



Minutes of the Campus Curricula Committee Meeting

October 31, 2017

8:30am, 106 Parker Hall

(For Faculty Senate Meeting of November 9, 2017)

Attendees: Steve Raper, Barry Flachsbarth, Petra Dewitt, Katie Shannon, Paul Worsey, Geariod MacSithigh, Kristy Giacomelli and Brittany Parnell

The following curriculum forms were discussed and approved:

Course Change Forms:

File: 2327.1	BUS 5115: Introduction to Individual and Group Dynamics in Business
File: 4470	BUS 5730: Machine Learning and Artificial Intelligence for Business
File: 2160.7	CER ENG 3220: Phase Equilibria
File: 1195.1	CER ENG 3325: Ceramic Processing Lab II
File: 1659.1	CER ENG 4250: Thermal Properties Of Ceramics
File: 716.3	COMP ENG 5170: Real-Time Systems
File: 4375	COMP SCI 5602: Introduction to Cryptography
File: 912.1	ECON 4300: Research Methods and Applications in Economics and Business
File: 565.1	ERP 5410: Use of Business Intelligence
File: 2561.4	GEOLOGY 4010: Seminar
File: 779.1	GEOLOGY 5010: Seminar
File: 152.1	GEOLOGY 6511: Advanced Petroleum Geology
File: 1775.1	GEOPHYS 5010: Seminar
File: 791.1	GEOPHYS 6251: Geophysical Inverse Theory
File: 4478	IS&T 4444: Introduction to Data Warehouses
File: 4407.2	IS&T 5520: Data Science and Machine Learning with Python
File: 4471	IS&T 5535: Machine Learning Algorithms and Applications
File: 28.1	IS&T 6444: Essentials of Data Warehouses

Degree Change Forms:

File: 146.19	BIO SC-BA: Biological Sciences BA
File: 123.3	PRE-MED-MI: Pre-Medicine Minor
File: 253	PROPOSED: Minor in Artificial Intelligence and Machine Learning in Business

Experimental Course Forms:

File: 4485	GEOLOGY 5001.001: Petroleum Geochemistry
File: 4481	MS&E 5001.002: Molecular Engineering and Soft Nanomaterials
File: 4482	MS&E 6001.002: Advanced Molecular Engineering and Soft Nanomaterials



File: 4480

SPANISH 3001.002: Spanish Translation for Technical Applications

The following forms were tabled:

File: 942.1	ARCH ENG 4800: Principles of HVAC I
File: 2069.5	ARCH ENG 4820: Building Lighting Systems
File: 4219.5	ARCH ENG 4850: Building Electrical Systems
File: 4440	CHEM ENG 4001.001: Introduction to Phase Equilibrium
File: 249	PROPOSED: Master of Science in Explosives Technology

Implementation of potential graduate-level education courses through Project Lead The Way were discussed.

Statements regarding FE score releases for engineering degree program requirements were discussed.

The meeting adjourned at 9:20am.

Stephen A. Raper, Chair
Missouri S&T Campus Curricula Committee

Course Change Request

Date Submitted: 08/23/17 8:33 am

Viewing: **BUS 5115 : Introduction to Individual
~~Teambuilding~~ and Group Dynamics
~~Leadership~~ in Business Settings**

File: 2327.1

Last edit: 08/23/17 8:33 am

Changes proposed by: barryf

Requested **Spring 2018** ~~Fall 2014~~

Effective Change

Date

Department Business and Information Technology

Discipline Business (BUS)

Course Number 5115

Title

In Workflow

1. RBUSADMN
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. 08/24/17 12:37
pm
siauk: Approved
for RBUSADMN
Chair
2. 08/24/17 4:01 pm
Brittany Parnell
(ershenb):

- Approved for CCC
Secretary
3. 09/20/17 4:15 pm
Barry Flachsbart
(barryf):
Approved for
Social Sciences
DSCC Chair
4. 10/12/17 1:17 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
5. 10/31/17 9:34 am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda
6. 10/31/17 2:23 pm
srafer: Approved
for Campus
Curricula
Committee Chair

Introduction to Individual ~~Teambuilding~~ and Group Dynamics Leadership
in Business ~~Settings~~

Abbreviated **Indiv and Group Dynamics**
Course Title **~~Teambuilding in Business~~**

Catalog

Description

This course **will cover contemporary theories of business** ~~covers~~ leadership **styles**
~~styles, principles, models, issues, and group dynamics. applications through~~
~~analytical and intellectual examination.~~ **Leadership theories, group**

dysfunction/function, positive group interactions, change impacts, the importance of business ethics as well as the role of gender and culture on the group will be examined. ~~Key components of teams are introduced, with opportunities to practice and develop both leadership and teambuilding skills. Case studies required.~~

Prerequisites

Field Trip

Statement

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

Required for Majors	No
------------------------	----

Elective for Majors	No
------------------------	----

Justification for change:

Update course to use more current terminology and explicitly mention ethics as well as the role of gender and culture in description.

Semesters
previously
offered as an
experimental
course

Co-Listed Courses:

Course Reviewer Comments

Key: 2327

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 09/20/17 1:56 pm

Viewing: **BUS 5730 : Machine Learning and Artificial Intelligence for Business**

File: 4470

Last edit: 09/20/17 1:56 pm

Changes proposed by: barryf

Requested Spring 2018

Effective Change

Date

Department Business and Information Technology

Discipline Business (BUS)

Course Number 5730

Title

In Workflow

1. **RBUSADMN 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. 09/21/17 5:27 pm
siauk: Approved for RBUSADMN Chair
2. 09/22/17 10:14 am
Brittany Parnell (ershenb):

Approved for CCC
Secretary

3. 09/22/17 5:28 pm

Barry Flachsbart
(barryf):

Approved for
Social Sciences
DSCC Chair

4. 10/12/17 1:19 pm

Brittany Parnell
(ershenb):

Approved for
Pending CCC
Agenda post

5. 10/31/17 10:10

am

Brittany Parnell
(ershenb):

Approved for CCC
Meeting Agenda

6. 10/31/17 2:23 pm

sraper: Approved
for Campus
Curricula
Committee Chair

Machine Learning and Artificial Intelligence for Business

Abbreviated Mach Learning AI for BUS
Course Title

Catalog

Description

Explores various approaches to machine learning and artificial intelligence, along with their numerous applications in business. Describes some of the many technological approaches to business problems that are considered part of machine

learning and artificial intelligence, such as neural networks and deep learning.

Prerequisites

IS&T 1552 or Comp Sci 1510; or Graduate Standing, understanding of management information systems, programming knowledge.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

Yes

Majors

Justification for

new course:

Required for proposed new Graduate Certificate in AI, Machine Learning, and Automation in Business.

Also for proposed new Minor in Artificial Intelligence and Machine Learning in Business.

Semesters

previously

offered as an

experimental

course

None

Co-Listed

Courses:

Course Reviewer

Comments

Key: 4470

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/08/17 3:00 pm

Viewing: **CER ENG 3220 : Phase Equilibria**

File: 2160.7

Last approved: 10/21/16 2:24 pm

Last edit: 10/31/17 9:53 am

Changes proposed by: smiller

Programs

referencing this

course

[CR ENG-BS: Ceramic Engineering BS](#)

[GL&GPH-BS: Geology and Geophysics BS](#)

Other Courses

referencing this

course

In The Prerequisites:

[CER ENG 4410 : Introduction to Integrated Computational](#)

[Materials Engineering](#)

Requested

Fall 2018 ~~Spring 2017~~

Effective Change

Date

Department

Materials Science & Engineering

Discipline

Ceramic Engineering (CER ENG)

Course Number

3220

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

Approval Path

1. 09/08/17 9:32 pm
Greg Hilmas
(ghilmas):
Approved for
RMATSENG Chair
2. 09/11/17 10:02 am
Brittany Parnell
(ershenb):

- Approved for CCC
Secretary
3. 09/20/17 8:48 am
srafer: Approved
for Engineering
DSCC Chair
4. 10/12/17 1:19 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
5. 10/31/17 9:53 am
Brittany Parnell
(ershenb):
Rollback to
Pending CCC
Agenda post for
CCC Meeting
Agenda
6. 10/31/17 9:54 am
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
7. 10/31/17 10:13
am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda
8. 10/31/17 2:23 pm
srafer: Approved
for Campus

Curricula
Committee Chair

History

1. Oct 21, 2016 by
smiller (2160.1)

Phase Equilibria

Abbreviated Course Title Phase Equilibria

Catalog

Description

The study of unary, binary and ternary inorganic, phase equilibrium systems with examples for solving practical engineering problems.

Prerequisites

A ~~"C" or better~~ grade of **"C" or better** in ~~Cer Chem 1320 or Met-Eng 3230. 1210.~~

Field Trip

Statement

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

Total: 3

Required for Yes

Majors

Elective for No

Majors

Justification for
change:

previous prerequisite (Met 1210) deactivated. Prefer thermodynamics (Cer 3230) as prerequisite knowledge.

Semesters

previously

offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer

Comments

sraper (09/20/17 8:48 am): Changed Effective Date per S. Miller.

ershenb (10/31/17 9:53 am): Rollback: Courseleaf workflow test

Key: 2160

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/08/17 3:05 pm

Viewing: **CER ENG 3325 : Ceramic Processing
Lab II**

File: 1195.1

Last edit: 09/15/17 12:27 pm

Changes proposed by: smiller

Programs
referencing this
course

[CR ENG-BS: Ceramic Engineering BS](#)

Requested Fall **2018** ~~2014~~
Effective Change
Date

Department Materials Science & Engineering

Discipline Ceramic Engineering (CER ENG)

Course Number 3325

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

Approval Path

1. 09/08/17 9:33 pm
Greg Hilmas
(ghilmas):
Approved for
RMATSENG Chair
2. 09/11/17 10:10
am
Brittany Parnell
(ershenb):

Approved for CCC
Secretary

3. 09/20/17 8:49 am
sraper: Approved
for Engineering
DSCC Chair

4. 10/12/17 1:20 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post

5. 10/31/17 10:14
am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda

6. 10/31/17 2:23 pm
sraper: Approved
for Campus
Curricula
Committee Chair

Ceramic Processing Lab II

Abbreviated Ceramic Process Lab II
Course Title

Catalog

Description

The second half of a two-semester sequence that gives students practical knowledge of the methods and techniques used in the fabrication of ceramics.

Prerequisites

A ~~"C" or better~~ grade of **"C" or better** in Cer Eng **2325. 3315.**

Field Trip
Statement

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

Required for **Yes** ~~No~~
Majors

Elective for No
Majors

Justification for
change:

Change to 1 hr LEC and 1 hr LAB allows for a common 50 minute lecture time at the beginning of each week, and then three sections of lab on T, W, and Th, due to limited space and equipment in the lab.

Change prerequisite to allow out of sequence students to proceed through the curriculum.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

kristyg (09/08/17 3:03 pm): Rollback: Rollback per Scott Miller.

sraper (09/13/17 4:04 pm): changed to required for majors.

sraper (09/15/17 12:27 pm): changed effective date to FS 2018

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/08/17 3:07 pm

Viewing: **CER ENG 4250 : Thermal Properties Of Ceramics**

File: 1659.1

Last edit: 09/15/17 12:27 pm

Changes proposed by: smiller

Programs
referencing this
course

[CR ENG-BS: Ceramic Engineering BS](#)

Requested Effective Change
Date

Fall **2018** ~~2014~~

Department Materials Science & Engineering

Discipline Ceramic Engineering (CER ENG)

Course Number 4250

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

Approval Path

1. 09/08/17 9:33 pm
Greg Hilmas
(ghilmas):
Approved for
RMATSENG Chair
2. 09/11/17 10:19 am
Brittany Parnell
(ershenb):

Approved for CCC
Secretary

3. 09/20/17 8:45 am
craper: Approved
for Engineering
DSCC Chair

4. 10/12/17 1:20 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post

5. 10/31/17 10:14
am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda

6. 10/31/17 2:23 pm
craper: Approved
for Campus
Curricula
Committee Chair

Thermal Properties Of Ceramics

Abbreviated Thermal Prop Of Cer
Course Title

Catalog

Description

This course will teach the crystal physics underlying heat capacity, internal energy, phonon and photon conduction, and thermal expansion. These properties will be used to rationalize the behavior of a wide variety of ceramic materials in severe thermal environments.

Prerequisites

A grade of "C" or better in Cer Eng 3220. ~~Senior Standing.~~

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

Yes ~~No~~

Majors

Elective for

No

Majors

Justification for

change:

Revise prerequisite to assure that students have the knowledge to succeed in the course.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

ershenb (09/11/17 10:19 am): updated Effective Change Date to Spring 2018.

sraper (09/13/17 4:07 pm): Changed to required for majors.

sraper (09/15/17 12:27 pm): Changed effective date to FS 2018

Key: 1659

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/14/17 12:12 pm

Viewing: **COMP ENG 5170 : Real-Time Systems**

File: 716.3

Last approved: 06/30/14 3:55 am

Last edit: 10/31/17 11:25 am

Changes proposed by: stanleyj

Programs
referencing this
course

[CP ENG-BS: Computer Engineering BS](#)

Requested **Spring 2018** ~~Fall 2014~~
Effective Change
Date

Department
Electrical and Computer Engineering

Discipline
Computer Engineering (COMP ENG)

Course Number 5170

Title

In Workflow

1. RELECENG Chair
2. CCC Secretary
3. RCOMPSCI Chair
4. Engineering 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. CAT entry
12. Peoplesoft

Approval Path

1. 09/14/17 8:24 pm
Daryl Beetner
(daryl): Approved
for RELECENG
Chair
2. 09/15/17 10:42
am

	Brittany Parnell (ershenb):
	Approved for CCC Secretary
3.	09/15/17 11:17 am George Markowsky (markowskyg): Approved for RCOMPSCI Chair
4.	09/20/17 8:46 am sraper: Approved for Engineering DSCC Chair
5.	10/12/17 2:12 pm Brittany Parnell (ershenb): Approved for Pending CCC Agenda post
6.	10/31/17 11:25 am Brittany Parnell (ershenb): Rollback to Pending CCC Agenda post for CCC Meeting Agenda
7.	10/31/17 11:25 am Brittany Parnell

(ershenb):

Approved for

Pending CCC

Agenda post

8. 10/31/17 4:27 pm

Brittany Parnell

(ershenb):

Approved for CCC

Meeting Agenda

9. 10/31/17 5:03 pm

sraper: Approved

for Campus

Curricula

Committee Chair

History

1. Jun 30, 2014 by

lahne (716.1)

Real-Time Systems

Abbreviated Real Time Systems

Course Title

Catalog

Description

Introduction to real-time (R-T) systems and R-T kernels, also known as R-T operating systems, with an emphasis on scheduling algorithms. The course also includes specification, analysis, design and validation techniques for R-T systems. Course includes a team project to design an appropriate R-T operating system.

Prerequisites

COMP ENG 3150 or COMP SCI 3800.

Field Trip

Statement

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

Total: 3

Required for No

Majors

Elective for **Yes** ~~No~~

Majors

Justification for

change:

The material in the existing course Comp Eng 5170 is on the boundary between Computer Engineering and Computer Science. The ECE and CS departments would like to alternate their instructors teaching this course. The request to co-list Comp Eng 5170 with the new Comp Sci 5205 course will facilitate Computer Engineering and Computer Science students being able to count this course towards their degree programs. The request is to co-list the permanent course Comp Eng 5170 with a new course Comp Sci 5205.

Co-listed with Comp Sci 5205.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

COMP SCI 5205 - Course Not Found

Course Reviewer

Comments

ershenb (10/31/17 11:25 am): Rollback: Courseleaf workflow test

Key: 716

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 09/13/17 4:46 pm

Viewing: **COMP SCI 5602 : Introduction to Cryptography**

File: 4375

Last edit: 10/12/17 2:13 pm

Changes proposed by: tauritzd

Requested Spring 2018

Effective Change

Date

Department Computer Science

Discipline Computer Science (COMP SCI)

Course Number 5602

Title

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. 09/14/17 9:38 am
Brittany Parnell
(ershenb):
Approved for
RCOMPSCI Chair
2. 09/14/17 9:39 am
Brittany Parnell
(ershenb):
Rollback to

- RCOMPSCI Chair
for CCC Secretary
3. 09/14/17 9:59 am
George
Markowsky
(markowskyg):
Approved for
RCOMPSCI Chair
4. 09/14/17 10:14
am
Brittany Parnell
(ershenb):
Approved for CCC
Secretary
5. 09/20/17 8:46 am
sraper: Approved
for Engineering
DSCC Chair
6. 10/12/17 2:14 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
7. 10/31/17 10:24
am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda
8. 10/31/17 2:23 pm
sraper: Approved
for Campus
Curricula
Committee Chair

Introduction to Cryptography

Abbreviated Intro to Cryptography
Course Title

Catalog

Description

Introduces fundamentals of modern cryptography. Topics include basic number theory, public & private key encryption schemes, cryptographic hash functions, message authentication codes, elliptic curve cryptography, Diffie-Hellman key agreements, digital signatures, PUFs, quantum cryptography, and generation of prime numbers and pseudo-random sequences.

Prerequisites

A grade of "C" or better in COMP SCI 5200 or a grade of "B" or better in COMP SCI 2500.

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 course covers material which is critical to cyber security, one of the CS department's up and coming focus areas. It is also very popular with the students, evidenced by an enrollment of forty in FS2016, which is highly unusual for a 6000 level course in the CS department.

Based on the instructor's experience teaching this course and the recognition that cryptography needs to be a foundational course for graduate students specializing in cyber security, we are requesting a change to 5000-level (in its experimental form it

was offered at the 6000-level).

Semesters

previously

offered as an

experimental

course

Offered as COMP SCI 6001 - Cryptography in FS2016 and as COMP SCI 401 - Cryptography in FS2013.

Co-Listed

Courses:

Course Reviewer

Comments

ershenb (09/13/17 3:20 pm): Rollback: Rollback so Dr. Markowsky can access the form.

ershenb (09/14/17 9:39 am): Rollback: edited email address for user workflow and rolling back again so Dr. Markowsky can access the form.

Key: 4375

[Preview Bridge](#)

Course Change Request

Date Submitted: 10/06/17 8:30 am

Viewing: **ECON 4300 ~~2300~~: Research Methods**
~~Economic and Business Applications in~~
Economics and Business

File: 912.1

Last edit: 10/31/17 10:27 am

Changes proposed by: ershenb

Requested **Spring 2018** ~~Fall 2014~~

Effective Change

Date

Department Economics

Discipline Economics (ECON)

Course Number **4300** ~~2300~~

Title

In Workflow

1. **RECONOMI Chair**
2. **CCC Secretary**
3. **Social Sciences
DSCC Chair**
4. **Pending CCC
Agenda post**
5. **CCC Meeting
Agenda**
6. **Campus Curricula
Committee Chair**
7. **FS Meeting
Agenda**
8. **Faculty Senate
Chair**
9. **Registrar**
10. **CAT entry**
11. **Peoplesoft**

Approval Path

1. 10/06/17 3:59 pm
Gregory Gelles
(gelles): Approved
for RECONOMI
Chair
2. 10/06/17 4:21 pm
Brittany Parnell
(ershenb):
Approved for CCC

- Secretary
3. 10/06/17 10:08 pm
Barry Flachsbart
(barryf):
Approved for
Social Sciences
DSCC Chair
4. 10/12/17 2:16 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
5. 10/31/17 10:27 am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda
6. 10/31/17 2:23 pm
sraper: Approved
for Campus
Curricula
Committee Chair

Research Methods ~~Economic~~ and ~~Business~~ Applications in Economics and Business

Abbreviated **Res Mth and Ecn Bus App**
Course Title ~~Econ & Bus Applications~~

Catalog

Description

Introduction ~~and application~~ of basic econometric and statistical techniques **with empirical illustrations that reference to solve** real **economic and** business **issues.**

~~and economics problems.~~ **Students will be introduced to modern statistical software packages (STATA, R), but also work with productivity software (Excel, PowerPoint) to perform quantitative analysis and present their results. Practical,**
~~hands-on use of Excel and SPSS will be introduced in the course.~~

Prerequisites

Econ 1100 or **Econ** 1200; Math 1140 or higher; Stat 1115 or **Stat** 3111 or **Stat** 3113
 or **Stat** 3115 or **Stat** 3117 or **Stat** 5643.

Field Trip

Statement

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

Required for Majors	Yes No
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Elective for Majors	No
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Justification for change:

This is an upper-level applied quantitative methods course and the number upgrade better reflects the course content. The current title is too vague given the course content (applied quantitative methods) and the proposed title conveys that content more accurately. The modified course description includes the more modern, dedicated statistical packages currently used in the class.

Semesters previously offered as an experimental course

n/a

Co-Listed Courses:

Course Reviewer

Comments

ershenb (10/06/17 4:21 pm): The form had CourseLeaf technical issues so it is correctly going through the workflow approval cycle again.

ershenb (10/31/17 10:27 am): corrected abb. title with an "and" instead of "&."

Key: 912

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/21/17 1:26 pm

Viewing: **ERP 5410 : Use of Business Intelligence**

File: 565.1

Last edit: 10/31/17 10:41 am

Changes proposed by: barryf

Catalog Pages
referencing this
course

[Information Science and Technology](#)

Programs
referencing this
course

[DSCMGMT-MI: Digital Supply Chain Mgt Minor](#)

Other Courses
referencing this
course

In The Prerequisites:

[IS&T 6443 : Information Retrieval and Analysis](#)

Requested **Spring 2018** ~~Fall 2014~~
Effective Change
Date

Department Business and Information Technology

Discipline Enterprise Resource Planning (ERP)

In Workflow

1. **RBUSADMN 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. 09/21/17 5:27 pm
siauk: Approved
for RBUSADMN
Chair
2. 09/22/17 10:27
am
Brittany Parnell
(ershenb):

Course Number 5410

Title

Approved for CCC

Secretary

3. 09/22/17 5:28 pm

Barry Flachsbart

(barryf):

Approved for

Social Sciences

DSCC Chair

4. 10/12/17 2:16 pm

Brittany Parnell

(ershenb):

Approved for

Pending CCC

Agenda post

5. 10/31/17 10:41

am

Brittany Parnell

(ershenb):

Approved for CCC

Meeting Agenda

6. 10/31/17 2:23 pm

craper: Approved

for Campus

Curricula

Committee Chair

Use of Business Intelligence

Abbreviated Use of Business **Intel**Course Title **Intelligence**

Catalog

Description

This course introduces data-oriented techniques for business intelligence. Topics include Business Intelligence architecture, Business Analytics, and Enterprise Reporting. SAP Business Information Warehouse, Business Objects, or similar tools

will be used to access and present data, generate reports, and perform analysis.

Prerequisites

IS&T **1750** ~~3423~~ or equivalent; ERP 2110 or preceded or accompanied by ERP 5110.

Field Trip

Statement

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

Total: 3

Required for	No
--------------	----

Majors

Elective for	No
--------------	----

Majors

Justification for
change:

Instructor plans to cover DBMS topics needed in the course, so the 3423 prereq is not needed; however, understanding of MIS is needed, so 1750 has been added (it was a prereq for 3423, hence not specified earlier).

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

ershenb (10/31/17 10:38 am): changed abb. title from "intelligence" to to "intel."

Key: 565

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/01/17 11:38 am

Viewing: **GEOLOGY 4010 : Seminar**

File: 2561.4

Last approved: 01/30/17 3:14 am

Last edit: 10/31/17 10:43 am

Changes proposed by: jhogan

Programs

referencing this

course

[GL&GPH-BS: Geology and Geophysics BS](#)

Requested Fall **2018** ~~2017~~

Effective Change
Date

Department Geosciences and Geological and Petroleum
Engineering

Discipline Geology (GEOLOGY)

Course Number 4010

Title

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. CAT entry
11. Peoplesoft

Approval Path

1. 09/14/17 1:24 pm
David Borrok
(borrokd):
Approved for
RGEOENG Chair
2. 09/14/17 2:00 pm
Brittany Parnell
(ershenb):
Approved for CCC

Secretary

3. 09/27/17 9:34 am

Katie Shannon

(shannonk):

Approved for
Sciences DSCC
Chair

4. 10/12/17 2:17 pm

Brittany Parnell

(ershenb):

Approved for
Pending CCC
Agenda post5. 10/31/17 10:43
am

Brittany Parnell

(ershenb):

Approved for CCC
Meeting Agenda

6. 10/31/17 2:23 pm

craper: Approved
for Campus
Curricula
Committee Chair

History

1. Jan 30, 2017 by
liukh (2561.1)

Seminar

Abbreviated
Course Title

Seminar

Catalog
Description

Discussion of current topics. Required for two semesters during senior year. (Course cannot be used for graduate credit).

Prerequisites

Senior standing.

Field Trip

Statement

Credit Hours LEC: 0.5 0 LAB: 0 IND: 0 RSD: 0

Total: 0.5 0-6

Required for Yes

Majors

Elective for No

Majors

Justification for

change:

1) Not assigning a fixed number of credits was an oversight. Students have found this loop-hole and were signing up for extra credits as a "GPA" boost. This is a "one credit course" spread over two semesters. Assigning 0.5 credits per semester fixes this problem.

2) In addition, this will align the credit hours of the Geology and Geophysics seminar with similar courses in the department at the request of the new department Chair.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

ershenb (09/14/17 2:00 pm): updated effective change date to Spring 2018.

ershenb (10/31/17 10:43 am): updated effective date to "Fall 2018" and total hours to "0.5"

Key: 2561

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/14/17 2:01 pm

Viewing: **GEOLOGY 5010 : Seminar**

File: 779.1

Last edit: 10/31/17 10:44 am

Changes proposed by: jhogan

Requested Fall **2018** ~~2014~~

Effective Change

Date

Department Geosciences and Geological and Petroleum
Engineering

Discipline Geology (GEOLOGY)

Course Number 5010

Title

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. CAT entry
11. Peoplesoft

Approval Path

1. 09/14/17 3:11 pm
David Borrok
(borrokd):
Approved for
RGEOENG Chair
2. 09/15/17 9:32 am
Brittany Parnell
(ershenb):
Approved for CCC

Secretary

3. 09/27/17 9:34 am

Katie Shannon

(shannonk):

Approved for

Sciences DSCC

Chair

4. 10/12/17 2:36 pm

Brittany Parnell

(ershenb):

Approved for

Pending CCC

Agenda post

5. 10/31/17 10:44

am

Brittany Parnell

(ershenb):

Approved for CCC

Meeting Agenda

6. 10/31/17 2:24 pm

craper: Approved

for Campus

Curricula

Committee Chair

Seminar

Abbreviated

Seminar

Course Title

Catalog

Description

Discussion of current topics.

Prerequisites

Field Trip Statement

Credit Hours LEC: **0.5** ~~0~~ LAB: 0 IND: 0 RSD: 0

Total: **0.5** ~~0-6~~

Required for
Majors No

Elective for
Majors **Yes** ~~No~~

Justification for change:

The change in credit hours from 0-6 to 0.5 per semester, with the ability of students to sign up for more than one semester, is being made to bring this course in alignment with the work load. In the past students have somehow managed to sign-up for several credit hours in one semester for this course and we are closely this loop-hole.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer Comments

ershenb (10/31/17 10:44 am): updated effective date to "Fall 2018" and total hours to "0.5"

Key: 779

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/12/17 10:40 am

Viewing: **GEOLOGY 6511 : Advanced Petroleum Geology**

File: 152.1

Last edit: 10/31/17 10:47 am

Changes proposed by: johfb

Requested Fall **2018** ~~2014~~

Effective Change

Date

Department Geosciences and Geological and Petroleum Engineering

Discipline Geology (GEOLOGY)

Course Number 6511

Title

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. CAT entry
11. Peoplesoft

Approval Path

1. 09/12/17 11:07 am
David Borrok
(borrokd):
Approved for
RGEOENG Chair
2. 09/12/17 11:18 am
Brittany Parnell

(ershenb):

Approved for CCC
Secretary

3. 09/27/17 9:35 am

Katie Shannon

(shannonk):

Approved for
Sciences DSCC
Chair

4. 10/12/17 2:37 pm

Brittany Parnell

(ershenb):

Approved for
Pending CCC
Agenda post

5. 10/31/17 10:48

am

Brittany Parnell

(ershenb):

Approved for CCC
Meeting Agenda

6. 10/31/17 2:24 pm

craper: Approved
for Campus

Curricula

Committee Chair

Advanced Petroleum Geology

Abbreviated Adv Petroleum Geology

Course Title

Catalog

Description

The principles ~~Examples of petroleum geology various types of oil and gas~~
~~accumulation~~ are **applied reviewed** in **solving hydrocarbon exploration and**

developmental problems. ~~detail.~~ Various types of oil and gas accumulations are reviewed in detail. Study of criteria useful in evaluating the petroleum potential of undrilled areas. Special investigation assignment is required.

Prerequisites

Geology **3310, Geology 5513, Geology 5661 or Geology 6811.** ~~4511.~~

Field Trip

Statement

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

Required for Majors	No
------------------------	----

Elective for Majors	No
------------------------	----

Justification for change:

4511 was renumbered to 5513 and other prerequisites are required so that students are better prepared for the class.

Semesters
previously
offered as an
experimental
course

Co-Listed Courses:

Course Reviewer

Comments

ershenb (09/12/17 11:17 am): updated the effective change date to Spring 2018.

ershenb (10/31/17 10:47 am): updated effective date to "Fall 2018"

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/14/17 2:03 pm

Viewing: **GEOPHYS 5010 : Seminar**

File: 1775.1

Last edit: 10/31/17 10:51 am

Changes proposed by: jhogan

Requested Fall **2018** ~~2014~~

Effective Change

Date

Department Geosciences and Geological and Petroleum
Engineering

Discipline Geophysics (GEOPHYS)

Course Number 5010

Title

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. CAT entry
11. Peoplesoft

Approval Path

1. 09/14/17 3:13 pm
David Borrok
(borrokd):
Approved for
RGEOENG Chair
2. 09/15/17 9:34 am
Brittany Parnell
(ershenb):
Approved for CCC

Secretary

3. 09/27/17 9:36 am

Katie Shannon

(shannonk):

Approved for

Sciences DSCC

Chair

4. 10/12/17 2:37 pm

Brittany Parnell

(ershenb):

Approved for

Pending CCC

Agenda post

5. 10/31/17 10:46

am

Brittany Parnell

(ershenb):

Approved for CCC

Meeting Agenda

6. 10/31/17 2:24 pm

craper: Approved

for Campus

Curricula

Committee Chair

Seminar

Abbreviated

Seminar

Course Title

Catalog

Description

Discussion of current topics.

Prerequisites

Field Trip Statement

Credit Hours LEC: **0.5** ~~0~~ LAB: 0 IND: 0 RSD: 0

Total: **0.5** ~~0-6~~

Required for
Majors No

Elective for
Majors No

Justification for change:

The change in credit hours from 0-6 to 0.5 per semester, with the ability of students to sign up for more than one semester, is being made to bring this course in alignment with the work load. In the past students have somehow managed to sign-up for several credit hours in one semester for this course and we are closing this loop-hole.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer Comments

ershenb (10/31/17 10:51 am): updated effective date to "Fall 2018"

Key: 1775

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/15/17 2:26 pm

Viewing: **GEOPHYS 6251 : Geophysical Inverse Theory**

File: 791.1

Last edit: 10/31/17 10:56 am

Changes proposed by: liukh

Requested Fall **2018** ~~2014~~

Effective Change

Date

Department Geosciences and Geological and Petroleum
Engineering

Discipline Geophysics (GEOPHYS)

Course Number 6251

Title

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. CAT entry
11. Peoplesoft

Approval Path

1. 09/15/17 2:27 pm
David Borrok
(borrokd):
Approved for
RGEOENG Chair
2. 09/15/17 2:43 pm
Brittany Parnell
(ershenb):
Approved for CCC

Secretary

3. 09/27/17 9:36 am

Katie Shannon

(shannonk):

Approved for

Sciences DSCC

Chair

4. 10/12/17 2:38 pm

Brittany Parnell

(ershenb):

Approved for

Pending CCC

Agenda post

5. 10/31/17 10:56

am

Brittany Parnell

(ershenb):

Approved for CCC

Meeting Agenda

6. 10/31/17 2:24 pm

craper: Approved

for Campus

Curricula

Committee Chair

Geophysical Inverse Theory

Abbreviated **Geophys Inv** ~~Geophysical~~

Course Title **Inverse Theo**

Catalog

Description

A study of inverse theory applied to geophysical data, focusing on the relationship between data and model spaces and ways to estimate model parameters via global and local optimization techniques.

Prerequisites

Geophys 3210 or Graduate Standing in GGPE. ~~Geophys 286 or 384, Math 325, Stat 215.~~

Field Trip

Statement

Credit Hours

LEC: **2 3**

LAB: **1 0**

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

Yes ~~No~~

Majors

Justification for

change:

The prerequisites were incorrect.

A lab hour is added so that the students can have some hands-on experiences on inversion theory.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

ershenb (10/31/17 10:56 am): updated effective date to "fall 2018"

Key: 791

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 09/21/17 1:27 pm

Viewing: **IS&T 4444 : Introduction to Data Warehouses**

File: 4478

Last edit: 10/31/17 10:58 am

Changes proposed by: barryf

Requested Spring 2018

Effective Change

Date

Department Business and Information Technology

Discipline Info Science & Technology (IS&T)

Course Number 4444

Title

In Workflow

1. RINFSCTE 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. 09/21/17 5:28 pm
siauk: Approved
for RINFSCTE
Chair
2. 09/22/17 10:34
am
Brittany Parnell
(ershenb):
Approved for CCC

Secretary

3. 09/22/17 5:28 pm

Barry Flachsbart
(barryf):Approved for
Social Sciences
DSCC Chair

4. 10/12/17 2:38 pm

Brittany Parnell
(ershenb):Approved for
Pending CCC
Agenda post5. 10/31/17 10:59
amBrittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda

6. 10/31/17 2:24 pm

craper: Approved
for Campus
Curricula
Committee Chair

Introduction to Data Warehouses

Abbreviated	Intro Data Warehouses
Course Title	

Catalog

Description

This course presents the topic of data warehouses and the value to the organization. It takes the student from the database platform to structuring a data warehouse environment. Focus is placed on simplicity and addressing the user community needs.

Prerequisites

IS&T 3423.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

Yes

Majors

Justification for

new course:

Mirror course to IS&T 6444, for undergraduate students.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

ershenb (10/31/17 10:58 am): Added a "." to the end of the prerequisite.

Key: 4478

[Preview Bridge](#)

Course Change Request

Date Submitted: 10/03/17 3:43 pm

Viewing: **IS&T 5520 : Data Science and Machine Learning with ~~Methodologies in~~ Python**

File: 4407.2

Last approved: 09/29/17 3:28 am

Last edit: 10/31/17 11:02 am

Changes proposed by: barryf

Programs
referencing this
course

[ANA&DTA-MI: Business Analytics and Data Science Minor](#)

Requested **Spring 2018** ~~Fall 2017~~
Effective Change
Date

Department Business and Information Technology

Discipline Info Science & Technology (IS&T)

Course Number 5520

Title

In Workflow

1. RINFSCTE 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. 10/03/17 3:55 pm
siauk: Approved
for RINFSCTE
Chair
2. 10/06/17 4:05 pm
Brittany Parnell
(ershenb):
Approved for CCC
Secretary

3. 10/06/17 10:08 pm
Barry Flachsbart
(barryf):
Approved for
Social Sciences
DSCC Chair
4. 10/12/17 1:23 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
5. 10/31/17 11:03 am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda
6. 10/31/17 2:24 pm
srafer: Approved
for Campus
Curricula
Committee Chair

History

1. Sep 29, 2017 by
Barry Flachsbart
(barryf)

Data **Science and Machine Learning with** ~~Methodologies in~~ Python

Abbreviated Course Title Data **Sci ML** ~~Methods~~ in Python

Catalog

Description

Examines data science methodologies for scraping, manipulating, transforming, cleaning, visualizing, summarizing, and modeling large-scale data as well as supervised and unsupervised machine learning algorithms applied in various business analytics and data science scenarios. Python libraries such as Pandas, NumPy, Matplotlib, and Scikit-learn are utilized. ~~Python methodologies for manipulating, processing, cleaning, grouping, slicing, reshaping and summarizing information in data-intensive applications; managing files, scraping web pages, mining social media; describing, modeling, analyzing, and visualizing data. Tools include pandas, NumPy, SciPy, and Matplotlib libraries.~~

Prerequisites

One of Stat 3111, Stat 3113, Stat 3115, Stat 3117 and either IS&T 1552 or Comp Sci 1510; for Graduate Students: Graduate Standing and Knowledge of Calculus, Statistics, and Programming.

Field Trip

Statement

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

Required for Majors	No
---------------------	----

Elective for Majors	Yes
---------------------	-----

Justification for change:

Made title and description more precise.

Semesters

previously
offered as an
experimental
course

Co-Listed

Courses:

Course Reviewer

Comments

ershenb (10/31/17 11:02 am): updated abb. course title

Key: 4407

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 09/20/17 1:55 pm

Viewing: **IS&T 5535 : Machine Learning**

Algorithms and Applications

File: 4471

Last edit: 09/20/17 1:55 pm

Changes proposed by: barryf

Requested Spring 2018

Effective Change

Date

Department Business and Information Technology

Discipline Info Science & Technology (IS&T)

Course Number 5535

Title

In Workflow

1. RINFSCTE 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. 09/20/17 4:55 pm
siauk: Approved
for RINFSCTE
Chair
2. 09/22/17 10:39
am
Brittany Parnell
(ershenb):
Approved for CCC

Secretary

3. 09/22/17 5:28 pm

Barry Flachsbart
(barryf):Approved for
Social Sciences
DSCC Chair

4. 10/12/17 1:20 pm

Brittany Parnell
(ershenb):Approved for
Pending CCC
Agenda post5. 10/31/17 11:04
amBrittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda

6. 10/31/17 2:24 pm

craper: Approved
for Campus
Curricula
Committee Chair

Machine Learning Algorithms and Applications

Abbreviated ML Algs and Apps
Course Title

Catalog

Description

Introduces techniques of modern machine learning methods with applications in marketing, finance, and other business disciplines. Topics include regression, classification, resampling methods, model selection, regularization, decision trees, support vector machines, principal component analysis, and clustering. R

programming is required.

Prerequisites

One of Stat 3111, Stat 3113, Stat 3115, Stat 3117 and either IS&T 1552 or Comp Sci 1510; or Graduate Standing with knowledge of calculus, statistics, and programming.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

Yes

Majors

Justification for

new course:

Required for proposed new Graduate Certificate in AI, Machine Learning, and Automation in Business.

Also for proposed new Minor in Artificial Intelligence and Machine Learning in Business.

Semesters

previously

offered as an

experimental

course

None

Co-Listed

Courses:

Course Reviewer

Comments

Key: 4471

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/21/17 1:27 pm

Viewing: **IS&T 6444 : Essentials of Data Warehouses**

File: 28.1

Last edit: 09/21/17 1:27 pm

Changes proposed by: barryf

Catalog Pages
referencing this
course

[Information Science and Technology](#)

Other Courses
referencing this
course

In The Catalog Description:

[ERP 6444 : Essentials of Data Warehouses](#)

In The Prerequisites:

[ERP 6220 : Data Modeling & Visualization Prototyping for](#)

[Enterprise Decision Dashboards](#)

[IS&T 6448 : Building the Data Warehouse](#)

Requested
Effective Change
Date

Spring 2018 ~~Fall 2014~~

Department Business and Information Technology

Discipline Info Science & Technology (IS&T)

Course Number 6444

In Workflow

1. RINFSCTE 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. 09/21/17 5:28 pm
siauk: Approved
for RINFSCTE
Chair
2. 09/22/17 10:34
am
Brittany Parnell
(ershenb):
Approved for CCC

Title

Secretary

3. 09/22/17 5:28 pm

Barry Flachsbart
(barryf):Approved for
Social Sciences
DSCC Chair

4. 10/12/17 2:39 pm

Brittany Parnell
(ershenb):Approved for
Pending CCC
Agenda post5. 10/31/17 11:04
amBrittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda

6. 10/31/17 2:24 pm

craper: Approved
for Campus
Curricula
Committee Chair

Essentials of Data Warehouses

Abbreviated Data Warehouses
Course Title

Catalog

Description

This course presents the topic of data warehouses and the value to the organization. It takes the student from the database platform to structuring a data warehouse environment. Focus is placed on simplicity and addressing the user community needs. **Project required.**

Prerequisites

IS&T **5423** ~~3423~~ or equivalent relational database experience.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

No

Majors

Justification for

change:

Update prerequisite.

Clarify need for project as we create a mirrored 4444 course.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

ERP 6444 - Essentials of Data Warehouses

Course Reviewer

Comments

Key: 28

[Preview Bridge](#)

Program Change Request

Date Submitted: 08/17/17 5:08 pm

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

File: 146.19

Last approved: 06/28/17 10:11 am

Last edit: 10/04/17 11:39 am

Changes proposed by: shannonk

Catalog Pages

Using this

Program

[Biological Sciences](#)

Start Term	Fall 2018 2017
Program Code	BIO SC-BA
Department	Biological Sciences
Title	

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. [FS Meeting Agenda](#)
8. [Faculty Senate Chair](#)
9. [Registrar](#)
10. [kristyg](#)

Approval Path

1. 10/04/17 11:24 am
David Duvernell
(duvernell):
Approved for
RBIOLSCI Chair
2. 10/04/17 11:40 am
Brittany Parnell
(ershenb):
Approved for CCC
Secretary
3. 10/12/17 10:20 am
Katie Shannon
(shannonk):
Approved for
Sciences DSCC
Chair
4. 10/12/17 1:16 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post

History

1. [Aug 1, 2014 by Katie Shannon](#)

- (shannonk)
 2. Jul 14, 2015 by
 pantaleoa
 3. Oct 7, 2016 by
 Katie Shannon
 (shannonk)
 4. Jun 28, 2017 by
 Katie Shannon
 (shannonk)

Biological Sciences BA

Program Requirements and Description

Bachelor of Arts Biological Sciences Degree Requirements

Specific requirements for the B.A. degree in biological sciences include a minimum of 120 semester hours of credit, including 30 hours of biology core courses. A "C" or better is required for all Biological Science courses.

Core Courses		
BIO SCI 1201	Biological Sciences Freshman Seminar	1
BIO SCI 1113	General Biology	3
or BIO SCI 1213	Principles of Biology	
BIO SCI 1219	General Biology Lab	2
BIO SCI 1223	Biodiversity	3
BIO SCI 1229	Biodiversity Lab	1
BIO SCI 2213	Cell Biology	3
BIO SCI 2219	Cell Biology Laboratory	1
BIO SCI 2223	General Genetics	3
BIO SCI 2233	Course BIO SCI 2233 Not Found	3
BIO SCI 2263	Ecology	3
BIO SCI 4010	Seminar	1
Advanced courses, 2000 level or higher (at least one with laboratory and one 3000 or 4000 level)		9
Chemistry		
CHEM 1310 & CHEM 1319 & CHEM 1320 & CHEM 1100	General Chemistry I and General Chemistry Laboratory and General Chemistry II and Introduction To Laboratory Safety & Hazardous Materials	9

CHEM 2210 & CHEM 2220	Organic Chemistry I and Organic Chemistry II	8
Mathematics & Physical Science		
Various courses in mathematics, physics, and/or geology chosen in consultation with academic advisor. (Note: Proficiency in College Algebra must be demonstrated by a grade of "C" or better in a College Algebra course or by examination)		9
Computer Science/Statistics (Select one of the following:)		3-4
COMP SCI 1570 & COMP SCI 1580	Introduction To Programming and Introduction To Programming Laboratory	
or COMP SCI 1971 & COMP SCI 1981	Introduction To Programming Methodology and Programming Methodology Laboratory	
STAT 3111	Statistical Tools For Decision Making	
STAT 5425	Introduction to Biostatistics	
General Requirements for BA		
English Composition		6
ENGLISH 1120	Exposition And Argumentation	
One additional composition course		
Western Civilizations		6
HISTORY 1100	Early Western Civilization	
HISTORY 1200	Modern Western Civilization	
Foreign Language (three semesters of a foreign language)		12
Humanities (including one class in each of literature, philosophy, and fine arts)		12
Social Sciences (including classes in two of the following three subjects: economics, political science, psychology)		12

Elective credits: In consultation with his or her advisor, each student will elect sufficient additional courses to complete a minimum of 120 credit hours.

Bachelor of Arts Biological Sciences Pre-Medicine Emphasis Area Degree Requirements

The student will fulfill the requirements for a bachelor of arts in biological sciences as outlined above. The following classes are also required:

CHEM 2219 & CHEM 2229	Organic Chemistry I Lab and Organic Chemistry II Lab	2
2 semesters of Physics and labs:		8-10
PHYSICS 1145 & PHYSICS 1119	College Physics I and General Physics Laboratory	
or PHYSICS 1111 & PHYSICS 1119	General Physics I and General Physics Laboratory	

PHYSICS 2145 & PHYSICS 2119	College Physics II and General Physics Laboratory
or PHYSICS 2111 & PHYSICS 2119	General Physics II and General Physics Laboratory

The following classes are highly recommended:

BIO SCI 3333	Human Anatomy and Physiology I	3
BIO SCI 3339	Human Anatomy Physiology I Lab	1
BIO SCI 3343	Human Anatomy and Physiology II	3
BIO SCI 3349	Human Anatomy and Physiology II Laboratory	1
CHEM 4610	General Biochemistry	3

Bachelor of Arts Biological Sciences Secondary Education Emphasis Area Degree Requirements

You may earn a B.A. degree in biological sciences from Missouri S&T and certification to teach at the secondary level in the schools of Missouri with this emphasis area. This program can be completed in four academic years, and student teaching is arranged with public schools within 30 miles of the Rolla campus.

Students interested in this emphasis area should consult with the advisor for biological sciences education majors in the biological sciences department.

In order to successfully complete this emphasis area, students must have at least a 22 ACT, maintain a cumulative GPA of at least 2.5, and attain at least a 2.5 GPA average for all biology courses. Current Missouri S&T or transfer students who wish to pursue this emphasis area must meet both these GPA requirements to be accepted into the program. Students must also meet all requirements listed under the teacher education program in this catalog. Students who do not meet all the teacher certification requirements will not be eligible for the secondary education emphasis area, even if they have completed all required course work.

A degree in this emphasis area requires 131 credit hours. The required courses are provided below. A minimum grade of "C" is required by the department in all biological sciences courses counted toward this degree.

Humanities: 18 semester hours		
ENGLISH 1120	Exposition And Argumentation	3
ENGLISH 1160	Writing And Research	3
or ENGLISH 3560	Technical Writing	
SP&M S 1185	Principles Of Speech	3
At least one course in each of the following: Literature, Philosophy and Fine Arts		9
Social Sciences: 15 semester hours		
HISTORY 3530	History of Science	3
HISTORY 1100	Early Western Civilization	3
HISTORY 1200	Modern Western Civilization	3

POL SCI 1200	American Government	3
PSYCH 1101	General Psychology	3
Mathematics/Physical Science: 9 semester hours		
MATH 1103	Fundamentals Of Algebra	3
PHYSICS 1145	College Physics I	3
or PHYSICS 1505	Introductory Astronomy	
GEOLOGY 1110	Physical And Environmental Geology	3
Computer Science/Statistics: 3 semester hours		
3 semester hours of Computer Science or Statistics		3
Chemistry: 17 semester hours		
CHEM 1310 & CHEM 1319 & CHEM 1320 & CHEM 1100	General Chemistry I and General Chemistry Laboratory and General Chemistry II and Introduction To Laboratory Safety & Hazardous Materials	9
CHEM 2210 & CHEM 2220	Organic Chemistry I and Organic Chemistry II	8
Biological Sciences: 27 semester hours		
BIO SCI 1201	Biological Sciences Freshman Seminar	1
BIO SCI 1213	Principles of Biology	3
or BIO SCI 1113	General Biology	
BIO SCI 1219	General Biology Lab	2
BIO SCI 1223 & BIO SCI 1229	Biodiversity and Biodiversity Lab	4
BIO SCI 1173	Introduction to Environmental Sciences	3
BIO SCI 2213 & BIO SCI 2219	Cell Biology and Cell Biology Laboratory	4
BIO SCI 2223	General Genetics	3
BIO SCI 2233	Course BIO SCI 2233 Not Found	3
BIO SCI 2263	Ecology	3
BIO SCI 4010	Seminar	1
Education: 42 semester hours		
EDUC 1040	Perspectives In Education	2
EDUC 1104	Teacher Field Experience	2
EDUC 1164	Aiding Elementary, Middle And Secondary Schools	2
EDUC 1174	School Organization & Adm For Elementary & Secondary Teachers	2
EDUC 3216	Teaching Reading in Content Area	3
EDUC 3280	Teaching Methods And Skills In The Content Areas	6
EDUC 4298	Student Teaching Seminar	1

EDUC 4299	Student Teaching	12
ENGLISH 3170	Teaching And Supervising Reading and Writing	3
PSYCH 2300	Educational Psychology	3
PSYCH 3311	Psychological & Educational Development Of The Adolescent	3
PSYCH 3310	Developmental Psychology (Psych 3310 replaces Psych 3311)	3
PSYCH 4310	Psychology Of The Exceptional Child	3

Justification for
request

DESE required changes to BS Educational emphasis degree

Choice of General Biology (BIO SCI 1113) in addition to Principles of Biology (BIO SCI 1213), Choice of Astronomy (PHYSICS 1505) in addition to College Physics I (PHYSICS 1145) and PSYCH 3310 replaces PSYCH 3311

Supporting
Documents

Course Reviewer

Comments

ershenb (10/04/17 11:39 am): updated Start Term to Fall 2018

Key: 146
[Preview Bridge](#)

Date Submitted: 06/24/17 11:06 pm

Viewing: **PRE-MED-MI : Pre-Medicine Minor**

File: 123.3

Last approved: 03/31/14 9:59 am

Last edit: 10/03/17 10:40 am

Changes proposed by: djwesten

Catalog Pages

Using this

Program

[Prehealth Professions](#)

Start Term	Fall 2018 8/15/2014
Program Code	PRE-MED-MI
Department	College of Arts & Sciences
Title	

In Workflow

1. RA&SC Chair
2. Sciences DSCC Chair
3. CCC Secretary
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. kristyg

Approval Path

1. 10/03/17 10:40 am
Brittany Parnell
(ershenb):
Approved for
RA&SC Chair

History

1. Mar 31, 2014 by
[pantaleoa](#)
2. Mar 31, 2014 by
[pantaleoa](#)

Pre-Medicine Minor

Program Requirements and Description

Premedicine Minor

It is recommended that students seeking the Pre-Medicine minor declare their intentions as soon as possible. Students completing the Pre-Medicine minor curriculum in addition to their BA/BS curriculum will have completed all requirements for admission to most Medical, Dental, Veterinary or other health profession programs. However, it is important to consult with a member of the Pre-Health Professions Advisory Committee to ensure you are completing the necessary coursework for your desired profession. The Pre-Medicine minor is not intended for a student majoring in Chemistry, Biological Sciences or Chemical and Biochemical Engineering which already offer a Pre-Medicine approved curriculum. Required courses for the Pre-Medicine minor are:

[BIO SCI 1213](#)

Principles of Biology

5

& BIO SCI 1219	and General Biology Lab	
or BIO SCI 1113 & BIO SCI 1219	General Biology and General Biology Lab	
BIO SCI 2213 & BIO SCI 2219	Cell Biology and Cell Biology Laboratory	4
CHEM 1310 & CHEM 1319 & CHEM 1320 & CHEM 1100	General Chemistry I and General Chemistry Laboratory and General Chemistry II and Introduction To Laboratory Safety & Hazardous Materials	9
CHEM 2210 & CHEM 2219 & CHEM 2220 & CHEM 2229	Organic Chemistry I and Organic Chemistry I Lab and Organic Chemistry II and Organic Chemistry II Lab	10
PHYSICS 1145 & PHYSICS 1119	College Physics I and General Physics Laboratory	4-5
or PHYSICS 1111 & PHYSICS 1119	General Physics I and General Physics Laboratory	
PHYSICS 2145 & PHYSICS 2119	College Physics II and General Physics Laboratory	4-5
or PHYSICS 2111 & PHYSICS 2119	General Physics II and General Physics Laboratory	
Mathematics two semesters to include:		
MATH 1208	Calculus With Analytic Geometry I	
or MATH 1212	Business Calculus	
or MATH 1214	Calculus For Engineers I	
One of the following courses (taking all four courses is strongly encouraged):		
BIO SCI 2223	General Genetics	
BIO SCI 242	Course BIO SCI 242 Not Found	
BIO SCI 3333	Human Anatomy and Physiology I	
BIO SCI 3343	Human Anatomy and Physiology II	
CHEM 4610	General Biochemistry	

Justification for
request

Math 1212 (Business calculus) is now an approved course for all Biology majors so this change is added for consistency.

The comment was changed to reflect the fact that four courses are now listed rather than three)

Bio Sci 242 (Human Physiology) is no longer offered and has been replaced by the 2 course series Bio Sci 3333 and Bio Sci 3343 (Human Anatomy and Physiology I and II). Pre-medicine students are encouraged to take both of these courses along with general genetics and general biochemistry.

Supporting
Documents

Course Reviewer
Comments

ershenb (06/21/17 12:30 pm): Rollback: Per Katie Shannon's email, rolling back to David Westenberg to have edits completed.

ershenb (10/03/17 10:40 am): updated start term to Fall 2018

Key: 123
[Preview Bridge](#)

Program Change Request

New Program Proposal

Date Submitted: 09/20/17 1:59 pm

Viewing: **PROPOSED : Minor in Artificial Intelligence and Machine Learning in Business**

File: 253

Last edit: 10/13/17 8:12 am

Changes proposed by: barryf

Start Term	Spring 2018
Program Code	PROPOSED
Department	Business and Information Technology
Title	

Minor in Artificial Intelligence and Machine Learning in Business

In Workflow

- 1. RINFSCTE 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. kristyg

Approval Path

- 1. 09/20/17 4:55 pm
siauk: Approved for RINFSCTE Chair
- 2. 09/22/17 10:14 am
Brittany Parnell (ershenb): Approved for CCC Secretary
- 3. 09/22/17 5:28 pm
Barry Flachsbart (barryf): Approved for Social Sciences DSCC Chair
- 4. 10/12/17 2:43 pm
Brittany Parnell (ershenb): Approved for Pending CCC Agenda post

Program Requirements and Description

The Minor requires 15 credit hours, as follows:

BUS 5730-Machine Learning and Artificial Intelligence for Business

IS&T 5535-Machine Learning Algorithms and Applications

IS&T 3420-Intro to Data Science & Management

And two courses from the following list:

STAT 3111-Statistics I

IS&T 3333-Data Networks and Information Security

IS&T 3343-Systems Analysis

IS&T 4450-Intro to Information Visualization

IS&T 5420-Business Analytics and Data Science

IS&T 5520-Data Science and Machine Learning with Python

ERP 5410-Use of Business Intelligence

Justification for
request

Strong inputs from our Advisory Board, companies who hire our graduates, and our own research directions.

Supporting
Documents

Course Reviewer
Comments

ershenb (10/13/17 8:12 am): .

Key: 253
[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 09/22/17 11:00 am

Viewing: **GEOLOGY 5001.001 : Petroleum Geochemistry**

File: 4485

Last edit: 10/13/17 8:36 am

Changes proposed by: borrokd

Requested Spring 2018

Effective Change

Date

Department

Geosciences and Geological and Petroleum Engineering

Discipline

Geology (GEOLOGY)

Course Number 5001

Topic ID 001

Experimental

Title

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. **CAT entry**
8. **Registrar**

Approval Path

1. 09/22/17 12:37 pm
David Borrok (borrokd):
Approved for RGEOENG Chair
2. 09/22/17 4:00 pm
Brittany Parnell (ershenb):
Approved for CCC Secretary
3. 10/12/17 10:20 am

Katie Shannon
(shannonk):
Approved for
Sciences DSCC
Chair

4. 10/12/17 2:36 pm

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

5. 10/31/17 11:18
am

Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda

6. 10/31/17 2:24 pm

sraper: Approved
for Campus
Curricula
Committee Chair

7. 10/31/17 3:03 pm

Marita Tibbetts
(tibbettsmg):
Approved for CAT
entry

Petroleum Geochemistry

Experimental Petroleum Geochemistry

Abbreviated

Course Title

Instructors David Borrok

Experimental

Catalog

Description

The focus of this course will be the organic geochemistry of petroleum systems. Students will gain a basic understanding of organic molecules, the burial of organic matter, and its maturation and migration, as well as an understanding of petroleum source rock evaluation in terms of kerogen type and thermal maturity.

Prerequisites

Students must be enrolled in a graduate program in the GGPE Department.

Field Trip

Statement

NA

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for

new course:

This topic has grown in importance to become critical with the advent of oil and gas production from unconventional (shale) reservoirs. We need to teach this course to provide GGPE students with the knowledge they need to be successful in an evolving industry. There is no course like this in our catalog.

Semester(s)

previously taught

None

Co-Listed

Courses:

Course Reviewer

Comments

ershenb (10/12/17 8:29 am): updated course number to 5001

Key: 4485

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 09/15/17 3:05 pm

Viewing: **MS&E 5001.002 : Molecular Engineering and Soft Nanomaterials**

File: 4481

Last edit: 09/22/17 11:13 am

Changes proposed by: doganf

Requested Spring 2018

Effective Change

Date

Department

Materials Science & Engineering

Discipline

Materials Science & Eng (MS&E)

Course Number 5001

Topic ID 002

Experimental

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. **CAT entry**
8. **Registrar**

Approval Path

1. 09/15/17 4:55 pm
Greg Hilmas
(ghilmas):
Approved for
RMATSENG Chair
2. 09/18/17 8:11 am
Brittany Parnell
(ershenb):
Approved for CCC
Secretary
3. 09/20/17 8:46 am
srafer: Approved

- for Engineering
DSCC Chair
- 4. 10/12/17 2:40 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
- 5. 10/31/17 11:18
am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda
- 6. 10/31/17 2:24 pm
sraper: Approved
for Campus
Curricula
Committee Chair
- 7. 10/31/17 3:01 pm
Marita Tibbetts
(tibbettsmg):
Approved for CAT
entry

Molecular Engineering and Soft Nanomaterials

Experimental Molecular Engineering

Abbreviated

Course Title

Instructors Fatih Dogan and Hakan Usta (AGU, Turkey)

Experimental

Catalog

Description

This course focuses on the fundamentals and applications of molecular engineering and soft nanomaterials. Topics include principles of carbon chemistry, rational molecular engineering, small molecules, polymers, macromolecules, nanoscience/nanotechnology, organic/printed optoelectronics, and metal(covalent)-organic frameworks.

Prerequisites

Senior standing.

Field Trip

Statement

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

Justification for

new course:

The course will be offered online through participation of students at S&T and Abdullah Gul University (AGU) in Turkey. There is a signed Memorandum of Understanding (MOU) between the two institutions.

The lead instructor will be Dr. Hakan Usta (Assoc. Prof.). Dr. Usta received his PhD in chemistry at Northwestern University (Advisor: Tobin Marks) in 2008 and has been a faculty member since 2013 at AGU in Department of Materials Science and Nanotechnology. <http://people.agu.edu.tr/hakanusta/>

The course will be co-taught by Dr. Dogan and Dr. Usta by utilizing a "Free for Teacher" Canvas account. The logistics of this online course are currently being coordinated by the staff of EdTech at S&T and AGU. The proposed course is a unique opportunity for students interested in molecular engineering of soft materials.

Semester(s)

previously taught

None

Co-Listed

Courses:

Course Reviewer

Comments

kristyg (09/15/17 2:58 pm): Rollback: Rollback per email to get chair approval.

Course Change Request

New Experimental Course Proposal

Date Submitted: 09/15/17 3:05 pm

Viewing: **MS&E 6001.002 : Advanced**

Molecular Engineering and Soft Nanomaterials

File: 4482

Last edit: 09/22/17 11:15 am

Changes proposed by: doganf

Requested Spring 2018

Effective Change

Date

Department

Materials Science & Engineering

Discipline

Materials Science & Eng (MS&E)

Course Number 6001

Topic ID 002

Experimental

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. **CAT entry**
8. **Registrar**

Approval Path

1. 09/15/17 4:55 pm
Greg Hilmas
(ghilmas):
Approved for
RMATSENG Chair
2. 09/18/17 8:13 am
Brittany Parnell
(ershenb):
Approved for CCC
Secretary
3. 09/20/17 8:47 am
srafer: Approved

- for Engineering
DSCC Chair
- 4. 10/12/17 2:40 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
- 5. 10/31/17 11:19
am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda
- 6. 10/31/17 2:24 pm
sraper: Approved
for Campus
Curricula
Committee Chair
- 7. 10/31/17 2:57 pm
Marita Tibbetts
(tibbettsmg):
Approved for CAT
entry

Advanced Molecular Engineering and Soft Nanomaterials

Experimental Molecular Engineering

Abbreviated

Course Title

Instructors Fatih Dogan and Hakan Usta (AGU, Turkey)

Experimental

Catalog

Description

This comprehensive course encompasses fundamentals and applications of advanced molecular engineering and soft nanomaterials. Topics include principles of carbon chemistry, rational molecular engineering, small molecules, polymers, macromolecules, nanoscience/nanotechnology, organic/printed optoelectronics, metal(covalent)-organic frameworks, air/water clean

Prerequisites

Graduate standing.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for

new course:

The course will be offered online through participation of students at S&T and Abdullah Gul University (AGU) in Turkey. There is a signed Memorandum of Understanding (MOU) between the two institutions.

The lead instructor will be Dr. Hakan Usta (Assoc. Prof.). Dr. Usta received his PhD in chemistry at Northwestern University (Advisor: Tobin Marks) in 2008 and has been a faculty member since 2013 at AGU in Department of Materials Science and Nanotechnology. <http://people.agu.edu.tr/hakanusta/>

The course will be co-taught by Dr. Dogan and Dr. Usta by utilizing a "Free for Teacher" Canvas account. The logistics of this online course are currently being coordinated by the staff of EdTech at S&T and AGU. The proposed course is a unique opportunity for students interested in molecular engineering of soft materials.

Semester(s)

previously taught

None

Co-Listed

Courses:

Course Reviewer

Comments

kristyg (09/15/17 2:58 pm): Rollback: Rollback per email to get chair approval.

sraper (09/20/17 8:47 am): Revised catalog description provided by Faith Dogan.

Key: 4482

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 09/11/17 10:46 pm

Viewing: **SPANISH 3001.002 : Spanish Translation for Technical Applications**

File: 4480

Last edit: 09/26/17 9:16 am

Changes proposed by: porcelj

Requested Spring 2018

Effective Change

Date

Department

Arts, Languages, & Philosophy

Discipline

Spanish (SPANISH)

Course Number 3001

Topic ID 002

Experimental

Title

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. 09/20/17 8:10 am
Audra Merfeld-Langston
(audram):
Approved for
RPHILOSO Chair
2. 09/22/17 10:56 am
Brittany Parnell
(ershenb):
Approved for CCC
Secretary

3. 09/22/17 11:58
am
Petra Dewitt
(dewittp):
Approved for Arts
& Humanities
DSCC Chair
4. 10/12/17 2:43 pm
Brittany Parnell
(ershenb):
Approved for
Pending CCC
Agenda post
5. 10/31/17 11:20
am
Brittany Parnell
(ershenb):
Approved for CCC
Meeting Agenda
6. 10/31/17 2:24 pm
sraper: Approved
for Campus
Curricula
Committee Chair
7. 10/31/17 2:33 pm
Marita Tibbetts
(tibbettsmg):
Approved for CAT
entry

Spanish Translation for Technical Applications
Spanish Translation

Experimental

Abbreviated

Course Title

Instructors PORCEL, J

Experimental

Catalog

Description

This course will introduce students to the art and skills of translation. It will provide students practical experience translating technical and scientific documents from Spanish to English and from English to Spanish.

Prerequisites

Spanish 1180.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for

new course:

The demands of modern multicultural, multilingual societies usually require more than the traditional foreign language skills from new college graduates. In this context, the acquisition of technical and scientific linguistic skills for students in the STEM fields should be an essential component of their education. This course aims to enhance students' foreign language professional skills by introducing them to the fields of technical and scientific translation.

Semester(s)

previously taught

No

Co-Listed

Courses:

Course Reviewer

Comments

