



Campus Curricula Committee Meeting Agenda

October 2, 2019

9:00am - 10:30am, Bertelsmeyer 110H

(For Faculty Senate Meeting of October 17, 2019)

Review of submitted Course Change forms:

File: 4279.21	CHEM ENG 3111: Numerical Computing in Chemical and Biochemical Engineering
File: 4652	CIV ENG 2451: Engineering Drawings and Tools
File: 4653	CIV ENG 5451: Information Technology Applications in the Construction Industry
File: 4654	CIV ENG 5452: Pre-Project Planning and Feasibility Studies
File: 4655	CIV ENG 5453: Logistics for Construction Industry
File: 4656	CIV ENG 5454: Construction Technology for High-Rise Buildings
File: 4657	CIV ENG 5455: Construction Industry Best Practices
File: 637.5	COMP SCI 4610: Computer Security
File: 2086.3	EDUC 1104: Teacher Field Experience I
File: 770.3	EDUC 1164: Teacher Field Experience II
File: 2087.3	EDUC 1174: School Organization & Adm For Teachers
File: 1789.3	EDUC 3325: Novell Netware 4.1 / 4.11
File: 2481.3	EDUC 3335: Curriculum And Instruction Of The Middle School
File: 2154.3	EDUC 3339: Current Issues In Educ: Performance Based Assessment, Beginning
File: 1839.5	EDUC 3340: Assessment of Student Learning
File: 2155.3	EDUC 3341: Current Issues In Educ: Performance Based Assessment, Advanced
File: 1791.3	EDUC 3345: Introducing Educators To Computers
File: 789.1	GEOLOGY 4521: Ore Microscopy
File: 491.1	GEOLOGY 5511: Applied Petroleum Geology
File: 1380.1	GEOLOGY 6351: Advanced Geochemistry
File: 4650	MS&E 5460: Molecular Engineering of Materials
File: 4658	MS&E 6460: Advanced Molecular Engineering of Materials
File: 4189.8	PET ENG 3320: Petrophysics
File: 1923.2	PHYSICS 6101: Classical Mechanics I
File: 2123.3	PHYSICS 6111: Electrodynamics I
File: 1222.1	PHYSICS 6201: Quantum Mechanics I

Review of submitted Degree Change forms:

File: 166.13	GL&GPH-MS: Geology and Geophysics MS
File: 343	PROPOSED: Construction Engineering and Management Minor

Review of submitted Certificate forms:

File: 304.1	WORKPSY-CT: Applied Workplace Psych CT
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Review of submitted Experimental Course forms:

File: 4660	BIO SCI 3001.003: Physiology Laboratory
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MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

Formerly University of Missouri-Rolla

File: 4661

File: 4664

File: 4662

File: 4651

EDUC 3001.001: Teacher Field Experience III

MUSIC 3001.002: Introduction to Music Composition and Arranging

PHYSICS 3001.001: Computational Physics Laboratory

STAT 5001.002: Statistical Data Analysis Using R

Office of the Registrar • 103 Parker Hall • 300 West 13th Street • Rolla, MO 65409-0930

Phone: 573-341-4181 • Fax: 573-341-4362 • Email: registrar@mst.edu • Web: <http://registrar.mst.edu>

An equal opportunity institution

Course Change Request

Date Submitted: 08/27/19 5:06 pm

Viewing: **CHEM ENG 3111 : Numerical Computing in Chemical and Biochemical Engineering**

File: 4279.21

Last approved: 02/18/19 4:54 am

Last edit: 08/27/19 5:06 pm

Changes proposed by: jcwang

Other Courses
referencing this
course

In The Prerequisites:

[CHEM ENG 3131 : Separations in Chemical and Biochemical Engineering](#)
[CHEM ENG 3150 : Chemical Engineering Reactor Design](#)

Requested **Spring 2020** ~~Fall 2019~~
Effective Change
Date

Department Chemical and Biochemical Engineering

Discipline Chemical Engineering (CHEM ENG)

Course Number 3111

Title Numerical Computing in Chemical and Biochemical Engineering

Abbreviated Numerical Computing
Course Title

Catalog

Description

Students will add to their programming skills by exploring numerical computational techniques for solving and analyzing algebraic and calculus-based equations and systems of equations that describe chemical engineering processes.

Prerequisites

Math 3304 and either both Comp Sci 1570 and Comp Sci 1580, or both Comp Sci 1971 and Comp Sci 1981, or both Comp Sci 1972 and Comp Sci **1982; preceded or accompanied by Chem Eng 2100. 1982.**

Field Trip

Statement

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

Required for Yes
Majors

In Workflow

1. **RCHEMENG 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. 08/27/19 6:47 pm
Joseph Smith (smithjose):
Approved for RCHEMENG Chair
2. 08/28/19 11:28 am
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/10/19 10:41 am
Stephen Raper (sraper):
Approved for Engineering DSCC Chair
4. 09/16/19 4:01 pm
Brittany Parnell (ershenb):

Elective for Majors	No	Approved for Pending CCC Agenda post
<p>Justification for change:</p> <p>Students need to have certain training in process calculation from Chem Eng 2100 in order to be successful in Chem Eng 3111. Adding Chem Eng 2100 as a co-requisite is intended to ensure the students to have proper training when taking Chem Eng 3111.</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>		<p>History</p> <ol style="list-style-type: none">1. Jan 24, 2017 by Daniel Forciniti (forcinit)2. Mar 6, 2017 by kristyg (4279.14)3. Feb 18, 2019 by jcwang (4279.17)
Course Reviewer Comments		

Key: 4279

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/05/19 2:39 pm

Viewing: **CIV ENG 2451 : Engineering Drawings and Tools**

File: 4652

Last edit: 09/10/19 9:28 am

Changes proposed by: seelyj

Programs referencing this course: [PROPOSED: Construction Engineering and Management Minor](#)

Requested Spring 2020
 Effective Change Date
 Department Civil, Architectural, and Environmental Engineering
 Discipline Civil Engineering (CIV ENG)
 Course Number 2451
 Title Engineering Drawings and Tools
 Abbreviated Course Title Eng Draw and Tools

Catalog Description
 Introduction the basics of reading and developing engineering drawings including mapping and coordinating the different trades through the use of Autodesk's AutoCAD and Revit software as well as ESRI's ArcGIS package.

Prerequisites
 None

Field Trip Statement

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

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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 09/10/19 8:53 am
Joel Burken (burken):
Approved for RCIVILEN Chair
2. 09/10/19 9:29 am
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/16/19 12:29 pm
Stephen Raper (sraper):
Approved for Engineering DSCC Chair
4. 09/16/19 4:01 pm
Brittany Parnell (ershenb):
Approved for

Justification for
new course:

Pending CCC
Agenda post

This minor is proposed to address voids highlighted by the member companies of the Missouri Consortium of Construction Innovation (MO-CCI) in our construction engineering and management (CEM) curriculum. The MO-CCI members have an immediate desire to bridge the gap in the abilities of our fresh graduates and help them meet the current needs of the construction industry.

Semesters 0
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4652

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/05/19 3:30 pm

Viewing: **CIV ENG 5451 : Information Technology Applications in the Construction Industry**

File: 4653

Last edit: 09/10/19 10:52 am

Changes proposed by: seelyj

Programs referencing this course [PROPOSED: Construction Engineering and Management Minor](#)

Requested Spring 2020
 Effective Change Date
 Department Civil, Architectural, and Environmental Engineering
 Discipline Civil Engineering (CIV ENG)
 Course Number 5451
 Title Information Technology Applications in the Construction Industry
 Abbreviated Course Title IT App in Const Industry

Catalog Description
 Study of IT in construction industry including building information modeling and mobile sensing. Topics will include: collaborative design, clash detection, level of development, BIM contracts, automated code checking, and finally, information systems specific functions such as estimating, scheduling and cost control, lean, and integrated project delivery.

Prerequisites
 Civ Eng 2451.

Field Trip Statement

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

Required for Majors No

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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 09/10/19 8:53 am
Joel Burken (burken):
Approved for RCIVILEN Chair
2. 09/10/19 10:52 am
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/16/19 12:30 pm
Stephen Raper (sraper):
Approved for Engineering DSCC Chair
4. 09/16/19 4:08 pm
Brittany Parnell (ershenb):

Elective for
Majors

Yes

Approved for
Pending CCC
Agenda post

Justification for
new course:

This minor is proposed to address voids highlighted by the member companies of the Missouri Consortium of Construction Innovation (MO-CCI) in our construction engineering and management (CEM) curriculum. The MO-CCI members have an immediate desire to bridge the gap in the abilities of our fresh graduates and help them meet the current needs of the construction industry.

Semesters
previously
offered as an
experimental
course

0

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4653

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/05/19 3:50 pm

Viewing: **CIV ENG 5452 : Pre-Project Planning and Feasibility Studies**

File: 4654

Last edit: 09/10/19 9:41 am

Changes proposed by: seelyj

Programs referencing this course [PROPOSED: Construction Engineering and Management Minor](#)

Requested Spring 2020
 Effective Change Date
 Department Civil, Architectural, and Environmental Engineering
 Discipline Civil Engineering (CIV ENG)
 Course Number 5452
 Title Pre-Project Planning and Feasibility Studies
 Abbreviated Course Title PrePjt Plan & Feas Stdy

Catalog Description
 Overview of the studies and tools needed to make go-ahead decisions for construction projects including assimilation of client needs, surveys of project area and infrastructure conditions, scope validation, team development, project planning and cost estimation, and financial feasibility.

Prerequisites
 Civ Eng 4448 or Eng Mgt 3320 and Eng Mgt 1210.

Field Trip Statement

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

Required for Majors No

 Yes

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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 09/10/19 8:52 am
Joel Burken (burken):
Approved for RCIVILEN Chair
2. 09/10/19 9:45 am
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/16/19 12:29 pm
Stephen Raper (sraper):
Approved for Engineering DSCC Chair
4. 09/16/19 4:08 pm
Brittany Parnell (ershenb):
Approved for

Elective for
Majors

Pending CCC
Agenda post

Justification for
new course: This minor is proposed to address voids highlighted by the member companies of the Missouri Consortium of Construction Innovation (MO-CCI) in our construction engineering and management (CEM) curriculum. The MO-CCI members have an immediate desire to bridge the gap in the abilities of our fresh graduates and help them meet the current needs of the construction industry.

Semesters
previously
offered as an
experimental
course 0

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4654

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/05/19 3:52 pm

Viewing: **CIV ENG 5453 : Logistics for Construction Industry**

File: 4655

Last edit: 09/10/19 9:46 am

Changes proposed by: seelyj

Programs referencing this course: [PROPOSED: Construction Engineering and Management Minor](#)

Requested Spring 2020
 Effective Change Date
 Department Civil, Architectural, and Environmental Engineering
 Discipline Civil Engineering (CIV ENG)
 Course Number 5453
 Title Logistics for Construction Industry
 Abbreviated Course Title Logistics for Const Ind

Catalog Description
 Overview of construction site layout, team organization, information flow, and complexities as related to: productivity improvement approaches, data gathering for analysis of construction operations, process innovation, and safety practices.

Prerequisites
 Civ Eng 4448 or Eng Mgt 3320.

Field Trip Statement

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

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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 09/10/19 8:52 am
Joel Burken (burken):
Approved for RCIVILEN Chair
2. 09/10/19 9:47 am
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/16/19 12:29 pm
Stephen Raper (sraper):
Approved for Engineering DSCC Chair
4. 09/16/19 4:08 pm
Brittany Parnell (ershenb):
Approved for

Justification for
new course:

Pending CCC
Agenda post

This minor is proposed to address voids highlighted by the member companies of the Missouri Consortium of Construction Innovation (MO-CCI) in our construction engineering and management (CEM) curriculum. The MO-CCI members have an immediate desire to bridge the gap in the abilities of our fresh graduates and help them meet the current needs of the construction industry.

Semesters 0
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4655

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/05/19 3:56 pm

Viewing: **CIV ENG 5454 : Construction Technology for High-Rise Buildings**

File: 4656

Last edit: 09/10/19 9:48 am

Changes proposed by: seelyj

Programs referencing this course [PROPOSED: Construction Engineering and Management Minor](#)

Requested Spring 2020
 Effective Change Date
 Department Civil, Architectural, and Environmental Engineering
 Discipline Civil Engineering (CIV ENG)
 Course Number 5454
 Title Construction Technology for High-Rise Buildings
 Abbreviated Course Title Const Tech for Hgh Rise

Catalog Description
 Overview of latest construction practices and processes for high-rise buildings from foundation to roof including advanced methods, materials, equipment and systems used for the construction of high-rise buildings, as well as the associated principles of sustainable construction.

Prerequisites
 Civ Eng 4448 or Eng Mgt 3320.

Field Trip Statement

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

Required for Majors No
 Yes

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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 09/10/19 8:52 am Joel Burken (burken): Approved for RCIVILEN Chair
2. 09/10/19 9:49 am Brittany Parnell (ershenb): Approved for CCC Secretary
3. 09/16/19 12:30 pm Stephen Raper (sraper): Approved for Engineering DSCC Chair
4. 09/16/19 4:08 pm Brittany Parnell (ershenb): Approved for

Elective for
Majors

Pending CCC
Agenda post

Justification for
new course: This minor is proposed to address voids highlighted by the member companies of the Missouri Consortium of Construction Innovation (MO-CCI) in our construction engineering and management (CEM) curriculum. The MO-CCI members have an immediate desire to bridge the gap in the abilities of our fresh graduates and help them meet the current needs of the construction industry.

Semesters
previously
offered as an
experimental
course 0

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4656

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/05/19 3:59 pm

Viewing: **CIV ENG 5455 : Construction Industry Best Practices**

File: 4657

Last edit: 09/10/19 9:50 am

Changes proposed by: seelyj

Programs PROPOSED: Construction Engineering and Management Minor referencing this course

Requested Spring 2020
 Effective Change
 Date
 Department Civil, Architectural, and Environmental Engineering
 Discipline Civil Engineering (CIV ENG)
 Course Number 5455
 Title Construction Industry Best Practices
 Abbreviated
 Course Title Const Ind Best Practice

Catalog
 Description
 Overview of the best practices developed by the Construction Industry Institute (CII), and how they are implemented by the leading owners and contractors in the construction industry. Guest lecturers include CII staff and visiting industry subject matter experts.

Prerequisites
 Civ Eng 4448 or Eng Mgt 3320.

Field Trip
 Statement

Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3
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Required for
 Majors No

Elective for
 Majors Yes

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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 09/10/19 8:52 am
Joel Burken (burken):
Approved for RCIVILEN Chair
2. 09/10/19 9:50 am
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/16/19 12:30 pm
Stephen Raper (sraper):
Approved for Engineering DSCC Chair
4. 09/16/19 4:09 pm
Brittany Parnell (ershenb):
Approved for

Justification for
new course:

Pending CCC
Agenda post

This minor is proposed to address voids highlighted by the member companies of the Missouri Consortium of Construction Innovation (MO-CCI) in our construction engineering and management (CEM) curriculum. The MO-CCI members have an immediate desire to bridge the gap in the abilities of our fresh graduates and help them meet the current needs of the construction industry.

Semesters 0
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4657

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/16/19 9:32 am

Viewing: **COMP SCI 4610 : Computer Security**

File: 637.5

Last approved: 08/05/19 6:01 am

Last edit: 09/18/19 12:13 pm

Changes proposed by: zhupe

Other Courses referencing this course	In The Prerequisites:
	COMP SCI 4091 : Software Engineering Capstone II

Requested	Spring 2020
Effective Change Date	
Department	Computer Science
Discipline	Computer Science (COMP SCI)
Course Number	4610
Title	Computer Security
Abbreviated Course Title	Computer Security

Catalog Description	This course covers principles of threat-modeling, trust, and security policies. Topics include cryptography, reverse engineering, software security, malware analysis, authentication, access controls, operating systems hardening, virtualization, database security, and network security. This class is programming intensive and project based, with case-analyses.				
Prerequisites	A grade of "C" or better in both Comp Sci 3800. 2500 and Comp Sci 3610.				
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 change: CS made an error in the phase-in of CS 4610 and students with catalog years 2018 and before are expecting the security course without the CS 3610 prerequisite. We plan to remove the 3610 prerequisite for two years until the 2019 catalog year students become ready to take it, and then we will restore the original prerequisites.

- In Workflow
1. **RCOMPSCI 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. 09/17/19 9:44 am
Bruce McMillin (ff): Approved for RCOMPSCI Chair
 2. 09/17/19 10:08 am
Brittany Parnell (ershenb): Approved for CCC Secretary
 3. 09/18/19 10:56 am
Brittany Parnell (ershenb): Rollback to RCOMPSCI Chair for Engineering DSCC Chair
 4. 09/18/19 12:14 pm
Bruce McMillin (ff): Approved for RCOMPSCI Chair

Along with this change, to increase access to CS's advanced courses to non-majors, CS 2500 has been removed as an explicit prerequisite, and is replaced by the material in CS 1575. Since CS 3800 has a prerequisite of CS 1575, explicit enumeration is not needed.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer **ershenb (09/18/19 10:56 am)**: Rollback: Rollback per the request of Dr. McMillin to change prerequisite.

5. 09/18/19 1:08 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary

6. 09/19/19 11:34 am
Stephen Raper (sraper):
Approved for Engineering DSCC Chair

7. 09/19/19 1:09 pm
Brittany Parnell (ershenb):
Approved for Pending CCC Agenda post

Key: 637

History

1. Aug 5, 2019 by tauritzd (637.1)

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/06/19 2:30 pm

Viewing: **EDUC 1104 : Teacher Field Experience I**

File: 2086.3

Last approved: 01/18/19 5:02 am

Last edit: 09/13/19 8:29 am

Changes proposed by: bakm75

Catalog Pages referencing this course	Teacher Education and Certification
Programs referencing this course	CHEM-BA: Chemistry BA PSYCH-BA: Psychology BA PSYCH-BS: Psychology BS PROPOSED: Education

Requested Effective Change Date: **Spring 2020 01/07/2019**

Department: Teacher Education and Certification

Discipline: Education (EDUC)

Course Number: 1104

Title: Teacher Field Experience I

Abbreviated Course Title: **Teach** ~~Teacher~~-Field Experience I

Catalog Description	Observation and analysis of instructional techniques and duties in the classroom and school environment by discipline. Students Student will spend 60 clock at least 30 contact hours per credit hours in classrooms, including experiences in diverse settings. classroom. Students will attend seminar sessions and complete assignments related to the field experiences. A background check is required for enrollment in this course. In addition, library and field experience reports will be made. In addition, Action Research and Seminars will be required.
Prerequisites	Educ 1040.
Field Trip Statement	

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

Approval Path

1. 08/06/19 3:20 pm
Beth Kania-Gosche (bkaniagosche): Approved for REDUCATION Chair
2. 08/08/19 1:25 pm
Brittany Parnell (ershenb): Approved for CCC Secretary
3. 09/13/19 8:29 am
Brittany Parnell (ershenb): Rollback to CCC Secretary for Social Sciences DSCC Chair

Credit Hours	LEC: 0	LAB: 2	IND: 0	RSD: 0	Total: 2	4. 09/13/19 8:30 am Brittany Parnell (ershenb): Approved for CCC Secretary
Required for Majors	Yes No					5. 09/14/19 9:24 am Michael Davis (davismc): Approved for Social Sciences DSCC Chair
Elective for Majors	No					6. 09/16/19 4:09 pm Brittany Parnell (ershenb): Approved for Pending CCC Agenda post
Justification for change: The current course description is not accurate; students do not conduct action research. A background check is required for entering schools, so this was added to the description. The Roman numeral I was added to the title because another course title (EDUC 1164) will be changed to Teacher Field Experience II.						History 1. Jan 18, 2019 by ershenb (2086.1)
Semesters previously offered as an experimental course						
Co-Listed Courses:						
Course Reviewer Comments	ershenb (09/13/19 8:29 am): Rollback: Rolled back so new Social Sciences DSCC can review.					

Key: 2086

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/06/19 2:36 pm

Viewing: **EDUC 1164 : Teacher Field Experience II Aiding**
~~Elementary, Middle And Secondary Schools~~

File: 770.3

Last approved: 01/18/19 5:02 am

Last edit: 09/13/19 8:29 am

Changes proposed by: bakm75

Catalog Pages referencing this course	Teacher Education and Certification
Programs referencing this course	CHEM-BA: Chemistry BA PSYCH-BA: Psychology BA PSYCH-BS: Psychology BS

Requested **Spring 2020** ~~01/07/2019~~
 Effective Change Date

Department Teacher Education and Certification

Discipline Education (EDUC)

Course Number 1164

Title **Teacher Field Experience II Aiding** ~~Elementary, Middle And Secondary Schools~~

Abbreviated Course Title **Teach Field Exp II Aid Elem,**
~~Mid & Sec Schl~~

Catalog Description	<p>Students will spend 60 clock hours in classrooms, including experiences in diverse settings. Students will teach lessons, work with learners, and otherwise assist in the classroom to which they are assigned. A background check is required for enrollment in this course. Instructionally-related clinical/administrative and monitorial duties in the classroom during semesters and summer. Student works 30 hours for each credit, with instructor supervising. Also, Action Research and Seminars are required.</p>
Prerequisites	<p>Educ 1040, 1040 and Educ 1104, and Educ 3216. 1104.</p>

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

Approval Path

1. 08/06/19 3:21 pm
Beth Kania-Gosche (bkaniagosche): Approved for REDUCATION Chair
2. 08/08/19 1:26 pm
Brittany Parnell (ershenb): Approved for CCC Secretary
3. 09/13/19 8:29 am
Brittany Parnell (ershenb): Rollback to CCC Secretary for Social Sciences DSCC Chair

Field Trip Statement						4. 09/13/19 8:31 am Brittany Parnell (ershenb): Approved for CCC Secretary
Credit Hours	LEC: 0	LAB: 2	IND: 0	RSD: 0	Total: 2	5. 09/14/19 9:25 am Michael Davis (davismc): Approved for Social Sciences DSCC Chair
Required for Majors	No					6. 09/16/19 4:09 pm Brittany Parnell (ershenb): Approved for Pending CCC Agenda post
Elective for Majors	No					History 1. Jan 18, 2019 by ershenb (770.1)
Justification for change: The title of the course is out of date; classroom "aides" are now called paraprofessionals, and the students are not employed by the district to be using this title. Action research is not conducted in the course, so that phrase needs to be removed. Students must have a background check to enter schools, so this was added to the description. Part of the Department's mission is to prepare students for all types of schools, so the diverse experience is important to mention.						
Semesters previously offered as an experimental course						
Co-Listed Courses:						
Course Reviewer Comments	ershenb (09/13/19 8:29 am): Rollback: Rolled back so new Social Sciences DSCC can review.					

Key: 770

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/09/19 10:36 am

Viewing: **EDUC 1174 : School Organization & Adm For Elementary & Secondary Teachers**

File: 2087.3

Last approved: 01/18/19 5:02 am

Last edit: 09/13/19 8:29 am

Changes proposed by: bakm75

Catalog Pages referencing this course	Teacher Education and Certification
Programs referencing this course	CHEM-BA: Chemistry BA PSYCH-BA: Psychology BA PSYCH-BS: Psychology BS PROPOSED: Education

Requested **Spring 2020 01/07/2019**

Effective Change Date

Department Teacher Education and Certification

Discipline Education (EDUC)

Course Number 1174

Title School Organization & Adm For ~~Elementary & Secondary~~ Teachers

Abbreviated Course Title Sch Org Adm Elem Sec Tch

Catalog Description ~~Required for certification of elementary and secondary teachers.~~ **Students will gain knowledge Course content relates to methods of organization and understanding of management in the organizational structure elementary and the general operation and administration of public secondary schools. The student should more clearly understand the role of the classroom teacher in classroom management, school law, equity in education, curriculum/instruction, and professional development.**

Prerequisites Educ 1040 and Educ 1104.

Field Trip Statement

Credit Hours LEC: 2 LAB: 0 IND: 0 RSD: 0 Total: 2

Required for Majors No

Elective for Majors No

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

Approval Path

1. 08/09/19 2:36 pm
Beth Kania-Gosche (bkaniagosche):
Approved for REDUCATION Chair
2. 08/12/19 2:57 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/13/19 8:29 am
Brittany Parnell (ershenb):
Rollback to CCC Secretary for Social Sciences DSCC Chair
4. 09/13/19 8:31 am
Brittany Parnell (ershenb):

Justification for change:	We will soon be adding a middle school program, and that word was not reflected in the title. It was shorter to just delete all of the descriptors to make the title broader. The description better reflects the content of the course when it is reviewed by the state.	Approved for CCC Secretary 5. 09/14/19 9:25 am Michael Davis (davismc): Approved for Social Sciences DSCC Chair 6. 09/16/19 4:09 pm Brittany Parnell (ershenb): Approved for Pending CCC Agenda post
Semesters previously offered as an experimental course		
Co-Listed Courses:		
Course Reviewer Comments	ershenb (09/13/19 8:29 am): Rollback: Rolled back so new Social Sciences DSCC can review.	

Key: 2087

History

1. Jan 18, 2019 by ershenb (2087.1)

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 08/06/19 2:21 pm

Viewing: **EDUC 3325 : Novell Netware 4.1 / 4.11**

File: 1789.3

Last approved: 01/18/19 5:02 am

Last edit: 09/13/19 8:29 am

Changes proposed by: bakm75

Requested	Spring 2020 01/07/2019
Effective Change Date	
Department	Teacher Education and Certification
Discipline	Education (EDUC)
Course Number	3325
Title	Novell Netware 4.1 / 4.11
Abbreviated Course Title	Novell Netware 4.1/4.11

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

Catalog Description					
A practical, hands-on course for Novell network administration including NDS planning, mapping and documentation; system power up/down; security, resource service management; user management from creation to user and workstation maintenance; application software installation and management, and Novell Server installation.					
Prerequisites					
Field Trip Statement					
Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3
Required for Majors	No				
Elective for Majors	No				

Approval Path

1. 08/06/19 3:21 pm
Beth Kania-Gosche (bkaniagosche):
Approved for REDUCATION Chair
2. 08/08/19 1:27 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/13/19 8:29 am
Brittany Parnell (ershenb):
Rollback to CCC Secretary for Social Sciences DSCC Chair

Justification for change:

This course is out of date and the software referenced in the title has been discontinued.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer

Comments

ershenb (09/13/19 8:29 am): Rollback: Rolled back so new Social Sciences DSCC can review.

4. 09/13/19 8:31 am
Brittany Parnell (ershenb):
Approved for CCC Secretary

5. 09/14/19 9:26 am
Michael Davis (davismc):
Approved for Social Sciences DSCC Chair

6. 09/16/19 4:09 pm
Brittany Parnell (ershenb):
Approved for Pending CCC

Key: 1789

Agenda post

History

- 1. Jan 18, 2019 by ershenb (1789.1)

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/09/19 10:14 am

Viewing: **EDUC 3335 : Curriculum And Instruction Of The Middle School**

File: 2481.3

Last approved: 01/18/19 5:02 am

Last edit: 09/13/19 8:29 am

Changes proposed by: bakm75

Requested	Spring 2020 01/07/2019
Effective Change Date	
Department	Teacher Education and Certification
Discipline	Education (EDUC)
Course Number	3335
Title	Curriculum And Instruction Of The Middle School
Abbreviated Course Title	Curr Instr Curr/Instr -Middle School

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

Catalog Description	This course provides an overview advances teachers' understanding of the structure and philosophy of middle schools, including interdisciplinary and collaborative teams. school curriculum and instruction. The unique needs of the early adolescent will be aligned with evidence-based practices. Students will complete a field experience in a middle school. A cleared background check is required for this course. It utilizes knowledge about the nature and needs of young adolescents in developing interdisciplinary learning units, and fosters applications appropriate to experienced teachers' professional assignments.				
Prerequisites	Educ 1040. Graduate standing.				
Field Trip Statement					
Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3
Required for Majors	No				
Elective for Majors	No				

Approval Path

1. 08/09/19 2:36 pm
Beth Kania-Gosche (bkaniagosche):
Approved for REDUCATION Chair
2. 08/12/19 2:58 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/13/19 8:29 am
Brittany Parnell (ershenb):
Rollback to CCC Secretary for Social Sciences DSCC Chair
4. 09/13/19 8:31 am
Brittany Parnell (ershenb):

Justification for change: We are developing an undergraduate program for middle school; all courses needed are already in existence. Thus, we eliminated the prerequisites and updated the course description for the state review of the program.

Semesters previously offered as an

experimental
course
Co-Listed
Courses:

Course Reviewer **ershenb (09/13/19 8:29 am)**: Rollback: Rolled back so new Social Sciences DSCC can
Comments review.

Key: 2481

Approved for CCC
Secretary
5. 09/14/19 9:26 am
Michael Davis
(davismc):
Approved for
Social Sciences
DSCC Chair
6. 09/16/19 4:09 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post

History

1. Jan 18, 2019 by
ershenb (2481.1)

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 08/06/19 2:43 pm

Viewing: **EDUC 3339 : Current Issues In Educ: Performance Based Assessment, Beginning**

File: 2154.3

Last approved: 01/18/19 5:02 am

Last edit: 09/13/19 8:29 am

Changes proposed by: bakm75

Requested **Spring 2020 ~~01/07/2019~~**

Effective Change Date

Department Teacher Education and Certification

Discipline Education (EDUC)

Course Number 3339

Title Current Issues In Educ: Performance Based Assessment, Beginning

Abbreviated Course Title Perform Based Assess Beg

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

Catalog Description	This course is intended to provide an understanding of the principles of sound classroom assessment, the five different types of learning outcomes that need to be assessed and the choice of an assessment that best evaluates the achievement targets.				
Prerequisites	Practicing educator.				
Field Trip Statement					
Credit Hours	LEC: 1	LAB: 2	IND: 0	RSD: 0	Total: 3
Required for Majors	No				
Elective for Majors	No				

Approval Path

1. 08/06/19 3:21 pm
Beth Kania-Gosche (bkaniagosche): Approved for REDUCATION Chair
2. 08/08/19 3:00 pm
Brittany Parnell (ershenb): Approved for CCC Secretary
3. 09/13/19 8:29 am
Brittany Parnell (ershenb): Rollback to CCC Secretary for Social Sciences DSCC Chair
4. 09/13/19 8:31 am
Brittany Parnell (ershenb):

Justification for change: Only one of the three assessment courses listed in the catalog is being used by the Department. Having three, listed "beginning, intermediate, and advanced" is confusing when only the intermediate course is offered. A course change will be submitted to remove the intermediate from the title of the remaining course.

Semesters previously offered as an

experimental
course
Co-Listed
Courses:

Course Reviewer **ershenb (09/13/19 8:29 am)**: Rollback: Rolled back so new Social Sciences DSCC can
Comments review.

Key: 2154

Approved for CCC
Secretary

5. 09/14/19 9:27 am
Michael Davis
(davismc):

Approved for
Social Sciences
DSCC Chair

6. 09/16/19 4:09 pm
Brittany Parnell
(ershenb):

Approved for
Pending CCC
Agenda post

History

1. Jan 18, 2019 by
ershenb (2154.1)

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/09/19 10:31 am

Viewing: **EDUC 3340 : Assessment of Student Learning Current Issues In Education: Performance Based Assessment, Intermediate**

File: 1839.5

Last approved: 02/04/19 5:03 am

Last edit: 09/13/19 8:29 am

Changes proposed by: bakm75

Requested **Spring 2020** ~~Fall 2019~~

Effective Change

Date

Department Teacher Education and Certification

Discipline Education (EDUC)

Course Number 3340

Title **Assessment of Student Learning Current Issues In Education: Performance Based Assessment, Intermediate**

Abbreviated **Assessment of Learning**

Course Title ~~Perform Base Assess Inte~~

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

Approval Path

1. 08/09/19 2:36 pm
Beth Kania-Gosche (bkaniagosche): Approved for REDUCATION Chair
2. 08/12/19 3:00 pm
Brittany Parnell (ershenb): Approved for CCC Secretary
3. 09/13/19 8:29 am
Brittany Parnell (ershenb): Rollback to CCC Secretary for Social Sciences DSCC Chair

Catalog

Description

Students will learn to evaluate assessments for validity and reliability. Students will develop formative and summative assessments aligned with learning outcomes. Writing quality rubrics and universal design will be introduced. Students will analyze data to make instructional decisions and learn to evaluate vendor assessments. This course will provide participants with an understanding of performance-based assessments, how to construct performance tasks and how to construct scoring guides.

Prerequisites

Educ 1040.

Field Trip

Statement

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

Required for Yes

Majors

No

<p>Elective for Majors</p> <p>Justification for change: The beginning and advanced assessment courses were deleted. We intend to add this course to secondary degrees in the future, and we will be adding it to the soon-to-be-proposed middle school program. As such, the description content needed to be revised and broadened. This course will not be taught until Fall 2020.</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>4. 09/13/19 8:31 am Brittany Parnell (ershenb): Approved for CCC Secretary</p> <p>5. 09/14/19 9:28 am Michael Davis (davismc): Approved for Social Sciences DSCC Chair</p> <p>6. 09/16/19 4:09 pm Brittany Parnell (ershenb): Approved for Pending CCC Agenda post</p>
<p>Course Reviewer Comments</p> <p>ershenb (09/13/19 8:29 am): Rollback: Rolled back so new Social Sciences DSCC can review.</p>	<p>History</p> <p>1. Feb 4, 2019 by carterke (1839.1)</p>

Key: 1839

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 08/06/19 2:40 pm

Viewing: **EDUC 3341 : Current Issues In Educ: Performance Based Assessment, Advanced**

File: 2155.3

Last approved: 01/18/19 5:02 am

Last edit: 09/13/19 8:30 am

Changes proposed by: bakm75

Requested	Spring 2020 01/07/2019
Effective Change Date	
Department	Teacher Education and Certification
Discipline	Education (EDUC)
Course Number	3341
Title	Current Issues In Educ: Performance Based Assessment, Advanced
Abbreviated Course Title	Perform Based Assess Adv

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

Catalog Description	This course is intended to provide an understanding of balanced classroom assessment. Students will learn to create multiple types of assessment measures for the purpose of evaluating a wide variety of achievement targets.				
Prerequisites	Practicing educator.				
Field Trip Statement					
Credit Hours	LEC: 1	LAB: 2	IND: 0	RSD: 0	Total: 3
Required for Majors	No				
Elective for Majors	No				

Approval Path

1. 08/06/19 3:22 pm
Beth Kania-Gosche (bkaniagosche): Approved for REDUCATION Chair
2. 08/08/19 3:00 pm
Brittany Parnell (ershenb): Approved for CCC Secretary
3. 09/13/19 8:30 am
Brittany Parnell (ershenb): Rollback to CCC Secretary for Social Sciences DSCC Chair
4. 09/13/19 8:31 am
Brittany Parnell (ershenb):

Justification for change: Only one of the three listed assessment courses is actually used by the department. Having the others listed in the catalog is confusing, and they have not been taught in years.
The title of the remaining course, EDUC 3340, will be changed so the word "intermediate" is removed.

Semesters previously offered as an

experimental
course
Co-Listed
Courses:

Course Reviewer **ershenb (09/13/19 8:30 am)**: Rollback: Rolled back so new Social Sciences DSCC can
Comments review.

Key: 2155

Approved for CCC
Secretary
5. 09/14/19 9:28 am
Michael Davis
(davismc):
Approved for
Social Sciences
DSCC Chair
6. 09/16/19 4:09 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post

History

1. Jan 18, 2019 by
ershenb (2155.1)

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 08/06/19 2:37 pm

Viewing: **EDUC 3345 : Introducing Educators To Computers**

File: 1791.3

Last approved: 01/18/19 5:02 am

Last edit: 09/13/19 8:30 am

Changes proposed by: bakm75

Requested	<b style="color: green;">Spring 2020 01/07/2019
Effective Change Date	
Department	Teacher Education and Certification
Discipline	Education (EDUC)
Course Number	3345
Title	Introducing Educators To Computers
Abbreviated Course Title	Intro Educators/Computer

In Workflow

1. **REDUCATION Chair**
2. **CCC Secretary**
3. **Social 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. CAT entry
11. Peoplesoft

<p>Catalog Description</p> <p>Prerequisites</p> <p>Field Trip Statement</p> <p>Credit Hours</p> <p>Required for Majors</p> <p>Elective for Majors</p>	<p>A basic introduction to computers for K-12 educators. Includes identification and use of hardware components, as well as the fundamentals of using the operating system and basic computer software. Actual software taught will reflect current usage.</p> <p>Post Bac/practicing teacher.</p> <p>LEC: 1 LAB: 0 IND: 0 RSD: 0 Total: 1</p> <p>No</p> <p>No</p>	<p>Approval Path</p> <ol style="list-style-type: none"> 1. 08/06/19 3:32 pm Beth Kania-Gosche (bkaniagosche): Approved for REDUCATION Chair 2. 08/08/19 3:02 pm Brittany Parnell (ershenb): Approved for CCC Secretary 3. 09/13/19 8:30 am Brittany Parnell (ershenb): Rollback to CCC Secretary for Social Sciences DSCC Chair 4. 09/13/19 8:31 am Brittany Parnell (ershenb):
<p>Justification for change:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>This course has not been taught for many years, and the language is out of date. Technology integration is now embedded throughout the Teacher Education curriculum.</p>	

<p>Course Reviewer Comments</p>	<p>ershenb (09/13/19 8:30 am): Rollback: Rolled back so new Social Sciences DSCC can review.</p>	<p>Approved for CCC Secretary</p>
		<p>5. 09/14/19 9:28 am</p>
		<p>Michael Davis (davismc): Approved for Social Sciences DSCC Chair</p>
		<p>6. 09/16/19 4:09 pm</p>
		<p>Brittany Parnell (ershenb): Approved for Pending CCC Agenda post</p>
		<p>History</p>
		<p>1. Jan 18, 2019 by ershenb (1791.1)</p>

Key: 1791

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/20/19 12:03 pm

Viewing: **GEOLOGY 4521 : Ore Microscopy**

File: 789.1

Last edit: 08/20/19 2:58 pm

Changes proposed by: locmelism

Other Courses
referencing this
course

In The Prerequisites:
[GEOLOGY 6521 : Advanced Ore Microscopy](#)
[GEOLOGY 6531 : Applied Ore Microscopy](#)

Requested **Spring 2020 08/01/2014**

Effective Change
Date

Department Geosciences and Geological and Petroleum
Engineering

Discipline Geology (GEOLOGY)

Course Number 4521

Title Ore Microscopy

Abbreviated
Course Title Ore Microscopy

Catalog
Description
A study of polished sections of minerals and ores under reflected light. Includes the preparation of polished sections, the identification of ore minerals, and the study of the textures, associations, and alterations of ore minerals.

Prerequisites
Geology **2610 and Geology 3511. ~~2610.~~**

Field Trip
Statement

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

In Workflow

- RGEOSENG Chair**
- CCC Secretary**
- Sciences DSCC
Chair**
- Pending CCC
Agenda post**
- CCC Meeting
Agenda**
- Campus Curricula
Committee Chair
- FS Meeting
Agenda
- Faculty Senate
Chair
- Registrar
- CAT entry
- Peoplesoft

Approval Path

- 08/20/19 1:05 pm
David Borrok
(borrokd):
Approved for
RGEOSENG Chair
- 08/20/19 2:58 pm
Brittany Parnell
(ershenb):
Approved for CCC
Secretary
- 08/27/19 11:05
am
Katie Shannon
(shannonk):
Approved for
Sciences DSCC
Chair
- 09/16/19 4:09 pm
Brittany Parnell
(ershenb):
Approved for

Justification for
change:

Pending CCC
Agenda post

It is requested that Geology 3511 (Introduction to Mineral deposits) is added as prerequisite. Geology 3511 covers the theory of ore formation, while Geology 4521 uses microscopy to study them.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 789

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/21/19 10:04 am

Viewing: **GEOLOGY 5511 : Applied Petroleum Geology**

File: 491.1

Last edit: 08/22/19 3:45 pm

Changes proposed by: locmelism

Requested	Spring 2020 08/01/2014
Effective Change Date	
Department	Geosciences and Geological and Petroleum Engineering
Discipline	Geology (GEOLOGY)
Course Number	5511
Title	Applied Petroleum Geology
Abbreviated Course Title	Applied Petroleum Geol

Catalog

Description

The principles of petroleum geology are applied in solving hydrocarbon exploration and developmental problems. Geological and economical techniques for evaluating hydrocarbonbearing reservoirs are presented, with methods for decisionmaking under conditions of extreme uncertainty.

Prerequisites

Consent of instructor. ~~Geology 5411.~~

Field Trip

Statement

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

Elective for Majors No

Justification for

change:

It is requested that the prerequisite is changed to "Consent of instructor". The reason is that the current prerequisite "Advanced Geochemistry" teaches magmatic

In 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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 08/21/19 4:28 pm
David Borrok (borrokd):
Approved for
RGEOSENG Chair
2. 08/22/19 3:45 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/05/19 10:51 am
Katie Shannon (shannonk):
Approved for
Sciences DSCC Chair
4. 09/16/19 4:09 pm
Brittany Parnell (ershenb):
Approved for

and metamorphic systems and therefore has nothing to do with petroleum geology (which is sedimentary).

Pending CCC
Agenda post

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 491

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/21/19 9:59 am

Viewing: **GEOLOGY 6351 5411: Advanced Geochemistry**

File: 1380.1

Last edit: 08/21/19 9:59 am

Changes proposed by: locmelism

Requested 08/01/2014

Effective Change
Date

Department Geosciences and Geological and Petroleum
Engineering

Discipline Geology (GEOLOGY)

Course Number **6351 5411**

Title Advanced Geochemistry

Abbreviated Adv Geochemistry

Course Title

Catalog

Description

A study of the absolute and relative abundance of elements and isotopes in the Earth, principles of element transport, formation of the Earth's crust, mineral deposits, and soils. Field trip fee required.

Prerequisites

Geology 3410.

Field Trip

Statement

Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3
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Required for Majors	No
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Elective for Majors	No
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Justification for change:

It is requested that this class is changed to a 6000 level course. The 6000 level better reflects the advanced content of the class. It will also allow GGPE to offer a much needed additional class that will allow graduate students to meet the graduation criteria of completing two 6000 level classes.

In 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. FS Meeting
Agenda
8. Faculty Senate
Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 08/21/19 4:30 pm
David Borrok
(borrokd):
Approved for
RGEOSENG Chair
2. 08/22/19 3:47 pm
Brittany Parnell
(ershenb):
Approved for CCC
Secretary
3. 09/05/19 10:52
am
Katie Shannon
(shannonk):
Approved for
Sciences DSCC
Chair
4. 09/16/19 4:09 pm
Brittany Parnell
(ershenb):
Approved for

Semesters
previously
offered as an
experimental
course

Pending CCC
Agenda post

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1380

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/06/19 4:16 pm

Viewing: **MS&E 5460 : Molecular Engineering of Materials**

File: 4650

Last edit: 08/12/19 3:14 pm

Changes proposed by: doganf

Requested	Spring 2020
Effective Change Date	
Department	Materials Science & Engineering
Discipline	Materials Science & Eng (MS&E)
Course Number	5460
Title	Molecular Engineering of Materials
Abbreviated Course Title	Molecular Engineering

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. CAT entry
11. Peoplesoft

Catalog

Description

This course focuses on the fundamentals of molecular engineering with an emphasis on their applications including renewable/clean energy solutions, energy storage, air/water cleaning, and optoelectronics. Topics include principles of modern physics, carbon chemistry, macromolecules, metal(covalent)-organic frameworks sol-gel processing and crystal growth.

Prerequisites

Senior Standing or consent of instructor.

Field Trip

Statement

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

1. 07/16/19 4:46 pm
Greg Hilmas (ghilmas):
Approved for RMATSENG Chair
2. 07/22/19 9:23 am
Brittany Parnell (ershenb):
Rollback to Initiator
3. 08/08/19 2:01 am
Greg Hilmas (ghilmas):
Approved for RMATSENG Chair
4. 08/13/19 2:06 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary

Justification for new course:

This course was developed through a mutual agreement (signed MOU) between S&T and Abdullah Gul University (AGU) in Turkey during the visit of the President of AGU

at S&T in 2017. The course was co-taught by Prof. Hakan Usta (PhD Northwestern Univ. Chemistry) at AGU and myself in Spring 2018 and 2019 online via Zoom. This elective course was offered for senior undergraduate and graduate students (5000/6000 level) at both universities. Due to 8-9 hours time difference, the class (3 hours lecture with breaks) at S&T started at 8:00am. Number of students in 2018: 10 AGU and 7 S&T, in 2019: 7 AGU and 6 S&T).

The molecular engineering approach used in this course does not only teach the fundamentals for rational design of existing materials processed by the bottom-up methods but also provides the essential skills to design next-generation novel materials for future applications. Topics include principles of carbon chemistry, rational molecular engineering, small molecules, macromolecules, organic/printed optoelectronics, quantum dots and atomically layered materials, crystal growth processes, defects in nanostructures, sol-gel processing, metal(covalent)-organic frameworks, sustainability, renewable/clean energy and information technology. Due to strong emphasis on chemistry of materials, the course is proposed to be co-listed in the curriculum of Chemistry Department at S&T.

The course assignments will include in-class presentations given by students and term papers related to the molecular engineering. Graduate students taking the advanced 6000 level course will focus on emerging fields of molecular science and engineering.

Semesters previously offered as an experimental course

Spring 2018 S&T enrollment: MS&E 5001- 6 students
Spring 2019 S&T enrollment: MS&E 5001- 3 students

Co-Listed Courses: CHEM 5460 - **Course Not Found**

Course Reviewer **ershenb (07/22/19 9:23 am)**: Rollback: Rollback per email from Brittany Parnell
Comments

5. 09/10/19 10:41 am
Stephen Raper (sraper):
Approved for Engineering DSCC Chair
6. 09/16/19 4:09 pm
Brittany Parnell (ershenb):
Approved for Pending CCC Agenda post

Key: 4650

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/06/19 4:16 pm

Viewing: **MS&E 6460 : Advanced Molecular Engineering of Materials**

File: 4658

Last edit: 08/12/19 3:15 pm

Changes proposed by: doganf

Requested Spring 2020

Effective Change

Date

Department Materials Science & Engineering

Discipline Materials Science & Eng (MS&E)

Course Number 6460

Title Advanced Molecular Engineering of Materials

Abbreviated Adv. Molecular Eng.

Course Title

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. CAT entry
11. Peoplesoft

Catalog Description This advanced course focuses on the fundamentals of molecular science and engineering and their applications including renewable/clean energy solutions, energy storage, and optoelectronics. Topics include principles of carbon chemistry, macromolecules, metal(covalent)-organic frameworks, sol-gel processing, crystal growth and emerging fields.

Prerequisites Graduate Standing or 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 new course: This advanced course focuses on the fundamentals of molecular science and engineering with an emphasis on their applications including renewable/clean energy solutions, energy storage, air/water cleaning, and optoelectronics. Topics include principles of modern physics, carbon chemistry, macromolecules, metal (covalent)-organic frameworks, sol-gel processing and crystal growth.

This course was developed through a mutual agreement (signed MOU) between S&T and Abdullah Gul University (AGU) in Turkey during the visit of the President of AGU at S&T in 2017. The course was co-taught by Prof. Hakan Usta (PhD Northwestern Univ. Chemistry) at AGU and myself in Spring 2018 and 2019 online via Zoom.

This elective course was offered for senior undergraduate and graduate students

Approval Path

1. 08/08/19 2:01 am
Greg Hilmas (ghilmas):
Approved for RMATSENG Chair
2. 08/13/19 2:06 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/10/19 10:41 am
Stephen Raper (sraper):
Approved for Engineering DSCC Chair
4. 09/16/19 4:09 pm
Brittany Parnell (ershenb):
Approved for Pending CCC Agenda post

(5000/6000 level) at both universities. Due to 8-9 hours time difference, the class (3 hours lecture with breaks) at S&T started at 8:00am. Number of students in 2018: 10 AGU and 7 S&T, in 2019: 7 AGU and 6 S&T).

The molecular engineering approach used in this course does not only teach the fundamentals for rational design of existing materials processed by the bottom-up methods but also provides the essential skills to design next-generation novel materials for future applications. Topics include principles of carbon chemistry, rational molecular engineering, small molecules, macromolecules, organic/printed optoelectronics, quantum dots and atomically layered materials, crystal growth processes, defects in nanostructures, sol-gel processing, metal(covalent)-organic frameworks, sustainability, renewable/clean energy and information technology. Due to strong emphasis on chemistry of materials, the course is proposed to be co-listed in the curriculum of Chemistry Department at S&T.

The course assignments will include in-class presentations given by students and term papers related to the molecular engineering. Graduate students taking the advanced 6000 level course will focus on emerging fields of molecular science and engineering.

Semesters previously offered as an experimental course

Spring 2018 S&T enrollment: MS&E 6001- 2 students
Spring 2019 S&T enrollment: MS&E 6001- 3 students

Co-Listed Courses: CHEM 6460 - **Course Not Found**

Course Reviewer
Comments

Key: 4658

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/27/19 9:32 am

Viewing: **PET ENG 3320 : Petrophysics**

File: 4189.8

Last approved: 06/20/19 3:38 am

Last edit: 09/10/19 10:43 am

Changes proposed by: reflori

Other Courses referencing this course	In The Prerequisites: PET ENG 3330 : Well Logging PET ENG 3520 : Petroleum Reservoir Engineering
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Requested Effective Change Date: **Spring 2020** ~~Fall 2019~~

Department: Geosciences and Geological and Petroleum Engineering

Discipline: Petroleum Engineering (PET ENG)

Course Number: 3320

Title: Petrophysics

Abbreviated Course Title: Petrophysics

Catalog Description Properties of petroleum reservoir rocks, including lithology, porosity, absolute permeability, pore surface area, relative and effective permeability, fluid saturations, rock wettability, capillary characteristics, acoustic properties, and electrical properties. Darcy's law for single phase linear horizontal, tilted and radial flow.					
Prerequisites Preceded or accompanied by both Pet Eng 2510 and Physics 1135.					
Field Trip Statement					
Credit Hours	LEC: 2	LAB: 1	IND: 0	RSD: 0	Total: 3
Required for Majors	Yes				
	No				

- In Workflow
1. **RGEOENG 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. 08/27/19 1:01 pm David Borrok (borrokd): Approved for RGEOENG Chair
 2. 08/28/19 11:32 am Brittany Parnell (ershenb): Approved for CCC Secretary
 3. 09/10/19 10:43 am Stephen Raper (sraper): Approved for Engineering DSCC Chair
 4. 09/16/19 4:09 pm Brittany Parnell (ershenb):

<p>Elective for Majors</p>	<p>Approved for Pending CCC Agenda post</p>
<p>Justification for change: We want new Soph transfer students to be able to take this course their first semester (Fall) here even if they haven't had the Pet Eng 2510 Fluids class yet.</p> <p>Semesters previously offered as an experimental course None. This is a required course.</p> <p>Co-Listed Courses:</p>	<p>History</p> <ol style="list-style-type: none"> 1. Oct 16, 2017 by reflori 2. Jun 20, 2019 by reflori (4189.4)
<p>Course Reviewer Comments</p>	<p>sraper (09/10/19 10:43 am): There is an objection to removing the Pet Eng Prereq as follows: – I have a problem with this one. Without the PE 2510 co-requisite, presumably it does not require material from Pet 2510. So, why is a 3000-level course? If it does not require sophomore-level prerequisite material, then it should be a 2000-level course. One can handle the problem about Sophomore transfer students by granting a permission number for those that have a strong record. How many students are in this situation? Fall 2018 shows an enrollment of 2 sophomore and 11 juniors in the program. We need to discuss this at the CCC meeting. I am not sure we can object to this or require a lower number.</p>

Key: 4189

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/31/19 8:18 pm

Viewing: **PHYSICS 6101 5201: Classical Mechanics I**

File: 1923.2

Last approved: 05/02/14 3:46 am

Last edit: 09/03/19 4:21 pm

Changes proposed by: wilemski

Requested **Spring 2020 08/01/2014**

Effective Change

Date

Department Physics

Discipline Physics (PHYSICS)

Course Number **6101 5201**

Title Classical Mechanics I

Abbreviated Classical Mechanics I

Course Title

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. CAT entry
11. Peoplesoft

Catalog

Description

Methods of Newton, Lagrange, and Hamilton applied to the motion of particles and rigid bodies. Introduction to canonical transformations and Poisson brackets. Classical scattering and small oscillations.

Prerequisites

Math 3304, Physics 3201.

Field Trip

Statement

Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3
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Required for Majors No

Elective for Majors No

Course Title

Approval Path

1. 08/31/19 9:01 pm
Thomas Vojta (vojtat):
Approved for RPHYSICS Chair
2. 09/03/19 4:21 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/13/19 10:32 am
Katie Shannon (shannonk):
Approved for Sciences DSCC Chair
4. 09/16/19 4:10 pm
Brittany Parnell (ershenb):
Approved for

Justification for

change:

The course number change from 5201 to 6101 is requested to ensure that proper graduate credit is received by students completing this course.

Semesters

previously

offered as an
experimental
course

Pending CCC
Agenda post

Co-Listed
Courses:

History

1. May 2, 2014 by
lahne (1923.1)

Course Reviewer
Comments

Key: 1923

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/31/19 8:20 pm

Viewing: **PHYSICS 6111 ~~5211~~: Electrodynamics I**

File: 2123.3

Last approved: 05/02/14 3:46 am

Last edit: 09/03/19 4:21 pm

Changes proposed by: wilemski

Requested **Spring 2020 ~~08/01/2014~~**
 Effective Change
 Date

Department Physics
 Discipline Physics (PHYSICS)
 Course Number **6111 ~~5211~~**
 Title Electrodynamics I
 Abbreviated Electrodynamics I
 Course Title

Catalog Description A rigorous development of the fundamentals of electromagnetic fields and waves. Electrostatics, magnetostatics, Maxwell's equations--Green's function, boundary value problems, multipoles, conservation laws.

Prerequisites Physics 4211.

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: The course number change from 5211 to 6111 is requested to ensure that proper graduate credit is received by students completing this course.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments

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. CAT entry
11. Peoplesoft

Approval Path

1. 08/31/19 9:02 pm Thomas Vojta (vojtat): Approved for RPHYSICS Chair
2. 09/03/19 4:22 pm Brittany Parnell (ershenb): Approved for CCC Secretary
3. 09/13/19 10:32 am Katie Shannon (shannonk): Approved for Sciences DSCC Chair
4. 09/16/19 4:10 pm Brittany Parnell (ershenb): Approved for Pending CCC Agenda post

Key: 2123

History

1. May 2, 2014 by
lahne (2123.1)

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/31/19 8:22 pm

Viewing: **PHYSICS 6201** ~~5301~~: Quantum Mechanics I

File: 1222.1

Last edit: 09/03/19 4:23 pm

Changes proposed by: wilemski

Requested **Spring 2020** ~~08/14/2018~~

Effective Change

Date

Department Physics

Discipline Physics (PHYSICS)

Course Number **6201** ~~5301~~

Title Quantum Mechanics I

Abbreviated Quantum Mechanics I

Course Title

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. CAT entry
11. Peoplesoft

Catalog

Description

Basic formalism applied to selected problems. Schroedinger equation and one dimensional problems, Dirac notation, matrix mechanics, harmonic oscillator, angular momentum, hydrogen atom, variational methods, introduction to spin.

Prerequisites

Physics 4301 or equivalent.

Field Trip

Statement

Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3
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Required for Majors	No
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Elective for Majors	No
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Approval Path

1. 08/31/19 9:03 pm
Thomas Vojta (vojtat):
Approved for RPHYSICS Chair
2. 09/03/19 4:23 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/13/19 10:32 am
Katie Shannon (shannonk):
Approved for Sciences DSCC Chair
4. 09/16/19 4:10 pm
Brittany Parnell (ershenb):
Approved for

Justification for change:

The course number change from 5301 to 6201 is requested to ensure that proper graduate credit is received by students completing this course.

Semesters

previously

offered as an

experimental
course

Pending CCC
Agenda post

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1222

[Preview Bridge](#)

Program Change Request

Date Submitted: 07/12/19 10:43 am

Viewing: **GL&GPH-MS : Geology and Geophysics MS**

File: 166.13

Last approved: 06/14/19 2:11 pm

Last edit: 07/16/19 4:16 pm

Changes proposed by: sbrower

Catalog Pages Using this Program

[Geology and Geophysics](#)

Start Term

Fall **2020** ~~2019~~

Program Code

GL&GPH-MS

Department

Geosciences and Geological and Petroleum Engineering

Title

Geology and Geophysics MS

Program Requirements and Description

In Workflow

1. **RGEOENG 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. Kristy Giacomelli-Feys

Approval Path

1. 07/12/19 2:02 pm
David Borrok
(borrokd): Approved for RGEOENG Chair
2. 07/16/19 4:16 pm
Brittany Parnell
(ershenb): Approved for CCC Secretary
3. 08/11/19 10:22 pm
Katie Shannon
(shannonk): Approved for Sciences DSCC Chair
4. 09/16/19 4:09 pm
Brittany Parnell
(ershenb): Approved for Pending CCC Agenda post

History

1. Jun 17, 2014 by [pantaleoa](#)
2. Jun 22, 2015 by [pantaleoa](#)
3. Jul 23, 2015 by [pantaleoa](#)

Graduate work in geology and geophysics is offered at both the master of science (thesis and non-thesis) and doctoral levels. Programs are designed to provide you with an understanding of the fundamentals and principles of geology, geochemistry, and geophysics. Research investigations comprise a significant part of each program, and at the doctoral level an original contribution to the science is required.

Research emphasis of the program is in:

- Low Temperature and Environmental Geochemistry
- Mineralogy/Petrology/Economic Geology
- Geophysics/Tectonics/Remote Sensing
- Sedimentology/Paleontology/Stratigraphy/Petroleum Exploration

In geology and geochemistry, opportunities for research at both the M.S. and Ph.D. levels are available in mining geology, petroleum geology, **environmental geochemistry**, stratigraphy and sedimentation, ~~geochemistry~~, clay mineralogy, remote sensing, GIS, palynology, structural geology, igneous and metamorphic petrology, **volcanology**, and **planetary geology**. ~~volcanology~~.

In geophysics, opportunities for research at both the M.S. and Ph.D. levels are available in the areas of reflection and refraction seismology, theoretical seismology, geophysical data analysis, gravity, magnetics, seismic hazards, and computational geophysics.

The study of the Earth and other planets includes all areas of scientific inquiry. To work effectively in so broad a discipline requires considerable depth and breadth of understanding of physical principles and advanced proficiency in mathematics, particularly for those students contemplating advanced studies in geophysics. A thorough undergraduate training in an earth or physical science is ~~a ordinarily regarded as necessary~~ prerequisite for advanced study in geology or geophysics.

Earth sciences have been an integral part of the university since its founding. The program has a long and proud history of faculty and students who have contributed to the advancement of the **science**, ~~science and~~ to mineral and hydrocarbon **exploration, and to protecting the environment**. ~~exploration~~. The university was formerly the Missouri School of Mines. Because of the school's tradition and location near the Missouri Lead District, the emphasis of the program has been in **exploration for mineral and petroleum resources**. ~~hard rock exploration~~. The program has ~~now~~ expanded to include **environmental** geochemistry, geophysics, ~~and~~ soft rock **geology, and planetary** geology. Our graduates find employment in **the mining, petroleum, environmental, and environmental industries, as well as with government agencies and academia**. ~~petroleum industries~~. **The program provides students** ~~It is our intention to provide the student~~ with ~~a sufficiently~~ diverse **educational opportunities to prepare themselves to and complete education that he or she may** seek employment in any area of the earth sciences.

The program has a wide variety of equipment for research and exploration in geology, geochemistry, and geophysics. ~~In addition to its own facilities, the Missouri Department of Natural Resources, and the U.S. Geological Survey's mid-continent mapping division are also located in Rolla. Cooperative research with other departments within the university or other campuses of the University of Missouri may be undertaken by our faculty and graduate students.~~ Interaction with mining engineering, geological engineering, petroleum engineering, metallurgy, environmental engineering, biological sciences and various other programs/departments is routine. **Our faculty and graduate students commonly participate in collaborative research with other departments on campus as well as universities worldwide. In addition, cooperative research and internship opportunities with the Missouri Geological Survey, the U.S. Geological Survey's National Geospatial Technical Operations Center and the Mark Twain National Forest Service, all located in Rolla, are available.** Cooperative programs ~~are also undertaken~~ with local mining companies, petroleum companies, or other industries ~~are also possible. using the skills and techniques of the earth scientist~~. Thus, your research interests need not fall entirely within the interests of our faculty or within the bounds of the equipment directly available within the program.

A B.S. ~~Although an advanced degree level is essential not a requirement~~ for professional practice in geology or **geophysics in industry**. ~~geophysics, the B.S. Due to should usually be considered a preparatory,~~ the **increasing complexity of jobs in the geosciences, the M.S. degree is recognized as the "professional degree" for geoscientists desiring employment in the Petroleum, Minerals, and many other industries.** ~~should be considered the professional degree, and the Ph.D. should be sought by candidates interested in a career in teaching or research.~~ The **Ph.D. M.S. degree is for those students that want to conduct original research with purpose of adding new knowledge in a specific area of the geosciences. Successful Ph.D. should be sought by candidates find employment interested in academia or research centers a career in government agencies or corporate research labs. teaching or research.**

Two M.S. degree options are available: thesis and non-thesis. ~~degree is typically granted with the thesis option, although a non-thesis option is now available.~~ All Geology and Geophysics MS students are required to take the Professional Geosciences Skills course (**GEOLGY 5100**) ~~GEOLGY 5100~~ and either Advanced Physical Geology (**GEOLGY 5111**) ~~GEOLGY 5111~~ or Global Tectonics (**GEOPHYS 5096**). ~~GEOPHYS 5096~~. For students whose native language is not English, a minimum score of 79 on the standard Test of English as a Foreign Language is generally required for admission. The minimum Graduate Record Examinations (GRE) scores required for acceptance consideration in the Geology and Geophysics graduate program are Q = 148, Q+V = 300, and A(W) = 3.0.

Justification for request

The first required courses are being included because Graduate students need mentoring and experience in developing both research skills and professional soft-skills which are required for a successful geoscience career. They also need experience in researching papers and opportunities to present scientific content to larger groups of peers. New CC forms for these courses (GEO 5100 & GEO 6100) have been submitted as required. Graduate students need one or the other of the second courses (or even both depending upon their committee recommendations) to establish a firm understanding of fundamental concepts in the Geosciences such that they will be able to use this information in understanding the broader significance of their research. These courses will be offered on a regular basis. The faculty decided to make explicit the entrance requirements for the GRE etc.

Supporting Documents

Course Reviewer Comments

ershenb (07/16/19 10:35 am): updated start term to fall 2020

ershenb (07/16/19 4:16 pm): .

Program Change Request

New Program Proposal

Date Submitted: 08/27/19 3:55 pm

Viewing: **PROPOSED : Construction Engineering and Management Minor**

File: 343

Last edit: 09/10/19 9:42 am

Changes proposed by: seelyj

Start Term

Fall 2020

Program Code

PROPOSED

Department

Civil, Architectural, and Environmental Engineering

Title

Construction Engineering and Management Minor

Program Requirements and Description

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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. Kristy Giacomelli-Feys

Approval Path

1. 09/10/19 8:52 am
Joel Burken
(burken): Approved for RCIVILEN Chair
2. 09/10/19 9:28 am
Brittany Parnell
(ershenb):
Approved for CCC Secretary
3. 09/16/19 12:29 pm
Stephen Raper
(srapper): Approved for Engineering DSCC Chair
4. 09/16/19 4:10 pm
Brittany Parnell
(ershenb):
Approved for Pending CCC Agenda post

Minor in Construction Engineering & Management

The minor in Construction Engineering and Management will require 15 credits of coursework from the following lists. Some courses may also count toward the students' undergraduate degree. To maintain the value of the minor, we require students to complete a minimum of 9 credits in addition to any classes counting towards the students undergraduate and/or graduate degree(s).

3 Credit Hours from the following List:

CIV ENG 2451	Engineering Drawings and Tools	3
CIV ENG 4448	Fundamentals Of Contracts And Construction Engineering	3
ENG MGT 3320	Introduction to Project Management	3

6 Credit Hours from the following List:

CIV ENG 5442	Construction Planning and Scheduling Strategies	3
CIV ENG 5445	Construction Methods	3
CIV ENG 5446	Management Of Construction Costs	3
CIV ENG 5449	Engineering and Construction Contract Specifications	3
ENG MGT 5316	Safety Engineering Management	3
ENG MGT 5610	Advanced Facilities Planning & Design	3
BUS 3205	Accounting Essentials	1.5

6 Credit Hours from the following List:

CIV ENG 5451	Information Technology Applications in the Construction Industry	3
CIV ENG 5452	Pre-Project Planning and Feasibility Studies	3
CIV ENG 5453	Logistics for Construction Industry	3
CIV ENG 5454	Construction Technology for High-Rise Buildings	3
CIV ENG 5455	Construction Industry Best Practices	3
ARCH ENG 2103	Architectural Materials And Methods Of Construction	3

Justification for request

This minor is proposed to address voids highlighted by the member companies of the Missouri Consortium of Construction Innovation (MO-CCI) in our construction engineering and management (CEM) curriculum. The MO-CCI members have an immediate desire to bridge the gap in the abilities of our fresh graduates and help them meet the current needs of the construction industry.

Supporting Documents

Course Reviewer Comments

ershenb (09/10/19 9:24 am): formatting

ershenb (09/10/19 9:28 am): .

ershenb (09/10/19 9:28 am): .

ershenb (09/10/19 9:42 am): updated start term to fall 2020

Program Change Request

Date Submitted: 06/07/19 3:52 pm

Viewing: **WORKPSY-CT : Applied Workplace Psych
CT**

File: 304.1

Last edit: 06/07/19 3:52 pm

Changes proposed by: ershenb

Catalog Pages Using this Program

[Psychology](#)

Start Term

Spring 2020

Program Code

WORKPSY-CT

Department

Psychological Science PSYCH

Title

Applied Workplace Psych CT

Program Requirements and Description

In Workflow

1. **RPSYCHOL Chair**
2. **CCC Secretary**
3. **VC of Research & Dean of Grad Studies**
4. **Social Sciences DSCC Chair**
5. **Pending CCC Agenda post**
6. **CCC Meeting Agenda**
7. Campus Curricula Committee Chair
8. FS Meeting Agenda
9. Faculty Senate Chair
10. Registrar
11. Kristy Giacomelli-Feys

Approval Path

1. 08/30/19 9:31 am
Susan Murray (murray): Approved for RPSYCHOL Chair
2. 08/30/19 1:20 pm
Brittany Parnell (ershenb): Approved for CCC Secretary
3. 09/03/19 2:56 pm
Costas Tsatsoulis (tsatsoul): Approved for VC of Research & Dean of Grad Studies
4. 09/14/19 9:29 am
Michael Davis (davismc): Approved for Social Sciences DSCC Chair
5. 09/16/19 4:10 pm
Brittany Parnell (ershenb): Approved for Pending CCC Agenda post

Applied Workplace Psychology

The applied workplace psychology graduate certificate is designed to serve as a recruitment tool for the industrial-organizational psychology MS program. This program will offer students a set of foundational courses in industrial and organizational psychology. Students who pass all four courses with a grade of B or better in each course can gain entry to the I-O psychology MS program with the other application requirements being waived. The included courses cover an introductory seminar course, an advanced research methods course, a course on job analysis and performance appraisal and a small group dynamics course which will examine groups and teams in organizations.

All four courses included in the applied workplace psychology certificate curriculum will be offered once per year. All of these courses are available both on-campus as well as via distance.

Fall Courses:

PSYCH 5010	Seminar for Industrial / Organizational Psychology	
PSYCH 5020	Introduction to Industrial-Organizational Psychology	3
PSYCH 5210	Advanced Research Methods	3

Spring Courses:

PSYCH 5601	Small Group Dynamics	3
PSYCH 5700	Job Analysis and Performance Management	3

The applied workplace psychology certificate program is open to all persons holding a B.S., M.S., or Ph.D. degree in psychology, business, or a related field and who have a minimum of one year of professional employment experience. Once admitted to the program, the student must take the four designated courses (provided in the curriculum section). In order to receive a graduate certificate, the student must have an average cumulative grade point of 3.0 or better in the certificate courses. Once admitted to the program, a student will be given three years to complete the program.

Students admitted to the applied workplace psychology certificate program will have non-degree graduate status, however, they will earn graduate credit for the course they complete. If the student completes the four-course sequence with a grade of B or better in each of the courses taken, they, upon application, will be admitted to the M.S. degree program in industrial organizational psychology. The certificate credits taken by the students admitted to the M.S. degree program will count towards their master's degrees. Students who do not have all of the prerequisite courses necessary to begin the courses in the applied workplace psychology certificate program will be allowed to take "bridge" courses at either the graduate or undergraduate level to prepare for the formal certificate courses.

Justification for request

We previously changed the course number for PSYCH 5010 to PSYCH 5020 at the recommendation of the Campus Curricula Committee to reflect that while taught in the seminar "style" that it is not intended as a seminar course. It should be counted as a lecture course. The 5010 course number is typically reserved for courses intended to count as a seminar instead of a lecture. The certificate courses remain the same, but the course numbers will be changed to reflect the currently approved course numbers (i.e. 5010 becomes 5020).

Supporting Documents

[WORKPSY-CT_Applied Workplace Psych CT.pdf](#)

Course Reviewer Comments

ershenb (06/07/19 3:52 pm): Submitted per Dr.Susan Murray's email.

Psychological Science

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5/29/2019

To: Stephen Roberts
Vice Provost and Dean of the College of Arts, Science, and Business

Costas Tsatsoulis
Vice Chancellor of Research and Dean of Graduate Studies

From: Susan Murray
Department of Psychological Science

Nathan Weidner
Department of Psychological Science

Subject: Revision Proposal for Applied Workplace Psychology Graduate Certificate

In 2017 the Applied Workplace Psychology graduate certificate was developed by Department of Psychological Science. The certificate consisted of the following courses:

Fall Courses

PSYCH 5010 – Introduction to I-O Psychology

PSYCH 5210 – Advanced Research Methods in I-O

Spring Courses

PSYCH 5601 – Advanced Group Dynamics

PSYCH 5700 – Job Analysis and Performance Management

Psych 5010 was misclassified as a seminar course. At the request of the curriculum committee, we updated the course number from 5010 to 5020 in 2018 to reflect that it is counted as a lecture course rather than a seminar course. As a result, we would like to amend the graduate certificate to consist of the following courses:

Fall Courses

PSYCH 5020 – Introduction to I-O Psychology

PSYCH 5210 – Advanced Research Methods in I-O

Spring Courses

PSYCH 5601 – Advanced Group Dynamics

PSYCH 5700 – Job Analysis and Performance Management

If you have any questions, please do not hesitate to contact the department.

REVISED GRADUATE CERTIFICATE IN Applied Workplace Psychology

OFFERED BY:

Department of Psychological Science

PARENT DEPARTMENT AND DEGREE:

Department of Psychological Science MS in Industrial-Organizational Psychology

INTENDED AUDIENCE: Main Campus Students Distance Students Both

JUSTIFICATION (Reason for revision):

We previously changed the course number for Psych 5010 to Psych 5020 at the recommendation of the Campus Curriculum Committee to reflect that while taught in the seminar “style” this is not intended as a seminar course. It should be counted as a lecture course. The 5010 course number is typically reserved for courses intended to count as a seminar instead of a lecture. The certificate courses remain the same, but the course numbers will be changed to reflect the currently approved course numbers (i.e. 5010 becomes 5020).

PROPOSED GRCT PROGRAM:

All courses are offered both on-campus and via distance.

Students must complete the following four psychology courses.

Fall Courses

PSYCH 5020 – Introduction to I-O Psychology

PSYCH 5210 – Advanced Research Methods in I-O

Spring Courses

PSYCH 5601 – Advanced Group Dynamics

PSYCH 5700 – Job Analysis and Performance Management

PROPOSED COURSE DESCRIPTIONS:

PSYCH 5020: Introduction to Industrial-Organizational Psychology

Review of the most recent theoretical and applied research in advanced personnel and organizational psychology. Topics will include personnel selection, training and performance appraisal, job attitudes, motivation, work groups and teams, leadership, organizational culture, and organizational development. Prerequisite: graduate standing. (Offered both online and campus)

PSYCH 5210: Advanced Research Methods in I-O

Research methods and techniques, with an emphasis on conducting psychological research in organizational settings. Topics discussed include: ethics, reliability and validity in measurement and application, proper uses of experimental, quasi-experimental, and survey methodologies, as well as advanced methodologies IRT, SEM, HLM, and Meta-Analyses. Prerequisites: graduate standing. (Offered both online and campus)

PSYCH 5601: Small Group Dynamics

An in-depth review of the concepts and theories related to group dynamics. Topics include group goals, communication within groups, group structure, norms, leadership, decision making, controversy, conflict resolution, power, diversity issues, and team development. Students will consider theoretical implications and practical applications of topics in group dynamics in the form of independent reading, research proposals, and observational assignments. *Prerequisite: PSYCH 4601 or graduate standing.* (Offered both online and campus)

PSYCH 5700: Job Analysis and Performance Management

A focus on the scientific measurement of job performance. An in-depth discussion of the science and methods of appropriate job and task analysis will be discussed. Additionally, students will focus on current issues in performance management and appraisal including scientific findings related to both objective and subjective measures of performance in organizations. Prerequisite: Psych 4700 or graduate standing. (Offered both online and campus)

CURRENT GRCT PROGRAM:

Fall Courses

PSYCH 5010 – Introduction to I-O Psychology

PSYCH 5210 – Advanced Research Methods in I-O

Spring Courses

PSYCH 5601 – Advanced Group Dynamics

PSYCH 5700 – Job Analysis and Performance Management

Please sign below indicating your agreement with the proposed changes:



Vice Provost & Dean Stephen Roberts

Vice Chancellor and Dean Costas Tsatsoulis

If you have any questions about this form, please contact the Office of Graduate Studies, 573-341-4141.

Course Change Request

New Experimental Course Proposal

Date Submitted: 08/16/19 12:50 pm

Viewing: **BIO SCI 3001.003 : Physiology Laboratory**

File: 4660

Last edit: 09/16/19 9:42 am

Changes proposed by: niyogid

Requested	Spring 2020
Effective Change Date	
Department	Biological Sciences
Discipline	Biological Sciences (BIO SCI)
Course Number	3001
Topic ID	003
Experimental Title	Physiology Laboratory
Experimental Abbreviated Course Title	Physiology Laboratory
Instructors	staff

In Workflow

1. **RBIOLSCI 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. 08/16/19 1:02 pm
David Duvernell (duverneld):
Approved for
RBIOLSCI Chair
2. 08/16/19 3:15 pm
Brittany Parnell (ershenb):
Approved for CCC
Secretary
3. 08/27/19 11:04 am
Katie Shannon (shannonk):
Approved for
Sciences DSCC
Chair
4. 09/16/19 4:01 pm
Brittany Parnell (ershenb):
Approved for
Pending CCC
Agenda post

Experimental Catalog Description
Laboratory activities and demonstrations of basic physiology of animals, including humans, ranging from cell to organ systems.

Prerequisites
Preceded or accompanied by either Bio Sci 3333 or Bio Sci 3343.

Field Trip Statement

Credit Hours	LEC: 0	LAB: 1	IND: 0	RSD: 0	Total: 1
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Justification for new course:

We are adding a new laboratory course that focuses on physiology of animals, especially humans. We have purchased new equipment for use in this lab, which will appeal to our pre-health students.

None

Semester(s)
previously taught

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4660

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 08/21/19 3:29 pm

Viewing: **EDUC 3001.001 : Teacher Field Experience III**

File: 4661

Last edit: 09/16/19 10:18 am

Changes proposed by: bakm75

Requested	Spring 2020
Effective Change Date	
Department	Teacher Education and Certification
Discipline	Education (EDUC)
Course Number	3001
Topic ID	001
Experimental Title	Teacher Field Experience III
Experimental Abbreviated Course Title	Field Experience III
Instructors	Kelly Carter

Experimental Catalog Description	Students enrolled in this course will be planning and implementing activities and assessments with children or adolescents in structured learning environments. Students will be supervised by experienced, credentialed educators and submit assignments. At least 30 hours of contact time with children or adolescents is required per credit hour.	<p>In Workflow</p> <ol style="list-style-type: none"> 1. REDUCATION 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
Prerequisites	Educ 1104 and Educ 1164.	
Field Trip Statement	Students will be in area school districts one full day per week.	<p>Approval Path</p> <ol style="list-style-type: none"> 1. 08/21/19 3:43 pm Beth Kania-Gosche (bkaniagosche): Approved for REDUCATION Chair 2. 08/22/19 8:16 am Brittany Parnell (ershenb): Approved for CCC Secretary 3. 09/13/19 8:29 am Brittany Parnell (ershenb): Rollback to CCC Secretary for Social Sciences DSCC Chair 4. 09/13/19 8:31 am Brittany Parnell (ershenb): Approved for CCC Secretary 5. 09/14/19 9:26 am Michael Davis (davismc): Approved for
Credit Hours	LEC: 0 LAB: 1 IND: 0 RSD: 0 Total: 1	
Justification for new course:	Feedback from students in the teacher education program and area principals and superintendents indicate that they need more experience in schools prior to student teaching. As currently designed, the secondary students take both field experience courses their first year and do not set foot in a classroom again until student teaching. This course will provide an opportunity for them to gain experience in the field prior to student teaching and employment.	
Semester(s) previously taught		
Co-Listed Courses:		

Course Reviewer Comments	ershenb (09/13/19 8:29 am): Rollback: Rolled back so new Social Sciences DSCC can review.	Social Sciences DSCC Chair
		6. 09/16/19 4:09 pm
		Brittany Parnell (ershenb): Approved for Pending CCC Agenda post

Key: 4661

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 09/17/19 11:35 am

Viewing: **MUSIC 3001.002 : Introduction to Music Composition and Arranging**

File: 4664

Last edit: 09/17/19 1:53 pm

Changes proposed by: karmannc

Requested Spring 2020

Effective Change

Date

Department Arts, Languages, & Philosophy

Discipline Music (MUSIC)

Course Number 3001

Topic ID 002

Experimental Title Introduction to Music Composition and Arranging

Experimental Abbreviated Course Title Music Comp & Arranging

Course Title

Instructors Kyle Wernke

Experimental Catalog Description
Without composers there would be no music. In this course students will learn to create new musical ideas, develop those ideas, and create an original short piece of music. In addition students will learn how to take existing pieces of music and arrange them for various ensembles through a basic course in orchestration.

Prerequisites
Students must have previously taken or be currently enrolled in one of the following: Music 1130, Music 1131, Music, 1132, Music 1134, Music 1135, or Music 1136.

Field Trip Statement

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

Justification for new course:
Current music students, and potential music minor enrollees, have indicated high interest in this field. Several students have already done arrangements or compositions for the Miner Marching Band, Video Game Music Ensemble, Pep Band, and Orchestra, this could inspire more students to do the same. Artistic creation also fosters critical thinking and creative problem solving.

Semester(s) previously taught

In Workflow

1. **RPHILOSO Chair**
2. **CCC Secretary**
3. **Arts & Humanities DSCC Chair**
4. **Pending CCC Agenda post**
5. **CCC Meeting Agenda**
6. Campus Curricula Committee Chair
7. CAT entry
8. Registrar

Approval Path

1. 09/13/19 12:39 pm
Audra Merfeld-Langston (audram):
Approved for RPHILOSO Chair
2. 09/16/19 9:26 am
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/16/19 9:41 am
Petra Dewitt (dewittp):
Rollback to CCC Secretary for Arts & Humanities DSCC Chair
4. 09/16/19 10:22 am
Brittany Parnell (ershenb):
Approved for CCC Secretary
5. 09/16/19 10:26 am
Brittany Parnell

Co-Listed Courses:		(ershenb): Rollback to Initiator
Course Reviewer Comments	<p>dewittp (09/16/19 9:41 am): Rollback: Prerequisites not enforceable as written currently. Should contain a list of music courses.</p> <p>ershenb (09/16/19 10:26 am): Rollback: Rollback per the request of Dr. Petra Dewitt per her comments on the form about enforcing a prereq.</p>	<p>6. 09/17/19 12:14 pm Audra Merfeld-Langston</p> <p>(audram): Approved for RPHILOSO Chair</p> <p>7. 09/17/19 1:54 pm Brittany Parnell (ershenb): Approved for CCC Secretary</p> <p>8. 09/17/19 1:55 pm Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC Chair</p> <p>9. 09/19/19 8:21 am Brittany Parnell (ershenb): Approved for Pending CCC Agenda post</p>

Key: 4664

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 08/21/19 5:22 pm

Viewing: **PHYSICS 3001.001 : Computational Physics Laboratory**

File: 4662

Last edit: 09/16/19 10:57 am

Changes proposed by: juliaem

Requested	Spring 2020
Effective Change Date	
Department	Physics
Discipline	Physics (PHYSICS)
Course Number	3001
Topic ID	001
Experimental Title	Computational Physics Laboratory
Experimental Abbreviated Course Title	Compt Physics Lab
Instructors	Dr. Julia Medvedeva

Experimental Catalog Description	Computational project-based studies in the areas of fundamental and applied physics including condensed matter physics, statistical physics, optics, atomic physics, soft-matter physics, astrophysics, etc. The semester-long computational projects will be targeted to various levels of programming skills.				
Prerequisites	Physics 2305 or Physics 2311.				
Field Trip Statement	N/A				
Credit Hours	LEC: 0	LAB: 3	IND: 0	RSD: 0	Total: 3

Justification for new course: Computational skills are widely required in many research areas as well as in the current job market. The course will not require prior programming skills, thus, many undergraduates in physics and engineering will be able to benefit from this course. This course will have a major hands-on research-like component, thus, qualifies as experiential learning.

Semester(s) previously taught: None

Co-Listed Courses:

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. CAT entry
8. Registrar

Approval Path

1. 08/21/19 5:24 pm
Thomas Vojta (vojtat):
Approved for RPHYSICS Chair
2. 08/22/19 3:49 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 09/05/19 10:52 am
Katie Shannon (shannonk):
Approved for Sciences DSCC Chair
4. 09/16/19 4:09 pm
Brittany Parnell (ershenb):
Approved for Pending CCC Agenda post

Course Reviewer

Comments

Key: 4662

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 07/19/19 11:41 am

Viewing: **STAT 5001.002 : Statistical Data Analysis Using R**

File: 4651

Last edit: 09/16/19 11:04 am

Changes proposed by: prunnion

Requested	Spring 2020
Effective Change Date	
Department	Mathematics & Statistics
Discipline	Statistics (STAT)
Course Number	5001
Topic ID	002
Experimental Title	Statistical Data Analysis Using R
Experimental Abbreviated Course Title	Data Analysis Using R
Instructors	Dr. Robert Paige

Experimental Catalog Description	This course will introduce the student to common data analytic tools implemented in the R programming language and their appropriate and effective use. The focus will be on the use of R for data analysis and a discussion of theoretical underpinnings of the methods implemented.				
Prerequisites	One of the following: Stat 3113, Stat 3115, Stat 3117 or Stat 5643; and one of the following: Stat 5346, Stat 5353, Stat 6841, Stat 6343, Stat 6344, or Stat 6545.				
Field Trip Statement					
Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3
Justification for new course:	R is arguably the most widely used statistical software package today. A statistical data analysis course using R would serve students in Mathematics and Statistics as well as many other students from around campus who need to analyze real data.				
Semester(s) previously taught	None				
Co-Listed Courses:					

In Workflow

1. **RMATHEMA 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. 07/22/19 10:06 am
vsam: Approved for RMATHEMA Chair
2. 07/22/19 10:17 am
Brittany Parnell (ershenb): Approved for CCC Secretary
3. 08/11/19 10:22 pm
Katie Shannon (shannonk): Approved for Sciences DSCC Chair
4. 09/16/19 4:10 pm
Brittany Parnell (ershenb): Approved for Pending CCC Agenda post

Course Reviewer Comments

Key: 4651

[Preview Bridge](#)