/18 10:10 am Brittany Parnell (ershenb): Approved for Peoplesoft

**Comments**

ershenb (10/31/18 10:09 am): Checked "yes" elective for majors.
Approved for CCC Meeting Agenda
6. 10/31/18 10:11 am
Stephen Raper (sraper):
Approved for Campus Curricula Committee Chair
Course Change Request

Date Submitted: 09/14/18 3:51 pm

Viewing: **EXP ENG 5914 : Explosives Manufacturing**
File: 4379.5
Last approved: 03/20/17 3:14 am
Last edit: 10/31/18 10:11 am
Changes proposed by: pworsey

Catalog Pages referencing this course
- Explosives Engineering
- Explosives Engineering

Requested Effective Change Date
- Fall 2019 2017

Department
- Mining & Nuclear Engineering

Discipline
- Explosives Engineering (EXP ENG)

Course Number
- 5914

Title
- Explosives Manufacturing

Abbreviated Course Title
- Explosives Manufacturing

Catalog Description
- History of industrial explosives from discovery to what is used today. Manufacturing processes for packaged and bulk explosives are explored along with specialty explosives such as detonating cord, cast boosters, detonators, shaped charges, and commercial fireworks. Field manufacturing of explosives by mixing or gassing is also covered.

Prerequisites
- Successful background check, consent of instructor.

Field Trip Statement

Credit Hours
- LEC: 3    LAB: 0    IND: 0    RSD: 0    Total: 3

Required for Majors
- No

Elective for Majors
- Yes

Justification for change:
In order to make sure students have a successful background check before taking the course, this and consent of instructor has been added as a prerequisite so that students need a permission number before they can enroll for the class. Once they have a background check file they will be approved so that they remain in the class.

Semesters previously offered as an experimental course

Co-Listed Courses:

Approval Path
1. 09/15/18 1:50 pm
Kwame Awuah-Offei (kwamea):
Approved for MINEXP ENG Chair

2. 09/18/18 9:42 am
Brittany Parnell (ershenb):
Approved for CCC Secretary

3. 10/08/18 12:36 pm
Stephen Raper (sraper):
Approved for Engineering DSCC Chair

4. 10/08/18 2:23 pm
Brittany Parnell (ershenb):
Approved for Pending CCC Agenda post

5. 10/31/18 10:11 am
Brittany Parnell (ershenb):

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4379/index.html... 11/1/2018
<table>
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<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>sraper (09/27/18 9:15 am)</td>
<td>removed required for majors.</td>
</tr>
<tr>
<td>ershenb (10/31/18 10:11 am)</td>
<td>Changed effective date to Fall 2019.</td>
</tr>
</tbody>
</table>

Approved for CCC Meeting Agenda
6. 10/31/18 10:14 am
Stephen Raper (sraper):
Approved for Campus Curricula Committee Chair

History
1. Mar 20, 2017 by Kyle Perry (kapqh4)
**Course Change Request**

**Date Submitted:** 09/13/18 9:44 am

**Viewing:** **FINANCE 5310 : Financial Technology and Analytics**

<table>
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<th>Viewing:</th>
<th><strong>FINANCE 5310 : Financial Technology and Analytics</strong></th>
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<tbody>
<tr>
<td><strong>File:</strong></td>
<td>4499.4</td>
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<tr>
<td><strong>Last approved:</strong></td>
<td>02/05/18 3:29 am</td>
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<tr>
<td><strong>Last edit:</strong></td>
<td>09/13/18 9:44 am</td>
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</table>

**Changes proposed by:** ershenb

**Catalog Pages referencing this course:**

- Business Administration

**Requested Effective Change Effective Date:**

**Spring 2019 08/14/2018**

**Department:** Business and Information Technology

**Discipline:** Finance (FINANCE)

**Course Number:** 5310

**Title:** Financial Technology and Analytics **Financial Modeling**

**Abbreviated Course Title:** Tech and Analytics **Financial Modeling**

**Catalog Course Title:** Financial Technology and Analytics **Financial Modeling**

**Catalog Description:**

This course is built on finance theory, financial analysis, and quantitative methods from prerequisite courses. **Students** The course will *extensively use Excel spreadsheets* to design and construct integrated financial models. The objective is to offer students opportunities to experience hands-on numerical analyses, company valuation, and dynamic projections.

**Prerequisites:** Finance 2150 or Graduate Standing.

**Field Trip Statement:**

**Credit Hours:**

<table>
<thead>
<tr>
<th>LEC:</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAB:</td>
<td>0</td>
</tr>
<tr>
<td>IND:</td>
<td>0</td>
</tr>
<tr>
<td>RSD:</td>
<td>0</td>
</tr>
<tr>
<td>Total:</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required for Majors:** No

**Elective for Majors:** Yes

**Justification for change:**

Instructor suggested description and title changes to more accurately describe the course.

**Semesters previously offered as an experimental course:**

**Co-Listed Courses:**

**Approval Path**

1. 09/13/18 12:40 pm  
   siauk: Approved for RBUSADMN Chair  
   09/13/18 1:26 pm  
   Brittany Parnell (ershenb): Approved for CCC Secretary  
   09/25/18 9:05 pm  
   Barry Flachsbart (barryf): Approved for Social Sciences DSCC Chair  
   10/08/18 3:17 pm  
   Brittany Parnell (ershenb): Approved for CCC Meeting Agenda  
   10/31/18 10:17 am  
   Brittany Parnell (ershenb): Approved for CCC Meeting Agenda  

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https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4499/index.html... 11/1/2018
FINANCE 5310: Financial Technology and Analytics

**Course Reviewer Comments**

6. 10/31/18 10:40 am
Stephen Raper (sraper):
Approved for
Campus Curricula
Committee Chair

**History**

1. Feb 5, 2018 by Barry Flachsbart (barryf)
Course Change Request

Viewing: GEOLOGY 4630 3631: Systematic Paleontology
File: 1211.10
Last approved: 03/26/18 3:33 am
Last edit: 10/31/18 10:18 am
Changes proposed by: ershenb

Requested: Fall 2019 08/14/2018
Effective Change Date

Department: Geosciences and Geological and Petroleum Engineering
Discipline: Geology (GEOLOGY)
Course Number: 4630 3631
Title: Systematic Paleontology
Abbreviated Course Title: Systematic Paleontology
Course Title

Catalog Description: Provide understanding of paleontological principles, morphological concepts, evolution of life, and applications/uses of fossils. Chronicles evolution and classification of microfossils, invertebrates, plants and palynomorphs. Emphasis on communication skills and teamwork. oral skills. A compulsory field trip to The Field Museum (Chicago) may be at student expense.

Prerequisites: Geology 1110 or Geology 1120 or Bio Sci 1113.
Field Trip Statement

Credit Hours: LEC: 2 LAB: 1 IND: 0 RSD: 0 Total: 3
Required for Majors: No
Elective for Majors: Yes

Semesters previously offered as an experimental course

Co-Listed Courses:

Justification for change: The lecture and lab section of this course have been substantially revised to include intensive communication components, and is more aligned to a senior-level course.

Course Reviewer Comments
ershenb (09/26/18 4:14 pm): Changed course number to "4630,"; edited description with "Emphasis on communication skills and teamwork."; added " or consent of instructor" to prerequisite per the request of Francisca Oboh-Ikuenobe (for technical Courseleaf issues).

ershenb (10/31/18 10:18 am): Removed "consent of instructor" from prerequisite.

Approval Path
1. 10/01/18 8:06 am David Borrok (borrokd): Approved for RGEOSENG Chair
2. 10/01/18 9:27 am Brittany Parnell (ershenb): Approved for CCC Secretary
3. 10/16/18 11:45 am Katie Shannon (shannonk): Approved for Sciences DSCC Chair
4. 10/16/18 12:02 pm Brittany Parnell (ershenb): Approved for Pending CCC Agenda post
5. 10/31/18 10:25 am Brittany Parnell (ershenb): Approved for CCC Meeting Agenda

File: 1211.10
Last approved: 03/26/18 3:33 am
Last edit: 10/31/18 10:18 am
Changes proposed by: ershenb

Request 1211
Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 06/06/18 3:35 pm

Viewing: NUC ENG 4365 : Radiation Protection Engineering

File: 2420.1
Last edit: 08/14/18 2:26 pm
Changes proposed by: tibbettsmg

Requested: Spring 2019 08/01/2014
Effective Change Date

Department: Mining & Nuclear Engineering
Discipline: Nuclear Engineering (NUC ENG)
Course Number: 4365
Title: Radiation Protection Engineering
Abbreviated Title: Radiation Protection Eng


Prerequisites: Nuc Eng 3205.
Field Trip Statement

Credit Hours: LEC: 3  LAB: 0  IND: 0  RSD: 0  Total: 3

Required for Majors: No
Elective for Majors: No

Justification for change: Elimination of courses that have not been taught for 10 or more years per Registrar.

Semesters previously offered as an experimental course
Co-Listed Courses:

Course Reviewer Comments

In Workflow
1. NUC ENG Chair
2. CCC Secretary
3. Engineering DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path
1. 09/25/18 2:21 pm
   Hyoong-Koo Lee (leehk): Approved for NUC ENG Chair
2. 09/25/18 3:15 pm
   Brittany Parnell (ershenb): Approved for CCC Secretary
3. 10/08/18 12:36 pm
   Stephen Raper (sraper): Approved for Engineering DSCC Chair
4. 10/08/18 3:37 pm
   Brittany Parnell (ershenb): Approved for Pending CCC Agenda post
5. 10/31/18 10:25 am
   Brittany Parnell (ershenb): Approved for CCC Meeting Agenda

6. 10/31/18 10:40 am
Stephen Raper (sraper):
Approved for
Campus Curricula
Committee Chair
# Course Deactivation Proposal

**Date Submitted:** 06/06/18 3:36 pm  
**Viewing:** **NUC ENG 6211 : Computational Methods In Nuclear Engineering**  
**File:** 424.1  
**Last edit:** 08/14/18 2:26 pm  
**Changes proposed by:** tibbetmsg  

<table>
<thead>
<tr>
<th>Requested</th>
<th>Spring 2019 08/01/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Change Date</td>
<td></td>
</tr>
<tr>
<td>Department</td>
<td>Mining &amp; Nuclear Engineering</td>
</tr>
<tr>
<td>Discipline</td>
<td>Nuclear Engineering (NUC ENG)</td>
</tr>
<tr>
<td>Course Number</td>
<td>6211</td>
</tr>
<tr>
<td>Title</td>
<td>Computational Methods In Nuclear Engineering</td>
</tr>
<tr>
<td>Abbreviated Course Title</td>
<td>Comp Mthds In Nucl Engr</td>
</tr>
<tr>
<td>Catalog Description</td>
<td>Numerical solution of the neutron diffusion and transport equations utilizing the computer. The Sn and Pn methods are studied in detail.</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Nuc Eng 4211 and Comp Sci 3200.</td>
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<tr>
<td>Field Trip Statement</td>
<td></td>
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<tr>
<td>Credit Hours</td>
<td>LEC: 3  LAB: 0  IND: 0  RSD: 0  Total: 3</td>
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<tr>
<td>Required for Majors</td>
<td>No</td>
</tr>
<tr>
<td>Elective for Majors</td>
<td>No</td>
</tr>
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</table>

**Justification for change:** Elimination of courses that have not been taught for 10 or more years per Registrar.

**Course Reviewer Comments**

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### Approval Path

1. **09/25/18 2:21 pm**  
   Hyoung-Koo Lee (leehk): Approved for **NUC ENG Chair**

2. **09/25/18 3:15 pm**  
   Brittany Parnell (ershenb): Approved for **CCC Secretary**

3. **10/08/18 12:37 pm**  
   Stephen Raper (sraper): Approved for **Engineering DSCC Chair**

4. **10/08/18 3:37 pm**  
   Brittany Parnell (ershenb): Approved for **Pending CCC Agenda post**

5. **10/31/18 10:26 am**  
   Brittany Parnell (ershenb): Approved for **CCC Meeting Agenda**
Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 06/06/18 3:36 pm

Viewing: NUC ENG 6221 : Advanced Nuclear Reactor Design

File: 2033.1

Last edit: 08/14/18 2:26 pm

Changes proposed by: tibbetmsg

Requested: Spring 2019 08/01/2014

Department: Mining & Nuclear Engineering

Discipline: Nuclear Engineering (NUC ENG)

Course Number: 6221

Title: Advanced Nuclear Reactor Design

Abbreviated Title: Adv Nuc Reactor Design

Course Title: Advanced Nuclear Reactor Design

Catalog Description: Complete design of a nuclear power reactor, including analysis of reactor physics and engineering; layout and design of primary and secondary cooling systems, pressure vessel and thermal shields, control systems; introduction to the economics of nuclear power.

Prerequisites: Nuc Eng 4211 and 3229.

Field Trip Statement: LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3

Credit Hours: LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3

Required for Majors: No

Elective for Majors: No

Justification for change: Elimination of courses that have not been taught for 10 or more years per Registrar.

Semesters previously offered as an experimental course:

Co-Listed Courses:

Course Reviewer Comments

Approval Path

1. 09/25/18 2:22 pm

   Hyyoung-Koo Lee (leehk): Approved for NUC ENG Chair

2. 09/25/18 3:15 pm

   Brittany Parnell (ershenb): Approved for CCC Secretary

3. 10/08/18 12:37 pm

   Stephen Raper (sraper): Approved for Engineering DSCC Chair

4. 10/08/18 3:37 pm

   Brittany Parnell (ershenb): Approved for Pending CCC Agenda post

5. 10/31/18 10:26 am

   Brittany Parnell (ershenb): Approved for CCC Meeting Agenda
Approved for Campus Curricula Committee Chair
## Course Change Request

A deleted record cannot be edited

### Course Deactivation Proposal

Date Submitted: 06/06/18 3:36 pm

**Viewing:** NUC ENG 6281: Probabilistic Risk Assessment II

File: 738.1
Last edit: 08/14/18 2:27 pm

Changes proposed by: tibbetmsg

<table>
<thead>
<tr>
<th>Requested</th>
<th>Spring 2019 08/01/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Change Date</td>
<td></td>
</tr>
<tr>
<td>Department</td>
<td>Mining &amp; Nuclear Engineering</td>
</tr>
<tr>
<td>Discipline</td>
<td>Nuclear Engineering (NUC ENG)</td>
</tr>
<tr>
<td>Course Number</td>
<td>6281</td>
</tr>
<tr>
<td>Title</td>
<td>Probabilistic Risk Assessment II</td>
</tr>
<tr>
<td>Abbreviated Course Title</td>
<td>Prob Risk Assessment II</td>
</tr>
<tr>
<td>Course Title</td>
<td></td>
</tr>
</tbody>
</table>

**Catalog Description:**
A continuation of Nuc Eng 4281 with emphasis on reliability, importance, availability and frequency of occurrence. Advanced topics of phased mission analysis and dynamic fault tree analysis will be considered. The use of fault tree results with respect to risk calculations will be studied.

**Prerequisites:**
Nuc Eng 4281.

**Field Trip Statement:**

**Credit Hours:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEC</td>
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<tr>
<td>LAB</td>
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</tr>
<tr>
<td>IND</td>
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<tr>
<td>RSD</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required for Majors:**
No

**Elective for Majors:**
No

**Justification for change:**
Elimination of courses that have not been taught for 10 or more years per Registrar.

**Semesters previously offered as an experimental course:**

**Co-Listed Courses:**

### Approval Path

1. 09/25/18 2:22 pm
   Hyoung-Koo Lee (leehk): Approved for NUC ENG Chair

2. 09/25/18 3:15 pm
   Brittany Parnell (ershenb): Approved for CCC Secretary

3. 10/08/18 3:38 pm
   Brittany Parnell (ershenb): Approved for Pending CCC Agenda post

4. 10/08/18 12:37 pm
   Stephen Raper (sraper): Approved for Engineering DSCC Chair

5. 10/31/18 10:26 am
   Brittany Parnell (ershenb): Approved for CCC Meeting Agenda

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Approved for
Campus Curricula
Committee Chair
# New Experimental Course Proposal

**BIO SCI 5001.003: Forest Insect Diversity & Ecology**

**Requested Effective Change Date:** Summer 2019  
**Department:** Biological Sciences  
**Discipline:** Biological Sciences (BIO SCI)  
**Course Number:** 5001  
**Topic ID:** 003  
**Experimental Title:** Forest Insect Diversity & Ecology  
**Experimental Abbreviated Course Title:** Insect Div and Ecol  
**Instructors:** Dr. Robin Verble  

**Description:**
In this course, you will learn key insect characteristics, common forest insects, insect life history and ecology, and entomological collection techniques. This course will be taught at the Ozark Research Field Station and will consist of several field trips to collecting sites and laboratory identification of insects.

**Prerequisites:** Bio Sci 2263  
**Field Trip Statement:** This course will be held at the Ozark Field Research Station in Newburg, Missouri. Students are expected to provide their own transportation to and from the Station.

**Credit Hours:**  
- LEC: 1  
- LAB: 2  
- IND: 0  
- RSD: 0  
- Total: 3

**Semester(s) previously taught:** None at Missouri S&T. Taught a similar course at Texas Tech University for three semesters.

**Justification for new course:** This course increases the summer offerings for the Department of Biological Sciences and utilizes the new Ozark Research Field Station. In addition, this course diversifies the offerings in the Department and addresses ecological, organismal, and field-based topics, thus strengthening our overall program.

**Co-Listed Courses:**

**Course Reviewer Comments:**

---

**Approval Path:**

1. **09/24/18 2:28 pm**  
   David Duvernell (duvernelld): Approved for RBIOLSCI Chair  

2. **09/24/18 3:34 pm**  
   Brittany Parnell (ershenb): Approved for CCC Secretary  

3. **10/16/18 11:42 am**  
   Katie Shannon (shannonk): Approved for Sciences DSCC Chair  

4. **10/16/18 12:01 pm**  
   Brittany Parnell (ershenb): Approved for CCC Agenda post  

5. **10/31/18 10:27 am**  
   Brittany Parnell (ershenb): Approved for CCC Meeting Agenda  

6. **10/31/18 10:40 am**  
   Stephen Raper (sraper): Approved for...
BIO SCI 5001.003: Forest Insect Diversity & Ecology

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4573/index.htm... 10/31/2018
Course Change Request

New Experimental Course Proposal

Date Submitted: 09/26/18 8:13 am

Viewing: CER ENG 3001.001: Engineering Leadership and Case Studies in Materials Engineering

File: 4574
Last edit: 10/08/18 2:15 pm
Changes proposed by: schwartzrob

Requested Effective Change Date
Spring 2019

Department Materials Science & Engineering
Discipline Ceramic Engineering (CER ENG)
Course Number 3001
Topic ID 001

Experimental Title Engineering Leadership and Case Studies in Materials Engineering
Experimental Abbreviated Course Title Materials Case Studies

Instructors Robert W. Schwartz

Experimental Catalog Description
The application of materials engineering principles to materials development with a focus on real-world materials applications. Case studies of materials engineering development challenges and leadership in engineering organizations will be used to develop a comprehensive perspective of societal, environmental, global, and economic influences.

Prerequisites
Junior Standing in ceramic or metallurgical engineering.

Field Trip Statement

Credit Hours
LEC: 3.0 LAB: 0.0 IND: 0.0 RSD: 0.0 Total: 3.0

In Workflow
1. RMATSENG Chair
2. CCC Secretary
3. Engineering DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. CAT entry
8. Registrar

Approval Path
1. 09/26/18 8:14 am Greg Hilmas (ghilmas):
   Approved for RMATSENG Chair
2. 09/26/18 8:49 am Brittany Parnell (ershenb):
   Approved for CCC Secretary
3. 10/08/18 12:34 pm Stephen Raper (sraper):
   Approved for Engineering DSCC Chair
4. 10/08/18 2:15 pm Brittany Parnell (ershenb):
   Approved for Pending CCC Agenda post
5. 10/31/18 10:28 am Brittany Parnell

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4574/index.htm...
Justification for new course:
The existing capstone design course is an avenue for students to further develop as engineers and put together what they have learned in their earlier courses to begin to solve more complex engineering problems. While the course contributes to the attainment of these objectives, the focus on a specific and narrow design project does not enable the students to gain the broad perspective needed to perform effectively from day one at the level expected by employers. This course will thus supplement the current required senior design course and provide an avenue for students who take this elective course to further develop their professional abilities across the spectrum of ABET and HLC/Missouri S&T campus-wide student learning outcomes.

Semester(s) previously taught
None.

Co-Listed Courses:

Course Reviewer sraper (10/08/18 12:34 pm): Removed last part of prereq statement.
Comments
Course Change Request

New Experimental Course Proposal

Date Submitted: 09/05/18 8:09 am

Viewing: ECON 3001.002 : Advancing Innovation in Rural Economic Ecosystems

File: 4565
Last edit: 10/31/18 10:43 am
Changes proposed by: schwartzrob

Requested  Spring 2019
Effective Change Date

Department  Economics
Discipline  Economics (ECON)
Course Number  3001
Topic ID  002
Experimental Title  Advancing Innovation in Rural Economic Ecosystems
Experimental Abbreviated Course Title  Innovate in Rural Areas
Instructors  Robert Schwartz, Bonnie Bachman and Caprice Moore

Experimental Catalog Description
This experiential learning course allows students to perform a local ecosystem map and/or further develop an innovation (including their own) in a rural Missouri community. Course instructors identify host communities to facilitate partnerships with local business leaders to enable student progress on commercialization of the innovation.

Prerequisites
One of Econ 1100, Econ 1200 or Eng Mgt 1210.

Field Trip Statement
While there are no formal field trips, students complete their independent study off-campus in a rural community in Missouri.

Credit Hours  LEC: 1.0  LAB: 0  IND: 1 - 2  RSD: 0  Total: 2 - 3

In Workflow
1. RECONOMI Chair
2. CCC Secretary
3. Social Sciences DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. CAT entry
8. Registrar

Approval Path
1. 09/18/18 1:20 pm  Gregory Gelles (gelles):
   Approved for RECONOMI Chair
2. 09/18/18 1:41 pm  Brittany Parnell (ershenb):
   Approved for CCC Secretary
3. 09/25/18 9:06 pm  Barry Flachsbart (barryf):
   Approved for Social Sciences DSCC Chair
4. 09/26/18 9:01 am  Brittany Parnell (ershenb):
   Approved for Pending CCC Agenda post
5. 09/26/18 9:03 am  Brittany Parnell (ershenb):
   Rollback to

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4565/index.htm...
Justification for new course:
The development of this course is funded by a grant from VentureWell to enable the development of student-driven innovations in rural settings. It will provide a unique opportunity for students interested in innovation to learn about rural economic ecosystems and to further develop their innovative concepts in a rural setting, meeting the need for economic development in these regions of the state. There are no similar courses offered at Missouri S&T, our sister campuses, or elsewhere. A course in Rural Entrepreneurship is offered at MU, but the proposed course is focused on aiding students in furthering their own technical innovations. The course will complement courses being developed for the Applied Innovation Minor offered through the Economics department.

Semester(s) previously taught
None

Please note - the course should be co-listed in ENG MGT as a 3001 experimental course.

Co-Listed Courses:
Eng Mgt 3001 - Course Not Found

Course Reviewer Comments
ershenb (09/26/18 9:03 am): Rollback:

ershenb (10/31/18 10:43 am): Added "One of" and removed the following from the prerequisite statement: "Have completed at least one of the following: Permission of instructor. It is recommended, but not required, that students seeking to enroll in the course will have completed one of the courses in the Applied Innovation Minor and/or a communications course."

Pending CCC Agenda post for CCC Meeting 6. 10/08/18 2:20 pm Brittany Parnell (ershenb):
Approved for Pending CCC Agenda post 7. 10/31/18 10:44 am Brittany Parnell (ershenb):
Approved for CCC Meeting Agenda 8. 10/31/18 10:54 am Stephen Raper (sraper):
Approved for Campus Curricula Committee Chair 9. 10/31/18 11:18 am Marita Tibbetts (tibbettsmg):
Approved for CAT entry
Course Change Request

New Experimental Course Proposal

Viewing: GEO ENG 5001.003 : Geological and Civil Engineering Issues in Southern Africa

File: 4572.3
Changes proposed by: nanders

Requested: Spring 2019
Effective Change Date

Department
Geosciences and Geological and Petroleum Engineering

Discipline
Geological Engineering (GEO ENG)

Course Number: 5001
Topic ID: 003
Experimental Title

Completed Workflow

1. RGEOSENG Chair
2. CCC Secretary
3. Engineering DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. CAT entry
8. Registrar

Approval Path
1. 09/19/18 11:12 am
   David Borrok (borrokd):
   Approved for RGEOSENG Chair
2. 09/19/18 3:46 pm
   Brittany Parnell (ershenb):
   Approved for CCC Secretary
3. 10/08/18 12:36 pm
   Stephen Raper (sraper):
   Approved for Engineering DSCC Chair

4. 10/08/18 3:32 pm
   Brittany Parnell (ershenb):
   Approved for Pending CCC Agenda post

5. 10/31/18 10:46 am
   Brittany Parnell (ershenb):
   Approved for CCC Meeting Agenda

6. 10/31/18 10:54 am
   Stephen Raper (sraper):
   Approved for Campus Curricula Committee Chair

7. 10/31/18 11:10 am
   Marita Tibbetts (tibbettsmg):
   Approved for CAT entry
Geological and Civil Engineering Issues in Southern Africa

Experimental Engineering in Africa

Abbreviated Course Title: Engineering in Africa

Instructors: Neil Anderson and Eric Showalter

Experimental Catalog

Description
Registrants will travel to southern Africa and will visit sites, people and institutions with a view to learning about geological and civil engineering issues in southern Africa. Emphasis will be placed issues related to mining, water resources and the environment in countries where water, in places, is in short supply.

Prerequisites
Permission of instructor.

Field Trip Statement
A field trip to southern Africa is a course requirement.

Credit Hours
LEC: 3  LAB: 0  IND: 0  RSD: 0
Total: 3

Justification for new course:
This is an experiential learning course.
Semester(s) previously taught
  Offered previously (twice) as GE 5001 (or equivalent).
Co-Listed Courses:
  CIV ENG 5001 - Special Topics
Course Reviewer
Comments

Key: 4572
## New Experimental Course Proposal

**GEO ENG 6001.002 : Geological and Civil Engineering Practices in Southern Africa**

<table>
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</tr>
</thead>
<tbody>
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<td>Department</td>
<td>Geosciences and Geological and Petroleum Engineering</td>
</tr>
<tr>
<td>Discipline</td>
<td>Geological Engineering (GEO ENG)</td>
</tr>
<tr>
<td>Course Number</td>
<td>6001</td>
</tr>
<tr>
<td>Topic ID</td>
<td>002</td>
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<tr>
<td>Experimental Title</td>
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<tr>
<td>Experimental Abbreviated Course Title</td>
<td>Eng Practices in Africa</td>
</tr>
<tr>
<td>Instructors</td>
<td>Neil Anderson and Eric Showalter</td>
</tr>
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</table>

### Experimental Catalog Description
Registrants will travel to southern Africa and will visit sites, people and institutions with a view to learning about geological and civil engineering practices in southern Africa. Emphasis will be placed on construction, mining and environmental practices in countries where the cost of labor is relatively low and the cost of equipment is relatively high.

### Prerequisites
Permission of Instructor.

### Field Trip Statement
A field trip to southern Africa is a course requirement.

### Credit Hours
- **LEC:** 3
- **LAB:** 0
- **IND:** 0
- **RSD:** 0
- **Total:** 3

### Justification for new course:
This course is an experiential learning course.

### Semester(s) previously taught
Offered previously (twice) as GE 6000.

### Co-Listed Courses:
CIV ENG 6001 - Special Topics

### Course Reviewer Comments
ershenb (10/31/18 10:47 am): Added field trip statement.
GEO ENG 6001.002: Geological and Civil Engineering Practices in Southern Africa

Campus Curricula Committee Chair
7. 10/31/18 11:08 am
Marita Tibbetts (tibbettsmg): Approved for CAT entry

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4571/index.htm... 10/31/2018
New Experimental Course Proposal

Date Submitted: 08/28/18 11:42 pm

Viewing: GEOLOGY 5001.002: Introduction to Geoscience Research Methodologies

Department: Geosciences and Geological and Petroleum Engineering
Discipline: Geology (GEOLOGY)
Course Number: 5001
Topic ID: 002
Experimental Title: Introduction to Geoscience Research Methodologies
Experimental Abbreviated Course Title: Intro Geosci Res Method
Instructors: Andreas Eckert, John Hogan, Marek Locmelis

Students will receive hands-on training in fundamental aspects of geoscience research, ranging from (i) thorough literature review techniques to (ii) the use of sophisticated geoscience instrumentation, (iii) specialized software, (iv) database management, geoscience-specific proposal/manuscript preparation, and (vi) presentation of results at conferences.

Prerequisites: Instructor approval.
Field Trip Statement:
Credit Hours: LEC: 3, LAB: 0, IND: 0, RSD: 0, Total: 3

Justification for new course:

Students need hands-on training and experience using sophisticated geoscience instrumentation and software, large data sets and publication databases, and numerical modeling tools. They also need experience in researching papers and presenting results to larger groups of peers.

Semester(s) previously taught: This is a new course. This course is necessary to meet obligations of NSF grant 1801598
Co-Listed Courses:

Course Reviewer
Comments

Key: 4558
Approved for CAT entry
Course Change Request

**New Experimental Course Proposal**

Date Submitted: 10/09/18 10:39 am

Viewing: **GEOLOGY 6001.002 : Applied Petroleum System Analysis**

File: 4576
Last edit: 10/16/18 1:25 pm
Changes proposed by: johfb

Requested Effective Change Date: Spring 2019

Department: Geosciences and Geological and Petroleum Engineering
Discipline: Geology (GEOLOGY)
Course Number: 6001
Topic ID: 002
Experimental Title: Applied Petroleum System Analysis
Experimental Abbreviated Course Title: Applied Petro Sys Anlys
Instructors: Jonathan Obrist-Farner

Experimental Catalog Description: Prospective basin evaluation for geoscience graduate students. An industry dataset will be analyzed using geological, geophysical, and engineering methods and software. Students will analyze and interpret well logs, interpret 3D seismic datasets, integrate knowledge from literature, and construct a 3D geomodel for volumetric estimations.

Prerequisites: Geo 5513, Geophys 4231, Pet Eng 3330; consent of instructor.

Field Trip Statement: Credit Hours
LEC: 3  LAB: 3  IND: 0  RSD: 0  Total: 6

Justification for new course: This course is imperative to prepare geoscience graduate students for the integrative and interdisciplinary workforce requirements in the oil industry. Part of the course will be to prepare the students for the AAPG Imperial Barrel Award World Competition, which will provide an opportunity for students to present their work in front of a panel of industry experts. This course will promote the university and its teaching excellence in petroleum geoscience.

Semester(s) previously taught
Co-Listed Courses:

Course Reviewer Comments

Key: 4576

In Workflow
1. RGEOSENG Chair
2. CCC Secretary
3. Sciences DSCC Chair
4. Pending CCC Chair Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. CAT entry
8. Registrar

Approval Path
1. 10/09/18 10:41 am
   David Borrok (borrokd):
   Approved for RGEOSENG Chair
2. 10/09/18 2:02 pm
   Brittany Parnell (ershenb):
   Approved for CCC Secretary
3. 10/16/18 11:45 am
   Katie Shannon (shannonk):
   Approved for Sciences DSCC Chair
4. 10/16/18 12:02 pm
   Brittany Parnell (ershenb):
   Approved for Pending CCC Chair Agenda post
5. 10/31/18 10:54 am
   Brittany Parnell (ershenb):
   Approved for CCC Meeting Agenda
6. 10/31/18 10:54 am
   Stephen Raper (sraper):

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4576/index.htm... 10/31/2018
Course Change Request

New Experimental Course Proposal

Viewing: GEOLOGY 6001.003 : Fossils, Deep Time and Extinctions

File: 4575.5
Changes proposed by: ikuenobe

Requested Spring 2019
Effective Change Date

Department
Geosciences and Geological and Petroleum Engineering

Discipline
Geology (GEOLOGY)

Course Number 6001
Topic ID 003
Experimental Title

Completed Workflow
1. RGEOSENG Chair
2. CCC Secretary
3. Sciences DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. CAT entry
8. Registrar

Approval Path
1. 10/01/18 8:06 am
   David Borrok (borrokd):
   Approved for RGEOSENG Chair

2. 10/01/18 9:29 am
   Brittany Parnell (ershenb):
   Approved for CCC Secretary

3. 10/16/18 11:57 am

GEOLOGY 6001.003: Fossils, Deep Time and Extinctions

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/4575/index.html...
4. 10/16/18 12:02 pm
Brittany Parnell (ershenb):
Approved for Pending CCC Agenda post

5. 10/31/18 10:56 am
Brittany Parnell (ershenb):
Approved for CCC Meeting Agenda

6. 10/31/18 11:04 am
Stephen Raper (sraper):
Approved for Campus Curricula Committee Chair

7. 11/02/18 11:28 am
Marita Tibbetts (tibbettsmg):
Approved for CAT entry

8. 11/02/18 11:29 am
Fossils, Deep Time and Extinctions
Experimental Abbreviated Course Title
Instructors Francisca Oboh-Ikuenobe Experimental Catalog
Description
Evolutionary development and stratigraphic distribution of macrofossil and microfossil groups, interpretation of geological (deep) time, and discussion of driving forces for major extinction events. Module includes practical exercises. Emphasis on communication skills and team work. Major focus on industrial applications.
Prerequisites
Field Trip
Statement
Optional field trip
Credit Hours LEC: 3 LAB: 0 IND: 0 RSD: 0
Total: 3
Justification for new course:
Understanding how macrofossils and microfossils evolved through geological (deep) time is critical for dating and correlation in exploration of fossil fuels. An advanced course such as the proposed course will give students the critical skills they need for employment in such industries. An additional benefit is the understanding of the drivers behind the major extinction events in the geologic past and how they enable more precise biostratigraphic dating. This course will be marketed to Earth Science teachers (for MST course credit) and industry personnel, and will be taught in distance learning and classroom formats.

Semester(s)
previously taught
N/A
Co-Listed
Courses:
Course Reviewer
Comments
ershenb (10/31/18 10:55 am): Removed "consent of instructor" from prerequisite.