



Minutes of the Campus Curricula Committee Meeting

May 11, 2015

2:30 p.m., Room 110H Bertelsmeyer Hall

Attendees: Kaylon Buckner, Barry Flachsbart, Petra DeWitt, Kristy Giacomelli, Gearoid MacSithigh, Ilene Morgan, Steve Raper, Thomas Schuman, and Paul Worsey.

The following curriculum forms were discussed and approved:

Degree Change Forms:

File #237.10	File #15.1
File #16.12	File #28.13
File #46.4	File #149.17
File #234.8	File #102.9
File #110.1	File #192.13
File #193.12	File #140.4
File #131.4	

Course Change Forms:

File #1910.1	File #1488.1
File #2310.1	File #1038.1
File #1479.1	File #4208
File #4173	File #1074.1
File #225.1	File #1447.1
File #4190	File #4109.5
File #4197	File #2469.1
File #2566.3	File #2190.5
File #1949.1	File #1173.6
File #1988.1	File #2370.1
File #2225.4	File #935.5
File #1229.8	File #2101.1
File #1951.1	File #1045.1
File #994.1	File #2528.4
File #1407.1	File #390.1
File #1563.5	File #1225.1
File #1153.1	File #811.1

File #4189 was tabled pending the corresponding Petroleum Engineering BS Degree Change form. An EC form (File #4214) was submitted to allow the course to be taught in Fall 2015.

Experimental Course Forms:

File #4191

File #4220*(approved as File #4198)

File #4227*(approved as File #s 4199)

File #4224*(approved as File #s 4201 &4210)

File #4222*(approved as File #s 4200 &4151)File #4204

File #4214

File #4202

File #4203

*Due to a CourseLeaf issue, the Economics and Computer Science co-listed courses had to be resubmitted.

Thomas Schuman stepped down as Curricula Committee Chair. Ilene Morgan was elected as new Curricula Committee Chair, effective August 1, 2015.

The meeting adjourned at 4:40 p.m.



Thomas Schuman, Chair
Missouri S&T Campus Curricula Committee

Program Change Request

Date Submitted: 03/25/15 9:50 am

Viewing: **BIOMED-MI : Biomedical Engineering Minor**

File: 237.10

Last approved: 01/23/15 3:53 pm

Last edit: 05/18/15 9:04 am

Changes proposed by: pantaleoa

Catalog Pages
Using this
Program

[Materials Science and Engineering](#)

Start Term Fall 2015

Program Code BIOMED-MI

Department Materials Science & Engineering

Title Biomedical Engineering Minor

Program Requirements and Description

~~BME MINOR CURRICULUM~~Biomedical Engineering Minor

Minimum number of credit hours: 15 hours, consisting of 1 required course, plus at least 4 courses from an approved list. At least 2 of the elective courses will be at or above the 4000 level. Core courses used toward a student's major degree requirements cannot be used for the minor degree program in BME. Elective courses used toward a student's major degree requirements or another minor degree program cannot be used unless they are approved by the BME Program Committee.

~~One required course (3000-level): Introduction to Biomedical Engineering (new team-taught course; approval of this new course will follow the standard DC process).~~ Elective courses:

BIO SCI 2213	Cell Biology	3
BIO SCI 2219	Cell Biology Laboratory	1
BIO SCI 2223	General Genetics	3
BIO SCI 3313	Microbiology	3
BIO SCI 3319	Microbiology Lab	2
BIO SCI 3333	Human Anatomy and Physiology I	3
BIO SCI 3339	Human Anatomy Physiology I Lab	1

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. [kristyg](#)

Approval Path

1. 03/25/15 9:54 am
huebner: Approved for RMATSENG Chair
2. 03/25/15 10:11 am
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/07/15 12:09 pm
srafer: Approved for Engineering DSCC Chair
4. 04/09/15 11:26 am
Kaylon Buckner (kleb6b): Approved for Pending CCC Agenda post

History

1. Oct 27, 2014 by rahaman
2. Nov 18, 2014 by Kaylon Buckner (kleb6b)
3. Jan 23, 2015 by pantaleoa
4. Jan 23, 2015 by pantaleoa

BIO SCI 3343	Human Anatomy and Physiology II	3
BIO SCI 3349	Human Anatomy and Physiology II Laboratory	1
BIO SCI 3483	Biomedical Problems	3
CHEM ENG 4210	Biochemical Reactors	3
BIO SCI 4323	Molecular Genetics	3
BIO SCI 4353	Cancer Cell Biology	3
BIO SCI 4383	Toxicology	3
CHEM 4610	General Biochemistry	3
CHEM 4620	Metabolism	3
BIO SCI 5001	Special Topics	0-6
BIO SCI/CER ENG/MET ENG 5210/CHEM ENG 5200	Biomaterials I	3
BIO SCI/MS&E 5210	Biomaterials I	3
CHEM ENG 5320	Introduction to Nanomaterials	3
BIO SCI 5323	Bioinformatics	3
STAT 5425	Introduction to Biostatistics	4
ENG MGT 5511	Technical Entrepreneurship	3
MET ENG 4099	Undergraduate Research ¹	0-6

1 Undergraduate Research may be taken in any science or engineering discipline.

Cell Biology (Bio Sci 2213; 3h)Cell Biology Lab (Bio Sci 2219; 1h)General Genetics (Bio Sci 2223; 3h)Microbiology (Bio Sci 3313; 3h)Microbiology Lab (Bio Sci 3319; 1h)Human Anatomy & Physiology I (Bio Sci 3333; 3h)Human Anatomy & Physiology I Lab (Bio Sci 3339; 1h)Human Anatomy & Physiology II (Bio Sci 3343; 3h)Human Anatomy & Physiology II Lab (Bio Sci 3349; 1h)Biomedical Problems (Bio Sci 3483; 3h)Biochemical Reactors (Chem Eng 4210; 3h)Molecular Genetics (Bio Sci 4323; 3h)Cancer Cell Biology (Bio Sci 4353; 3h)Toxicology (Bio Sci 4383; 3h)General Biochemistry (Chem 4610; 3h)Metabolism (Chem 4620; 3h)Advanced Nanobiotechnology (Bio Sci 5001; 2h)Biomaterials I (Cer Eng 5210; Met Eng 5210; Bio Sci 5210; Chem Eng 5200; 3 h)Tissue Engineering I (MSE 5210; Bio Sci 5210; 3 h)Introduction to Nanomaterials (Chem Eng 5320; 3h)Bioinformatics (Bio Sci 5323; 3 h)Introduction to Biostatistics (Stat 5425; Lec 3h; Lab 1h)Technical Entrepreneurship (Eng Mgt 5511; 3h)Undergraduate Research (4099; 3 h)

Justification for request

Courses have been put into a course list.

Department needs to submit CC/EC form for the required 3000-level course. What discipline(s) of 4099 can be taken? Department may want to create an introduction paragraph for the minor.

Supporting Documents

Course Reviewer Comments

kleb6b (05/18/15 9:04 am): Update per CCC Meeting

Program Change Request

Date Submitted: 10/22/14 1:23 pm

Viewing: **CH ENG-PHD : Chemical Engineering PhD**

File: 15.1

Last edit: 02/18/15 1:06 pm

Changes proposed by: kleb6b

Catalog Pages [Chemical & Biochemical Engineering](#)
Using this
Program

Start Term **Fall 2015**
Program Code CH ENG-PHD
Department Chemical and Biochemical Engineering
Title Chemical Engineering PhD

Program Requirements and Description

A candidate for the PhD degree normally follows a program of **72 90**-semester hours beyond the BS degree or **42 60**-semester hours beyond the MS degree. Research for MS and PhD may be coordinated, or a PhD may be pursued without an MS degree. The PhD coursework must satisfy the departmental core course requirements for the MS degree with an additional 6 credit hours of **6000-level 400-level**-coursework for a minimum of **12 6000-level 15 400-level**-credit hours. In addition to these course requirements, a candidate must prepare and defend a dissertation based on analytical and/or experimental research.

All PhD students must pass the qualifying exam which consists of written and oral assignments specified by the department.

~~A grade of A in CHEM-ENG-5110, CHEM-ENG-6110, and CHEM-ENG-6100 will constitute passing the chemical reaction engineering, transport phenomena, and thermodynamics portions of the qualifying examination, respectively. Candidates must participate in the department's teaching effort to earn their teaching experience. This takes place over one semester for the master's candidates and two semesters for the PhD candidates.~~ At least three members of the advisory committee have to be ChE faculty. The comprehensive examination, consisting of a written and oral presentation of a research proposal, should be taken in the semester following the completion of their course work and no later than six months prior to the final examination. The final examination, consisting of the dissertation defense, is conducted according to the rules of the Graduate Faculty, **College School of Engineering Engineering**, and **Computing, and the Department. department.**

Justification for request The number of credit hours beyond their BS degree had been incorrectly put at 90, but the department has been following 72 hours in recent years which is the university requirement. The ChBE faculty have agreed to formally put the requirement at 72 hours beyond BS and make the requirement beyond MS at 42 hours.
We are requesting at least 12 credit hours at the level of 6000 for PhD students since we offer only 6 credit hours of 6000 level courses plus seminar. The additional 6000 level courses are expected to be taken from other departments.
We changed the structure of our qualifying exam which consists of written and oral assignments specified by the department.

Supporting
Documents

Course Reviewer **kleb6b (07/07/14 9:21 am)**: Change effective date to Fall 2015
Comments **sraper (07/16/14 10:25 am)**: In the CCC meeting, the statement "School of Engineering" should be changed to the new structure name.
kleb6b (08/22/14 12:16 pm): Rollback: Change two references to 400-Level courses in Program Requirements and Description. Change "School of Engineering" to new name.
kleb6b (09/09/14 10:51 am): Change School of Engineering
kleb6b (10/22/14 1:22 pm): Rollback: Rollback
aldahhanm (10/24/14 10:31 am): The faculty members agreed in order to facilitate the

In Workflow

1. **RCHEMENG Chair**
2. **CCC Secretary**
3. **marlene**
4. **Engineering DSCC Chair**
5. **Pending CCC Agenda post**
6. CCC Meeting Agenda
7. Campus Curricula Committee Chair
8. FS Meeting Chair
9. Faculty Senate Chair
10. Registrar
11. josephj
12. juliep
13. pantaleoa

Approval Path

1. 02/18/15 1:06 pm
aldahhanm:
Approved for
RCHEMENG Chair
2. 02/18/15 1:39 pm
Kaylon Buckner
(kleb6b): Approved
for CCC Secretary
3. 04/08/15 3:35 pm
marlene: Approved
for marlene
4. 04/10/15 2:33 pm
sraper: Approved
for Engineering
DSCC Chair

development of our graduate students, enhancing their communication skills and for gaining educational experience, they need to participate in the department's teaching effort without compensation.

aldahhanm (02/18/15 1:05 pm): I agree with the justifications above.

aldahhanm (02/18/15 1:06 pm): I agreed with the changes and the justifications above.

Key: 15

[Preview Bridge](#)

Program Change Request

Date Submitted: 02/10/15 6:25 pm

Viewing: **CHEM-BS : Chemistry BS**

File: 16.12

Last approved: 04/28/14 10:21 am

Last edit: 04/10/15 2:22 pm

Changes proposed by: woelkk

Catalog Pages [Chemistry](#)
Using this
Program

Start Term **Fall 2015 8/1/2014**
Program Code CHEM-BS
Department Chemistry
Title Chemistry BS

Program Requirements and Description

Bachelor of Science Chemistry

A minimum of **131** ~~of 131~~ credit hours is required for a Bachelor of Science degree in Chemistry and an average of at least two grade points per credit hour must be obtained. These requirements for the B.S. degree are in addition to credit received for algebra, trigonometry, and basic ROTC.

The Chemistry science curriculum requires **nine** ~~twelve~~ semester hours in **humanities** ~~humanities, exclusive of foreign language,~~ and must include [ENGLISH 1160](#) or [ENGLISH 3560](#) . A minimum of nine semester hours is required in social sciences, including either [HISTORY 1300](#) , [HISTORY 1310](#) , [HISTORY 1200](#) , or [POL SCI 1200](#) . Specific requirements for the bachelor degree are outlined in the sample program listed below.

In Workflow

1. **RCHEMIST 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. 02/11/15 10:10 am
woelk (woelkk):
Approved for
RCHEMIST Chair
2. 02/11/15 10:51 am
Kaylon Buckner
(kleb6b): Approved
for CCC Secretary
3. 03/05/15 3:29 pm
imorgan: Approved
for Sciences DSCC
Chair
4. 03/05/15 3:42 pm
Kaylon Buckner
(kleb6b): Approved
for Pending CCC
Agenda post
5. 04/07/15 8:49 am
Kaylon Buckner
(kleb6b): Rollback
to Sciences DSCC
Chair for CCC
Meeting Agenda
6. 04/10/15 2:25 pm
imorgan: Approved
for Sciences DSCC
Chair

History

1. Apr 28, 2014 by
tschuman

Freshman Year			
First Semester	Credits	Second Semester	Credits
CHEM 1310	4	CHEM 1320	3
CHEM 1319	1	CHEM 1510	2
CHEM 1100	1	MATH 1221	5
CHEM 1110	1	Electives	6
MATH 1208	5		
ENGLISH 1120	3		
HISTORY 1200 , or 1300 , or 1310 , or POL SCI 1200	3		
	18		16
Sophomore Year			

First Semester	Credits	Second Semester	Credits
CHEM 2210	4	CHEM 2220	4
CHEM 2219	1	CHEM 2229	1
MATH 2222	4	PHYSICS 2111	4
PHYSICS 1111	4	PHYSICS 2119	1
PHYSICS 1119	1	CHEM 3410	3
Electives	3	PHYSICS 2135 or 2111 and 2119	4
PHYSICS 1135 or 1111 and 1119	4	Select one of the following sequences:	3
		COMP SCI 1971 & COMP SCI 1981	
		STAT 3113	3
		COMP SCI 1972 & COMP SCI 1982	
		COMP SCI 1570 & COMP SCI 1580	
	16		15
Junior Year			
First Semester	Credits	Second Semester	Credits
CHEM 3420	3	CHEM 2510	4
CHEM 2310	3	CHEM 2310	3
CHEM 2510	4	CHEM 2319	1
CHEM 3430	3	CHEM 3410	3
STAT 3113 or 3115	3	CHEM 3419	1
ENGLISH 1160 or 3560	3	CHEM 4297	3
CHEM 4610	3	CHEM 2320	3
Electives	6	CHEM 3420	3
		CHEM 3459	2
		Electives	8
	16		17
Senior Year			
First Semester	Credits	Second Semester	Credits
CHEM 3430	3	CHEM 4010 or 4099	1
CHEM 3430	1	Chemistry Electives	7
CHEM 3510	4	CHEM 4297	3
CHEM 4010 or 4099	1	Electives	12
CHEM 4610	3		
CHEM 4810	3		
Electives	6		
Electives	2		
	17		16
Total Credits: 131			

Notes:

Grade Requirements: Students must complete a minimum of 131 credit hours for a Bachelor of Science in Chemistry degree. A minimum grade of "C" is required for each chemistry course counted towards the degree.

ROTC: Basic ROTC may be taken in the freshman and sophomore year, but **does** is not **count** **countable** towards **the** a degree.

Chemistry Electives: Of these thirteen (13) hours of chemistry electives, three (3) must be chosen from 3xxx, 4xxx (or 5xxx or higher with permission) level chemistry courses, and ten (10) hours must be 2xxx level or higher in chemistry or another technical area with permission of department chairperson. **Electives:** There are ~~thirty-five (35)~~ twenty-six (26) hours of electives. **Twelve (12)** Of these thirteen (13) hours of chemistry electives, three (3) must be 2xxx, chosen from 3xxx, 4xxx (or 5xxx or higher with permission) level chemistry courses, and ten (10) hours must be 2xxx level or higher in chemistry or another technical area with permission of department. **department chairperson.** Six (6) elective hours must be completed in the social sciences. **Six (6)** Nine (9) elective hours must be completed are required in the **social sciences.** humanities, exclusive of foreign language. **Six (6)** **elective hours are required in the humanities.** Three of the humanities hours must be literature.

Students planning to attend graduate school are encouraged to incorporate additional higher level chemistry

electives, math, and foreign language, including a scientific literature course. Recommended courses include but are not limited to the following: Biology, 2xxx, 3xxx and 4xxx level, especially BIO SCI 2213, or BIO SCI 4323 & BIO SCI 4329 Math 2xxx, 3xxx and 4xxx level, especially MATH 3304, MATH 3108 & MATH 5325 Physics 2xxx, 3xxx and 4xxx level, especially PHYSICS 2401, PHYSICS 3211, PHYSICS 4503, PHYSICS 4523, or PHYSICS 4323 Statistics, 2xxx, 3xxx and 4xxx level, especially STAT 5643, STAT 5346 or STAT 5353 CER ENG 3410 and CER ENG 3417, or GEO 275A foreign language series. Students who plan to teach high school chemistry should consult the Education section of this catalog. **Chemistry**

Biochemistry Emphasis Area

Freshman Year			
First Semester	Credits	Second Semester	Credits
CHEM 1310	4	CHEM 1320	3
CHEM 1319	1	CHEM 1510	2
CHEM 1100	1	MATH 1221	5
CHEM 1110	1	BIO SCI 2213	3
MATH 1208	5	BIO SCI 2219	1
ENGLISH 1120	3	Electives	3
HISTORY 1200 , or 1300 , or 1310 , or POL SCI 1200	3		
	18		17
Sophomore Year			
First Semester	Credits	Second Semester	Credits
CHEM 2210	4	CHEM 2220	4
CHEM 2219	1	CHEM 2229	1
MATH 2222	4	PHYSICS 2111	4
PHYSICS 1111	4	PHYSICS 2119	1
PHYSICS 1119	1	CHEM 3410	3
PHYSICS 1135 or 1111 and 1119	4	PHYSICS 2135 or 2111 and 2119	4
Electives	3	Select one of the following sequences:	3
		COMP SCI 1971 & COMP SCI 1981	
		STAT 3113	3
		COMP SCI 1972 & COMP SCI 1982	
		COMP SCI 1570 & COMP SCI 1580	
	16		15
Junior Year			
First Semester	Credits	Second Semester	Credits
CHEM 3420	3	CHEM 2319	1
CHEM 2310	3	CHEM 2320	3
CHEM 3430	3	CHEM 2510	4
CHEM 4610	3	CHEM 3410	3
CHEM 4619	2	CHEM 3419	1
STAT 3113 or 3115	3	CHEM 3420	3
ENGLISH 1160 or 3560	3	CHEM 3459	2
Social Sciences Elective	3	CHEM 4620	3
Electives	3	Humanities Elective	3
		Electives	2
	17		16
Senior Year			
First Semester	Credits	Second Semester	Credits
CHEM 3430	3	CHEM 2310	3
CHEM 3439	1	CHEM 2319	1
CHEM 3510	4	CHEM 4000	1

CHEM 4010 or 4099	1	CHEM 4010 or 4099	1
CHEM 4810	3	CHEM 4297	3
BIO SCI 4323	3	Social Sciences Elective	3
Elective	3	Elective	3
Electives	6	Electives	11
	17		15
Total Credits: 131			

Notes:

Grade Requirements: Students must complete a minimum of 131 credit hours for the Bachelor of Science in Chemistry degree. A minimum grade of "C" is required for each chemistry course counted towards the degree.

ROTC: Basic ROTC may be taken in the freshman and sophomore years, but does is not count countable towards the a degree.

Electives: There are twenty-three (23) are eleven (11) hours of electives. Six (6) elective hours must be completed in the social sciences. Six (6) elective hours are required in the humanities. Students planning to attend graduate school are encouraged to incorporate additional higher-level chemistry electives, math, and foreign language, including a scientific literature course. Three of the humanities hours must be literature. literature.—

Recommended courses include but are not limited to the following: Biology, 2xxx, 3xxx and 4xxx especially BIO SCI 5353 , BIO SCI 4353 , BIO SCI 4383 , BIO SCI 3783 , & BIO SCI 5533 Math 2xxx, 3xxx and 4xxx level, especially MATH 3304 , MATH 3108 and MATH 5325 Physics 2xxx, 3xxx and 4xxx level, especially PHYSICS 2401 , PHYSICS 3211 , & PHYSICS 4503 Statistics, 2xxx, 3xxx and 4xxx level, especially STAT 5643 , STAT 5346 & STAT 5353A foreign language series, French, German or Russian are recommended. Polymer & Coatings Science

Emphasis Area

Freshman Year			
First Semester	Credits	Second Semester	Credits
CHEM 1310	4	CHEM 1320	3
CHEM 1319	1	CHEM 1510	2
CHEM 1100	1	MATH 1221	5
CHEM 1110	1	Electives	6
MATH 1208	5		
ENGLISH 1120	3		
HISTORY 1200, or 1300, or 1310, or POL SCI 1200	3		
	18		16
Sophomore Year			
First Semester	Credits	Second Semester	Credits
CHEM 2210	4	CHEM 2220	4
CHEM 2219	1	CHEM 2229	1
MATH 2222	4	PHYSICS 2111	4
PHYSICS 1111	4	PHYSICS 2119	1
PHYSICS 1119	1	CHEM 3410	3
PHYSICS 1135 or 1111 and 1119	4	PHYSICS 2135 or 2111 and 2119	4
Electives	3	Select one of the following sequences:	3
		COMP SCI 1971 & COMP SCI 1981	
		STAT 3113	3
		COMP SCI 1972 & COMP SCI 1982	
		COMP SCI 1570 & COMP SCI 1580	
	16		15
Junior Year			
First Semester	Credits	Second Semester	Credits
CHEM 3420	3	CHEM 2510	4
CHEM 2510	4	CHEM 3410	3
CHEM 3430	3	CHEM 3419	1

CHEM 4810	3	CHEM 3420	3
CHEM 4610	3	CHEM 3459	2
STAT 3113 or 3115	3	CHEM 4099	3
ENGLISH 1160 or 3560	3	CHEM 4819	3
Electives	4	CHEM 4850	3
		Electives	3
	16		17
Senior Year			
First Semester	Credits	Second Semester	Credits
CHEM 3430	3	CHEM 2310	3
CHEM 3430	1	CHEM 2319	1
CHEM 2310	3	CHEM 2320	3
CHEM 3510	4	CHEM 4297	3
CHEM ENG 5310	3	Chemistry Electives	3
CHEM 4610	3	Electives	9
PHYSICS 4523	3		
Electives	4		
	17		16
Total Credits: 131			

Notes:

Grade Requirements: ~~Students must complete a minimum of 131 credit hours for a Bachelor of Science-Chemistry degree.~~ A minimum grade of "C" is required for each **chemistry** ~~Chemistry~~ course counted towards the degree.

ROTC: Basic ROTC may be taken in the freshman and sophomore years, **but does but is not count towards the countable-towards-a** degree.

Undergraduate Research: ~~CHEM 4099 Undergraduate Research:~~ The undergraduate research **CHEM 4099** must be done in Polymers and Coatings Science.

Electives: There are **twenty-five (25)** ~~twenty-six (26)~~ hours of electives. Six (6) elective hours must be completed in the social sciences. **Six (6)** ~~Nine (9)~~ elective hours are required in the **humanities**. ~~humanities, exclusive of foreign language.~~ Three of the humanities hours must be literature.

Three (3) hours of elective may be chosen from Materials Science related courses numbered in the 3xxx- or 4xxx-series. Students planning to attend graduate school are encouraged to incorporate additional higher level chemistry electives, math, and foreign language, including a scientific literature course. Recommended courses include but are not limited to the following: Biology, 2xxx, 3xxx and 4xxx level, especially BIO SCI 2213, or BIO SCI 4323 & BIO SCI 4329 CH ENG 381 Math 2xxx, 3xxx and 4xxx level, especially MATH 3304, MATH 3108 & MATH 5325 Physics 2xxx, 3xxx and 4xxx level, especially PHYSICS 2401, PHYSICS 3211, PHYSICS 4503, PHYSICS 4523, or PHYSICS 4323 Statistics, 2xxx, 3xxx and 4xxx level, especially STAT 5643, STAT 5346 or STAT 5353 CER ENG 3410 and CER ENG 3417, or GEO 275A foreign language series. Pre-medicine Emphasis Area

Freshman Year			
First Semester	Credits	Second Semester	Credits
CHEM 1310	4	CHEM 1320	3
CHEM 1319	1	CHEM 1510	2
CHEM 1100	1	MATH 1221	5
CHEM 1110	1	BIO SCI 1113	3
MATH 1208	5	BIO SCI 1219	2
HISTORY 1200, or 1300, or 1310, or POL SCI 1200	3	ENGLISH 1120	3
	15		18
Sophomore Year			
First Semester	Credits	Second Semester	Credits
CHEM 2210	4	CHEM 2220	4
CHEM 2219	1	CHEM 2229	1
MATH 2222	4	PHYSICS 2111	4
PHYSICS 1111	4	PHYSICS 2119	1
PHYSICS 1119	1	CHEM 3410	3
PHYSICS 1135 or 1111 and 1119	4	PHYSICS 2135 or 2111 and 2119	4

<u>BIO SCI 2213</u>	3	Select one of the following sequences:	3
<u>BIO SCI 2219</u>	1	<u>COMP SCI 1971</u> & <u>COMP SCI 1981</u>	
		STAT 3113	3
		<u>COMP SCI 1972</u> & <u>COMP SCI 1982</u>	
		<u>COMP SCI 1570</u> & <u>COMP SCI 1580</u>	
	17		15
Junior Year			
First Semester	Credits	Second Semester	Credits
CHEM 3420	3	<u>CHEM 2510</u>	4
<u>CHEM 3430</u>	3	CHEM 3410	3
<u>CHEM 4610</u>	3	CHEM 3419	1
<u>CHEM 4619</u>	2	<u>CHEM 3420</u>	3
<u>CHEM 4010 or 4099</u>	1	<u>CHEM 4620</u>	3
<u>BIO SCI 3333</u>	3	BIO SCI 242	3
<u>BIO SCI 3339</u>	1	Humanities Elective	3
<u>ENGLISH 1160 or 3560</u>	3	<u>STAT 3113 or 3115</u>	3
BIO SCI 241	5	<u>BIO SCI 3343</u>	3
		<u>BIO SCI 3349</u>	1
	16		17
Senior Year			
First Semester	Credits	Second Semester	Credits
CHEM 3430	3	CHEM 2310	3
CHEM 3439	1	<u>CHEM 2319</u>	1
<u>CHEM 2310</u>	3	<u>CHEM 2320</u>	3
<u>CHEM 3510</u>	4	<u>CHEM 4297</u>	3
<u>CHEM 3459</u>	2	Advanced Chemistry Electives	4
<u>CHEM 4010 or 4099</u>	1	Social Sciences Elective	3
<u>CHEM 4810</u>	3	Humanities Elective	3
Electives	3	Electives	10
Literature Elective	3		
	16		17
Total Credits: 131			

Notes:

Grade Requirements: ~~Students must complete a minimum of 133 credit hours for the Bachelor of Science in Chemistry degree.~~ A minimum grade of "C" is required for each **chemistry** ~~Chemistry~~ course counted towards the degree.

ROTC: Basic ROTC may be taken in the freshman and sophomore years, **but does but is not count towards the countable towards a degree.** ~~Chemistry~~

Electives: **There are thirteen (13) hours of electives. Three (3) elective hours must be completed in the social sciences. Three (3) elective hours are required in the humanities, which must be literature.**

~~The advanced Chemistry Elective is chosen from CHEM 4210, CHEM 4310, CHEM 4410, CHEM 4810, CHEM 4850.~~

Justification for request

(a) Streamlining physical chemistry education (Chem 3410, 3420, 3430, and 3459) in all Chemistry BS degree programs; (b) Adjusting biological science courses (Anatomy and Physiology lecture and labs) for pre-med emphasis students; (c) Changing total number of credit hours for pre-med emphasis students to be consistent with other chemistry BS degree programs; (d) changing total degree hours from 131 to 129 to accommodate for reduced physics hours, i.e., physics department is no longer offering General Physics I and II (5 hours each), must be substituted by Engineering Physics I and II (4 hours each).

Supporting

Documents

Course Reviewer **woelkk (08/19/14 6:35 pm)**: General Electives must not be as specified

Comments **woelkk (08/19/14 6:37 pm)**: General electives must not be as specified

kleb6b (08/20/14 10:03 am): Change start term

imorgan (10/13/14 11:12 am): Rollback: Suggested edits from Sciences DSCC

kleb6b (02/13/15 9:32 am): Update Sophomore Year, Second Semester

kleb6b (02/17/15 9:00 am): Update sophomore year, second semester plan of study

imorgan (03/05/15 3:28 pm): Made a correction to the Polymer and Coatings Science Emphasis based on discussion with K. Woelk. D. Tauritz is concerned about the ambiguity of changing "department chairperson" to "department" (will the students know whom to see?).

kleb6b (04/07/15 8:49 am): Rollback: Rollback per CCC meeting

imorgan (04/10/15 2:22 pm): I have increased each program to 131 credits because it was established that any program that changes the total number of credits will not be approved at the May CCC meeting. I have combined the "Chemistry Electives" and "Electives" into one group because that is the way they are listed in the semester-by-semester degree program--I hope this increases the clarity. I will run this change by the department. Note that the history/poli sci course and the english course are counted in the social science and humanities (respectively) requirements but not in the electives, accounting for the three-credit differences.

Key: 16
[Preview Bridge](#)

Program Change Request

Date Submitted: 03/25/15 7:08 pm

Viewing: **CMP SC-BS : Computer Science BS**

File: 28.13

Last approved: 08/13/14 4:01 pm

Last edit: 03/25/15 7:08 pm

Changes proposed by: tauritzd

Catalog Pages
Using this
Program

[Computer Science](#)

Start Term **Fall 2015 8/1/2014**
Program Code CMP SC-BS
Department Computer Science
Title Computer Science BS

Program Requirements and Description

Bachelor of Science Computer Science

A minimum of 128 credit hours is required for a Bachelor of Science degree in Computer Science and an average of at least two grade points per credit hour must be obtained. These requirements for the B.S. degree are in addition to credit received for algebra, trigonometry, and basic ROTC.

The Computer Science curriculum requires twelve semester hours in humanities, exclusive of foreign language, and must include [ENGLISH 1160](#) or [ENGLISH 3560](#). A minimum of nine semester hours is required in social sciences, including either [HISTORY 1300](#), [HISTORY 1310](#), [HISTORY 1200](#), or [POL SCI 1200](#). Specific requirements for the bachelor degree are outlined in the sample program listed below.

All computer science majors must earn a "C" or better grade in all COMP SCI courses used to fulfill B.S. in Computer Science degree requirements as well as in [COMP ENG 2210](#), [COMP ENG 3150](#), [COMP-ENG-3150](#), and the required ethics elective.

Sample Course of Study

Freshman Year			
First Semester	Credits	Second Semester	Credits
COMP SCI 1010 ¹⁴	1	COMP SCI 1510	3
COMP SCI 1570	3	COMP SCI 1200	3
COMP SCI 1580	1	MATH 1221 ¹⁵	5
ENGLISH 1120	3	Laboratory science course(s) ¹	5
MATH 1208 ¹⁵	5		
Humanities Elective ⁵	3		
	16		16

In Workflow

1. RCOMPSCI 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. 03/25/15 9:03 pm
Sajal Das (sdas):
Approved for RCOMPSCI Chair
2. 03/26/15 7:46 am
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/02/15 10:56 pm
imorgan: Approved for Sciences DSCC Chair

History

1. Aug 5, 2014 by tauritzd
2. Aug 13, 2014 by pantaleoa

Sophomore Year			
First Semester	Credits	Second Semester	Credits
COMP SCI 2500	3	COMP SCI 2300	3
Social Science Elective ²	3	COMP ENG 2210 ¹²	3
Literature Elective ⁵	3	MATH 3108 ⁷	3
Physics Elective ³	4	Physics Elective ³	4
SP&M S 1185 ⁴	3	STAT 3115 ⁶	3
SP&M S 1185 ⁴	3		
	16		16
Junior Year			
First Semester	Credits	Second Semester	Credits
History Elective ²	3	COMP SCI 3500	3
COMP SCI 3800	3	Social Science Elective ²	3
COMP ENG 3150	3	COMP SCI 3200	3
COMP SCI 2200	3	ENGLISH 1160 ¹³	3
Free Elective ⁸	3	COMP SCI 3100	3
	15		15
Senior Year			
First Semester	Credits	Second Semester	Credits
Cmp Sc Electives ⁹	9	Cmp Sc Electives ⁹	6
Eng/Science Electives ¹⁰	6	Eng/Science Elective ¹⁰	3
COMP SCI 4096	3	Ethics Elective ¹¹	3
		Free Elective ⁸	4
	18		16
Total Credits: 128			

- ¹ Any science lecture-laboratory course or course pair totaling at least four hours credit. The laboratory is mandatory in all cases. These course(s) may be selected from: [CHEM 1310](#) and [CHEM 1319](#); [CHEM 1351](#); [BIO SCI 1113](#) and [BIO SCI 1219](#); [PHYSICS 1505](#) and [PHYSICS 1509](#); [GEOLOGY 1110](#) and [GEOLOGY 1119](#); [GEOLOGY 1120](#) and [GEOLOGY 1129](#); [BIO SCI 1223](#) and [BIO SCI 1229](#); [BIO SCI 2353](#) and [BIO SCI 2359](#).
- ² Any nine credit hours of social science courses approved on the list maintained on the Computer Science web page. One course must satisfy the Missouri and U.S. Constitution requirement.
- ³ Either [PHYSICS 1135](#) and [PHYSICS 2135](#) or both [PHYSICS 1111](#)-[PHYSICS 1119](#) and [PHYSICS 2111](#)-[PHYSICS 2119](#).
- ⁴ [SP&M S 1185](#) or [SP&M S 3283](#).
- ⁵ One literature and one humanities course approved on the list maintained on the Computer Science web page.
- ⁶ [STAT 3113](#), [STAT 3115](#), [STAT 3117](#) or [STAT 5643](#).
- ⁷ [MATH 3103](#) or [MATH 3108](#).
- ⁸ Courses chosen from any field so that 128 hours are completed. These and only these courses may be taken pass/fail and only one course may be taken pass/fail each semester. Some courses such as algebra, trigonometry, [MATH 1214](#), [MATH 1215](#), [MATH 1221](#), [PHYSICS 1111](#), [PHYSICS 1119](#), [PHYSICS 1135](#), [PHYSICS 2135](#), [PHYSICS 2111](#), [PHYSICS 2119](#), [PHYSICS 1145](#), [PHYSICS 2145](#) and the first two years of ROTC do not count toward the free electives.
- ⁹ Fifteen hours of elective COMP SCI courses excluding [COMP SCI 2002](#), [COMP SCI 4700](#), COMP SCI 2001 - Domain Exploration and Innovation Methods, COMP SCI 3001 - Skill Development for Entrepreneurs and Innovators, COMP SCI 4001 - Advanced Domain Exploration and Innovation Methods, COMP SCI 4001 - Interpersonal Dynamics for Entrepreneurs and Innovators, and all COMP SCI x9xx courses. At least nine hours must be 5000-level or higher. At least nine hours must be lecture courses.

10	Any nine hours chosen from departments that offer a degree associated with either the Discipline Specific Curricula Committee for Sciences or the Discipline Specific Curricula Committee for Engineering, excluding computer science. These may not be MATH 1208 , MATH 1214 , MATH 1215 , MATH 1221 , PHYSICS 1111 , PHYSICS 1119 , PHYSICS 1135 , PHYSICS 2135 , PHYSICS 2111 , PHYSICS 2119 , PHYSICS 1145 , or PHYSICS 2145 .
11	PHILOS 3225 or PHILOS 3235 or PHILOS 4340 or PHILOS 4368 .
12	Laboratory not required.
13	Or ENGLISH 3560 Technical Writing.
14	Or BIO SCI 1201 CHEM 1110 , PHYSICS 1101 , MATH 1101 , or FR ENG 1100 .
15	MATH 1214 may be taken instead of MATH 1208 ; MATH 1215 may be taken instead of MATH 1221

Justification for
request

Fixes the non-existing SP&M S 3282 course reference to SP&M S 3283 and effectively designates the proposed Econ entrepreneurship course COMP SCI co-listings as social science/free electives (the COMP SCI webpage will be updated to show that they are approved as social science electives for COMP SCI majors).

Supporting
Documents

Course Reviewer
Comments

Key: 28
[Preview Bridge](#)

Program Change Request

Date Submitted: 03/27/15 8:49 am

Viewing: **CR ENG-BS : Ceramic Engineering BS**

File: 149.17

Last approved: 08/06/14 10:58 am

Last edit: 05/12/15 10:50 am

Changes proposed by: smiller

Catalog Pages [Ceramic Engineering](#)
Using this
Program

Start Term Fall **2015** ~~2014~~
Program Code CR ENG-BS
Department Materials Science & Engineering
Title Ceramic Engineering BS

Program Requirements and Description

Bachelor of Science Ceramic Engineering

Entering freshmen desiring to study ceramic engineering will be admitted to the Freshman Engineering Program. They will be permitted to state a ceramic engineering preference, which will be used as a consideration for available freshman departmental scholarships. The focus of the Freshman Engineering program is on enhanced advising and career counseling, with the goal of providing to the student the information necessary to make an informed decision regarding the choice of a major.

For the Bachelor of Science degree in Ceramic Engineering a minimum of 128 credit hours is required. These requirements are in addition to credit received for algebra, trigonometry, and basic ROTC courses. A student must maintain an average of at least two grade points per credit hour in Ceramic Engineering.

Each student's program of study must contain a minimum of 18 credit hours of course work from the humanities and the social sciences areas and should be chosen according to the following rules:

1. All students are required to take one **American**-history course and one economics course. The history course is to be selected from [HISTORY 1200](#) , [HISTORY 1300](#) , [HISTORY 1310](#) , or [POL SCI 1200](#) . The economics course may be either [ECON 1100](#) or [ECON 1200](#) .
2. Of the remaining hours, 12 credit hours must be taken in humanities or social sciences from the approved list of Humanities and Social Science (HSS) courses posted on the Undergraduate Studies website (<http://ugs.mst.edu/>). Students may receive humanities credit for foreign language courses in their native tongue only if the course is at the 4000-level.
3. Special topics, special problems courses and honors seminars are allowed only by petition to and approval by the student's department chair.

Freshman Year			
First Semester	Credits	Second Semester	Credits
FR ENG 1100	1	MET ENG 1210	3
CHEM 1310	4	MATH 1215	4
CHEM 1319	1	PHYSICS 1135	4

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. **kristyg**

Approval Path

1. 03/29/15 10:27 pm
huebner: Approved for RMATSENG Chair
2. 03/30/15 7:58 am
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/07/15 12:10 pm
srafer: Approved for Engineering DSCC Chair
4. 04/09/15 11:29 am
Kaylon Buckner (kleb6b): Approved for Pending CCC Agenda post

History

1. Oct 10, 2013 by lahne
2. Apr 22, 2014 by lahne
3. Aug 6, 2014 by smiller

MATH 1214	4	H/SS Elective ¹	3
ENGLISH 1120	3	MECH ENG 1720	3
H/SS Elective ¹	3		
	16		17
Sophomore Year			
First Semester	Credits	Second Semester	Credits
CER ENG 2110	3	CER ENG 2120	3
CER ENG 2210	2	CER ENG 2325	2
CER ENG 2315	2	CER ENG 3230	3
MATH 2222	4	MATH 3304 (or Statistics Elective) ³	3
PHYSICS 2135	4	H/SS Elective ¹	3
		CIV ENG 2200	3
	15		17
Junior Year			
First Semester	Credits	Second Semester	Credits
CER ENG 3315	2	CER ENG 3325	2
CER ENG 3220	3	CER ENG 3410	3
CIV ENG 2210	3	PHYSICS 2305	3
CER ENG 3210	3	H/SS Elective ¹	3
H/SS Elective ¹	3	Technical Elective ²	2
		Advanced Chemistry Elective ⁴	3
	14		16
Senior Year			
First Semester	Credits	Second Semester	Credits
CER ENG 4096	3	CER ENG 4097	3
CER ENG 4240	3	CER ENG 4220	4
CER ENG 4310	3	H/SS Elective¹	3
CER ENG 4250	3	CER ENG 4240	3
ENG MGT 1210	2	Statistics Elective ³	3
Technical Elective ²	3	Technical Electives ²	3
H/SS Elective¹	3		
	17		16
Total Credits: 128			

Note 1: Students may substitute [MATH 1208](#) and [MATH 1221](#) for [MATH 1214](#) and [MATH 1215](#), respectively.

Note 2: Students may substitute [CHEM 1320](#) for [MET ENG 1210](#).

¹ Eighteen hours of H/SS electives to be taken.

² Technical electives must be selected from upper level engineering and science courses with the advisor's approval.

³ All Ceramic Engineering students must either take [MATH 3304](#) and one statistics course (3000-level or higher) or an introductory statistics course (3000-level) plus an advanced statistics elective ([ECON 2300](#), [ENG MGT 5410](#), [ENG MGT 5614](#), [ENG MGT 5713](#), [ENG MGT 5414](#), [ENG MGT 5714](#), [STAT 5346](#), and [STAT 5756](#)).

⁴ All Ceramic Engineering students must select an advanced chemistry elective with the advisor's approval. The courses that can be considered are [CHEM 2210](#), [CHEM 2310](#), [CHEM 3410](#), [CHEM 4310](#), or [CHEM 3420](#).

Specific Degree Requirements

1. Total number of hours required for a degree in Ceramic Engineering is 128.
2. The assumption is made that a student admitted in the department has completed 34 hours credit towards graduation. The academic program of students

transferring from colleges outside Missouri S&T will be decided on a case-by-case basis.

3. The department requires a total of 18 credit hours of humanities and social science.

Justification for request	Moved Cer Eng 4240 from first semester of senior year to second semester of senior year to even faculty workload, swapped with H/SS elective.
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Supporting Documents

Course Reviewer	kleb6b (03/30/15 7:58 am): Change Start Term
Comments	kleb6b (05/12/15 10:50 am): Changes per CCC Meeting

Key: 149

[Preview Bridge](#)

Program Change Request

Date Submitted: 04/10/15 2:03 pm

Viewing: **ENG MG-MS : Engineering Management MS**

File: 46.4

Last approved: 06/12/14 12:24 pm

Last edit: 05/12/15 10:49 am

Changes proposed by: sraper

Catalog Pages
Using this
Program

[Engineering Management](#)

Start Term **Fall 2015-8/1/2014**
Program Code ENG MG-MS
Department Engineering Management and Systems Engineering
Title Engineering Management MS

Program Requirements and Description

The M.S. degree program is offered on the Rolla campus and several locations including the Missouri S&T Engineering Education Center in St. Louis, Fort Leonard Wood (restricted to Engineer Captain's Career Course), and by distance education throughout the United States and selected international locations. Distance course lectures are archived upon completion of the lecture and all lectures are available to students through streaming video during the semester for review. These courses can be reached from anywhere at any time. It is feasible to obtain a Missouri S&T non-thesis M.S. degree regardless of your location.

The M.S. non-thesis program requires completion of at least 10 **three-credit hour** ~~three-hour~~ courses approved by the academic advisor. The M.S. with thesis option requires thirty credit hours including the thesis. All students are required to take the following:

Core Courses

ENG MGT 5111	Management for Engineers and Scientists
ENG MGT 5320	Project Management
ENG MGT 5412	Operations Management Science
ENG MGT 6211	Advanced Financial Management

Students are then encouraged to identify an emphasis area depending on their interests and to choose available courses from the selected area. However, courses can be chosen from more than one emphasis area. Students have the option to take up to two out-of-department elective courses.

Students must submit a typed Form I to the EMSE graduate office by the beginning of the semester of their 15th credit hour. Links to forms are available at: <http://emgt.mst.edu/currentstudents/formsdeadlines.html>. Thesis students cannot register for Graduate Research ([ENG MGT 6099](#) ~~ENG-MGT-5099~~) until their Form I is on file. If ~~students you take courses that~~ vary from ~~your~~ Form I, ~~they you~~ must file a Form I-A. Non-thesis students must take three 6000-level courses. Thesis students must take two 6000-level courses (in addition to [ENG MGT 6099](#) ~~ENG-MGT-5099~~). Students must meet all requirements for graduation as specified in the Graduate Catalog for Engineering Management. A graduate student already holding or completing a Master's degree may obtain a second M.S. in Engineering Management by completing at least an additional 24 credits of work.

Some recent Master thesis titles include:

In Workflow

1. RENGNGMT 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. kristyg

Approval Path

1. 04/10/15 2:08 pm
enke: Approved for RENGNGMT Chair
2. 04/10/15 2:09 pm
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/10/15 2:27 pm
sraper: Approved for Engineering DSCC Chair
4. 04/10/15 2:32 pm
Kaylon Buckner (kleb6b): Approved for Pending CCC Agenda post

History

1. Jun 12, 2014 by
pantaleoa

- Impacting Co-Worker Trust Toward Persons with Disabilities
- Intelligent Technical Analysis Using Neural Networks and Fuzzy Logic
- Applying the Six Sigma Methodology to Improve the Admissions Process at Missouri S&T
- Strategic Inventory Allocation for Vehicle Rental Agencies
- Design and Development of an Interactive Web-Integrated Flexible Manufacturing Cell Control System
- Investigations in the Design of Products and Factories for End-of-Life Disassembly
- Warranty Cost Prediction Using Mahalanobis Distance
- Automotive Braking System Simulation and Optimization

Justification for request To meet campus requirements.

Supporting Documents

Course Reviewer **kleb6b (04/10/15 2:09 pm):** Change effective term.
Comments **kleb6b (05/12/15 10:49 am):** Changes per CCC meeting

Key: 46
[Preview Bridge](#)

Program Change Request

Date Submitted: 04/01/15 9:49 am

Viewing: **INORGPS-MS : Industrial Organizational Psychology MS**

File: 234.8

Last approved: 07/29/14 2:46 pm

Last edit: 04/01/15 10:01 am

Changes proposed by: nstone

Catalog Pages
Using this
Program

[Psychology](#)

Start Term **Fall 2015 8/1/2014**
Program Code INORGPS-MS
Department Psychological Science
Title Industrial Organizational Psychology MS

Program Requirements and Description

Master of Science in Industrial-Organizational Psychology

Admission Requirements

Students interested in the M.S. in I-O Psychology program should review the admissions requirements listed on our website (<http://psych.mst.edu/graduate/indorgpsych/>).

Program Requirements

The M.S. in Industrial-Organizational Psychology requires a minimum of 36 credit hours and allows students to select one of three non-thesis tracks (leadership in technological organizations, human factors, or psychometrics) or the thesis option. Students will complete 15 hours of core courses, 9 hours of methods courses, 9 hours of specialization courses within the track or the thesis option requirements, and 3 hours of electives from within any of the three specialization emphasis (track) areas.

In Workflow

1. RPSYCHOL 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. 04/01/15 10:03 am
nstone: Approved for RPSYCHOL Chair
2. 04/01/15 10:36 am
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/07/15 8:02 am
barryf: Approved for Social Sciences DSCC Chair

History

1. Apr 17, 2014 by lahne
2. Apr 17, 2014 by lahne
3. Apr 24, 2014 by lahne
4. Apr 24, 2014 by lahne
5. Apr 24, 2014 by lahne
6. May 7, 2014 by lahne
7. Jul 8, 2014 by pantaleoa
8. Jul 29, 2014 by pantaleoa

Core Courses (15 hours, select 5 of 6 courses)

PSYCH 5010	Seminar in Industrial / Organizational Psychology
PSYCH 5601	Advanced Group Dynamics
PSYCH 5602	Organizational Processes: Research and Practice
PSYCH 5610	Course PSYCH 5610 Not Found

PSYCH 5700	Advanced Industrial Psychology	
PSYCH 6610	Advanced Leadership Theory & Practice	3
PSYCH 6702	Personnel Selection	
Methods Courses (9 hours)		
PSYCH 5201	Psychometrics	
PSYCH 6210	Advanced Research Methods ¹	
or STAT 6344	Design And Analysis Of Experiments	
STAT 5353	Statistical Data Analysis	
Specialization Emphasis Courses (9 hours, of which 3 hours must be 6000-level)		
Human Factors (non-thesis)		
PSYCH 5710	Advanced Human Factors	
PSYCH 5720	Advanced Human-Computer Interaction	
PSYCH 5730	Environmental Psychology: Research and Practice	
PSYCH 6085	Internship	
PSYCH 6099	Research	
ENG MGT 5316	Safety Engineering Management	
ENG MGT 6310	Human Systems Integration	
ENG MGT 6113	Advanced Personnel Management	
ERP 5110	Enterprise Resource Planning Systems Design and Implementation	
ERP 5310	Supply Chain Management Systems in an ERP Environment	
ERP 5210	Performance Dashboard, Scorecard and Data Visualization	
IS&T 5885	Human-Computer Interaction	
IS&T 5886	Prototyping Human-Computer Interactions	
IS&T 5887	Human-Computer Interaction Evaluation	
IS&T 6680	Advanced Web and New Media Studies	
IS&T 6887	Research Methods in Business and IS&T	
IS&T 5885	Human-Computer Interaction	
IS&T 5886	Prototyping Human-Computer Interactions	
IS&T 5887	Human-Computer Interaction Evaluation	
IS&T 6680	Advanced Web and New Media Studies	
IS&T 6887	Research Methods in Business and IS&T	
Leadership in Technical Organizations emphasis (non-thesis):		
PSYCH 4992	Cross-Cultural Psychology	
PSYCH 5600	Advanced Social Psychology	
PSYCH 5603	Advanced Social Influence	
PSYCH 6611	Leadership for Engineers	
PSYCH 6085	Internship	
PSYCH 6099	Research	
ENG MGT 5110	Managerial Decision Making	
ENG MGT 5512	Legal Environment	
ENG MGT 6510	Technological Innovation Management	
ENG MGT 6113	Advanced Personnel Management	
IS&T 5251	Technological Innovation Management and Leadership	
IS&T 5168	Law and Ethics in E-Commerce	
IS&T 5251	Technological Innovation Management and Leadership	

IS&T 5168	Law and Ethics in E-Commerce
Psychometrics emphasis (non-thesis)	
PSYCH 5200	Theories and Practice of Psychological Measurement
PSYCH 6085	Internship
PSYCH 6099	Research
STAT 5643	Probability And Statistics
STAT 5644	Mathematical Statistics
STAT 5346	Regression Analysis
STAT 6344	Design And Analysis Of Experiments
STAT 6545	Multivariate Statistical Methods
STAT 6553	Linear Statistical Models I
STAT 6554	Linear Statistical Models II
Thesis Option (9 hours):	
Students completing a thesis would need to complete the following:	
5000-level or 6000-level PSYCH, ENG MGT, IS&T, or STAT course pertaining to thesis topic (to be approved by student's academic advisor)	
PSYCH 6085	Internship
PSYCH 6099	Research
1	To be designated by Advisor

Electives (3 hours):

Three hours of electives from within any of the three specialization emphasis areas

Thesis or internship experience:

Students in one of the three specialization emphasis areas are not required to complete a thesis. There is a thesis option, which requires the completion of a thesis. The thesis will be a research project on an I/O topic selected by the student in consultation with his or her advisor. Students in one of the specialization areas may complete a thesis, but it will require hours beyond the minimum of 36 credit hours. Internships are encouraged, but not required of the students and also will require hours beyond the minimum of 36 credit hours.

Justification for request	The course number Psych 5610 was changed to Psych 6610 for spring 2015. The course title and content did not change. Please replace Psych 5610 with Psych 6610.
Supporting Documents	
Course Reviewer Comments	nstone (04/01/15 10:01 am): See above.

Program Change Request

Date Submitted: 04/01/15 2:07 pm

Viewing: **MUL&DIV-MI : Multiculture & Diversity Minor**

File: 102.9

Last approved: 06/11/14 1:59 pm

Last edit: 04/01/15 2:36 pm

Changes proposed by: denises

Catalog Pages Using this Program
[Multiculturalism & Diversity](#)
[Psychology](#)

Start Term Fall **2015** 2014
Program Code MUL&DIV-MI
Department Arts, Languages, & Philosophy
Title Multiculture & Diversity Minor

Program Requirements and Description

Multiculturalism & Diversity Minor

The minor requires 15 hours in a minimum of 3 of 4 Humanities and Social Sciences (HSS) departments: the Departments of Arts, Languages & Philosophy; English & Technical Communication; History & Political Science; and Psychology. The academic home for this minor will be the HSS department in which the student takes the majority of their classes. Courses offered by these departments that can be included in the minor are listed below.

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. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. kristyg

Approval Path

1. 04/01/15 2:32 pm
lance: Approved for RPHILOSO Chair
2. 04/01/15 2:36 pm
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/01/15 3:25 pm
ivliyeva: Approved for Arts & Humanities DSCC Chair

History

1. Apr 28, 2014 by ivliyeva
2. May 7, 2014 by lahne
3. Jun 11, 2014 by lahne
4. Jun 11, 2014 by pantaleoa
5. Jun 11, 2014 by lahne

Arts, Languages & Philosophy:

One 3rd level basic study course in a foreign language (German, Spanish, French, or Russian) *

[FRENCH 4360](#) French Culture And Civilization

[PHILOS 4340](#) Social Ethics

[RUSSIAN 4360](#) Russian Civilization

~~SP&M S 3235 Intercultural Communication~~

[SP&M S 3235](#) Intercultural Communication

English and Technical Communication:

[ENGLISH 1231](#) World Literature I: From The Beginnings To The Renaissance

ENGLISH 2242	Literature By Women
ENGLISH 2245	African American Literature
ENGLISH 3228	The American Experience
History and Political Science:	
HISTORY 2660	Modern East Asia
POL SCI 2500	International Relations
POL SCI 3510	The Politics Of The Third World
Psychology:	
PSYCH 4993	Psychology of Women
PSYCH 4992	Cross-Cultural Psychology
HISTORY 3280	European Migrations and Nationalism Formation
HISTORY 2665	History of Japan

* Specific 3rd Level Language Courses, as listed below:		
FRENCH 1180	French Readings And Composition	
FRENCH 2110	Basic French Conversation	
FRENCH 4360	French Culture And Civilization	
FRENCH 2170	Masterpieces Of French Literature	
FRENCH 2180	Basic French Composition	
FRENCH 4311	Advanced French Conversation	
FRENCH 4370	Survey Of French Literature I (Early Period)	
FRENCH 4375	Survey Of French Literature II (Modern Period)	
GERMAN 1180	Classical And Modern German Readings	
GERMAN 2110	Basic German Conversation	
GERMAN 2170	Masterpieces Of German Literature	
RUSSIAN 1180	Readings In Science And Literature	
RUSSIAN 2110	Basic Russian Conversation	
RUSSIAN 2170	Masterpieces Of Russian Literature	
RUSSIAN 4320	Russian Phonetics and Intonation	
RUSSIAN 4330	Business Russian	
RUSSIAN 4370	Survey Of Russian Literature I (Early Period)	
RUSSIAN 4375	Survey Of Russian Literature II(Modern Period)	
SPANISH 1180	Readings And Composition	
SPANISH 2110	Basic Spanish Conversation	
SPANISH 2160	Hispanic Culture	
SPANISH 2170	Masterpieces Of Hispanic Literature	
SPANISH 2180	Intermediate Spanish Composition	
SPANISH 4311	Advanced Spanish Conversation	
SPANISH 4377	Spanish-American Novel And Short Story	
SPANISH 4302	Phonetics and Phonology of Spanish	3

Justification for
request

Update per Irina Ivliyeva

Supporting
Documents

Course Reviewer **kleb6b (04/01/15 2:36 pm):** Change effective term
Comments

Key: 102
[PreviewBridge](#)

Program Change Request

Date Submitted: 04/03/15 10:28 am

Viewing: **PE ENG-MI : Petroleum Engineering Minor**

File: 110.1

Last edit: 04/03/15 10:28 am

Changes proposed by: reflori

Catalog Pages
Using this
Program

[Petroleum Engineering](#)

Start Term **Fall 2015**

Program Code PE ENG-MI

Department Geosciences and Geological and Petroleum Engineering

Title Petroleum Engineering Minor

Program Requirements and Description

Minor Curriculum in Petroleum Engineering

The Petroleum Industry employs not only Petroleum but also Civil, Electrical, Chemical, Geological, Mechanical and other engineers. A Petroleum Engineering minor, therefore, enhances the academic credentials of a student and broadens their employment choices. A minor in Petroleum Engineering requires 15 hours of Missouri S&T credit to include the following:

PET ENG 331	Course PET ENG 331 Not Found (Fall)	3
PET ENG 2510	Properties Of Hydrocarbon Fluids (Fall)	3
PET ENG 3520	Petroleum Reservoir Engineering	3
Select one of the following:		
PET ENG 3410	Course PET ENG 3410 Not Found (Fall)	
PET ENG 4611	Secondary Recovery Of Petroleum (Spring)	
One elective course*		3
PET ENG 4210	Drilling and Well Design	3
PET ENG 4410	Well Performance and Production Systems	3
Two elective courses*		6
Total Credits		15

*The two elective courses are to be chosen from any Petroleum Engineering course and/or Petroleum Geology (Geol 5513).

* <p>The elective course is to be selected from any other 200 or 300 level Petroleum Engineering courses offered except Seminars.</p>

Justification for request This is a better choice of base courses, plus the two electives give students more flexibility.

Supporting Documents

Course Reviewer

In Workflow

1. RGEOSNG Chair
2. CCC Secretary
3. Sciences DSCC 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. kristyg

Approval Path

1. 04/03/15 1:56 pm
ikuenobe: Approved for RGEOSNG Chair
2. 04/03/15 2:07 pm
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/07/15 10:44 am
imorgan: Approved for Sciences DSCC Chair
4. 04/10/15 2:27 pm
srafer: Approved for Engineering DSCC Chair

Comments

Key: 110
[Preview Bridge](#)

Program Change Request

Date Submitted: 04/02/15 8:22 am

Viewing: **PSYCH-BA : Psychology BA**

File: 192.13

Last approved: 03/20/15 1:33 pm

Last edit: 04/02/15 8:21 am

Changes proposed by: nstone

Catalog Pages Using this Program	Psychology
Start Term	Fall 2015
Program Code	PSYCH-BA
Department	Psychological Science
Title	Psychology BA

Program Requirements and Description

Bachelor of Arts Psychology

A minimum of 120 credit hours is required for a Bachelor of Arts degree in Psychology and an average of at least two grade points per credit hour must be obtained. The Psychology B.A. curriculum requires 23 hours of basic skills and concepts. That is, 6 hours of English Composition, 6 hours of Western Civilization, and 11-16 hours of foreign language. Twelve semester hours in humanities must be taken with at least one course taken in each of the three areas of literature (English and American) , philosophy, and fine arts (art, music and theater), but not to include studio and performance offerings. A minimum of twelve semester hours is required in social sciences in at least two of the following three areas: economics, political science, and history. A minimum of 12 hours of math and science are required and a minimum of 34 hours are required in psychology. Up to 12 credit hours of advanced ROTC may be credited toward the degree. Specific requirements for the Bachelor of Arts degree are outlined in the sample program listed below.

1. [ENGLISH 1120](#) and one additional three hour composition course (6 hours).
2. Western Civilization ([HISTORY 1100](#) and [HISTORY 1200](#)) (6 hours).
3. Foreign languages for at least 3 semesters of basic study in French, German, Russian, Spanish or an approved substitute; or one year of basic study in a foreign language in either French, German, Russian, Spanish, or an approved substitute , and a humanities or social sciences course taught in a foreign country and employing the language of that country; or one year of basic study in each of two of the foreign languages of French, German, Russian or Spanish or an approved substitute (11-16 hours).
4. Sciences. At least one course taken in biological (biological sciences) and physical (chemistry, geology and geophysics, physics) sciences. At least one statistics course. A laboratory course is required (and a lab offered in engineering also may count at the discretion of the student's major advisor) toward the total requirement (12 hours).
5. Humanities and fine arts. Courses used to satisfy this requirement must include one course in each of the three areas of literature (English or American), philosophy, and fine arts (art, music or theater), but not to include studio and performance offerings (12 hours).
6. Social Sciences. At least two of the following social science areas are to be included: economics, political science, or history (12 hours).
7. Psychology (34 hours):
 - a. Introduction to Psychology ([PSYCH 1100](#)) , General Psychology ([PSYCH 1101](#)) , and Capstone course ([PSYCH 3110](#) [PSYCH 4200](#), (~~Psych-3110~~, ~~Psych-4200~~, [PSYCH 4990](#) , [PSYCH 4010](#) , [PSYCH 4993](#) , [PSYCH 4590](#) , [PSYCH 4994](#) , [PSYCH 4992](#) , or [PSYCH 4099](#) , 3 hours credit).
 - b. Three additional courses from each of the following two areas of psychology:
 - i. Sensation & Perception, Cognitive, Learning, Neuroscience, Developmental, Abnormal, Social, or Personality
 - ii. Educational, Adolescent, Human-Computer Interaction, Industrial, Human Factors, Clinical, Group Dynamics, or Organizational

In Workflow

1. [RPSYCHOL 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. 04/02/15 8:29 am
nstone: Approved for RPSYCHOL Chair
2. 04/02/15 8:37 am
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/08/15 12:58 pm
barryf: Approved for Social Sciences DSCC Chair

History

1. Aug 4, 2014 by
nstone
2. Mar 20, 2015 by
nstone

- c. Electives from Psychology to complete the 34 hour major requirement.
8. Major-field requirements: A cumulative grade point average of 2.0 must be earned in all course work taken in the major field. Upper-class (3000-4000-level) courses completed with grades of "D" may not be included in the major field without the approval of the chair of the department. At least nine hours of upper-class work in the major field must be completed in residence at Missouri S&T.
9. Minor: A minor will be selected from any discipline other than the major with the approval of the student's advisor. A total of at least 15 hours is required for the minor, but may include courses, which also satisfy other requirements. At least nine hours must be beyond the introductory level. A cumulative grade point average of 2.0 must be earned in all course work required in the minor field. At least six hours of work in the minor field must be completed in residence at Missouri S&T.
10. Basic ROTC may be elected in the freshman and sophomore years, but is not creditable toward a degree. Up to 12 credit hours of advanced ROTC may be credited toward a degree.
11. Elective Credits: In consultation with his/her advisor, each student will elect sufficient additional courses to complete a minimum of 120 credit hours.

Emphasis Areas

Note: The following areas identify courses from which a student may opt to develop an emphasis area. It is not required that students obtain an emphasis specialty within Psychology.

Human Resources/Personnel		
PSYCH 4700	Industrial Psychology	3
PSYCH 4600	Social Psychology	3
PSYCH 4601	Group Dynamics	3
PSYCH 4602	Organizational Psychology	3
Human Services		
PSYCH 3311	Psychological & Educational Development Of The Adolescent	3
or PSYCH 3310	Developmental Psychology	
PSYCH 4501	Abnormal Psychology	3
PSYCH 4500	Personality Theory	3
PSYCH 4510	Clinical Psychology	3
Cognitive Neuroscience		
PSYCH 4411	Sensation and Perception	3
PSYCH 3400	Theories Of Learning	3
or PSYCH 4501	Abnormal Psychology	
PSYCH 4400	Cognitive Psychology	3
PSYCH 4410	Neuroscience	3
Usability of Technology		
PSYCH 2300	Educational Psychology	3
PSYCH 3720	Web Design And Development	3
PSYCH 4710	Human Factors	3
PSYCH 4720	Human-Computer Interaction	3
Psychology of Leadership		
PSYCH 4600	Social Psychology	3
or PSYCH 4603	Social Influence: Science and Practice	
PSYCH 4610	Psychology of Leadership in Organizations	3
PSYCH 4993	Psychology of Women	3
or PSYCH 4601	Group Dynamics	
PSYCH 4602	Organizational Psychology	3

Bachelor of Arts Psychology (Secondary Education Emphasis Area)

You may earn a B.A. degree in Psychology from Missouri S&T and certification to teach at the secondary level in the schools of Missouri with the Secondary Education emphasis area program. 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 the Secondary Education Emphasis Area in the Department of Psychological Science.

In order to successfully complete this emphasis area, students must have at least 22 on the ACT, maintain a cumulative GPA of at least 2.5, and attain at least a 2.5 GPA in all Psychology courses. Current Missouri S&T or transfer students who wish to pursue this emphasis area must meet both of 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 course work.

A degree with this emphasis area requires 128 credit hours. The required courses are provided below.

Communications Skills: 9 semester hours		
ENGLISH 1120	Exposition And Argumentation	3
ENGLISH 1160	Writing And Research	3
SP&M S 1185	Principles Of Speech	3
SP&M S 1185	Principles Of Speech	3
Humanities: 12 semester hours		
One must be in Art, Music, or Theatre		3
One must be in Philosophy		3
One must be in Literature		3
One additional humanities from the above course groups, Foreign Language, or Etymology		3
Social Sciences: 18 semester hours		
HISTORY 1300	American History To 1877	3
or HISTORY 1310	American History Since 1877	
POL SCI 1200	American Government	3
POL SCI 2760	Contemporary Political Thought	3
or POL SCI 2210	American Political Parties	
or POL SCI 3300	Principles Of Public Policy	
or POL SCI 3760	The American Presidency	
PSYCH 1101	General Psychology	3
ECON 1100	Principles Of Microeconomics	3
or ECON 1200	Principles Of Macroeconomics	
Geography		3
Natural Science/Mathematics: 13 semester hours		
Physics, Chemistry or Geology		3-4
Mathematics		3
BIO SCI 1113	General Biology	3
STAT 1115	Statistics For The Social Sciences I	3
Professional Requirements: 26 semester hours		
EDUC 1040	Perspectives In Education	2
EDUC 1174	School Organization & Adm For Elementary & Secondary Teachers	2
EDUC 2216	Teaching Reading In Content Area	3
EDUC 2251	Historical Foundation Of American Education	3
EDUC 3280	Teaching Methods And Skills In The Content Areas	6
EDUC 4298	Student Teaching Seminar	1
PSYCH 2300	Educational Psychology	3
PSYCH 3311	Psychological & Educational Development Of The Adolescent	3
PSYCH 4310	Psychology Of The Exceptional Child	3
Clinical Experience: 16 semester hours		
EDUC 1104	Teacher Field Experience	2

EDUC 1164	Aiding Elementary, Middle And Secondary Schools	2
EDUC 4299	Student Teaching	12
Psychology Degree Requirements: 17 semester hours		
PSYCH 1100	Introduction to Psychology	1
PSYCH 2200	Research Methods	4
PSYCH 3400	Theories Of Learning	3
PSYCH 3310	Developmental Psychology	3
PSYCH 4501	Abnormal Psychology	3
or PSYCH 4500	Personality Theory	
PSYCH 4600	Social Psychology	3
Certification: 17 semester hours		
9 hours of American History		
HISTORY 3320	Colonial America	
HISTORY 3325	Revolutionary America, 1754-1789	
HISTORY 3340	Age Of Jefferson And Jackson	
HISTORY 3345	Civil War And Reconstruction	
HISTORY 3360	Recent United States History	
HISTORY 3425	History Of The Old South	
HISTORY 3426	History Of The Modern South	
HISTORY 3430	History of the American West	
HISTORY 3480	History Of Baseball	
HISTORY 3440	20th Century Americans In Combat	
HISTORY 3442	The United States in Vietnam	
HISTORY 3761	U.S. Diplomatic History to World War II	
8 hours of World History		
HISTORY 1100	Early Western Civilization	
HISTORY 1200	Modern Western Civilization	
HISTORY 2220	Making Of Modern Britain	
HISTORY 2222	The Making Of Modern France	
HISTORY 2224	Making Of Modern Russia	
HISTORY 2210	European Diplomatic History 1814 - Present	
HISTORY 2660	Modern East Asia	
HISTORY 3120	Ancient Greece	
HISTORY 3130	Medieval History I	
HISTORY 3135	Medieval History II	
HISTORY 3140	History Of Renaissance Thought	
HISTORY 3230	Europe In The Age Of The French Revolution And Napoleon	
HISTORY 3235	Foundations Of Contemporary Europe 1815-1914	
HISTORY 3240	Contemporary Europe	

Justification for
request

Added course bubble to Psych 3110, Psych 4200 in BA degree (#7a).

Supporting
Documents

Course Reviewer
Comments

Key: 192
[PreviewBridge](#)

Program Change Request

Date Submitted: 04/02/15 8:44 am

Viewing: **PSYCH-BS : Psychology BS**

File: 193.12

Last approved: 03/20/15 1:33 pm

Last edit: 04/02/15 8:44 am

Changes proposed by: nstone

Catalog Pages
Using this
Program

[Psychology](#)

Start Term Fall 2015
Program Code PSYCH-BS
Department Psychological Science
Title Psychology BS

Program Requirements and Description

Bachelor of Science Psychology

A minimum of 124 credit hours is required for a Bachelor of Science degree in Psychology and a cumulative grade point average of 2.0 must be obtained. These requirements for the B.S. degree are in addition to credit received for basic ROTC.

The Psychology Bachelor of Science curriculum requires six hours of English composition; 23 hours of math, science and computer science; and twelve semester hours in humanities. Specific requirements for the bachelor degree are outlined in the sample program listed below.

1. [ENGLISH 1120](#) and [ENGLISH 1160](#) (entering students will normally take [ENGLISH 1120](#) either semester of the first year.) (6 hours)
2. A total of 23 hours in biological, physical, (chemistry, geology and geophysics, and physics), and mathematical (mathematics/statistics and computer science or information science & technology) sciences, to include [COMP SCI 1570](#) and [COMP SCI 1580](#); or [COMP SCI 1970](#) and [COMP SCI 1980](#); or [COMP SCI 1971](#) and [COMP SCI 1981](#); or [COMP SCI 1972](#) ~~Comp-Sci-1972~~ and [COMP SCI 1982](#); ~~or Comp-Sci-1982; or IS&T 1551~~ and at least one course taken in the biological and one in the physical sciences. Of the biological and physical science offerings, at least one must be a laboratory course. Engineering courses may, at the discretion of the student's major advisor, also count toward this total requirement. (23 hours)
3. 12 hours in humanities and fine arts (literature, philosophy, art, music, or theater). Foreign language courses may count toward fulfilling this requirement. Courses used to satisfy this requirement must be taken in at least two humanities areas. (12 hours)
4. 12 hours in at least two social sciences fields outside the major area (economics or history or political science). A course in Modern Western Civilization ([HISTORY 1200](#)), American History To 1877 ([HISTORY 1300](#)) or American History Since 1877 ([HISTORY 1310](#)), or American Government ([POL SCI 1200](#)) must be taken to satisfy the requirement of the state of Missouri (the "Williams Law"), and this course may count toward fulfilling the social sciences requirement. (12 hours)
5. Minor: A minor will be selected from any discipline other than the major with the approval of the student's advisor. A total of at least 15 hours is required for the minor, but may include courses, which also satisfy other requirements. At least nine hours must be beyond the introductory level.
6. Basic ROTC may be elected in the freshman and sophomore years, but is not creditable toward a degree. Six credit hours of advanced ROTC may be credited toward a degree.
7. Elective Credits: In consultation with his/her advisor, each student will elect sufficient additional courses to complete a minimum of 124 credit hours which may include [MATH 1160](#) and one of [MATH 1120](#) or [MATH 1140](#).
8. Psychology Requirements:

In Workflow

1. [RPSYCHOL 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. 04/02/15 8:45 am
nstone: Approved for RPSYCHOL Chair
2. 04/02/15 8:53 am
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/08/15 12:58 pm
barryf: Approved for Social Sciences DSCC Chair

History

1. May 6, 2014 by
nstone
2. Jul 8, 2014 by
pantaleoa
3. Jul 8, 2014 by
pantaleoa
4. Mar 20, 2015 by
nstone

- a. Introduction to Psychology ([PSYCH 1100](#)), General Psychology ([PSYCH 1101](#)), Research Methods ([PSYCH 2200](#)) and Capstone course [PSYCH 3110](#), [PSYCH 4200](#), (~~Psych 3110~~, ~~Psych 4200~~, [PSYCH 4990](#), [PSYCH 4010](#), [PSYCH 4993](#), [PSYCH 4590](#), [PSYCH 4994](#), [PSYCH 4992](#), or [PSYCH 4099](#), 3 hours credit).
- b. Three additional courses from each of the following two areas of Psychology:
 - i. Sensation & Perception, Cognitive, Learning, Neuroscience, Developmental, Abnormal, Social, or Personality
 - ii. Educational, Adolescent, Human-Computer Interaction, Industrial, Human Factors, Clinical, Group Dynamics, or Organizational
- c. Electives from Psychology to complete a requirement of 34 hours.
- d. A cumulative grade point average of 2.0 must be earned in all course work taken in the major field. Upper class (3000-level and above) courses completed with grades of "D" may not be included in the major field without the approval of the advisor and the chair of the department concerned.

Emphasis Areas

Note: The following areas identify courses from which a student may opt to develop an emphasis area. It is not required that students obtain an emphasis specialty within Psychology.

Human Resources/Personnel		
PSYCH 4700	Industrial Psychology	3
PSYCH 4600	Social Psychology	3
PSYCH 4601	Group Dynamics	3
PSYCH 4602	Organizational Psychology	3
Human Services		
PSYCH 3311	Psychological & Educational Development Of The Adolescent	3
or PSYCH 3310	Developmental Psychology	
PSYCH 4501	Abnormal Psychology	3
PSYCH 4500	Personality Theory	3
PSYCH 4510	Clinical Psychology	3
Cognitive Neuroscience		
PSYCH 4411	Sensation and Perception	3
PSYCH 3400	Theories Of Learning	3
or PSYCH 4501	Abnormal Psychology	
PSYCH 4400	Cognitive Psychology	3
PSYCH 4410	Neuroscience	3
Usability of Technology		
PSYCH 2300	Educational Psychology	3
PSYCH 3720	Web Design And Development	3
PSYCH 4710	Human Factors	3
PSYCH 4720	Human-Computer Interaction	3
Psychology of Leadership		
PSYCH 4600	Social Psychology	3
or PSYCH 4603	Social Influence: Science and Practice	
PSYCH 4610	Psychology of Leadership in Organizations	3
PSYCH 4993	Psychology of Women	3
or PSYCH 4601	Group Dynamics	
PSYCH 4602	Organizational Psychology	3

Bachelor of Science Psychology (Secondary Education Emphasis Area)

You may earn a B.S. Degree in Psychology from Missouri S&T and certification to teach at the secondary level in the schools of Missouri with the Secondary Education emphasis area program. 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 the Secondary Education Emphasis Area in the Department of Psychological Science.

In order to successfully complete this emphasis area, students must have at least 22 on the ACT, maintain a cumulative GPA of at least 2.5, and attain at least a 2.5 GPA in all Psychology courses. Current Missouri S&T or transfer students who wish to pursue this emphasis area must meet both of 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 course work.

A degree in this emphasis area requires 136 credit hours. The required courses are provided below.

Communications Skills: 9 semester hours		
ENGLISH 1120	Exposition And Argumentation	3
ENGLISH 1160	Writing And Research	3
SP&M-S 1185	Principles Of Speech	3
SP&M S 1185	Principles Of Speech	3
Humanities: 12 semester hours		
One must be in Art, Music, or Theatre		3
One must be in Philosophy		3
One must be in Literature		3
One additional humanities from the above course groups, Foreign Language, or Etymology		3-4
Social Sciences: 18 semester hours		
HISTORY 1300	American History To 1877	3
or HISTORY 1310	American History Since 1877	
POL SCI 1200	American Government	3
POL SCI 2760	Contemporary Political Thought	3
or POL SCI 2210	American Political Parties	
or POL SCI 3300	Principles Of Public Policy	
or POL SCI 3760	The American Presidency	
PSYCH 1101	General Psychology	3
ECON 1100	Principles Of Microeconomics	3
or ECON 1200	Principles Of Macroeconomics	
Geography		3
Natural Sciences/Mathematics: 21 semester hours		
Physics, Chemistry or Geology		3-4
Mathematics		3
BIO SCI 1113	General Biology	3
STAT 1115	Statistics For The Social Sciences I	3
COMP SCI 1570 & COMP SCI 1580	Introduction To Programming and Introduction To Programming Laboratory	3-4
or COMP SCI 1970 & COMP SCI 1980	Basic Scientific Programming and Computer Programming Laboratory	
or COMP SCI 1971 & COMP SCI 1981	Introduction To Programming Methodology and Programming Methodology Laboratory	
or COMP SCI 1972 & COMP SCI 1982	Introduction to MATLAB Programming and MATLAB Programming Laboratory	
5-6 additional hours of Math &/or Science courses		5-6
Professional Requirements: 26 semester hours		
EDUC 1040	Perspectives In Education	2
EDUC 1174	School Organization & Adm For Elementary & Secondary Teachers	2
EDUC 2216	Teaching Reading In Content Area	3
EDUC 2251	Historical Foundation Of American Education	3
EDUC 3280	Teaching Methods And Skills In The Content Areas	6

EDUC 4298	Student Teaching Seminar	1
PSYCH 2300	Educational Psychology	3
PSYCH 3311	Psychological & Educational Development Of The Adolescent	3
PSYCH 4310	Psychology Of The Exceptional Child	3
Clinical Experience: 16 semester hours		
EDUC 1104	Teacher Field Experience	2
EDUC 1164	Aiding Elementary, Middle And Secondary Schools	2
EDUC 4299	Student Teaching	12
Psychology Degree Requirements: 17 semester hours		
PSYCH 1100	Introduction to Psychology	1
PSYCH 2200	Research Methods	4
PSYCH 3400	Theories Of Learning	3
PSYCH 3310	Developmental Psychology	3
PSYCH 4501	Abnormal Psychology	3
or PSYCH 4500	Personality Theory	
PSYCH 4600	Social Psychology	3
Certification: 17 semester hours		
9 hours of American History		
HISTORY 3320	Colonial America	
HISTORY 3325	Revolutionary America, 1754-1789	
HISTORY 3340	Age Of Jefferson And Jackson	
HISTORY 3345	Civil War And Reconstruction	
HISTORY 3360	Recent United States History	
HISTORY 3425	History Of The Old South	
HISTORY 3426	History Of The Modern South	
HISTORY 3430	History of the American West	
HISTORY 3480	History Of Baseball	
HISTORY 3440	20th Century Americans In Combat	
HISTORY 3442	The United States in Vietnam	
HISTORY 3761	U.S. Diplomatic History to World War II	
8 hours of World History		
HISTORY 1100	Early Western Civilization	
HISTORY 1200	Modern Western Civilization	
HISTORY 2220	Making Of Modern Britain	
HISTORY 2222	The Making Of Modern France	
HISTORY 2224	Making Of Modern Russia	
HISTORY 2210	European Diplomatic History 1814 - Present	
HISTORY 2660	Modern East Asia	
HISTORY 3120	Ancient Greece	
HISTORY 3130	Medieval History I	
HISTORY 3135	Medieval History II	
HISTORY 3140	History Of Renaissance Thought	
HISTORY 3230	Europe In The Age Of The French Revolution And Napoleon	
HISTORY 3235	Foundations Of Contemporary Europe 1815-1914	
HISTORY 3240	Contemporary Europe	

Justification for
request

The MAT LAB course would be a good option for our psychology majors, and we requested that these courses be added to our BS degree.

Added course bubbles to Comp Sci 1972 and 1982, Psych 3110, Psych 4200 in BS degree.

Supporting
Documents

Course Reviewer
Comments

nstone (04/01/15 7:36 pm): Yes, we requested that this change be made for the BS degree, and it seems to be pending. We request that this change also be made for BS degree with teacher education certification.

kleb6b (04/02/15 8:39 am): Rollback: Rollback per request

Key: 193
[Preview Bridge](#)

Program Change Request

Date Submitted: 04/10/15 2:08 pm

Viewing: **SYS ENG-MS : Systems Engineering MS**

File: 140.4

Last approved: 07/21/14 11:43 am

Last edit: 04/10/15 2:08 pm

Changes proposed by: sraper

Catalog Pages
Using this
Program

[Systems Engineering](#)

Start Term **Fall 2015-8/1/2014**

Program Code SYS ENG-MS

Department Engineering Management and Systems Engineering

Title Systems Engineering MS

Program Requirements and Description

The M.S. degree program is offered on the Rolla campus and several locations including the Missouri S&T Engineering Education Center in St. **Louis, Louis, Fort Leonard Wood (restricted to Engineer Captain's Career Course)**, and by distance education throughout the United States and selected international locations. Distance course lectures are archived upon completion of the lecture and all lectures are available to students through streaming video during the semester for review. These courses can be reached from anywhere at any time. It is feasible to obtain a Missouri S&T non-thesis M.S. degree regardless of your location.

The M.S. non-thesis program requires completion of at least 10 **three-credit hour three-hour** courses approved by the academic advisor. The M.S. with thesis option requires 36 credit hours including the thesis. All students are required to take the following:

CORE Courses

SYS ENG 5101	System Engineering and Analysis I
SYS ENG 6102	Systems Engineering Analysis II
SYS ENG 6103	Economic Analysis for Systems Engineering
SYS ENG 6104	Systems Architecting
SYS ENG 6105	Complex Engineering Systems Project Management
SYS ENG 6196	Systems Engineering Capstone

Specialization Courses

Specialization courses provides students with the ability to address his/her technology needs in the context of the overall Systems Engineering program. These graduate courses can be selected from engineering or the physical science department as long as they are approved by the program director.

One of the graduate certificates may be substituted for a specialization track with the permission of the program director.

Choose 4 courses in an area or combination of areas. (Please refer to the Engineering Management & Systems Engineering Department for course information in each area.)

Civil and Environmental

Contemporary Structural Engineering
Geoenvironmental Engineering
Geotechnical Earthquake Engineering
Infrastructure Renewal

Computer Science

Big Data Management & Analytics
Big Data Management & Security
Computational Intelligence

In Workflow

1. **RENGMNGT 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. kristyg

Approval Path

1. 04/10/15 2:37 pm
enke: Approved for RENG MNGT Chair
2. 04/10/15 2:38 pm
Kaylon Buckner (kleb6b): Approved for CCC Secretary

History

1. Jun 12, 2014 by pantaleoa
2. Jul 21, 2014 by pantaleoa

Information Assurance & Security Officer Essentials
Multimedia & Information Systems
Software Design & Development
Systems and Software Architecture
Wireless Networks and Mobile Systems

Electrical Engineering

Computation Intelligence
Electric Machines and Drives
Electric Power Systems Engineering
Information Assurance & Security Officer Essentials
Network Centric Systems

Engineering Management

Engineering Management
Financial Engineering
Human Systems Integration
Leadership in Engineering Organizations
Lean Six Sigma

Manufacturing Engineering

CAD/CAM & Rapid Product Realization
Manufacturing Systems

Mechanical and Aerospace Engineering

Composite Materials and Structures
Control Systems
Energy Conversion & Transport
Engineering Mechanics
Manufacturing Automation

Justification for request Department Graduate committee request and grammatical edit.

Supporting Documents

Course Reviewer Comments

Key: 140
[Preview Bridge](#)

Program Change Request

Date Submitted: 04/10/15 2:16 pm

Viewing: **SYS EN-PHD : Systems Engineering PhD**

File: 131.4

Last approved: 03/13/15 12:11 pm

Last edit: 04/10/15 2:40 pm

Changes proposed by: sraper

Catalog Pages
Using this
Program

[Systems Engineering](#)

Start Term Fall 2015
Program Code SYS EN-PHD
Department Engineering Management and Systems Engineering
Title Systems Engineering PhD

Program Requirements and Description

Doctor of Philosophy

Admission Standards

- B.S. in engineering, or a physical science
- Undergraduate courses: Calculus Series (I, II, III), Differential Equations, Statistics, Physics or Chemistry, Engineering Economy
- GPA: M.S. GPA = 3.5
- Graduate Record Exam (GRE): All students must submit current GRE scores. V+Q≥ 1100, A≥ 4.0 (former scoring) or V≥ 155, Q≥ 148, A≥ 4.0
- TOEFL: All international applicants must submit a current TOEFL score, regardless of prior academic experience or place of study.
- Regular status: 580/237/92
- Statement of Purpose: All applicants must submit a statement of purpose.
- Three reference letters

A candidate for the PhD in Systems Engineering must complete the equivalent of at least three years of full time work beyond the Bachelor's degree. The content of all PhD programs are individually structured by the student in consultation with and approved by the student's advisory committee. All requirements for the degree must normally be completed within an eight year period. At appropriate points in their program, PhD students must pass both a Qualifying Exam and Comprehensive Exam. Off-campus students are expected to complete all requirements listed in the Missouri S&T Graduate Catalog under the section entitled Doctor of Philosophy Degree and follow all procedures listed under the Procedures for PhD Candidates.

The total credit requirements for graduation are a minimum of 60 credit hours after the successful completion of MS degree in Systems Engineering. Actual courses taken will be determined by the candidate's committee and his/her plan of study. The student is expected to complete all requirements.

Residency Requirements

All students are expected to follow the Missouri S&T Graduate Student Residency requirements. Off campus students can meet the 2 year residency requirement with the following requirements: the Qualifying Exam must be taken on campus within the first 5 semesters of enrollment; the student will have at minimum two video conferences per month with his/her research advisor; the Ph.D. committee will include one person from the student's professional work location, the appointment committee member must have a Ph.D. and be familiar with the chosen research; the student is expected to meet with the Ph.D. committee on a regular basis with at least two meetings per semester; the student is expected to be on campus a minimum of 16 days per year, visits may be spread over 4 campus visits; the Ph.D. Comprehensive Exam must be taken on campus; the student has the option of conducting research that is beneficial to the student's professional work; and the Defense of Dissertation must take place on campus.

Major Requirements

May be taken during M.S. degree

Core Curriculum	24
SYS ENG 5101	System Engineering and Analysis I
SYS ENG 6102	Systems Engineering Analysis II
SYS ENG 6103	Economic Analysis for Systems Engineering

In Workflow

1. **RENGMNGT 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. kristyg

Approval Path

1. 04/10/15 2:41 pm
enke: Approved for
RENGMNGT Chair

History

1. Jun 12, 2014 by
pantaleoa
2. Mar 13, 2015 by
pantaleoa

SYS ENG 6104	Systems Architecting	
SYS ENG 6105	Complex Engineering Systems Project Management	
SYS ENG 6196	Systems Engineering Capstone	
SYS ENG 6239	Smart Engineering System Design	
SYS ENG 6321	Network Centric Systems	
or COMP ENG 6410	Network Centric Systems	
Research		30
SYS ENG 6099	Research	
SYS ENG 6099	Research	1-15
Electives		36
Systems Eng Process Tools, Optimization & Statics - 12 credit hours		
Research Specialization Areas - 24 credit hours		

Requirements for Thesis

Students will conduct original research demonstrated by journal or referred proceedings, publication under the supervision of a doctoral advisor, and communicate their findings, write a dissertation on research conducted, and provide satisfactory defense of their dissertation in a final oral examination. Students will be required to **sign up for one hour of Systems Engineering 6099 under ~~take SYS ENG 6010 every fall and spring semester during~~ their research advisor and attend systems engineering seminars every fall and spring semester during their** study. These courses may be included as fulfilling research credit requirements. Students are required to publish their work in approved journals and referred proceedings. A minimum of three articles is expected.

Qualifying Exam

The objective of the Systems Engineering Ph.D. Qualifying Exam is to test the knowledge and understanding of the graduate student on systems engineering fundamentals and assess the student's level of knowledge in engineering statistics and optimization. The qualifying exam is a two day exam consisting of a written and oral part. For more information, contact the department graduate staff.

It is expected that the graduate student has a clear understanding of the research issues in the student's area of interest, its implications in industrial applications primarily in the industrial domain the student is working, possible impact of successful research contributions to systems engineering research and literature and should be able to identify up to five journals in this area. Prior to the oral exam, copies of the written exams prepared by the Systems Engineering Faculty will be provided to all faculty for each student. The oral exam is restricted to the areas of research specialization selected by each student and will continue until there is a consensus not to ask further questions by the faculty.

Comprehensive Exam

The student's advisory committee will administer the comprehensive examination after the student has completed seventy-five percent of the coursework for the Ph.D. program and one published refereed conference proceeding or journal paper. The examination is written and oral. Upon successful completion of the written examination, the student will be orally examined by the advisory committee.

Dissertation

The dissertation, embodying the results of an original investigation, must be written upon a subject mutually agreed upon between the student and the advisor.

Research Areas

For the list of Areas of Research Specialization please click [here](#).

Justification for request Change in department requirements.

Supporting Documents

Course Reviewer Comments **enke (04/10/15 2:40 pm):**

Course Inventory Change Request

Date Submitted: 04/01/15 10:24 am

Viewing: **ART 1140 : Painting I**

File: 1910.1

Last edit: 05/12/15 10:51 am

Changes proposed by: denises

Programs
referencing this
course

STU ART-MI: Studio Art Minor

Other Courses
referencing this
course

In The Prerequisites:
ART 2150 : Advanced Painting

Requested
Effective Change
Date

Fall **2015** ~~2014~~

Department

Arts, Languages, & Philosophy

Discipline

Art (ART)

Course Number

1140

Title

Painting I

Abbreviated
Course Title

Painting I

Catalog
Description

Basic **exploration** ~~Exploration~~ of **acrylic** ~~oil painting techniques~~ and **water color** ~~painting techniques and~~ methods. Still life, landscape and figure.

Prerequisites

Field Trip
Statement

Credit Hours

LEC: 3 LAB: 0 IND: 0 RSD: 0

Total: 3

Required for

No

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

Approval Path

1. 04/01/15 11:49 am
lance: Approved for RPHILOSO Chair
2. 04/01/15 12:10 pm
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 04/01/15 3:24 pm
ivliyeva:
Approved for Arts & Humanities DSCC Chair
4. 04/09/15 11:59

Majors

Elective for
Majors

No

Justification for
change:

Update per Luce Myers

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

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

Key: 1910
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 03/11/15 3:27 pm

Viewing: **BIO SCI 5463 4463: Global Ecology**

File: 1488.1

Last edit: 04/03/15 10:51 am

Changes proposed by: niyogid

Requested **Spring 2016** ~~Fall 2014~~

Effective Change

Date

Department Biological Sciences

Discipline Biological Sciences (BIO SCI)

Course Number **5463** ~~4463~~

Title Global Ecology

Abbreviated Global Ecology

Course Title

Catalog

Description

This class covers ecological topics at large scales, emphasizing global scales. Topics include global energy balance, biogeochemical cycles of water, carbon, nitrogen, and other biologically important elements, and global biodiversity. **Students will focus on primary literature related to global ecology.**

Prerequisites

Bio Sci 2263.

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
change:

We are changing level to 5000 to be consistent with other advanced/graduate offerings in our department. We have also changed the course description to

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. Ishelton

11. Peoplesoft

Approval Path

1. 03/11/15 8:12 pm
aronstam:

Approved for
RBIOLSCI Chair

2. 03/12/15 7:44 am

Kaylon Buckner
(kleb6b):

Approved for CCC
Secretary

3. 04/03/15 10:52

am
imorgan:

Approved for
Sciences DSCC
Chair

emphasize use of primary literature.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer **imorgan (04/03/15 10:51 am):** Checked "elective for majors".

Comments

Key: 1488
[Preview Bridge](#)

Course Inventory Change Request

New Course Proposal

Date Submitted: 12/19/14 11:10 am

Viewing: **CHEM 2320 : Inorganic Chemistry II**

File: 4173

Last edit: 04/10/15 3:58 pm

Changes proposed by: woelkk

Programs
referencing this
course

[CHEM-BS: Chemistry BS](#)

Requested Fall 2015

Effective Change
Date

Department Chemistry

Discipline Chemistry (CHEM)

Course Number 2320

Title Inorganic Chemistry II

Abbreviated
Course Title Inorganic Chemistry II

Catalog
Description A study of coordination chemistry, organometallics, bioinorganic and solid-state inorganic chemistry. Reference to topics of current interest as applied to the above areas.

Prerequisites CHEM 2310.

Field Trip
Statement

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

Required for
Majors YesElective for
Majors No

Justification for
new course: Expansion of Inorganic Chemistry Education as suggested by American Chemical Society BS degree program certification

Semesters
previously
offered as an
experimental
course

Co-Listed

In Workflow

1. RCHEMIST 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. Ishelton
11. Peoplesoft

Approval Path

1. 02/11/15 10:10 am
woelk (woelkk):
Approved for RCHEMIST Chair
2. 02/11/15 10:51 am
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 03/05/15 3:34 pm
imorgan:
Approved for Sciences DSCC Chair
4. 03/05/15 3:56 pm
Kaylon Buckner (kleb6b):
Approved for Pending CCC Agenda post
5. 04/07/15 10:27 am
Kaylon Buckner

Courses:

Course Reviewer **kleb6b (04/10/15 3:58 pm):** Rollback: Tabled
Comments

Key: 4173

(kleb6b):
Approved for CCC
Meeting Agenda
6. 04/10/15 3:58 pm
Kaylon Buckner
(kleb6b): Rollback
to CCC Meeting
Agenda for
Campus Curricula
Committee Chair

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 02/27/15 11:20 am

Viewing: **CHEM ENG 3130 : Staged Mass Transfer**

File: 2310.1

Last edit: 05/12/15 11:08 am

Changes proposed by: luksc

Programs referencing this course	<u>CH ENG-BS: Chemical Engineering BS</u>
Other Courses referencing this course	<u>In The Prerequisites:</u> <u>CHEM 5250 : Industrial Chemical Processes</u> <u>CHEM ENG 3140 : Continuous Mass Transfer</u> <u>CHEM ENG 4096 : Chemical Engineering Economics</u> <u>CHEM ENG 4097 : Chemical Process Design</u> <u>CHEM ENG 4130 : Chemical Engineering Laboratory II</u> <u>CHEM ENG 5096 : Industrial Chemical Processes</u> <u>CHEM ENG 5097 : Intermediate Process Design</u> <u>CHEM ENG 5170 : Physical Property Estimation</u> <u>CHEM ENG 5180 : Industrial Pollution Control</u> <u>CHEM ENG 5305 : Hazardous Materials Management</u> <u>CHEM ENG 5310 : Structure And Properties Of Polymers</u> <u>CHEM ENG 5330 : Alternative Fuels</u> <u>CHEM ENG 5360 : Pollution Prevention Via Process Engineering</u> <u>CHEM ENG 5370 : Intermediate Process Dynamics And Control</u> <u>CHEM ENG 5380 : Intermediate Separation Processes</u>

Requested Effective Change Date	Spring 2016 Fall 2014
Department	Chemical and Biochemical Engineering
Discipline	Chemical Engineering (CHEM ENG)
Course Number	3130
Title	Staged Mass Transfer
Abbreviated Course Title	Staged Mass Transfer
Catalog	

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. Ishelton
11. Peoplesoft

Approval Path

1. 02/27/15 1:24 pm
aldahhanm:
Approved for
RCHEMENG Chair
2. 02/27/15 2:13 pm
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 03/12/15 11:39
am
sraپر: Approved
for Engineering
DSCC Chair
4. 04/09/15 12:00
pm
Kaylon Buckner
(kleb6b):

Description

Principles of equilibrium stage operations applied to distillation, liquid-liquid extraction, absorption, and leaching. Methods for estimating pressure drop and stage efficiencies are also studied. Quantitative solutions to practical problems are stressed.

Approved for
Pending CCC
Agenda post

Prerequisites

Chem Eng **3120**, **admitted to 3120 and preceded or accompanied by** Chem Eng **program. 3140 or Chem Eng 3200.**

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:

Faculty adjusted the prerequisites to be in line with realistic course requirements

Semesters
previously
offered as an
experimental
courseCo-Listed
Courses:Course Reviewer
Comments

sraper (03/02/15 11:18 am): Changed to required for majors, based on Chem Eng email.

Key: 2310
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 02/27/15 11:22 am

Viewing: **CHEM ENG 3150 : Chemical Engineering Reactor Design**

File: 1038.1

Last edit: 05/12/15 11:11 am

Changes proposed by: luksc

Programs
referencing this
course [CH ENG-BS: Chemical Engineering BS](#)

Other Courses
referencing this
course In The Prerequisites:
[CHEM ENG 4097 : Chemical Process Design](#)
[CHEM ENG 4130 : Chemical Engineering Laboratory II](#)
[CHEM ENG 4140 : Chemical Process Safety](#)
[CHEM ENG 4210 : Biochemical Reactors](#)
[CHEM ENG 5110 : Intermediate Chemical Reactor Design](#)
[CHEM ENG 5210 : Intermediate Biochemical Reactors](#)

Requested
Effective Change
Date **Spring 2016** ~~Fall 2014~~

Department Chemical and Biochemical Engineering

Discipline Chemical Engineering (CHEM ENG)

Course Number 3150

Title Chemical Engineering Reactor Design

Abbreviated
Course Title Chem Engr Reactor Design

Catalog
Description
The study of chemical reaction kinetics and their application to the design and operation of chemical and catalytic reactors.

Prerequisites
Preceded or accompanied by either Chem Eng 3140 or Chem Eng **3200; admitted to Chem Eng program. 3200-**

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. Ishelton
11. Peoplesoft

Approval Path

1. 02/27/15 1:24 pm
aldahhanm:
Approved for
RCHEMENG Chair
2. 02/27/15 2:14 pm
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 03/12/15 11:39
am
sraper: Approved
for Engineering
DSCC Chair
4. 04/09/15 12:01
pm
Kaylon Buckner
(kleb6b):

Field Trip Statement						Approved for Pending CCC Agenda post
Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3	
Required for Majors	Yes					
Elective for Majors	No					
Justification for change:	Faculty met to reassess prerequisites and this change reflects the minimum standard believed necessary for success in this course.					
Semesters previously offered as an experimental course						
Co-Listed Courses:						
Course Reviewer Comments	sraper (03/02/15 11:20 am): Changed to required for majors, based on Chem Eng email.					

Course Inventory Change Request

Date Submitted: 02/27/15 11:22 am

Viewing: **CHEM ENG 3160 : Molecular Chemical Engineering**

File: 1479.1

Last edit: 03/02/15 11:21 am

Changes proposed by: luksc

Programs CH ENG-BS: Chemical Engineering BS

referencing this
course

Requested Fall **2015** ~~2014~~

Effective Change
Date

Department Chemical and Biochemical Engineering

Discipline Chemical Engineering (CHEM ENG)

Course Number 3160

Title Molecular Chemical Engineering

Abbreviated Course Title Molecular Ch Eng

Catalog

Description

Introduction to the molecular aspects of chemical thermodynamics, transport processes, reaction dynamics, and statistical and quantum mechanics.

Prerequisites

Chem Eng **3120**, **admitted to Chem Eng program.** ~~3120.~~

Field Trip

Statement

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

Total: 3

Required for **Yes**

Majors

Elective for **No**

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. Ishelton
11. Peoplesoft

Approval Path

1. 02/27/15 1:24 pm
aldahhanm:
Approved for
RCHEMENG Chair
2. 02/27/15 2:15 pm
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 03/12/15 11:39
am
srafer: Approved
for Engineering
DSCC Chair

Justification for change: Faculty met to reassess prerequisites and this change reflects the minimum standard believed necessary for success in this course.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments **sraper (03/02/15 11:21 am):** Changed to required for majors, based on Chem Eng email.

Key: 1479
[Preview Bridge](#)

Course Inventory Change Request

New Course Proposal

Date Submitted: 03/23/15 3:12 pm

Viewing: **CHEM ENG 6015 : Lecture Series**

File: 4208

Last edit: 05/18/15 8:58 am

Changes proposed by: marlene

Requested Fall 2015

Effective Change

Date

Department Chemical and Biochemical Engineering

Discipline Chemical Engineering (CHEM ENG)

Course Number 6015

Title Lecture Series

Abbreviated Lecture Series

Course Title

Catalog

Description

Attendance of lecture series and submission of in-depth report on one of the covered topics is required for a grade. The course can be taken multiple times for a grade, with the same requirement each time, and up to three times to be counted for 6000 level course requirement.

Prerequisites

Graduate standing.

Field Trip

Statement

Credit Hours LEC: 1 LAB: 0 IND: 0 RSD: 0

Total: 1

Required for Yes

Majors

Elective for No

Majors

Justification for

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. Ishelton

11. Peoplesoft

Approval Path

1. 03/23/15 4:57 pm
aldahhanm:

Approved for
RCHEMENG Chair

2. 03/24/15 7:45 am

Kaylon Buckner

(kleb6b):

Approved for CCC
Secretary

3. 04/07/15 12:09

pm

sraper: Approved

for Engineering

DSCC Chair

4. 04/09/15 12:02

pm

Kaylon Buckner

(kleb6b):

new course:

The topics will cover new areas of research where most of the speakers will be invited. This will broaden the knowledge of the students and to further enhance their development. The students are required to write a report on one of the presentations that will include current quantitative description and analysis, suggested future work and list of related references. Grades will be given based on attendance record and the quality of the submitted report. Students will be taking the course for one credit hour during any semester except their first and last semester in the program. Up to 3 credit hours can be considered for the 6000 level credit hours requirement.

Semesters

previously
offered as an
experimental
course

Co-Listed

Courses:

Course Reviewer

Comments

kleb6b (05/12/15 2:12 pm): Rollback: Rollback

Key: 4208

Approved for

Pending CCC

Agenda post

5. 05/12/15 1:12 pm

Kaylon Buckner

(kleb6b):

Approved for CCC

Meeting Agenda

6. 05/12/15 2:12 pm

Kaylon Buckner

(kleb6b): Rollback

to CCC Meeting

Agenda for

Campus Curricula

Committee Chair

7. 05/13/15 2:03 pm

Kaylon Buckner

(kleb6b):

Approved for CCC

Meeting Agenda

8. 05/14/15 4:22 pm

tschuman:

Approved for

Campus Curricula

Committee Chair

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 03/05/15 8:43 am

Viewing: **CIV ENG 2200 : Statics**

File: 1074.1

Last edit: 05/12/15 11:13 am

Changes proposed by: gchen

Programs
referencing this
course

[AE ENG-BS: Aerospace Engineering BS](#)
[AP MATH-BS: Applied Mathematics BS](#)
[ARC ENG-BS: Architectural Engineering BS](#)
[CP ENG-BS: Computer Engineering BS](#)
[CR ENG-BS: Ceramic Engineering BS](#)
[CV ENG-BS: Civil Engineering BS](#)
[EL ENG-BS: Electrical Engineering BS](#)
[ENG MG-BS: Engineering Management BS](#)
[EV ENG-BS: Environmental Engineering BS](#)
[GE ENG-BS: Geological Engineering BS](#)
[MC ENG-BS: Mechanical Engineering BS](#)
[MT ENG-BS: Metallurgical Engineering BS](#)
[NU ENG-BS: Nuclear Engineering BS](#)
[PE ENG-BS: Petroleum Engineering BS](#)

Other Courses
referencing this
course

In The Prerequisites:
[AERO ENG 2360 : Dynamics](#)
[ARCH ENG 3201 : Structural Analysis I](#)
[CIV ENG 2210 : Mechanics Of Materials](#)
[CIV ENG 3201 : Structural Analysis I](#)
[EXP ENG 5713 : Demolition of Buildings and Structures](#)
[MECH ENG 2350 : Engineering Mechanics-Dynamics](#)
[MECH ENG 2360 : Dynamics](#)
[MECH ENG 2761 : Introduction To Design](#)
[MET ENG 3320 : Transport Phenomena In Metallurgy](#)

Requested
Effective Change
Date

Spring 2016 ~~Fall 2014~~

Department Civil, Architectural, and Environmental Engineering

Discipline Civil Engineering (CIV ENG)

Course Number 2200

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. Ishelton
11. Peoplesoft

Approval Path

1. 03/05/15 9:09 am
wschon:
Approved for
RCIVILEN Chair
2. 03/05/15 9:34 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 03/12/15 11:36
am
sraper: Approved
for Engineering
DSCC Chair
4. 04/09/15 12:02
pm
Kaylon Buckner
(kleb6b):

Title	Statics					Approved for
Abbreviated Course Title	Statics					Pending CCC Agenda post
Catalog Description	Application of the principles of mechanics to engineering problems of equilibrium. Topics include resultants, equilibrium, friction, trusses, center of gravity and moment of inertia.					
Prerequisites	Physics 1135 or 1111 with a grade of "C" 1111; preceded or better; accompanied by Math 1215 or 1221 with a grade of "C" or better; preceded or accompanied by Math 2222.					
Field Trip Statement	none					
Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3	
Required for Majors	Yes					
Elective for Majors	No					
Justification for change:	The change requires students to make a "C" or better in Calculus II and Physics I. Calculus II covers the calculus of trig functions and trig substitution. Students get depth in trigonometry, which is used heavily in statics and subsequent structures courses. Physics I covers the basics of statics and Newtonian mechanics which is also heavily used in statics and structures courses.					
Semesters previously offered as an experimental course	Every semester till Spring 2015.					
Co-Listed Courses:						
Course Reviewer Comments						

Course Inventory Change Request

Date Submitted: 03/31/15 1:55 pm

Viewing: **COMP SCI 5700** ~~5789~~: Bioinformatics

File: 225.1

Last edit: 06/15/15 12:04 pm

Changes proposed by: tauritzd

Requested **Spring 2016** ~~Fall 2014~~

Effective Change

Date

Department Computer Science

Discipline Computer Science (COMP SCI)

Course Number **5700** ~~5789~~

Title Bioinformatics

Abbreviated Bioinformatics

Course Title

Catalog

Description

The course will familiarize students with the application of computational methods to biology, as viewed from both perspectives. It will introduce problems in molecular, structural, morphological, and biodiversity informatics, and will discuss principles, algorithms, and software to address them.

Prerequisites

A grade of "C" ~~Bio Sci 1113~~ or better in both one of Bio Sci 1113 or Bio Sci 1213 and one of Comp Sci 1570 and Comp Sci 1580 or Comp Sci 1971 and Comp Sci 1981. ~~Sci 1570/1580 or 1971/1981.~~

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. RCOMPSCI Chair
2. CCC Secretary
3. RBIOLSCI Chair
4. 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. Ishelton
12. Peoplesoft

Approval Path

1. 03/31/15 7:20 pm
Sajal Das (sdas):
Approved for RCOMPSCI Chair
2. 04/01/15 7:58 am
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 04/01/15 8:04 am
aronstam:
Approved for RBIOLSCI Chair
4. 04/10/15 10:50 am
imorgan:
Approved for

Justification for
change:

The new course number reflects the department's curriculum numbering scheme.

Semesters
previously
offered as an
experimental
course

Co-Listed

Courses:

BIO SCI 5323 - Bioinformatics

Course Reviewer

Comments

imorgan (04/10/15 10:49 am): I think the prerequisite will be clearer if the second
"in" is removed. Parentheses might also help.

Key: 225

Sciences DSCC
Chair

5. 04/10/15 11:42
am

Kaylon Buckner
(kleb6b):

Approved for
Pending CCC
Agenda post

6. 05/12/15 11:15
am

Kaylon Buckner
(kleb6b):

Approved for CCC
Meeting Agenda

7. 05/14/15 4:23 pm
tschuman:

Approved for
Campus Curricula
Committee Chair

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 03/24/15 1:13 pm

Viewing: **ECON 6642 5642: Global Eco- and Social-preneurship and Innovation**

File: 1447.1

Last edit: 04/03/15 3:54 pm

Changes proposed by: bachmanb

Requested Fall **2015** ~~2014~~

Effective Change

Date

Department Economics

Discipline Economics (ECON)

Course Number **6642** ~~5642~~

Title Global Eco- and Social-preneurship and Innovation

Abbreviated Global Innovation

Course Title

Catalog

Description

This interdisciplinary course applies an entrepreneurial mindset to the environmental and social opportunities and challenges facing the global community. Topics are examined from multiple perspectives; nonprofit, hybrid, and for-profit organizations. Written case studies required. **Research project required.** ~~Credit cannot be earned for both Econ 4642 and 5642.~~

Prerequisites

Econ **6641.** ~~4641.~~

Field Trip

Statement

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

Total: 3

Required for Majors **No**

Elective for Majors **No**

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. Ishelton
11. Peoplesoft

Approval Path

1. 04/03/15 3:54 pm gelles: Approved for RECONOMI Chair
2. 04/03/15 3:54 pm Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/11/15 9:50 pm barryf: Approved for Social Sciences DSCC Chair

Justification for change: Course renumbering initiative.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer **kleb6b (10/24/14 3:35 pm):** Rollback: Rollback
Comments

Key: 1447
[Preview Bridge](#)

Course Inventory Change Request

New Course Proposal

Date Submitted: 02/09/15 3:34 pm

Viewing: **ENV ENG 5635 : Phytoremediation and Natural Treatment Systems: Science and Design**

File: 4190

Last edit: 05/12/15 11:15 am

Changes proposed by: burken

Requested	Fall 2015
Effective Change Date	
Department	Civil, Architectural, and Environmental Engineering
Discipline	Environmental Engineering (ENV ENG)
Course Number	5635
Title	Phytoremediation and Natural Treatment Systems: Science and Design
Abbreviated Course Title	Phytoremediation

Catalog Description	Students learn the scientific basics of chemical transport in soil and groundwater and learn fundamental plant physiology and processes. Students then learn how these processes are utilized in design of phytoremediation and natural treatment systems, including the most up to date literature and design guidance available.			
Prerequisites	Env Eng 3615 or Civ Eng 3615 or graduate standing.			
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. Ishelton

11. Peoplesoft

- Approval Path
1. 03/05/15 9:08 am
wschon:
Approved for
RCIVILEN Chair

2. 03/05/15 9:35 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary

3. 03/12/15 11:36
am
sraper: Approved
for Engineering
DSCC Chair

4. 04/09/15 12:03
pm
Kaylon Buckner
(kleb6b):

Justification for

new course:

Course has been taught 3 times successfully and ready for a permanent course number. S&T is an international leader in this field an the course promotes a unique offering of learning and education.

Semesters Spring 2012, 2013, 2014

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer **sraper (03/05/15 1:11 pm):** added "s" to student as an edit

Comments

Approved for
Pending CCC
Agenda post

Key: 4190
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/07/15 8:59 am

Viewing: **ERP 5130 : ERP in Small & Mid-Size Enterprises**

File: 4109.5

Last approved: 11/03/14 3:53 am

Last edit: 04/07/15 7:46 pm

Changes proposed by: barryf

Requested Spring **2016** ~~2015~~

Effective Change
Date

Department Business and Information Technology

Discipline Enterprise Resource Planning (ERP)

Course Number 5130

Title ERP in Small & Mid-Size Enterprises

Abbreviated ERP in Small Midsize Ent
Course Title

Catalog

Description

Provides an overview of enterprise applications for small and midsize companies. A leading platform such as Microsoft Dynamics AX or SAP Business One is introduced to illustrate theories and practical enterprise-wide applications for entrepreneurs, who manage business functions across sales, operation, and financials, all in a single integrated system.

Prerequisites

ERP 5110 or ~~both BUS 1210 and~~ ERP 2110.

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. **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. Ishelton
11. Peoplesoft

Approval Path

1. 04/07/15 7:46 pm
siauk: Approved
for RBUSADMN
Chair
2. 04/08/15 7:51 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 04/08/15 12:59
pm
barryf: Approved
for Social
Sciences DSCC
Chair

History

Justification for
change:

Instructor reviewed prerequisites.

Semesters Fall 2013, Summer 2014
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

1. Nov 3, 2014 by
barryf

Key: 4109
[Preview Bridge](#)

Course Inventory Change Request

New Course Proposal

Date Submitted: 03/04/15 5:29 pm

Viewing: **EXP ENG 5555 : Computer Fired Pyrotechnic Show Design and Firing System Operation**

File: 4197

Last edit: 04/08/15 2:01 pm

Changes proposed by: pworsey

Requested Fall 2015

Effective Change

Date

Department Mining & Nuclear Engineering

Discipline Explosives Engineering (EXP ENG)

Course Number 5555

Title Computer Fired Pyrotechnic Show Design and Firing System Operation

Abbreviated Pyrotechnic Show Design

Course Title

Catalog

Description

Students will learn to use music editing, electronic firing system operation and Fire One pyrotechnic choreography and simulation software to design their own pyromusical show programs. Creation of a musical sound track, selecting the fireworks and choreographing to the musical score. Create, setup, diagnose and fire a pyrotechnic show.

Prerequisites

Exp Eng 5512 or Exp Eng 5513 and successful background check.

Field Trip

Statement

Shooting of a choreographed display potentially may be off site.

Credit Hours

LEC: 1

LAB: 2

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

Yes

In Workflow

1. RMINNUCL Chair

2. CCC Secretary

3. Engineering DSCC Chair

4. Pending CCC Agenda post

5. CCC Meeting Agenda

6. Campus Curricula Committee Chair

7. FS Meeting Agenda

8. Faculty Senate Chair

9. Registrar

10. Ishelton

11. Peoplesoft

Approval Path

1. 03/04/15 5:37 pm
frimpong:

Approved for
RMINNUCL Chair

2. 03/05/15 7:50 am
Kaylon Buckner
(kleb6b):

Approved for CCC
Secretary

3. 03/12/15 11:37
am
srafer: Approved
for Engineering
DSCC Chair

Majors

Justification for new course: This is to request a permanent number after two successful offerings of this course as Exp Eng 301 and 5001.

Semesters previously offered as an experimental course SP 2012 and SP 2015

Co-Listed Courses:

Course Reviewer Comments

Key: 4197
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/07/15 9:00 am

Viewing: **FINANCE 2150 : Corporate Finance I**

File: 2469.1

Last edit: 04/08/15 7:52 am

Changes proposed by: barryf

Programs
referencing this
course

[BUS&MS-BS: Business and Mgmt Systems BS](#)
[BUS&MS-MI: Business Minor](#)
[ECON-BS: Economics BS](#)
[FINANCE-MI: Finance Minor](#)
[IST-BS: Information Science and Tch BS](#)
[PRE MBA-MI: Pre MBA Minor](#)

Other Courses
referencing this
course

In The Prerequisites:
[BUS 5580 : Strategic Management](#)
[FINANCE 5160 : Corporate Finance II](#)
[FINANCE 5260 : Investments I](#)
[FINANCE 6230 : Advanced Mathematical Finance](#)
[MATH 5737 : Financial Mathematics](#)

Requested
Effective Change
Date

Spring 2016 ~~Fall 2014~~

Department Business and Information Technology

Discipline Finance (FINANCE)

Course Number 2150

Title Corporate Finance I

Abbreviated Course Title Corporate Finance I

Catalog
Description

This course studies the need for funds in business and the techniques of analysis used to determine how effectively these funds are invested within the firm. Topics include the institutions, instruments, and markets concerned with raising funds.

Prerequisites

Bus 1210 or Eng Mgt **2211**. ~~2211~~; ~~Econ 1100 or Econ 1200~~.

Field Trip

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. Ishelton
11. Peoplesoft

Approval Path

1. 04/07/15 7:47 pm
siauk: Approved
for RBUSADMN
Chair
2. 04/08/15 7:52 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 04/08/15 12:59
pm
barryf: Approved
for Social
Sciences DSCC
Chair

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 No
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Justification for change:	Instructor reviewed prerequisites.
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Semesters previously offered as an experimental course	
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Co-Listed Courses:	
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Course Reviewer Comments	
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Key: 2469

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/07/15 9:00 am

Viewing: **FINANCE 5160 : Corporate Finance II**

File: 2566.3

Last approved: 04/25/14 3:06 pm

Last edit: 04/08/15 7:52 am

Changes proposed by: barryf

Programs
referencing this
course

[BUS&MS-BS: Business and Mgmt Systems BS](#)

Other Courses
referencing this
course

In The Prerequisites:
[MATH 5737 : Financial Mathematics](#)

Requested
Effective Change
Date

Spring 2016 ~~Fall 2014~~

Department

Business and Information Technology

Discipline

Finance (FINANCE)

Course Number

5160

Title

Corporate Finance II

Abbreviated
Course Title

Corporate Finance II

Catalog
Description

This course provides a rigorous and consistent presentation of the theory of financial decisions. Capital markets are analyzed under assumptions of risk aversion and uncertainty. Models of modern portfolio theory are discussed including the CAPM and the Modigliani-Miller analysis.

Prerequisites

Finance 2150. ~~Finance 2150 or Eng Mgt 2211.~~

Field Trip
Statement

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. Ishelton
11. Peoplesoft

Approval Path

1. 04/07/15 7:47 pm
siauk: Approved
for RBUSADMN
Chair
2. 04/08/15 7:52 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 04/08/15 12:59
pm
barryf: Approved
for Social
Sciences DSCC
Chair

History

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

1. Apr 25, 2014 by

Total: 3

lahne (2566.1)

Required for
Majors

No

Elective for
Majors~~No~~
YesJustification for
change:

Instructor reviewed prerequisites.

Semesters
previously
offered as an
experimental
courseCo-Listed
Courses:Course Reviewer
Comments

Key: 2566

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/07/15 9:00 am

Viewing: **FINANCE 5260 : Investments I**

File: 2190.5

Last approved: 05/01/14 4:14 am

Last edit: 04/08/15 7:52 am

Changes proposed by: barryf

Programs BUS&MS-BS: Business and Mgmt Systems BS
referencing this
course

Requested **Spring 2016** ~~Fall 2014~~
Effective Change
Date

Department Business and Information Technology

Discipline Finance (FINANCE)

Course Number 5260

Title Investments I

Abbreviated Investments I
Course Title

Catalog
Description

Introduction to fundamental elements of investment analysis. Students learn financial tools and gain necessary knowledge to select among alternative financial assets. Real world experience includes stock analysis, portfolio simulations and interactions with professionals in the securities industry.

Prerequisites

Finance 2150. ~~Finance 2150 or Eng Mgt 2211.~~

Field Trip
Statement

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

Required for No
Majors

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. Ishelton
11. Peoplesoft

Approval Path

1. 04/07/15 7:47 pm
siauk: Approved
for RBUSADMN
Chair
2. 04/08/15 7:52 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 04/08/15 12:59
pm
barryf: Approved
for Social
Sciences DSCC
Chair

History

Elective for
Majors

Yes ~~No~~

1. May 1, 2014 by
barryf (2190.1)

Justification for
change:

Instructor reviewed prerequisites.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 2190
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 8:39 am

Viewing: **FRENCH 4311 : Advanced French Conversation**

File: 1949.1

Last edit: 04/01/15 8:56 am

Changes proposed by: denises

Programs MUL&DIV-MI: Multiculture & Diversity Minor
referencing this
course

Requested Effective Change Date Fall **2015** ~~2014~~
Department Arts, Languages, & Philosophy
Discipline French (FRENCH)
Course Number 4311
Title Advanced French Conversation
Abbreviated Course Title Adv French Conversation

Catalog Description
Advanced conversation and oral practice.

Prerequisites
French **2170**. ~~2110~~.

Field Trip
Statement

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

Total: 2

Required for
Majors No

Elective for
Majors No

Justification for Update prerequisite per Dr. Merfeld-Langston

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

Approval Path

1. 04/01/15 8:47 am
lance: Approved
for RPHILOSO
Chair
2. 04/01/15 8:57 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 04/01/15 11:09
am
ivliyeva:
Approved for Arts
& Humanities
DSCC Chair

change:

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

Key: 1949
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 02/19/15 10:28 am

Viewing: **GEO ENG 1150 : Introduction to Physical Geology**

File: 1173.6

Last approved: 02/16/15 3:22 am

Last edit: 05/12/15 11:17 am

Changes proposed by: kleb6b

Catalog Pages
referencing this
course

[Freshman Engineering Program](#)

Programs
referencing this
course

[CV ENG-BS: Civil Engineering BS](#)
[EV ENG-BS: Environmental Engineering BS](#)
[GE ENG-BS: Geological Engineering BS](#)
[GE ENG-MI: Geological Engineering Minor](#)
[GEOL-MI: Geology Minor](#)
[MI ENG-BS: Mining Engineering BS](#)
[PE ENG-BS: Petroleum Engineering BS](#)

Other Courses
referencing this
course

In The Catalog Description:
[GEOLOGY 1111 : Introduction to Physical Geology](#)
In The Prerequisites:
[CIV ENG 3116 : Construction Materials, Properties And Testing](#)
[CIV ENG 3715 : Fundamentals of Geotechnical Engineering](#)
[CIV ENG 6760 : Inca Civilization Geotechnical Engineering Practices](#)
[GEO ENG 2536 : Basic Weather](#)
[GEO ENG 3175 : Geomorphology And Terrain Analysis](#)
[GEO ENG 3249 : Fundamentals Of Computer Applications In Geological Engineering](#)
[GEO ENG 5331 : Subsurface Hydrology](#)
[GEO ENG 5443 : Subsurface Exploration](#)
[GEO ENG 5575 : Aggregates And Quarrying](#)
[GEO ENG 6407 : Inca Civilization Geotechnical Engineering Practices](#)
[GEO ENG 6782 : Surface Waves \(MASW\) and Ground Penetrating Radar \(GPR\)](#)
[GEOLOGY 1120 : Evolution Of The Earth](#)
[GEOLOGY 2611 : Physical Mineralogy And Petrology](#)
[GEOLOGY 4411 : Hydrogeology](#)

In Workflow

1. [RGEOSENG Chair](#)
2. [CCC Secretary](#)
3. [Engineering DSCC Chair](#)
4. [Pending CCC Agenda post](#)
5. [CCC Meeting Agenda](#)
6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. Ishelton
11. Peoplesoft

Approval Path

1. 02/19/15 6:05 pm
ikuenobe:
Approved for
RGEOSENG Chair
2. 02/20/15 3:50 pm
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 03/05/15 1:15 pm
srafer: Rollback
to CCC Secretary
for Engineering
DSCC Chair
4. 03/05/15 1:32 pm
Kaylon Buckner
(kleb6b): Rollback
to RGEOSENG

[GEOLOGY 4431 : Methods Of Karst Hydrogeology](#)[GEOLOGY 4831 : Computational Geology](#)[GEOLOGY 4841 : Geological Field Studies](#)[GEOLOGY 5311 : Depositional Systems](#)[GEOLOGY 5513 : Petroleum Geology](#)[GEOPHYS 2211 : Geophysical Imaging](#)

Requested Spring **2016** ~~2015~~
 Effective Change
 Date
 Department Geosciences and Geological and Petroleum Engineering
 Discipline Geological Engineering (GEO ENG)
 Course Number 1150
 Title Introduction to Physical Geology
 Abbreviated Intro Physical Geol
 Course Title

Catalog Description

Materials, structure, and surface features A study of the Earth and planets are studied in the context of the processes that continuously transform the Earth and affect management of Earth resources, hazards, engineering problems, and environmental challenges ~~materials, surface features, internal structures and processes. Particular attention is paid to Earth resources, geological hazards, engineering and environmental problems.~~

Prerequisites Entrance requirements.

Field Trip Statement

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

Required for Majors Yes

Elective for Majors No

Justification for change: The number of lecture hours has been increased to improve the coverage of topics important for the engineering majors who take the class, such as structural geology, geologic time, groundwater hydrology, desert climates, glaciation, and climate change. The laboratory will continue as a separate class, required for those majors that need it. Change Co-Listing to Geology 1110

Chair for CCC

Secretary

5. 03/05/15 2:17 pm

ikuenobe:

Approved for

RGEOSNG Chair

6. 03/05/15 2:20 pm

Kaylon Buckner

(kleb6b):

Approved for CCC

Secretary

7. 03/12/15 11:38

am

srafer: Approved

for Engineering

DSCC Chair

8. 04/09/15 12:09

pm

Kaylon Buckner

(kleb6b):

Approved for

Pending CCC

Agenda post

History

1. Feb 16, 2015 by
gertschl (1173.1)

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

~~GEOLOGY 1111 - Introduction to Physical Geology~~

GEOLOGY 1110 - Physical And Environmental Geology

Course Reviewer
Comments

sraper (03/05/15 1:15 pm): Rollback: I think this has the wrong prereq. Geo 1110 has the same course description. Geo 1111 is a different course description.

kleb6b (03/05/15 1:32 pm): Rollback: See Dr. Raper's note, possible wrong prerequisite?

sraper (03/05/15 3:53 pm): Catalog description change copied from an email from Department Chair, Dr. Oboh-Ikuenobe, also notes that a one day field trip is required.

Key: 1173
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 02/17/15 11:29 am

Viewing: **GEOLOGY 1110 : Physical And Environmental Geology**

File: 1988.1

Last edit: 03/06/15 8:05 am

Changes proposed by: liukh

Programs referencing this course	BIO SC-BA: Biological Sciences BA CMP SC-BS: Computer Science BS GE ENG-MI: Geological Engineering Minor GEOL-MI: Geology Minor GL&GPH-BS: Geology and Geophysics BS PE ENG-BS: Petroleum Engineering BS
Other Courses referencing this course	In The Catalog Description: GEOLOGY 1119 : Physical and Environmental Geology Laboratory In The Prerequisites: GEOLOGY 1119 : Physical and Environmental Geology Laboratory GEOLOGY 1120 : Evolution Of The Earth GEOLOGY 1141 : Physical Oceanography GEOLOGY 2611 : Physical Mineralogy And Petrology GEOLOGY 3310 : Structural Geology GEOLOGY 3511 : Metallic And Industrial Mineral Deposits GEOLOGY 4411 : Hydrogeology GEOLOGY 4431 : Methods Of Karst Hydrogeology GEOLOGY 4721 : Meteorology and Climatology GEOLOGY 4831 : Computational Geology GEOLOGY 4841 : Geological Field Studies GEOLOGY 5311 : Depositional Systems GEOLOGY 5513 : Petroleum Geology GEOLOGY 6421 : Environmental Geology GEOLOGY 6541 : Geology of Natural Resources GEOPHYS 2211 : Geophysical Imaging GEOPHYS 3210 : Introduction to Geophysics

Requested Effective Change
Fall **2015** ~~2014~~

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. Ishelton
11. Peoplesoft

Approval Path

1. 02/17/15 12:34 pm
ikuenobe:
Approved for RGEOENG Chair
2. 02/17/15 1:10 pm
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 03/05/15 12:14 pm
imorgan:
Approved for Sciences DSCC Chair
4. 03/06/15 8:04 am
Kaylon Buckner

Date						(kleb6b): Approved for Pending CCC Agenda post 5. 03/06/15 8:05 am Kaylon Buckner (kleb6b): Rollback to Pending CCC Agenda post for CCC Meeting Agenda
Department	Geosciences and Geological and Petroleum Engineering					
Discipline	Geology (GEOLOGY)					
Course Number	1110					
Title	Physical And Environmental Geology					
Abbreviated Course Title	Physical & Environ Geol					
Catalog Description	Materials, structure, and surface features of the Earth and planets are studied in the context of the processes that continuously transform the Earth and affect management of Earth resources, hazards, and environmental challenges. (Co-listed with Geo Eng 1150).					
Prerequisites	Entrance requirements.					
Field Trip Statement	A one day field trip is required.					
Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3	
Required for Majors	Yes					
Elective for Majors	No					
Justification for change:	GEOLOGY 1110 will be co-listed with Geo Eng 1150 (which is also being modified). The only change to this course and the catalog description is the addition of the note on co-listing.					
Semesters previously offered as an experimental course						
Co-Listed Courses:						
Course Reviewer Comments	kleb6b (03/06/15 8:05 am): Rollback: Waiting for co-listed course					

Course Inventory Change Request

Date Submitted: 02/17/15 11:32 am

Viewing: **GEOLOGY 1119 : Physical and Environmental
Geology Laboratory**

File: 2370.1

Last edit: 03/05/15 12:03 pm

Changes proposed by: liukh

Programs
referencing this
course

[CMP SC-BS: Computer Science BS](#)
[GL&GPH-BS: Geology and Geophysics BS](#)

Requested
Effective Change
Date

Fall **2015** ~~2014~~

Department

Geosciences and Geological and Petroleum
Engineering

Discipline

Geology (GEOLOGY)

Course Number

1119

Title

Physical and Environmental Geology Laboratory

Abbreviated
Course Title

Phys & Env Geol Lab

Catalog

Description

Geology 1119 is designed to accompany Geology 1110 and consists of laboratory explorations of the study of common rocks and minerals, air photographs, maps, and case studies of geological problems related to management of Earth resources, hazards, and environmental challenges. **(Co-listed with Geo Eng 1119).**

Prerequisites

Preceded or accompanied by Geology 1110.

Field Trip

Statement

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

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. Ishelton
11. Peoplesoft

Approval Path

1. 02/17/15 12:35
pm
ikuenobe:
Approved for
RGEOENG Chair
2. 02/17/15 1:10 pm
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 03/05/15 12:04
pm
imorgan:
Approved for
Sciences DSCC
Chair

Required for Majors	Yes
Elective for Majors	No
Justification for change:	GEOLOGY 1119 will be co-listed with Geo Eng 1119 (which is also being added). The only change to this course and the catalog description is the addition of the note on co-listing.
Semesters previously offered as an experimental course	
Co-Listed Courses:	GEO ENG 1119-- Physical Geology Laboratory for Engineers
Course Reviewer Comments	imorgan (03/05/15 12:03 pm): Check for CC form for GEO ENG 1119 that matches this course.

Key: 2370
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 9:17 am

Viewing: **IS&T 3333 : Data Networks and Information Security**

File: 2225.4

Last approved: 02/09/15 3:18 am

Last edit: 05/12/15 11:18 am

Changes proposed by: barryf

Programs
referencing this
course

[IST-BS: Information Science and Tch BS](#)
[MOBLB&T-MI: Mobile Bus & Tech Minor](#)

Other Courses
referencing this
course

In The Prerequisites:
[IS&T 3321 : Network Performance Design And Management](#)
[IS&T 4335 : Fundamentals of Mobile Technology for Business](#)
[IS&T 4642 : E-Commerce Architecture](#)
[IS&T 6335 : Mobile Technology for Business](#)

Requested
Effective Change
Date

Spring 2016 ~~Fall 2015~~

Department Business and Information Technology

Discipline Info Science & Technology (IS&T)

Course Number 3333

Title Data Networks and Information Security

Abbreviated Course Title Networks & Info Security

Catalog
Description

The course provides an overview of current and evolving networking and information security principles. Concepts include network standards and protocols; operation and management; switching and routing; area networks; wireless network infrastructure; security frameworks, policies, and management.

Prerequisites

IS&T 1750; IS&T 1552 or Comp Sci 1510.

Field Trip
Statement

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. Ishelton
11. Peoplesoft

Approval Path

1. 04/07/15 7:45 pm
siauk: Approved
for RINFSCTE
Chair
2. 04/08/15 7:53 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 04/11/15 9:51 pm
barryf: Approved
for Social
Sciences DSCC
Chair
4. 04/13/15 10:21
am
Kaylon Buckner
(kleb6b):

Credit Hours LEC: ~~3-1.5~~ LAB: ~~0-1.5~~ IND: 0 RSD: 0
Total: 3

Required for
Majors Yes

Elective for
Majors No

Approved for
Pending CCC
Agenda post

History

1. Feb 9, 2015 by
barryf (2225.1)

Justification for
change: Changing to an all lecture format.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 2225
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/07/15 9:06 am

Viewing: **IS&T 4261 : Information Systems Project Management**

File: 935.5

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

Last edit: 04/08/15 7:53 am

Changes proposed by: barryf

Programs MGMT-MI: Management Minor
referencing this
course

Requested **Spring 2016** ~~Fall 2014~~
Effective Change
Date

Department Business and Information Technology

Discipline Info Science & Technology (IS&T)

Course Number 4261

Title Information Systems Project Management

Abbreviated Info Syst Project Mgt
Course Title

Catalog

Description

The course overviews general project management principles and then focuses on information system application development. Topics include requirements analysis, project scheduling, risk management, quality assurance, testing, and team coordination.

Prerequisites

IST 1552 or Comp Sci 1510; Senior Standing. ~~Strong programming knowledge and Senior standing.~~

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

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. Ishelton

11. Peoplesoft

Approval Path

1. 04/07/15 7:45 pm
siauk: Approved
for RINFSCTE
Chair

2. 04/08/15 7:53 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary

3. 04/08/15 12:59
pm
barryf: Approved
for Social
Sciences DSCC
Chair

History

1. Apr 28, 2014 by

Total: 3

Required for
Majors

No

Elective for
MajorsYes ~~No~~

barryf (935.1)

2. Jun 30, 2014 by

lahne (935.4)

Justification for
change:

Make prerequisites more precise.

Semesters
previously
offered as an
experimental
courseCo-Listed
Courses:Course Reviewer
Comments

Key: 935

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/07/15 9:02 am

Viewing: **MKT 6580 : Advanced Marketing Strategy**

File: 1229.8

Last approved: 07/03/14 4:01 am

Last edit: 04/07/15 9:02 am

Changes proposed by: barryf

Catalog Pages
referencing this
course

[Business Administration](#)
[Information Science and Technology](#)

Requested
Effective Change
Date

Spring 2016 ~~Fall 2014~~

Department Business and Information Technology

Discipline Marketing (MKT)

Course Number 6580

Title Advanced Marketing Strategy

Abbreviated
Course Title Advanced Marketing Strategy

Catalog
Description

Identification and analysis of strategic managerial marketing issues. Integration of marketing concepts through theoretical overview and practical analysis, including extensive use of simulation. Independent work on marketing project.

Prerequisites

MKT 3110 or MKT **6622** ~~5105~~ or ENG MGT 3510.

Field Trip
Statement

Credit Hours
Total: 3

LEC: 3 LAB: 0 IND: 0 RSD: 0

Required for
Majors No

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. Ishelton
11. Peoplesoft

Approval Path

1. 04/07/15 7:48 pm
siauk: Approved
for RBUSADMN
Chair
2. 04/08/15 7:53 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 04/08/15 1:00 pm
barryf: Approved
for Social
Sciences DSCC
Chair

History

1. May 3, 2014 by

Elective for
Majors

Yes

lahne (1229.1)
2. Jul 3, 2014 by
lahne (1229.6)

Justification for
change:

Instructor reviewed prerequisites.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1229
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 8:53 am

Viewing: **MUSIC 1111 : Individual Music Instruction I**

File: 2101.1

Last edit: 05/12/15 11:20 am

Changes proposed by: denises

Programs
referencing this
course

[THEATRE-MI: Theatre Minor](#)

Requested **Spring 2016** ~~Fall 2014~~
Effective Change
Date

Department Arts, Languages, & Philosophy

Discipline Music (MUSIC)

Course Number 1111

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

Approval Path

1. 04/01/15 9:59 am
lance: Approved
for RPHILOSO
Chair
2. 04/01/15 3:27 pm
Kaylon Buckner
(kleb6b):
Approved for CCC

Secretary

3. 04/01/15 3:29 pm

ivliyeva:

Approved for Arts
& Humanities

DSCC Chair

4. 04/09/15 12:16

pm

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

5. 05/12/15 11:19

am

Kaylon Buckner
(kleb6b):Approved for CCC
Meeting Agenda

6. 05/12/15 11:20

am

Kaylon Buckner
(kleb6b): Rollback
to CCC Meeting
Agenda for
Campus Curricula
Committee Chair

Individual Music Instruction I

Abbreviated Individual Mus Instr I
Course Title

Catalog

Description

Individual music instruction in student's concentration area. ~~Consent of instructor~~

~~required.~~

Prerequisites

Consent of instructor required.

Field Trip

Statement

Credit Hours LEC: 0 LAB: **1-0** IND: 0 RSD: 0

Total: **1-1-2**

Required for
Majors No

Elective for
Majors No

Justification for
change:

Update per Lorie Francis

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer

Comments

kleb6b (05/12/15 11:20 am): Rollback: Rollback

Key: 2101

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 9:07 am

Viewing: **MUSIC 2161 : Theory Of Music I**

File: 1951.1

Last edit: 04/01/15 10:06 am

Changes proposed by: denises

Other Courses
referencing this
course

In The Prerequisites:
[MUSIC 2162 : Theory Of Music II](#)

Requested
Effective Change
Date

Fall **2015** ~~2014~~

Department

Arts, Languages, & Philosophy

Discipline

Music (MUSIC)

Course Number

2161

Title

Theory Of Music I

Abbreviated
Course Title

Theory Of Music I

Catalog

Description

Basic musicianship. Notation, rhythm, meter, scales, intervals, triads, **nonharmonic tones**, ~~nonharmonic tones~~, major-minor seventh, modulations of common practice period. ~~Strong emphasis on aural perception, sight singing, and key board performance of these materials.~~ Applications of these materials in original composition and analysis of melodies and elementary homophonic form.

Prerequisites

Field Trip

Statement

Credit Hours

LEC: 3 LAB: 1 IND: 0 RSD: 0

Total: 4

Required for
Majors

No

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

Approval Path

1. 04/01/15 10:02 am
lance: Approved for RPHILOSO Chair
2. 04/01/15 10:06 am
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 04/01/15 11:10 am
ivliyeva:
Approved for Arts & Humanities DSCC Chair

Elective for
Majors

No

Justification for
change:

Update per Lorie Francis

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1951
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 01/19/15 10:44 am

Viewing: **PET ENG 3330 ~~3310~~: Well Logging ↓**

File: 1045.1

Last edit: 01/19/15 10:44 am

Changes proposed by: reflori

Programs
referencing this
course

[GL&GPH-BS: Geology and Geophysics BS](#)
[PE ENG-BS: Petroleum Engineering BS](#)

Requested
Effective Change
Date

Fall **2015** ~~2014~~

Department

Geosciences and Geological and Petroleum
Engineering

Discipline

Petroleum Engineering (PET ENG)

Course Number

3330 ~~3310~~

Title

Well Logging ↓

Abbreviated
Course Title

Well Logging ↓

Catalog
Description

An introduction to the electrical, nuclear, and acoustic properties of rocks: theory
and interpretation of conventional well logs.

Prerequisites

Physics 2135 or 2111; Pet Eng 3520.

Field Trip
Statement

Credit Hours

LEC: 2 LAB: 1 IND: 0 RSD: 0

Total: 3

Required for
Majors

Yes

Elective for

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. Ishelton
11. Peoplesoft

Approval Path

1. 02/07/15 12:01
pm
ikuenobe:
Approved for
RGEOENG Chair
2. 02/09/15 9:21 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 02/17/15 10:09
am
srafer: Approved
for Engineering
DSCC Chair

Majors

Justification for change: There is no Well Logging II course, so dropping the I.
We're adding an Introductory Petrophysics class in the 33xx class, so raising changing the number to ensure the correct sequence.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments

Key: 1045
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 03/27/15 10:31 am

Viewing: **PSYCH 2200 : Research Methods**

File: 994.1

Last edit: 03/27/15 10:33 am

Changes proposed by: nstone

Programs
referencing this
course

[PSYCH-BA: Psychology BA](#)
[PSYCH-BS: Psychology BS](#)

Other Courses
referencing this
course

In The Prerequisites:
[PSYCH 5201 : Psychometrics](#)

Requested
Effective Change
Date

Fall **2015** ~~2014~~

Department

Psychological Science

Discipline

Psychology (PSYCH)

Course Number

2200

Title

Research Methods

Abbreviated
Course Title

Research Methods

Catalog
Description

An introduction to the content, models and methodologies of psychological research. This course covers the fundamental components of psychological research including the literature review, correlational and descriptive methods, experimental design, statistical analyses, interpretation, and ethics.

Prerequisites

Psych **1101**; ~~1101~~, Stat **1115**, Stat **3113**, or Stat **3115**. ~~1115~~. Stat **1115** preferred.

Field Trip
Statement

Credit Hours LEC: 3 LAB: 1 IND: 0 RSD: 0 Total: 4

In Workflow

1. RPSYCHOL 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. Ishelton

11. Peoplesoft

Approval Path

1. 03/27/15 10:34
am

nstone: Approved
for RPSYCHOL
Chair

2. 03/30/15 7:59 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary

3. 03/30/15 3:12 pm
barryf: Approved
for Social
Sciences DSCC
Chair

Required for
Majors

Yes ~~No~~

Elective for
Majors

No

Justification for
change:

We have some students transferring from engineering who have taken the engineering statistics, which we will accept. What is covered in Stat 1115 is more appropriate for the social and behavioral sciences, which is why it is listed as preferred.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 994

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 10:15 am

Viewing: **SPANISH 1101 : Elementary Spanish I**

File: 2528.4

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

Last edit: 04/01/15 2:36 pm

Changes proposed by: denises

Other Courses
referencing this
course

In The Catalog Description:
[SPANISH 1102 : Elementary Spanish II](#)

In The Prerequisites:
[SPANISH 1102 : Elementary Spanish II](#)

Requested
Effective Change
Date

Fall **2015** ~~2014~~

Department

Arts, Languages, & Philosophy

Discipline

Spanish (SPANISH)

Course Number

1101

Title

Elementary Spanish I

Abbreviated
Course Title

Elementary Spanish I

Catalog
Description

Introduction to Spanish. Oral drills, readings, grammar and composition. **No previous knowledge of Spanish or no more than two years of Spanish in High School**

Prerequisites

Entrance requirements.

Field Trip
Statement

Credit Hours

LEC: 4 LAB: 0 IND: 0 RSD: 0

Total: 4

Required for
Majors

No

Elective for

No

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

Approval Path

1. 04/01/15 2:31 pm
lance: Approved for RPHILOSO Chair
2. 04/01/15 2:36 pm
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 04/01/15 3:26 pm
ivliyeva:
Approved for Arts & Humanities DSCC Chair

History

1. Jun 30, 2014 by

Majors

lahne (2528.1)

Justification for
change: Update per Jorge Porcel

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 2528
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 9:17 am

Viewing: **SPANISH 1102 : Elementary Spanish II**

File: 1407.1

Last edit: 04/01/15 2:37 pm

Changes proposed by: denises

Other Courses
referencing this
course

In The Prerequisites:
[SPANISH 1180 : Readings And Composition](#)

Requested Effective Change Date: Fall ~~2015~~ 2014

Department: Arts, Languages, & Philosophy

Discipline: Spanish (SPANISH)

Course Number: 1102

Title: Elementary Spanish II

Abbreviated Course Title: Elementary Spanish II

Catalog Description: Continuation of Spanish 1101. ~~Laboratory required (one extra hour per week).~~

Prerequisites: Spanish 1101.

Field Trip Statement

Credit Hours: LEC: 4 LAB: 0 IND: 0 RSD: 0
Total: 4

Required for Majors: No

Elective for Majors: No

Justification for: Update per Jorge Porcel

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

Approval Path

1. 04/01/15 2:31 pm
lance: Approved for RPHILOSO Chair
2. 04/01/15 2:40 pm
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 04/01/15 3:26 pm
ivliyeva:
Approved for Arts & Humanities DSCC Chair

change:

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

Key: 1407

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 10:08 am

Viewing: **SPANISH 4302 : Phonetics and Phonology of Spanish**

File: 390.1

Last edit: 05/12/15 11:21 am

Changes proposed by: denises

Programs MUL&DIV-MI: Multiculture & Diversity Minor
referencing this course

Requested Effective Change Date **Spring 2016** ~~Fall 2014~~
Department Arts, Languages, & Philosophy
Discipline Spanish (SPANISH)
Course Number 4302
Title Phonetics and Phonology of Spanish
Abbreviated Course Title Phonetics & Phonology
Spanish

Catalog Description
Theoretical and practical approach to the phonetics and phonology of Spanish from the dual perspective of the mental representation of the sound system and pronunciation within syllables, words and phrases. Practice in listening comprehension, and sound discrimination with transcription exercises.

Prerequisites
Any Spanish course at the 2000 or 3000 level. ~~Spanish 1180.~~

Field Trip
Statement

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

Required for Majors No

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

Approval Path

1. 04/01/15 11:49 am
lance: Approved for RPHILOSO Chair
2. 04/01/15 12:10 pm
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/01/15 3:27 pm
ivliyeva: Approved for Arts & Humanities DSCC Chair
4. 04/09/15 12:21

Elective for Majors	No	pm Kaylon Buckner (kleb6b): Approved for Pending CCC Agenda post
Justification for change: Update per Jorge Porcel		
Semesters previously offered as an experimental course		
Co-Listed Courses:		
Course Reviewer Comments		

Key: 390
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 10:12 am

Viewing: **SPANISH 4311 : Advanced Spanish Conversation**

File: 1563.5

Last approved: 09/29/14 4:09 am

Last edit: 04/01/15 12:11 pm

Changes proposed by: denises

Programs MUL&DIV-MI: Multiculture & Diversity Minor
referencing this
course

Requested Fall **2015** ~~2014~~
Effective Change
Date

Department Arts, Languages, & Philosophy

Discipline Spanish (SPANISH)

Course Number 4311

Title Advanced Spanish Conversation

Abbreviated Adv Span Conversation
Course Title

Catalog
Description
Advanced Spanish conversation and oral practice.

Prerequisites
Any Spanish course at the 2000 or 3000 level. ~~SPANISH 1180.~~

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

Approval Path

1. 04/01/15 11:49 am
lance: Approved for RPHILOSO Chair
2. 04/01/15 12:11 pm
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 04/01/15 3:27 pm
ivliyeva:
Approved for Arts & Humanities DSCC Chair

Justification for
change:

Update per Jorge Porcel

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

History

1. Sep 29, 2014 by
denises (1563.1)

Key: 1563

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 10:43 am

Viewing: **THEATRE 1142 : Stage Productions, Performers**

File: 1225.1

Last edit: 04/01/15 12:11 pm

Changes proposed by: denises

Programs referencing this course	<u>THEATRE-MI: Theatre Minor</u>
Requested Effective Change Date	Fall 2015 2014
Department	Arts, Languages, & Philosophy
Discipline	Theatre (THEATRE)
Course Number	1142
Title	Stage Productions, Performers
Abbreviated Course Title	Stage Prod, Performers

Catalog
Description
Performers: The student must request permission from the theatre professor prior to taking this course. Performers; participants selected by audition. A skills course, not a humanities elective.

Prerequisites
Participants selected by audition.

Field Trip
Statement

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

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

Approval Path

1. 04/01/15 11:48 am
lance: Approved for RPHILOSO Chair
2. 04/01/15 12:11 pm
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/01/15 3:28 pm
ivliyeva: Approved for Arts & Humanities DSCC Chair

Majors

Justification for Update per Jeanne Stanley
change:

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1225
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 11:29 am

Viewing: **THEATRE 1190 : Theatre via Video**

File: 1153.1

Last edit: 05/12/15 11:23 am

Changes proposed by: denises

Programs
referencing this
course

[CHEM-BA: Chemistry BA](#)
[ECON-BS: Economics BS](#)
[THEATRE-MI: Theatre Minor](#)

Requested
Effective Change
Date

Spring 2016 ~~Fall 2014~~

Department Arts, Languages, & Philosophy

Discipline Theatre (THEATRE)

Course Number 1190

Title Theatre via Video

Abbreviated
Course Title Theatre via Video

Catalog

Description

Provides knowledge and internal understanding of **theatre**. ~~theatre and its processes via discussion after watching plays on video and live productions works will include videos from Aristophanes to Beckett to Sondheim. After watching plays on video through online resources on the student's own time and live productions, students will meet as a class weekly to discuss. Online journaling and field trip required. Approximately \$12 cost for online resources. \$5 for live performances.~~

Prerequisites

Field Trip

Statement

Field trip required.

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

Required for No

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

Approval Path

1. 04/01/15 11:48 am
lance: Approved for RPHILOSO Chair
2. 04/01/15 12:12 pm
Kaylon Buckner (kleb6b): Approved for CCC Secretary
3. 04/01/15 3:28 pm
ivliyeva: Approved for Arts & Humanities DSCC Chair
4. 04/09/15 12:22

Majors

Elective for No
Majors

Justification for
change:

Update per Jeanne Stanley

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

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

Key: 1153
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/01/15 11:31 am

Viewing: **THEATRE 3241 : Acting II**

File: 811.1

Last edit: 04/01/15 12:12 pm

Changes proposed by: denises

Programs THEATRE-MI: Theatre Minor
referencing this
course

Requested Effective Change Date Fall ~~2015~~ 2014
Department Arts, Languages, & Philosophy
Discipline Theatre (THEATRE)
Course Number 3241
Title Acting II
Abbreviated Acting II
Course Title

Catalog Description
Continuation of Acting I, covering acting styles, more complicated, nuanced roles, and more detailed character analysis and performance-special emphasis on **British and Classical** ~~Shakespearean~~ performance.

Prerequisites
Theatre 2141.

Field Trip
Statement

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

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

Approval Path

1. 04/01/15 11:47 am
lance: Approved for RPHILOSO Chair
2. 04/01/15 12:12 pm
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 04/01/15 3:28 pm
ivliyeva:
Approved for Arts & Humanities DSCC Chair

Majors

Justification for
change:

Update per Jeanne Stanley

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 811

[Preview Bridge](#)

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 02/12/15 11:46 am

Viewing: **CIV ENG 6001.TBD : Principles of Rheology**

File: 4191

Last edit: 05/15/15 3:40 pm

Changes proposed by: brackenl

Requested Fall 2015

Effective Change

Date

Department Civil, Architectural, and Environmental Engineering

Discipline Civil Engineering (CIV ENG)

Course Number 6001

Topic ID TBD

Experimental Principles of Rheology
Title

Experimental Principles of Rheology
Abbreviated Course Title

Instructors Dr. Dimitri Feys, Dr. Cesar Mendoza

Experimental
Catalog
Description

The relation of the flow/deformation behavior of materials (liquids and flowing solids) and their internal structure is studied theoretically. The tools and most common procedures to measure the rheological properties of these materials are introduced and demonstrated. Different applications of rheology are presented and special problems discussed.

Prerequisites

CE 2210 and CE 3330, or equivalent with approval from the instructors.

Field Trip
Statement

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

In Workflow

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

Approval Path

1. 02/27/15 2:14 pm
wschon:
Approved for
RCIVILEN Chair
2. 02/27/15 2:16 pm
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 03/12/15 11:39
am
sraper: Approved
for Engineering
DSCC Chair
4. 04/09/15 11:42
am
Kaylon Buckner
(kleb6b):
Approved for
Pending CCC
Agenda post

Justification for
new course:

In its widest sense, the study of rheology includes classical fluid mechanics and elasticity. Rheology entails the theoretical and experimental study of the flow/deformation behavior of materials and their internal structure at an advanced level, with the possibility of practical applications in a wide range of academic and industrial situations. These include "non-classical" materials such as fresh concrete, flowing mud, rubber, molten plastics, polymer solutions, slurries and pastes, blood, muscle, composites, soils, and paints.

Although the course is listed as a CE course, the course matter is interdisciplinary, as students in civil, chemical, mechanical, materials, mining, geological and petroleum engineering can benefit from this course. This "Principles of Rheology" course will give students with different backgrounds useful information that can enhance their understanding of more specialized, upper-level, discipline-specific courses.

Semester(s)
previously taught

Co-Listed
Courses:

Course Reviewer
Comments

kleb6b (05/15/15 3:40 pm): Updated prerequisite per Dr. Mendoza

New Experimental Course Proposal

Date Submitted: 06/10/15 11:48 am

Viewing: **ECON 2001.001 : Domain Exploration and Innovation**

In Workflow

1. Peoplesoft

Methods

File: 4220

Last edit: 06/10/15 11:48 am

Changes proposed by: kleb6b

Requested Fall 2015

Effective Change
Date

Department Economics

Discipline Economics (ECON)

Course Number 2001

Topic ID 001

Experimental Domain Exploration and Innovation Methods
Title

Experimental Domain Exp Innov Methods
Abbreviated
Course Title

Instructors Bonnie Bachman, Sajal Das, Dan Oerther

Experimental Explore the different methods and concepts of problem definition and ideation.
Catalog Content focuses on the early stages of technical innovation and encourages students
Description to adopt a mindset that looks for solvable problems in a variety of domains. This is
 an experiential multidisciplinary course. Students are required to attend the
 Seminar/Speaker Series.

Prerequisites

Field Trip
Statement

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

Justification for This course is on in a series of courses in technical innovation and entrepreneurship.
new course: Part of the Epicenter (Stanford/NSF) innovation curriculum development grant.

To be co-listed with Comp Sci 2001.

Semester(s)
previously taught

Co-Listed COMP SCI 2001.001 - Domain Exploration and Innovation Methods
Courses:

Course Reviewer
Comments

Key: 4220

[Preview Bridge](#)
[Why Did This Not Sync?](#)

New Experimental Course Proposal

Date Submitted: 06/10/15 11:55 am

Viewing: **COMP SCI 3001.001 : Skill Development for
Entrepreneurs and Innovators**

File: 4227

Last edit: 06/10/15 11:55 am

Changes proposed by: kleb6b

Requested Summer 2015

Effective Change
Date

Department Computer Science

Discipline Computer Science (COMP SCI)

Course Number 3001

Topic ID 001

Experimental Skill Development for Entrepreneurs and Innovators
Title

Experimental Skill Dev Entrepre Innov
Abbreviated
Course Title

Instructors Bonnie Bachman, Sajal Das, Dan Oerther

Experimental This course offers an intensive introduction to many of the key transferable (soft) and
Catalog technical skills individuals need to possess as an entrepreneur or innovator in small,
Description mid, and large sized product and knowledge system development firms. This is an
experiential, multidisciplinary course.

Prerequisites A grade of "C" or better in COMP SCI 2001 or ECON 2001 - Domain Exploration and
Innovation Methods.

Field Trip
Statement

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

Justification for This course is the second in a proposed sequence of courses in technical innovation
new course: and entrepreneurship. It is modeled on the entrepreneurship and innovation
curriculum developed by Epicenter, the National Center for Engineering Pathways to
Innovation, funded by NSF and directed by Stanford and VentureWell.

In Workflow

1. Peoplesoft

Semester(s)
previously taught

Co-Listed Courses: ECON 3001.001 - Skill Development for Entrepreneurs and Innovators

Course Reviewer
Comments

Key: 4227

[Preview Bridge](#)
[Why Did This Not Sync?](#)

New Experimental Course Proposal

Date Submitted: 06/10/15 11:45 am

Viewing: **ECON 4001.001 : Advanced Domain Exploration and Innovation Methods**

In Workflow

1. Peoplesoft

File: 4222

Last edit: 06/10/15 11:45 am

Changes proposed by: kleb6b

Requested Fall 2015

Effective Change
Date

Department Economics

Discipline Economics (ECON)

Course Number 4001

Topic ID 001

Experimental Advanced Domain Exploration and Innovation Methods
Title

Experimental Adv. Explor. & Innovat.
Abbreviated
Course Title

Instructors Bonnie Bachman, Sajal Das, Dan Oerther

Experimental Focuses on the later stages of innovation in product and knowledge system design.
Catalog Several disparate domains will be explored, looking for solvable problems followed
Description by creation of technical solutions and validating them through rigorous assessment.
This is an experiential, multidisciplinary course.

Prerequisites A grade of "C" or better in COMP SCI/ECON 3001 - Skill Development for
Entrepreneurs
and Innovators.

Field Trip
Statement

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

Justification for Up to two single day field trips to the Saint Louis entrepreneurial community.
new course: Students are responsible for associated costs, such as travel expenses. Trips will be
scheduled during holidays or weekends to avoid conflicts with other courses.

To be co-listed with Comp Sci 4001.

Semester(s)

previously taught

Co-Listed COMP SCI 4001.001 - Advanced Domain Exploration and Innovation Methods

Courses:

Course Reviewer

Comments

Key: 4222

[Preview Bridge](#)

[Why Did This Not Sync?](#)

New Experimental Course Proposal

Date Submitted: 06/10/15 11:45 am

Viewing: **ECON 4001.002 : Interpersonal Dynamics for
Entrepreneurs and Innovators**

File: 4224

Last edit: 06/10/15 11:45 am

Changes proposed by: kleb6b

In Workflow

1. Peoplesoft

Requested Fall 2015

Effective Change
Date

Department Economics

Discipline Economics (ECON)

Course Number 4001

Topic ID 002

Experimental Interpersonal Dynamics for Entrepreneurs and Innovators
Title

Experimental Interpersonal Dynamics
Abbreviated
Course Title

Instructors Bonnie Bachman, Sajal Das, Dan Oerther

Experimental Explores the boundaries of group dynamics, methods of creating lasting
Catalog relationships, and the dynamics of communication in various situations typical to
Description entrepreneurs and innovators in product and knowledge system development to
 foster technical teamwork and collaboration. This is an experiential, multidisciplinary
 course.

Prerequisites Preceded a with grade of "C" or better in, or accompanied by, COMP SCI/ECON 4001
 -
 Advanced Domain Exploration and Innovation Methods.

Field Trip
Statement

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

Justification for This course is the fourth in a proposed sequence of courses in technical innovation
new course: and entrepreneurship. It is modeled on the entrepreneurship and innovation

curriculum developed by Epicenter, the National Center for Engineering Pathways to Innovation, funded by NSF and directed by Stanford and VentureWell.

Co-list with the ECON 4001.

Semester(s)
previously taught

Co-Listed COMP SCI 4001.002 - Interpersonal Dynamics for Entrepreneurs and Innovators
Courses:

Course Reviewer
Comments

Key: 4224

[Preview Bridge](#)

[Why Did This Not Sync?](#)

New Experimental Course Proposal

Date Submitted: 06/10/15 11:45 am

Viewing: **ECON 4001.001 : Advanced Domain Exploration and Innovation Methods**

In Workflow

1. Peoplesoft

File: 4222

Last edit: 06/10/15 11:45 am

Changes proposed by: kleb6b

Requested Fall 2015

Effective Change
Date

Department Economics

Discipline Economics (ECON)

Course Number 4001

Topic ID 001

Experimental
Title Advanced Domain Exploration and Innovation Methods

Experimental
Abbreviated
Course Title Adv. Explor. & Innovat.

Instructors Bonnie Bachman, Sajal Das, Dan Oerther

Experimental
Catalog
Description Focuses on the later stages of innovation in product and knowledge system design. Several disparate domains will be explored, looking for solvable problems followed by creation of technical solutions and validating them through rigorous assessment. This is an experiential, multidisciplinary course.

Prerequisites A grade of "C" or better in COMP SCI/ECON 3001 - Skill Development for Entrepreneurs and Innovators.

Field Trip
Statement

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

Justification for
new course: Up to two single day field trips to the Saint Louis entrepreneurial community. Students are responsible for associated costs, such as travel expenses. Trips will be scheduled during holidays or weekends to avoid conflicts with other courses.

To be co-listed with Comp Sci 4001.

Semester(s)

previously taught

Co-Listed COMP SCI 4001.001 - Advanced Domain Exploration and Innovation Methods

Courses:

Course Reviewer

Comments

Key: 4222

[Preview Bridge](#)

[Why Did This Not Sync?](#)

New Experimental Course Proposal

Date Submitted: 06/10/15 11:45 am

Viewing: **ECON 4001.002 : Interpersonal Dynamics for
Entrepreneurs and Innovators**

File: 4224

Last edit: 06/10/15 11:45 am

Changes proposed by: kleb6b

Requested Fall 2015

Effective Change
Date

Department Economics

Discipline Economics (ECON)

Course Number 4001

Topic ID 002

Experimental Interpersonal Dynamics for Entrepreneurs and Innovators
Title

Experimental Interpersonal Dynamics
Abbreviated
Course Title

Instructors Bonnie Bachman, Sajal Das, Dan Oerther

Experimental Explores the boundaries of group dynamics, methods of creating lasting
Catalog relationships, and the dynamics of communication in various situations typical to
Description entrepreneurs and innovators in product and knowledge system development to
 foster technical teamwork and collaboration. This is an experiential, multidisciplinary
 course.

Prerequisites Preceded a with grade of "C" or better in, or accompanied by, COMP SCI/ECON 4001
 -
 Advanced Domain Exploration and Innovation Methods.

Field Trip
Statement

Credit Hours	LEC: 0	LAB: 1	IND: 0	RSD: 0	Total: 1
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Justification for This course is the fourth in a proposed sequence of courses in technical innovation
new course: and entrepreneurship. It is modeled on the entrepreneurship and innovation

In Workflow

1. Peoplesoft

curriculum developed by Epicenter, the National Center for Engineering Pathways to Innovation, funded by NSF and directed by Stanford and VentureWell.

Co-list with the ECON 4001.

Semester(s)
previously taught

Co-Listed COMP SCI 4001.002 - Interpersonal Dynamics for Entrepreneurs and Innovators
Courses:

Course Reviewer
Comments

Key: 4224

[Preview Bridge](#)

[Why Did This Not Sync?](#)

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 03/10/15 5:13 pm

Viewing: **ENGLISH 3001.TBD : Publishing: Writers, Editors, and Readers**

File: 4204

Last edit: 03/12/15 7:44 am

Changes proposed by: malonee

Requested	Fall 2015
Effective Change Date	
Department	English and Technical Communication
Discipline	English (ENGLISH)
Course Number	3001
Topic ID	TBD
Experimental Title	Publishing: Writers, Editors, and Readers
Experimental Abbreviated Course Title	Publishing
Instructors	Ed Malone at S&T, Jeanne Allison at UMSL

Experimental Catalog Description

Examines how technological revolutions have changed the way writers write, editors edit, and readers read -- from the age of scribes to the digital age. Topics covered will include the social and political implications of technological advances in the publishing of books, periodicals, and other documents.

Prerequisites One semester of college composition or technical writing.

Field Trip Statement

Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 3
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Justification for 1. UMSL will be sharing this course with us in FS15 and other future semesters.

In Workflow

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

Approval Path

1. 03/11/15 10:57 am
kswenson:
Approved for
RENGLISH Chair
2. 03/12/15 7:44 am
Kaylon Buckner (kleb6b):
Approved for CCC Secretary
3. 03/12/15 8:30 am
ivliyeva:
Approved for Arts & Humanities DSCC Chair

new course: 2. Eventually we may wish to add this course to our curriculum even if the course-sharing project with UMSL does not continue.

Semester(s) none
previously taught

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4204
[Preview Bridge](#)

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 05/13/15 10:39 am

Viewing: **PET ENG 3001.TBD : Petrophysics**

File: 4214

Last edit: 05/13/15 10:39 am

Changes proposed by: kleb6b

Requested Fall 2015

Effective Change

Date

Department Geosciences and Geological and Petroleum
Engineering

Discipline Petroleum Engineering (PET ENG)

Course Number 3001

Topic ID TBD

Experimental
Title

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. Registrar

Approval Path

1. 05/13/15 12:52
pm
ikuenobe:
Approved for
RGEOENG Chair
2. 05/13/15 1:14 pm
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 05/13/15 2:37 pm
srafer: Approved
for Engineering
DSCC Chair
4. 05/13/15 2:41 pm

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

Petrophysics

Experimental Abbreviated Course Title	Petrophysics
Instructors	Oboh-Ikuenobe

Experimental Catalog Description

Fundamental 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 and tilted flow and radial flow.

Prerequisites

Preceded or accompanied by Pet Eng 2510 and Physics 1135.

Field Trip Statement

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

Justification for new course:

Most of this content is currently in Pet Eng 3520 Reservoir Engineering, but this is more foundational to reservoir engineering. Placing this in its own focused class enables Pet Eng 3520 to more fully develop true reservoir engineering concepts.

Semester(s)

previously taught

None, will be a required course. Waiting for accompanying DC form.

Co-Listed

Courses:

Course Reviewer

Comments

Key: 4214

[Preview Bridge](#)

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 03/07/15 6:51 pm

Viewing: **TCH COM 3001.TBD : Writing in the Sciences**

File: 4202

Last edit: 03/11/15 8:17 am

Changes proposed by: malonee

Requested Fall 2015

Effective Change

Date

Department English and Technical Communication

Discipline Technical Communication (TCH COM)

Course Number 3001

Topic ID TBD

Experimental Writing in the Sciences
Title

Experimental Writing in the Sciences
Abbreviated Course Title

Instructors Dr. Ed Malone (as instuctor of record at S&T), Dr. Bill Klein (as instructor at UMSL)

Experimental
Catalog
Description

This course is designed to teach students how to write effectively in the sciences. Writing assignments include short reports, proposals, and a major project such as a research or analytical report or a manual of procedures or instructions. Emphasis is placed on clarity, conciseness, organization, format, style, and tone.

Prerequisites English 1120 or equivalent and at least junior standing.

Field Trip
Statement

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

Justification for new course: 1. We will be sharing this course with UMSL. In some semesters, UMSL's Dr. Bill Klein will teach it (with Dr. Ed Malone as instructor of record at S&T); in other semesters,

In Workflow

1. RENGLISH Chair

2. CCC Secretary

3. Arts &
Humanities DSCC
Chair

4. Pending CCC
Agenda post

5. CCC Meeting
Agenda

6. Campus Curricula
Committee Chair

7. Registrar

Approval Path

1. 03/08/15 10:45
am

kswenson:
Approved for
RENGGLISH Chair

2. 03/11/15 8:17 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary

3. 03/11/15 9:28 am
ivliyeva:
Approved for Arts
& Humanities
DSCC Chair

Malone or another English/tech com professor will teach it (with Dr. Klein or Dr. Jeanne Allison as instructor of record at UMSL). Our course-sharing project and the UM System course-sharing initiative in general are predicated on the sharing (in each case) of the same or a similar course at both institutions. Thus, one of the reasons we are creating this course is for potential long-term course-sharing purposes.

2. Even if the course-sharing project does not succeed and does not continue long term, we wish to have this course on the books (i.e., in our curriculum) because it fills a gap. Although writing in the sciences is an important part of several of our courses, we do not have a course devoted to writing in the sciences, and we believe there is a need for such a course. The SP15 offering of this course had a cap of 5 seats for S&T students, and all five seats were filled before the semester began.

Semester(s) Spring 2015
previously taught

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4202
[Preview Bridge](#)

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 03/10/15 5:11 pm

Viewing: **TCH COM 5001.TBD : Technical Presentations**

File: 4203

Last edit: 03/12/15 7:44 am

Changes proposed by: malonee

Requested Fall 2015

Effective Change

Date

Department English and Technical Communication

Discipline Technical Communication (TCH COM)

Course Number 5001

Topic ID TBD

Experimental Technical Presentations

Title

Experimental Technical Presentations

Abbreviated

Course Title

Instructors Ed Malone at S&T, Bill Klein at UMSL

Experimental

Catalog

Description

Explores the different kinds of technical presentations given in the workplace and the technologies used to deliver them. Students will learn how to produce useful, powerful, and memorable presentations.

Prerequisites

One semester of college composition or technical writing.

Field Trip

Statement

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

Justification for
new course:

1. UMSL will be sharing this course with us in FS15 and other future semesters.
2. Eventually we may wish to add this course to our curriculum even if the course-sharing project with UMSL does not continue.

In Workflow

1. RENGLISH Chair
2. CCC Secretary
3. Arts & Humanities DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. Registrar

Approval Path

1. 03/11/15 10:59 am
kswenson:
Approved for
RENGISH Chair
2. 03/12/15 7:44 am
Kaylon Buckner
(kleb6b):
Approved for CCC
Secretary
3. 03/12/15 8:31 am
ivliyeva:
Approved for Arts
& Humanities
DSCC Chair

Semester(s) n/a
previously taught

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4203
[Preview Bridge](#)