Minutes of the Campus Curricula Committee Meeting
December 1, 2015
12:30 p.m., Room 106B Parker Hall


Guest: Keng Siau

Discussion of whether to count Business, Finance, and Marketing courses for Social Science credit: to be continued at January CCC meeting.

The following curriculum forms were discussed and approved:

**Course Change Forms:**
- File #4265
- File #1911.1
- File #2009.1

**Degree Change Forms:**
- File #1234.1
- File #1903.4
- File #1738.1

**Experimental Course Forms:**
- File #147.10
- File #4266
- File #4267

The meeting adjourned at 1:15 p.m.

Ilene H. Morgan, Chair
Missouri S&T Campus Curricula Committee
### Course Inventory Change Request

**New Course Proposal**

**Date Submitted:** 10/08/15 1:04 pm  
**Viewing:** EXP ENG 6050: Continuous Registration  
**File:** 4265  
**Last edit:** 10/08/15 1:04 pm  
**Changes proposed by:** pworessy

<table>
<thead>
<tr>
<th>Requested</th>
<th>Spring 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Change Date</td>
<td></td>
</tr>
</tbody>
</table>

| Department | Mining & Nuclear Engineering |
| Discipline | Explosives Engineering (EXP ENG) |
| Course Number | 6050 |
| Title | Continuous Registration |
| Abbreviated Course Title | Continuous Registration |

**Catalog Description**

Doctoral candidates who have completed all requirements for the degree except the dissertation and are away from the campus must continue to enroll for at least one hour of credit each registration period until the degree is completed. Failure to do so may invalidate the candidacy. Billing will be automatic as will registration upon payment.

**Prerequisites**

**Field Trip Statement**

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>LEC: 0</th>
<th>LAB: 0</th>
<th>IND: 1.0</th>
<th>RSD: 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total: 1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required for Majors</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective for Majors</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Approval Path**

1. 10/08/15 3:29 pm  
   refori: Approved for RMINNUCL Chair
2. 10/09/15 7:38 am  
   Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 11/02/15 9:43 am  
   sraper: Approved for Engineering DSCC Chair
4. 11/11/15 3:39 pm  
   Kaylon Buckner (kleb6b): Approved for Pending CCC
Justification for new course:
Course is not available for Explosives Engineering doctoral candidates to enroll in once they have completed all requirements for the degree except the dissertation.

Semesters previously offered as an experimental course

Co-Listed Courses:

<table>
<thead>
<tr>
<th>Course Reviewer</th>
<th>Comments</th>
</tr>
</thead>
</table>

Agenda post
5. 12/01/15 1:33 pm
Kaylon Buckner (kleb6b):
Approved for CCC Meeting Agenda
6. 12/01/15 1:57 pm
imorgan:
Approved for Campus Curricula Committee Chair

Key: 4265
Preview Bridge
Course Inventory Change Request

Date Submitted: 10/07/15 2:41 pm

Viewing: **EXP ENG 6070 6002-: Graduate Cooperative Experience**

**Experience**

File: 1234.1
Last edit: 10/09/15 7:39 am
Changes proposed by: pworsey

Requested: **Spring 2016, Fall 2014**
Effective Change Date:

Department: Mining & Nuclear Engineering
Discipline: Explosives Engineering (EXP ENG)
Course Number: **6070-6002**
Title: Graduate Cooperative Experience
Abbreviated: Graduate Coop Experience
Course Title:

Catalog Description

Students on an approved internship will complete a project designed by the advisor and employer. The project selected must require that student apply critical thinking skills and discipline specific knowledge in the work setting. A major report and a formal presentation are required.

Prerequisites

12 hours Exp Eng coursework.

Field Trip Statement

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

Required for Majors: No
Elective for Majors: No

Justification for
change:
Registrar's office has requested a change in number because the course apparently does not fit the 6002 designation.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Agenda post
5. 12/01/15 1:33 pm
Kaylon Buckner
(kleb6b):
Approved for CCC
Meeting Agenda
6. 12/01/15 1:57 pm
imorgan:
Approved for
Campus Curricula
Committee Chair
Course Inventory Change Request

Date Submitted: 10/28/15 1:58 pm

Viewing: **MECH ENG 5449: Robotic Manipulators and Mechanisms**

File: 1911.1

Last edit: 11/11/15 3:37 pm

Changes proposed by: nisbett

Programs referencing this course:
- AUTOENG-MI: Minor in Automation Engineering
- MC ENG-BS: Mechanical Engineering BS

Other Courses referencing this course:
- In The Catalog Description: AERO ENG 5449: Robotic Manipulators & Mechanisms
- In The Prerequisites:
  - COMP ENG 6880: Advanced Topics in Robotics
  - COMP SCI 6403: Advanced Topics in Robotics
  - ELEC ENG 6880: Advanced Topics in Robotics

Requested Effective Change Date: Summer 2016Fall 2014

Department: Mechanical & Aerospace Engineering

Discipline: Mechanical Engineering (MECH ENG)

Course Number: 5449

Title: Robotic Manipulators and Mechanisms

Abbreviated Course Title: Robotic Manipulat & Mech

Catalog Description:
Overview of industrial applications, manipulator systems and geometry. Manipulator kinematics; hand location, velocity and acceleration. Basic formulation of manipulator dynamics and control. Introduction to machine vision. Projects include robot programming, vision-aided inspection and guidance, and system integration.

Prerequisites:
MECH ENG 5449: Robotic Manipulators and Mechanisms

### Field Trip Statement

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>LEC: 2</th>
<th>LAB: 1</th>
<th>IND: 0</th>
<th>RSD: 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total: 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Required for Majors:** No

**Elective for Majors:** Yes- No

**Justification for change:**

Adding option for other programming languages to satisfy the prerequisite.

**Semesters previously offered as an experimental course**

**Co-Listed Courses:** AERO ENG 5449 - Robotic Manipulators & Mechanisms

**Course Reviewer Comments**
Course Inventory Change Request

Date Submitted: 11/05/15 12:32 pm

Viewing: **MET ENG 3220: Introduction To Extractive Metallurgy**

**Programs referring this course**

**MT ENG-BS: Metallurgical Engineering BS**

**Other Courses referring this course**

**In The Prerequisites:**

**MET ENG 3225: Extractive Metallurgy Laboratory**

**Requested Effective Change Date**

**Summer 2016-Spring 2015**

**Department**

Materials Science & Engineering

**Discipline**

Metallurgical Engineering (MET ENG)

**Course Number**

3220

**Title**

Introduction To Extractive Metallurgy

**Abbreviated Course Title**

Intro Extractive Met

**Catalog Description**

Production and refining of metals by pyrometallurgy, hydrometallurgy, and electrometallurgy. Emphasis on heat and mass balance calculations for the unit processes of metals extraction. Introduction to the principles of combustion, heat utilization and recovery.

**Prerequisites**

"C" or better grade in Met Eng 1210. Preceded or accompanied by Met Eng 3330 or Cer Eng 3230 3240 or Chem Eng 2210.

**Field Trip**

**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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. Ishelton
11. Peoplesoft

**Approval Path**

1. 11/05/15 1:11 pm
   Richard Brow (brow): Approved for RMATSENG Chair
2. 11/05/15 1:16 pm
   Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 11/12/15 1:43 pm
   sraper: Approved for Engineering DSCC Chair
4. 11/12/15 1:52 pm
   Kaylon Buckner (kleb6b): Approved for
Statement

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

Required for Majors  Yes
Elective for Majors  No

Justification for change:
Prerequisites had a typo (Cer 3240 instead of Cer 3230) and now none of our students can enroll.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer
Comments

Key: 1903
Preview Bridge
# Course Inventory Change Request

**Date Submitted:** 10/15/15 10:54 am

**Viewing:** **PHYSICS 1119: General Physics Laboratory**

**File:** 2009.1  
**Last edit:** 12/01/15 1:34 pm  
**Changes proposed by:** waddill

### Programs referencing this course

- AP MATH-BS: Applied Mathematics BS
- BIO SC-BA: Biological Sciences BA
- BIO SC-BS: Biological Sciences BS
- CHEM-BA: Chemistry BA
- CHEM-BS: Chemistry BS
- CMP SC-BS: Computer Science BS
- CP ENG-BS: Computer Engineering BS
- EL ENG-BS: Electrical Engineering BS
- GL&GPH-BS: Geology and Geophysics BS
- PHYSIC-BS: Physics BS
- PRE-MED-MI: Pre-Medicine Minor

### Requested Effective Change Date

**Spring 2016, Fall 2014**

### Department

Physics

### Discipline

Physics (PHYSICS)

### Course Number

1119

### Title

General Physics Laboratory

### Abbreviated Course Title

General Physics Lab

### Catalog Description

Experiments related to topics studied in Physics 1111 and Physics 1145.

### Prerequisites

Preceded or accompanied by either Physics 1111 or Physics 1145.

### Field Trip Statement

- **Credit Hours**: LEC: 0, LAB: 1, IND: 0, RSD: 0
<table>
<thead>
<tr>
<th>Course Reviewer</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>imorgan (10/30/15 10:16 am)</td>
<td>Edited slightly based on DSCC discussion.</td>
</tr>
</tbody>
</table>

**Total:** 1

<table>
<thead>
<tr>
<th>Required for Majors</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective for Majors</td>
<td>No</td>
</tr>
</tbody>
</table>

**Justification for change:**

Physics 1119 has always been the lab course for both Physics 1111 and Physics 1145. Physics 1145 was inadvertently omitted in the original prerequisites.

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

- Physics 1119
- Physics 1145

**Co-Listed Courses:**

- PHYSICS 1119: General Physics Laboratory


---

**Meeting Agenda**

5. 12/01/15 1:34 pm

Kaylon Buckner (kleb6b):
Approved for Pending CCC Agenda post

6. 12/01/15 1:58 pm

imorgan:
Approved for Campus Curricula Committee Chair
## Course Inventory Change Request

**Date Submitted:** 10/15/15 10:56 am

**Viewing:** PHYSICS 2119: General Physics Laboratory

**File:** 1738.1

**Last edit:** 12/04/15 11:26 am

Changes proposed by: waddill

### Programs referencing this course
- AP MATH-BS: Applied Mathematics BS
- BIO SC-BA: Biological Sciences BA
- BIO SC-BS: Biological Sciences BS
- CHEM-BA: Chemistry BA
- CHEM-BS: Chemistry BS
- CMP SC-BS: Computer Science BS
- CP ENG-BS: Computer Engineering BS
- EL ENG-BS: Electrical Engineering BS
- GL&GPH-BS: Geology and Geophysics BS
- PHYSIC-BS: Physics BS
- PRE-MED-MI: Pre-Medicine Minor

### Requested Effective Change Date

**Summer 2016 - Fall 2014**

### Catalog Description

Experiments related to topics studied in Physics 2111 and Physics 2145.

### Prerequisites

Preceded or accompanied by either Physics 2111 or Physics 2145.

### Field Trip Statement

### Credit Hours

**LEC:** 0  **LAB:** 1  **IND:** 0  **RSD:** 0

**In Workflow**

1. RPHYSICS Chair
2. CCC Secretary
3. Sciences 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. Peoplesoft

**Approval Path**

1. 10/15/15 10:57 am  
   waddill: Approved for RPHYSICS Chair
2. 10/15/15 11:13 am  
   Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 11/05/15 3:29 pm  
   imorgan: Approved for Sciences DSCC Chair
4. 11/11/15 3:39 pm  
   Kaylon Buckner
Total: 1

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Required for</td>
<td>No</td>
</tr>
<tr>
<td>Majors</td>
<td></td>
</tr>
<tr>
<td>Elective for</td>
<td>No</td>
</tr>
<tr>
<td>Majors</td>
<td></td>
</tr>
</tbody>
</table>

Justification for change:

Physics 2119 has always been the lab associated with Physics 2111 and Physics 2145. Physics 2145 was originally omitted from the prerequisite list by mistake. This is to add it where it belongs.

Semesters
previously
offered as an experimental course

Co-Listed Courses:

Course Reviewer: imorgan (10/30/15 10:17 am): Edited slightly based on DSCC comments.
Program Change Request

Date Submitted: 10/30/15 10:23 am

Viewing: **BIO SC-BS : Biological Sciences BS**

File: 147.10

Last approved: 08/01/14 3:02 pm

Last edit: 10/30/15 11:20 am

Changes proposed by: imorgan

Catalog Pages
Using this Program

Start Term
Fall 2016-8/1/2014

Program Code
BIO SC-BS

Department
Biological Sciences

Title
Biological Sciences BS

Program Requirements and Description

**Bachelor of Science**

**Biological Sciences**

**Degree Requirements**

A minimum of 130 credit hours is required for a Bachelor of Science degree in Biological Science.

A minimum grade of “C” is required for each Biological Science course used to fulfill the B.S. degree requirements.

These requirements for the B.S. degree are in addition to credit that is received for basic ROTC.

The Biological Science B.S. degree must include **49** 46-semester hours of biological sciences course work, to include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIO SCI 1201</strong></td>
<td>Introduction To Biological Science</td>
<td>1</td>
</tr>
<tr>
<td><strong>BIO SCI 1113</strong></td>
<td>General Biology</td>
<td>3</td>
</tr>
<tr>
<td>or <strong>BIO SCI 1213</strong></td>
<td>Principles of Biology</td>
<td></td>
</tr>
<tr>
<td><strong>BIO SCI 1219</strong></td>
<td>General Biology Lab</td>
<td>2</td>
</tr>
<tr>
<td><strong>BIO SCI 1223</strong></td>
<td>Biodiversity</td>
<td>3</td>
</tr>
</tbody>
</table>

In Workflow

1. RBIOLSCI Chair
2. CCC Secretary
3. Sciences DSSC 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. kristyg

Approval Path

1. 10/30/15 11:07 am huangy: Approved for RBIOLSCI Chair
2. 10/30/15 11:20 am Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 11/05/15 3:28 pm imorgan: Approved for Sciences DSSC Chair
4. 11/11/15 3:39 pm Kaylon Buckner (kleb6b): Approved for Pending CCC Agenda post
5. 12/01/15 1:33 pm Kaylon Buckner (kleb6b): Approved for CCC Meeting Agenda
6. 12/01/15 1:55 pm imorgan: Approved for Campus Curricula Committee Chair

History

1. Aug 1, 2014 by shannonk

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/programadm...
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO SCI 1229</td>
<td>Biodiversity Lab</td>
<td>1</td>
</tr>
<tr>
<td>BIO SCI 2213</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 2219</td>
<td>Cell Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIO SCI 2223</td>
<td>General Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 2233</td>
<td>Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 2263</td>
<td>Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI 4010</td>
<td>Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

Advanced biological sciences or approved course work in other departments for a total of 46 credit hours of biology-related classes to include at least one laboratory course from the following: 22

Advanced biological sciences or approved course work in other departments for a total of 49 credit hours of biology-related classes to include at least one laboratory course from the following: 25

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO SCI 3319</td>
<td>Microbiology Lab</td>
<td></td>
</tr>
<tr>
<td>or BIO SCI 3339</td>
<td>Human Anatomy Physiology I Lab</td>
<td></td>
</tr>
<tr>
<td>or BIO SCI 3349</td>
<td>Human Anatomy and Physiology II Laboratory</td>
<td></td>
</tr>
<tr>
<td>or BIO SCI 4329</td>
<td>Molecular Genetics Laboratory</td>
<td></td>
</tr>
</tbody>
</table>

22 semester hours of chemistry to include general chemistry 22

19 semester hours of chemistry to include general chemistry 19

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1310 &amp; CHEM 1319</td>
<td>General Chemistry I and General Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 1320 &amp; CHEM 1100</td>
<td>and General Chemistry II and Introduction To Laboratory Safety &amp; Hazardous Materials</td>
<td></td>
</tr>
<tr>
<td>CHEM 2210 &amp; CHEM 2219</td>
<td>Organic Chemistry I and Organic Chemistry I Lab</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 2220 &amp; CHEM 2229</td>
<td>and Organic Chemistry II and Organic Chemistry II Lab</td>
<td></td>
</tr>
<tr>
<td>CHEM 4610</td>
<td>General Biochemistry</td>
<td></td>
</tr>
</tbody>
</table>

2 semesters of College (General) Physics and labs 8-10

2 semesters of College (Engineering) Physics and labs 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS 1145 &amp; PHYSICS 1119</td>
<td>College Physics I and General Physics Laboratory</td>
<td></td>
</tr>
<tr>
<td>or PHYSICS 1136</td>
<td>Engineering Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 2145 &amp; PHYSICS 2119</td>
<td>College Physics II and General Physics Laboratory</td>
<td></td>
</tr>
<tr>
<td>or PHYSICS 2136</td>
<td>Engineering Physics II</td>
<td></td>
</tr>
</tbody>
</table>

Math and Statistics 8-9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1208</td>
<td>Calculus With Analytic Geometry I</td>
<td></td>
</tr>
<tr>
<td>or MATH 1214</td>
<td>Calculus For Engineers I</td>
<td></td>
</tr>
<tr>
<td>or MATH 1212</td>
<td>Business Calculus</td>
<td></td>
</tr>
<tr>
<td>STAT 5425</td>
<td>Introduction to Biostatistics</td>
<td></td>
</tr>
</tbody>
</table>

12 semester hours of humanities, excluding foreign language, and to include: 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 1120 &amp; ENGLISH 1160</td>
<td>Exposition And Argumentation and Writing And Research (entering students will normally take ENGLISH 1120 either semester of the first year)</td>
<td></td>
</tr>
</tbody>
</table>

9 hours of social sciences, to include 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY 1200</td>
<td>Modern Western Civilization (or equivalent)</td>
<td></td>
</tr>
<tr>
<td>or HISTORY 1300</td>
<td>American History To 1877</td>
<td></td>
</tr>
<tr>
<td>or HISTORY 1310</td>
<td>American History Since 1877</td>
<td></td>
</tr>
<tr>
<td>or POL SCI 1200</td>
<td>American Government</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 105-106
**Elective credits:** In consultation with his or her advisor, each student will elect sufficient additional courses to complete a minimum of 130 credit hours.

<table>
<thead>
<tr>
<th>Justification for request</th>
<th>(Original change needed to be shredded. This version matches Bio Sci's intentions. I've included their justification below.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>We are removing Biochemistry, CHEM 4610 as a requirement, although it can still count as an upper level Biology elective. The number of required Chemistry hours will decrease to 19 from 22, while number of elective Biology hours will increase from 22 to 25.</td>
</tr>
<tr>
<td></td>
<td>We removed Physics 1111 and 2111, General Physics, since they are no longer offered, and provided the option of Engineering Physics I and II instead. Total Physics hours will be 8.</td>
</tr>
</tbody>
</table>

**Supporting Documents**

**Course Reviewer Comments**

**kleb6b (10/30/15 11:20 am):** Update effective term
**New Experimental Course Proposal**

Date Submitted: 10/27/15 9:47 am

Viewing: **CIV ENG 6001.004 : Physicochemical Effects in Soils**

File: 4266

Last edit: 10/27/15 10:19 am

Changes proposed by: brackenl

Requested Effective Change Date

Spring 2016

Department Civil, Architectural, and Environmental Engineering

Discipline Civil Engineering (CIV ENG)

Course Number 6001

Topic ID 004

Experimental Title Physicochemical Effects in Soils

Experimental Abbreviated Course Title Physicochem Soils

Instructors Dr. Bate Bate

Experimental Catalog Description

Soils are multi-phase particulate materials. The unique and inherent aspects of macro-scale soil behavior and associated phenomena are explored at the micro-scale.

Prerequisites Civ Eng 3715.

Field Trip Statement None

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

Total: 3

Justification for

In Workflow

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

Approval Path

1. 10/27/15 10:01 am Douglas Carroll (dougc): Approved for RCIVILEN Chair
2. 10/27/15 10:19 am Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 11/02/15 11:04 am sraper: Approved for Engineering DSCC Chair
4. 11/11/15 3:39 pm Kaylon Buckner (kleb6b): Approved for Pending CCC Agenda post
5. 12/01/15 1:33 pm
new course:
There is lack of a course, which integrates the microscopic properties into the macroscopic behaviors of geomaterials in geotechnical engineering. However, multi-disciplinary research is the future of geotechnical engineering. This course fills in the gap and fosters the next generation geotechnical engineers with knowledge in geochemistry, physico-chemistry, and in-depth understanding of the emerging geotechnical areas, such as soil stabilization of polymers and biomediation.

All the geotechnical colleagues in Geotechnical Program feel the needs of this course.

Wants this to be a distance course.

Semester(s) N/A
previously taught

Co-Listed
Courses:

Course Reviewer
Comments
Course Inventory Change Request

**New Experimental Course Proposal**

**Date Submitted:** 09/25/15 2:47 pm

**Viewing:** ENG MGT 6001.002: Financial Data Analysis

**File:** 4251

**Last edit:** 12/01/15 1:36 pm

**Changes proposed by:** qinr

**Requested Effective Change Date:** Spring 2016

**Department** Engineering Management and Systems Engineering

**Discipline** Engineering Management (ENG MGT)

**Course Number** 6001

**Topic ID** 002

**Experimental Title** Financial Data Analysis

**Experimental Abbreviated Course Title** Financial Data Analysis

**Instructors** Ruwen Qin

**Experimental Catalog Description**

Statistical analysis of financial markets data (e.g., equity prices, exchange rates, and interest rates). The application of exploratory data analysis as well as more formal statistical methods such as regression, time series, principal component analysis (PCA), factor models, and Bayesian data analysis in modeling financial data will be covered.

**Prerequisites**

An undergraduate calculus based statistics course and one of Eng Mgt 6212, Sys Eng 6612, Eng Mgt 6213, or Sys Eng 6613.

**Field Trip Statement**

**Credit Hours**

<table>
<thead>
<tr>
<th>LEC</th>
<th>LAB</th>
<th>IND</th>
<th>RSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Kristy Giacomelli (kristyg): Rollback to Engineering DSCC Chair for CCC Meeting Agenda
6. 11/12/15 1:42 pm sraper: Approved for Engineering DSCC Chair
7. 11/12/15 2:12 pm imorgan: Approved for Sciences DSCC Chair
8. 11/12/15 2:14 pm Kaylon Buckner (kleb6b): Approved for Pending CCC Agenda post
9. 12/01/15 1:37 pm Kaylon Buckner (kleb6b): Approved for CCC Meeting Agenda
10. 12/01/15 1:57 pm imorgan: Approved for Campus Curricula Committee Chair

Total: 3

Justification for new course:
Students show great interest in hands-on experiences with statistical modeling and data analysis for financial markets using R (an open source software commonly used in various industries). With these experiences, students better prepare themselves for pursuing a career in financial engineering. The EMSE offers a Financial Engineering (FE) Certificate that is composed of four courses. This experimental course supplements the existing courses of FE certificate.

Semester(s) previously taught

Co-Listed Courses:
Stat 6001.002 - Course Not Found

Course Reviewer
Comments
sraper (10/06/15 10:06 am): Changed wording of course description in consultation with Dr. Qin.
kristyg (11/06/15 9:34 am): Rollback: Rollback for modification.
kleb6b (11/09/15 8:53 am): Edits per Dr. Raper and create Stat Co-list
sraper (11/12/15 1:42 pm): corrected prereq per email from Dr. Qin.
imorgan (11/12/15 2:07 pm): Corrected the prerequisites to match Dr. Qin's e-mail.
imorgan (11/12/15 2:11 pm): Fixed one thing, broke something else. I think it's fixed now.
Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/29/15 9:41 am

Viewing: MS&E 5001.001: Chemistry of Construction Materials

Materials

File: 4267
Last edit: 12/01/15 3:01 pm
Changes proposed by: kumarad

Requested: Spring 2016
Effective Change Date:

Department: Materials Science & Engineering
Discipline: Materials Science & Eng (MS&E)
Course Number: 5001
Topic ID: 001
Experimental Title: Chemistry of Construction Materials
Experimental Abbreviated Course Title: Constr. Mat. Chem.
Instructors: Aditya Kumar

Experimental Catalog Description:
The objective of the course is to utilize fundamental material science concepts to understand, analyze, and describe the chemistry of construction materials. Special attention will be paid to discuss mechanisms that describe composition-structure-property relations in cementitious materials.

Prerequisites
Senior or Graduate Standing.

Field Trip
Statement

Credit Hours: LEC: 3 LAB: 0 IND: 0 RSD: 0
<table>
<thead>
<tr>
<th>Course Reviewer</th>
<th>Comments</th>
</tr>
</thead>
</table>

**Justification for new course:**

This is a necessary course for graduate students working in the area of construction materials. It is a basic course for other disciplines that are part of the Best-in-the-Class initiative on Advanced Materials for Sustainable Infrastructure.