

Campus Curricula Committee Meeting Agenda

December 15, 2014

2:30-4:00 p.m., Room 110H Bertelsmeyer Hall

Review of submitted Degree Change forms:

File #143.11 Architectural Engineering: Architectural Engineering BS

File #150.4 Chemical Engineering: Chemical Engineering BS

File #95.11 Mining Engineering: Mining Engineering BS

Review of submitted Course Change forms:

File #4113 Architectural Engineering 5270: Structural Masonry Design

File #1451.1 Civil Engineering 2601: Fundamentals of Environmental Engineering and Science

File #4134 Civil Engineering 5270: Structural Masonry Design

File #439.1 Civil Engineering 5448: Green Engineering: Analysis of Constructed Facilities

File #649.1 Computer Engineering 2210: Introduction to Digital Logic

File #1627.3 Computer Engineering 3150: Introduction to Microcontrollers and Embedded System Design

File #71.3 Computer Engineering 5151: Digital Systems Design Laboratory

File #764.3 Computer Engineering 5160: Embedded Processor System Design

File #2454.1 Computer Engineering 5410: Introduction to Computer Communication Networks

File #2460.1 Computer Engineering 5420: Introduction to Network Security

File #4137 Economics 4512: Mine Management

File #948.1 Explosives Engineering 6099: Research

File #795.1 Explosives Engineering 6292: Research Methods

File #1944.3 Mining Engineering 4096: Mine Design Project I

File #1128.3 Mining Engineering 4097: Mine Design Project II

File #2260.1 Mining Engineering 4113: Mine Atmosphere Control

File #1302.1 Mining Engineering 4512: Mine Management

File #529.1 Mining Engineering 4742: Environmental Aspects of Mining

File #1823.1 Mining Engineering 4823: Rock Mechanics

File #1067.1 Mining Engineering 4824: Soils and Overburden Materials for Mining Engineering

File #1145.1 Mining Engineering 4912: Mine Power and Drainage

File #4135 Mining Engineering 5532: Advanced Mining Economics

File #4095 Mining Engineering 6080: Graduate Project

File #4118 Nuclear Engineering 5257: Two-Phase Flow in Energy Systems - I

File #1886.1 Russian 4320: Russian Phonetics and Intonation

File #1536.1 Russian 4330: Business Russian



Review of submitted Experimental Course forms:

File #4129	Architectural Engineering 5001.TBD: Daylighting
File #4130	Architectural Engineering 5001.TBD: Sustainable Building: Design and Performance
File #4133	Art 3001.TBD: Experimental Film & Video
File #4125	Mechanical Engineering 5001.TBD: Non-Intrusive Measurement Methods
File #4123	Metallurgical Engineering 3001.TBD: Applied Metal Forming
File #4136	Mining Engineering 6001.TBD: Mineral Industry Environmental Considerations
File #4127	Materials Science & Engineering 5001.TBD: Integrated Computational Materials Engineering
File #4128	Materials Science & Engineering 6001.TBD: Advanced Integrated Computational Materials Engineering
File #4102	Nuclear Engineering 6001.TBD: Neutron Transport Theory
File #4139	Technical Communication 3001.TBD: Special Topics: Business Writing
File #4140	Technical Communication 3001.TBD: Special Topics: Writing in the Sciences

Program Change Request

Date Submitted: 10/08/14 4:21 pm

Viewing: **ARC ENG-BS : Architectural Engineering BS**

File: 143.11

Last approved: 08/04/14 11:58 am

Last edit: 10/08/14 4:21 pm

Changes proposed by: baur

Catalog Pages Using this Program	Architectural Engineering
Start Term	Fall 2015 8/1/2014
Program Code	ARC ENG-BS
Department	Civil, Architectural, and Environmental Engineering
Title	Architectural Engineering BS

Program Requirements and Description

Architectural Engineering Bachelor of Science

Entering freshmen desiring to study Architectural Engineering will be admitted to the Freshman Engineering Program. They will, however, be permitted, if they wish, to state a Architectural 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 Architectural Engineering a minimum of 128 credit hours is required. These requirements are in addition to credit received for algebra, trigonometry, and basic ROTC courses. An average of at least two grade points per credit hour must be attained. At least two grade points per credit hour must also be attained in all courses taken in Architectural Engineering.

Each student's program of study must contain a minimum of 21 credit hours of course work in general education and must be chosen according to the following rules:

- All students are required to take one American history course, one economics course, one humanities course, and [ENGLISH 1120](#). The history course is to be selected from [HISTORY 1200](#) (preferred), [HISTORY 1300](#), or [HISTORY 1310](#). The economics course may be either [ECON 1100](#) or [ECON 1200](#). The humanities course must be selected from the approved lists for art, English, foreign languages, music, philosophy, speech and media studies, or theater.
- Depth requirement. Three credit hours must be taken in humanities or social sciences at the 2000-level or above and must be selected from "The Approved List of Humanities and Social Science Courses for Engineering Degrees" maintained by the Office of Undergraduate Studies. This course must have as a prerequisite one of the humanities or social sciences courses already taken. Foreign language courses numbered 1180 will be considered to satisfy this requirement. Students may receive humanities credit for foreign language courses in their native tongue only if the course is at the 4000-level. All courses taken to satisfy the depth requirement must be taken after graduating from high school.
- The remaining two courses are to be chosen from the list of approved humanities/social sciences courses and may include one communications course in addition to [ENGLISH 1120](#).
- Any specific departmental requirements in the general studies area must be satisfied.
- Special topics and special problems and honors seminars are allowed only by petition to and approval by the student's department chair.

The Architectural Engineering program at Missouri S&T is characterized by its focus on the scientific basics of engineering and its innovative application; indeed, the underlying theme of this educational program is the application of the scientific basics to engineering practice through attention to problems and needs of the public. The necessary interrelations among the various topics, the engineering disciplines, and the other professions as they naturally come together in the solution of real world problems are emphasized as research, analysis, synthesis, and design are presented and discussed through classroom and laboratory instruction.

Free Elective Footnote:

Each student is required to take three hours of free elective in consultation with his/her academic advisor. Credits which do not count towards this requirement are deficiency courses (such as algebra and trigonometry), and extra credits in required courses. Any courses outside of Engineering and Science must be at least three credit hours.

Freshman Year			
First Semester	Credits	Second Semester	Credits
CHEM 1100	1	MATH 1215	4

In Workflow

- [RCIVILEN Chair](#)
- [CCC Secretary](#)
- [Engineering DSCC Chair](#)
- [Pending CCC Agenda post](#)
- [CCC Meeting Agenda](#)
- [Campus Curricula Committee Chair](#)
- [FS Meeting Agenda Chair](#)
- [Faculty Senate Chair](#)
- [Registrar](#)
- [juliep](#)

Approval Path

- 10/18/14 9:20 am wschon: Approved for RCIVILEN Chair
- 10/20/14 8:19 am kleb6b: Approved for CCC Secretary
- 11/04/14 1:53 pm sraper: Approved for Engineering DSCC Chair

History

- Sep 27, 2013 by lahne
- Sep 27, 2013 by lahne
- Apr 28, 2014 by lahne
- Aug 4, 2014 by pantaleoa

FR ENG 1100 ²	1	General Ed Elective ¹	3
MATH 1214	4	MECH ENG 1720	3
ENGLISH 1120	3	PHYSICS 1135	4
General Ed Elective ¹	3		
CHEM 1310 & CHEM 1319	5		
	17		14
Sophomore Year			
First Semester	Credits	Second Semester	Credits
CIV ENG 2200 ²	3	STAT 3113	3
MATH 2222	4	CIV ENG 2210 ²	3
PHYSICS 2135	4	CIV ENG 2211	1
ARCH ENG 2003	2	ARCH ENG 2103	3
CIV ENG 2401 ²	3	ART 3203	3
		MATH 3304	3
		MECH ENG 2350	2
	16		18
Junior Year			
First Semester	Credits	Second Semester	Credits
ARCH ENG 3201 ²	3	ARCH ENG 3805	3
CIV ENG 3330 ²	3	ARCH ENG 5872	3
ELEC ENG 2800	3	CIV ENG 3116	3
MECH ENG 2527	3	HISTORY 2510	3
ARCH ENG 3804	3	ARCH ENG 3220	3
CIV ENG 3715	3		
	18		15
Senior Year			
First Semester	Credits	Second Semester	Credits
ARCH ENG 4010	1	ARCH ENG 4097	3
ARCH ENG 3210	3	ARCH ENG Technical Elective ^{3,4}	3
ARCH ENG 4448	3	CIV ENG 4729	3
HISTORY 3550	3	General Education Elective ¹	3
ARCH ENG Technical Elective ^{3,4}	3	Basic Science Elective ⁵	3
ENG MGT 1210	2		
	15		15
Total Credits: 128			

¹ All general education electives must be approved by the student's advisor. Students must comply with the general education requirements with respect to selection and depth of study. These requirements are specified in the current catalog.

² A grade of 'C' or better required to satisfy graduation requirements.

³ A grade of 'C' or better may be required in ARCH ENG technical elective prerequisite courses. Refer to the Missouri S&T undergraduate catalog for this prerequisite information.

⁴ Choose technical electives from approved lists under Emphasis Areas for Architectural Engineering Students. A maximum of 3 credits of independent study ([ARCH ENG 5000](#) or [ARCH ENG 4099](#)) may be used as a technical elective. Additional independent study course may be taken but will not count towards the B.S. Architectural Engineering degree.

⁵ Each student is required to take three hours of basic science electives in consultation with his/her academic advisor. A list of basic science courses is provided in the advising office in BCH 119.

Note: All Architectural Engineering students must take the Fundamentals of Engineering examination prior to graduation. A passing grade on this examination is not required to earn a B.S. degree, however, it is the first step toward becoming a registered professional engineer. This requirement is part of the Missouri S&T assessment process as described in Assessment Requirements found elsewhere in this catalog. Students must sign a release form giving the University access to their Fundamentals of Engineering Examination score.

Emphasis Areas and Course Listings by Area for Architectural Engineering Students

Area I, Structural Engineering

ARCH ENG 5001	Special Topics	6
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ARCH ENG 5203	Applied Mechanics In Structural Engineering	3
ARCH ENG 5205	Structural Analysis II	3
ARCH ENG 5260	Analysis And Design Of Wood Structures	3
ARCH ENG 5207	Computer Methods of Structural Analysis	3
ARCH ENG 5210	Advanced Steel Structures Design	3
ARCH ENG 5220	Advanced Concrete Structures Design	3
ARCH ENG 5222	Prestressed Concrete Design	3
ARCH ENG 5729	Foundation Engineering II	3
ARCH ENG 5231	Infrastructure Strengthening with Composites	3
ARCH ENG 5206	Low-Rise Building Analysis And Design	3
ARCH ENG 5208	Structural Dynamics	3

Area II, Construction Engineering and Project Management

ARCH ENG 5442	Construction Planning and Scheduling Strategies	3
ARCH ENG 5445	Construction Methods	3
ARCH ENG 5446	Management Of Construction Costs	3
ARCH ENG 5448	Green Engineering: Analysis of Constructed Facilities	3
ARCH ENG 5449	Engineering and Construction Contract Specifications	3
ENG MGT 5110	Managerial Decision Making	3
ENG MGT 5613	Value Analysis	3
ENG MGT 5711	Total Quality Management	3

Area III, Environmental Systems for Buildings

ARCH ENG 5001	Special Topics	0-6
ARCH ENG 5642	Sustainability, Population, Energy, Water, and Materials	3
ARCH ENG 5665	Indoor Air Pollution	3
ARCH ENG 5850	Residential Renewable Energy Systems	3
ENG MGT 5513	Energy and Sustainability Management Engineering	3

Mechanical Emphasis Courses

MECH ENG 5309	Engineering Acoustics I	3
MECH ENG 5566	Solar Energy Technology	3
MECH ENG 5575	Mechanical Systems For Environmental Control	3

Electrical Emphasis Courses

ELEC ENG 3340	Controllers For Factory Automation	3
ELEC ENG 5150	Photovoltaic Systems Engineering	3
COMP ENG 2210 & COMP ENG 2211	Introduction to Digital Logic and Computer Engineering Laboratory	4

Area IV, Construction Materials

ARCH ENG 5203	Applied Mechanics In Structural Engineering	3
CIV ENG 5113	Composition And Properties Of Concrete	3
CIV ENG 5118	Smart Materials And Sensors	3
CIV ENG 5156	Concrete Pavement Design	3
CER ENG 5810	Principles Of Engineering Materials	3

Architectural Engineering Courses

ARCH ENG 2103	Architectural Materials And Methods Of Construction	3
ARCH ENG 3804	Architectural Design II	3
ARCH ENG 3805	Building Electrical and Lighting Systems	3
ART 3203	Architectural Design I	3

Architectural Engineering Courses (cross-list with existing civil engineering courses)

ARCH ENG 2003	Engineering Communications	2
ARCH ENG 2001	Special Topics	0-6
ARCH ENG 3000	Special Problems	1-6
ARCH ENG 3001	Special Topics	0-6
ARCH ENG 2002	Cooperative Engineering Training	1
ARCH ENG 4010	Senior Seminar: Engineering In A Global Society	1
ARCH ENG 3201	Structural Analysis I	3
ARCH ENG 3210	Structural Design In Metals	3
ARCH ENG 3220	Reinforced Concrete Design	3
ARCH ENG 4447	Ethical, Legal And Professional Engineering Practice	2
ARCH ENG 4448	Fundamentals Of Contracts And Construction Engineering	3
ARCH ENG 4097	Senior Design Project	3
ARCH ENG 5000	Special Problems	6
ARCH ENG 5001	Special Topics	6
ARCH ENG 5205	Structural Analysis II	3
ARCH ENG 5260	Analysis And Design Of Wood Structures	3
ARCH ENG 5207	Computer Methods of Structural Analysis	3
ARCH ENG 5210	Advanced Steel Structures Design	3
ARCH ENG 5220	Advanced Concrete Structures Design	3
ARCH ENG 5222	Prestressed Concrete Design	3
ARCH ENG 5445	Construction Methods	3
ARCH ENG 5446	Management Of Construction Costs	3
ARCH ENG 5449	Engineering and Construction Contract Specifications	3
ARCH ENG 5231	Infrastructure Strengthening with Composites	3
ARCH ENG 4099	Undergraduate Research	6

Civil Engineering Courses (required courses, emphasis area, and/or technical electives)

CIV ENG 3715	Fundamentals of Geotechnical Engineering	3
CIV ENG 3116	Construction Materials, Properties And Testing	3
CIV ENG 4729	Foundation Engineering	3
CIV ENG 3330	Engineering Fluid Mechanics	3
CIV ENG 5113	Composition And Properties Of Concrete	3
CIV ENG 5117	Asphalt Pavement Design	3
CIV ENG 5729	Foundation Engineering II	3
CIV ENG 5441	Professional Aspects Of Engineering Practice	3
CIV ENG 5445	Construction Methods	3
CIV ENG 5446	Management Of Construction Costs	3
CIV ENG 5449	Engineering and Construction Contract Specifications	3

Justification for request

ABET requires 32 credit hours of basic science and math. It was noted by the ABET program evaluator that Chem 1100 (formerly Chem 4) may not meet the basic science elective. As such this action was taken to remove any future concerns. Attach is a list of what has been deemed basic science courses according to ABET.

Supporting Documents

[Possible Basic Science Courses.docx](#)

Course Reviewer Comments

Program Change Request

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

Viewing: **CH ENG-BS : Chemical Engineering BS**

File: 150.4

Last approved: 05/02/14 3:49 pm

Last edit: 11/07/14 1:17 pm

Changes proposed by: kleb6b

Catalog Pages Using this Program	Chemical & Biochemical Engineering
Start Term	Fall 2015 8/15/2014
Program Code	CH ENG-BS
Department	Chemical and Biochemical Engineering
Title	Chemical Engineering BS

Program Requirements and Description

Bachelor of Science Chemical Engineering

Entering freshmen desiring to study Chemical Engineering will be admitted to the Freshman Engineering Program. They will be permitted, if they wish, to state a Chemical 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 Chemical Engineering a minimum of **129** ~~128~~ credit hours is required. These requirements are in addition to credit received for algebra, trigonometry and basic ROTC courses. An average of at least two grade points per credit hour must be attained. At least two grade points per credit hour must also be attained in all courses taken in Chemical Engineering.

Each student's program of study must contain a minimum of 21 credit hours of course work in general education and must be chosen according to the following rules:

- All students are required to take one American history course, one economics course, one humanities course, and [ENGLISH 1120](#). 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](#). The humanities course must be selected from the approved lists for art, English, foreign languages, music, philosophy, speech and media studies, or theater.
- Depth requirement. Three credit hours must be taken in humanities or social sciences at the **1000** ~~400~~-level or above and must be selected from the approved list. This course must have as a prerequisite one of the humanities or social sciences courses already taken. Foreign language **course** ~~courses~~-numbered **1180** ~~70~~-~~or~~ ~~80~~ will be considered to satisfy this requirement. Students may receive humanities credit for foreign language courses in their native tongue only if the course is at the **3000 level or above**. ~~300-level~~. All courses taken to satisfy the depth requirement must be taken after graduating from high school.
- The remaining two courses are to be chosen from the list of approved humanities/social sciences courses and may include one communications course in addition to [ENGLISH 1120](#).
- Any specific departmental requirements in the general studies area must be satisfied.
- Special topics and special problems and honors seminars are allowed only by petition to and approval by the student's department chairman.

The Chemical Engineering program at Missouri S&T is characterized by its focus on the scientific basics of engineering and its innovative application; indeed, the underlying theme of this educational program is the application of the scientific basics to engineering practice through attention to problems and needs of the public. The necessary interrelations among the various topics, the engineering disciplines, and the other professions as they naturally come together in the solution of real world problems are emphasized as research, analysis, synthesis, and design are presented and discussed through classroom and laboratory instruction.

In Workflow

- [RCHEMENG Chair](#)
- [CCC Secretary](#)
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- [FS Meeting Agenda](#)
- [Faculty Senate Chair](#)
- [Registrar](#)
- [juliep](#)

Approval Path

- 10/24/14 10:07 am
aldahhanm:
Approved for
RCHEMENG Chair
- 10/24/14 10:25 am
kleb6b: Approved
for CCC Secretary

History

- Mar 18, 2014 by
lahne
- May 2, 2014 by
lahne

Free Electives Footnote:

Free electives. Each student is required to take six hours of free electives in consultation with his/her academic advisor. Credits which do not count towards this requirement are deficiency courses (such as algebra and trigonometry) and extra credits in required courses. Any courses outside of engineering and science must be at least three credit hours.

Freshman Year			
First Semester	Credits	Second Semester	Credits
FR ENG 1100	1	MECH ENG 1720	3
CHEM 1310	4	CHEM ENG 1100 , or COMP SCI 1970 and COMP SCI 1980 , or COMP SCI 1971 and COMP SCI 1981 , or COMP SCI 1570 and COMP SCI 1580	3
CHEM 1319	1	CHEM 1320	3
ENGLISH 1120	3	MATH 1215	4
HISTORY 1200 , or 1300 , or 1310 , or POL SCI 1200	3	PHYSICS 1135	4
MATH 1214	4		
	16		17
Sophomore Year			
First Semester	Credits	Second Semester	Credits
CHEM ENG 2100 ¹	3	CHEM ENG 2310 ⁴	1
CHEM 2210	4	CHEM ENG 2110 ¹	3
ECON 1100 or 1200	3	CHEM ENG 2300	3
MATH 2222	4	Humanities or Social Science Electives ²	3
PHYSICS 2135	4	Humanities or Social Science Elective ²	3
		MATH 3304	3
	18		16
Junior Year			
First Semester	Credits	Second Semester	Credits
CHEM ENG 3100	3	CHEM ENG 4100 ⁴	2
CHEM ENG 3110	2	CHEM ENG 3130	3
CHEM ENG 3120	3	CHEM ENG 3140	3
CHEM 3410	3	CHEM ENG 3160	3
Humanities or Social Science Elective ²	3	Chem & Lab Elective ⁵	4
Humanities or Social Science Elective ²	3		
	17		15
Senior Year ³			
First Semester	Credits	Second Semester	Credits
CHEM ENG 4130 ⁴	3	CHEM ENG 4096	2
CHEM ENG 4110	3	CHEM ENG 4140	3
CHEM ENG 4120 ⁴	1	CHEM ENG 4097 ⁴	3
CHEM ENG 3150	3	CHEM ENG 5XXX-Chem Eng Elective ⁷	3
CHEM ENG 5XXX-Chem Eng Elective ⁷	3	Free Electives ⁸	3
Free Electives ⁸	3		
	16		14
Total Credits: 129			

Note: The minimum number of hours required for a degree in Chemical Engineering is **129**. ~~128~~.

A cumulative grade point average of 2.25 or better is required for admittance as a chemical engineering major.

1	A grade of "C" or better is required to meet chemical engineering degree requirements.
2	From approved list published on the website of Undergraduate Studies. The prerequisites for the upper level course must be completed with a passing grade.
3	Prior to graduation, all chemical engineering majors must take the Fundamentals of Engineering exam (See Assessment Requirements, Major Field). A passing grade is not required to earn a degree, however it is the first step toward becoming a registered professional engineer.
4	Communications emphasized course (See Bachelor of Science Degree, General Education Communications Requirement).
5	COMP SCI 1570 and COMP SCI 1580 are 4 credits total.
6	CHEM 2510 or CHEM 2220 and CHEM 2289 or CHEM 3430 and CHEM 3419 or CHEM 4610 and CHEM 4619 or BIO SCI 2213 and BIO SCI 2219 . CHEM 4610 and CHEM 4619 are 5 credits total.
7	Any CHEM ENG 5XXX class, CHEM ENG 4150 , CHEM ENG 4210 , CHEM ENG 4300 , or CHEM ENG 4310 but only one of CHEM ENG 4000 , CHEM ENG 4099 or CHEM ENG 4099H can be used to fulfill this requirement.
8	Each student is required to take six hours of free electives in consultation with his/her academic advisor. Credits which do not count towards this requirement are deficiency courses (such as algebra and trigonometry), and extra credits in required courses. Any courses outside of Engineering and Science must be at least three credit hours. ELEC ENG 2800 recommended for preparation for Fundamentals of Engineering exam.

Chemical Engineering Biochemical Engineering Emphasis

Freshman Year			
First Semester	Credits	Second Semester	Credits
FR ENG 1100	1	MECH ENG 1720	3
CHEM 1310	4	CHEM ENG 1100 , or COMP SCI 1970 and COMP SCI 1980 , or COMP SCI 1971 and COMP SCI 1981 , or COMP SCI 1570 and COMP SCI 1580 ⁵	3
CHEM 1319	1	CHEM 1320	3
ENGLISH 1120	3	MATH 1215	4
HISTORY 1200 , or 1300 , or 1310 , or POL SCI 1200	3	PHYSICS 1135	4
MATH 1214	4		
	16		17
Sophomore Year			
First Semester	Credits	Second Semester	Credits
BIO SCI 2213	3	BIO SCI 3313	3
BIO SCI 2219	1	BIO SCI 3319	2
CHEM ENG 2100 ¹	3	CHEM ENG 2110 ¹	3
CHEM 2210	4	CHEM ENG 2300	3
MATH 2222	4	CHEM 2220	4
PHYSICS 2135	4	CHEM 2289	1
		MATH 3304	3
	19		19
Junior Year			
First Semester	Credits	Second Semester	Credits
BIO SCI 4323	3	CHEM ENG 2310 ⁴	1
BIO SCI 4329	2	CHEM ENG 3130	3
CHEM ENG 3100	3	CHEM ENG 3160	3
CHEM ENG 3110	2	CHEM ENG 3200	3
CHEM ENG 3120	3	ECON 1100 or 1200	3
CHEM 3410	3	General Education Elective ²	3
	16		16

Senior Year ³			
First Semester	Credits	Second Semester	Credits
CHEM ENG 4110	3	CHEM ENG 4096	2
CHEM ENG 4120⁴	1	CHEM ENG 4210	3
CHEM ENG 4200⁴	2	CHEM ENG 4220⁴	3
CHEM ENG 3150	3	CHEM ENG 4097⁴	3
General Ed Upper Level Electives⁵	3	General Education Elective ²	3
General Education Elective²	3		
General Education Upper Level Elective ²	3		
	15		14
Total Credits: 132			

Note: The minimum number of hours required for a degree in Chemical Engineering **with an emphasis in Biochemical Engineering** is **132. 130.**

A cumulative grade point average of 2.25 or better is required for admittance as a chemical engineering major.

¹	A grade of "C" or better is required to meet chemical engineering degree requirements.
²	From approved list posted on the website of Undergraduate Studies. The prerequisites for the upper level course must be completed with a passing grade.
³	Prior to graduation, all chemical engineering majors must take the Fundamentals of Engineering exam (See Assessment Requirements, Major Field). A passing grade is not required to earn a degree, however, it is the first step toward becoming a registered professional engineer.
⁴	Communications emphasized course (See Bachelor of Science Degree, General Education Communications Requirement).
⁵	COMP SCI 1570 and COMP SCI 1580 are 4 credits total.

Justification for request Deleted subscript 1 from all Chem Eng courses except Chem Eng 2100 & Chem Eng 2110 per faculty meeting minutes and vote of April 9, 2014.

June 17, 2014 - Corrected foreign language numbers, changed 3XX to 3XXX references and changed explanation of total hours at 130 for Chemical Engineering degree with a Biochemical Emphasis. Marlene Albrecht

Supporting Documents

Course Reviewer Comments

sraper (06/13/14 10:08 am): Rollback: There are foreign language numbers need to be changed, there are 3xx, rather than 3xxx references, and you have 128 hours in two places, and 130 in another place.

kleb6b (06/13/14 10:10 am): Rollback: Rollback: There are foreign language numbers need to be changed, there are 3xx, rather than 3xxx references, and you have 128 hours in two places, and 130 in another place.

kleb6b (07/07/14 9:21 am): Change effective date to Fall 2015

sraper (07/16/14 10:30 am): at the CCC meeting, or before, the two foreign language numbers need to be changed. There are still 3xx references that should be changed to 3xxx.

kleb6b (08/22/14 12:12 pm): Changed foreign language reference to 70 or 80 to 1180.

kleb6b (08/22/14 12:14 pm): Rollback: the two foreign language numbers need to be changed. There are still 3xx references that should be changed to 3xxx. Also, in Program Requirements and Description, #2 references 1000 level and above and 3000 level. Are these correct?

kleb6b (09/09/14 8:53 am): Rollback: Rollback

kleb6b (09/09/14 10:55 am): Edit Footnote 7

kleb6b (10/22/14 1:22 pm): Rollback: Rollback

kleb6b (11/05/14 9:51 am): Edit Footnote

sraper (11/07/14 1:03 pm): Changed minimum hour counts to match curriculum.
128/129, and 130/132.

kleb6b (11/07/14 1:16 pm): Changes per Steve Raper

kleb6b (11/07/14 1:17 pm): Correct Footnote

Key: 150

Program Change Request

Date Submitted: 10/21/14 8:22 am

Viewing: **MI ENG-BS : Mining Engineering BS**

File: 95.11

Last approved: 04/28/14 2:13 pm

Last edit: 10/22/14 10:17 am

Changes proposed by: cifarellit

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

Start Term 8/1/2014

Program Code MI ENG-BS

Department Mining & Nuclear Engineering

Title Mining Engineering BS

Program Requirements and Description

Bachelor of Science Mining Engineering

Entering freshmen desiring to study Mining Engineering will be admitted to the Freshman Engineering Program. They will, however, be permitted, if they wish, to state a Mining Engineering preference, which will be used as a consideration for available freshman departmental scholarships. The focus of the Freshman Engineering program is on **fundamental sciences enhanced advising** and **mathematics, 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. In addition, students who state the Mining Engineering preference are required to complete the Mining Engineering 2126 during the first or second semester on campus. major.**

For the Bachelor of Science degree in Mining 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 at least two grade points per credit hour for all courses taken in the student's major department, and an average of at least two grade points per credit hour must be maintained in Mining Engineering.

Each student's program of study must contain a minimum of **21 49** credit hours of course work **in general education from the humanities** and **must the social sciences areas and should** be chosen according to the following rules:

1. All students are required to take one American history **course, course and** one economics **course, one humanities course and ENGLISH 1120. 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](#) . **The humanities course must be selected from the approved lists for art, English, foreign languages, music, philosophy, speech and media studies, or theater.**
2. Of the remaining hours, six credit hours must be taken in humanities or social sciences at the 2000 level or above and must be selected from the approved lists. Each of these courses must have as a prerequisite one of the humanities or social sciences courses already taken. Foreign language courses can be considered to be one of these courses. (Students may receive humanities credit for foreign language courses in their native tongue only if the course is at the 4000 or 5000 level.)
3. Some departments list specific requirements; e.g., a psychology course, a literature course, and/or a second semester of economics. Selections should be made to ensure that these requirements are met.
4. Special topics, special problems courses and honors seminars are allowed only by petition to and approval by the student's department chairman.

The Mining Engineering program at Missouri S&T is characterized by its focus on the scientific basics of engineering and its innovative application; indeed, the underlying theme of this educational program is the application of the scientific basics to engineering practice through attention to problems and needs of the public. The necessary interrelations among the various topics, the engineering disciplines, and the other professions as they naturally come together in the solution of real world problems are emphasized as research, analysis, synthesis, and design are presented and discussed through classroom and laboratory instruction.

Freshman Year			
First Semester	Credits	Second Semester	Credits
CHEM 1310	4	MATH 1215	4
CHEM 1319	1	PHYSICS 1135	4
FR ENG 1100	1	MECH ENG 1720	3
MATH 1214	4	MIN ENG 1912	1

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 Chair](#)
8. [Faculty Senate Chair](#)
9. [Registrar](#)
10. [juliep](#)

Approval Path

1. 10/21/14 8:38 am
frimpong: Approved for RMINNUCL Chair
2. 10/21/14 8:39 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:01 pm
srafer: Approved for Engineering DSCC Chair

History

1. Apr 28, 2014 by
kabp3

General Education Elective ^{1,1}	3	MIN ENG 2126	1
GEO ENG 1150	3	GEOLOGY 2611	3
HISTORY 1200, or 1300, or 1310, or POL-SCI 1200	3	General Education Elective ^{1,2}	3
CHEM 1100	1		
	17		19
Sophomore Year			
First Semester	Credits	Second Semester	Credits
MIN ENG 3912	3	ENGLISH 1420	3
General Education Elective ^{1,3}	3	PHYSICS 2135	4
MATH 2222	4	MECH ENG 2340	3
GEOLOGY 3310	3	MATH 3304	3
ECON 4100 or 4200	3	MIN ENG 2924	3
MIN ENG 2944	3	CHEM 3410	3
GEOLOGY 3319	1	General Education Elective ^{1,4}	3
MIN ENG 2925	2		
	16		16
Junior Year			
First Semester	Credits	Second Semester	Credits
MIN ENG 3913	3	MIN ENG 4522	3
ENGLISH 1600	3	MIN ENG 4113	3
CIV ENG 2210	3	Human/Soe-Se ¹	3
CIV ENG 3330	3	MIN ENG 4932	3
MIN ENG 3412	3	MIN ENG 4933	3
STAT 3113	3	MIN ENG 3412	3
Human/Soe-Se ¹	3	MIN ENG 4823	3
General Education Elective ^{1,5}	3		
	18		15
Senior Year			
First Semester	Credits	Second Semester	Credits
MIN ENG 5612	3	MIN ENG 4742	3
MIN ENG 4912	3	MIN ENG 4097 ^B	4
MIN ENG 4512 ^B	2	Human/Soe-Se ¹	3
MIN ENG 4824	2	Technical Elective ^{2,3,4,5,6,7}	3
General Education Elective ^{1,6}	3	General Education Elective ^{1,7}	3
MIN ENG 4096 ^B	3		
Technical Elective ^{2,3,4,5,6,7}	3		
	14		13
Total Credits: 128			

¹ **General Education Electives (GECs):** The curriculum contains 21 GEC hours. ^{1,1}Must be either HISTORY 1200, HISTORY 1300, HISTORY 1310 or POL SCI 1200; ^{1,2}Must be ENGLISH 1120; ^{1,3}Must be either ECON 1100 or ECON 1200; ^{1,4}Must be ENGLISH 1600; ^{1,5}Must focus on economics of large enterprise, such as ECON 3512 or MIN ENG 3512; ^{1,6}Must focus on challenges of managing and/or leading industrial organizations, such as ECON 4643, PSYCH 4610 or MIN ENG 4512; ^{1,7}Humanities or Social Science elective.

² **Explosives Engineering Emphasis:** MIN ENG 5622 (Blasting Tech) and either MIN ENG 4001 (Special Topics Explosives), MIN ENG 4099 (Undergraduate Research in Explosives), MIN ENG 4823 (Rock Mechanics) or MIN ENG 4922 (Tunneling/Construction) have to be taken as Technical Electives.

³ **Quarrying Emphasis:** Two of CIV ENG 3116 (Construction Materials); MIN ENG 4212 (Advanced Aggregate and Quarrying); and MIN ENG 4412 (Aggregate Materials) have to be taken as Technical Electives.

⁴ **Coal Emphasis:** Two of MIN ENG 4322 (Coal Mine Development and Production), MIN ENG 4414 (Mine Plant Management) or an approved substitute course must be taken as Technical Electives.

⁵ **Mining and the Environment Emphasis:** GEO ENG 5235 (Environmental Geological Engineering) and GEO ENG 5233 (Risk Assessment in Environmental Studies), or approved substitute courses have to be taken as Technical Electives.

⁶ **Mining Health and Safety Emphasis:** MIN ENG 3002 (Mine Rescue), ENG MGT 4330 (Human Factors), or other approved substitute courses must be taken as Technical Electives.

7	Sustainable Development Emphasis: POL SCI 3310 (Public Policy Analysis), ECON 4440 (Environmental and Natural Resource Economics), or other approved substitute courses must be taken as Technical Electives.
8	Mining courses in <i>italics</i> are offered every semester.

Graduating Mining Engineers Examination

Mining engineering students must complete the Graduating Mining Engineers (GME) Examination prior to graduation as a senior assessment requirement. A passing grade on this examination is required to earn a B.S. degree in mining engineering. The GME Examination comprises the Surface Mining Engineering (SME) and Underground Mining Engineering (UME) Examinations. The SME Exam focuses on [MIN ENG 3912](#) Materials Handling In Mines, [MIN ENG 2914](#) Surface Mine Design, [MIN ENG 3412](#) Principles Of Mineral Processing, [MIN ENG 5612](#) Principles Of Explosives Engineering, [MIN ENG 4933](#) Surface Mining Methods And Equipment, and [MIN ENG 4824](#) Soils and Overburden Materials for Mining Engineering. The UME Exam focuses on [MIN ENG 2924](#) Underground Mine Design, [MIN ENG 3512](#) Mining Industry Economics, [MIN ENG 4912](#) Mine Power And Drainage, [MIN ENG 4932](#) Underground Mining Methods And Equipment, and [MIN ENG 4823](#) Rock Mechanics.

Mining engineering students are required to pass the GME Exam in order to graduate. The GME Exam will be graded with Pass or Fail designation. A mark below 50% will be assigned a failing grade and a mark of 85% or above will be a Pass with Distinction. Graduating seniors will have two opportunities to complete the GME requirement. However, students who fail these two attempts can register and complete the examination after completing the required 128 credits in Mining Engineering.

Mining Health and Safety Emphasis

Junior and Senior Years		
MIN ENG 3002	Mine Rescue (or approved substitute course in lieu of Technical Elective.)	3
ENG MGT 4330	Human Factors (or approved substitute course in lieu of Technical Elective.)	3

Sustainable Development Emphasis

Junior and Senior Years		
POL SCI 3300	Principles Of Public Policy (or approved substitute course in lieu of Technical Elective.)	3
ECON 4440	Environmental And Natural Resource Economics (or approved substitute course in lieu of Technical Elective.)	3

Quarrying Engineering Emphasis

Senior Year		
CIV ENG 3116	Construction Materials, Properties And Testing (in lieu of Technical Elective.)	3
MIN ENG 4212	Advanced Aggregate and Quarrying (in lieu of Technical Elective.)	3

Explosives Engineering Emphasis

Junior and Senior Years		
Choose one of the following courses in lieu of Technical Elective in Junior Year:		
A three-credit hour explosives engineering (EXP ENG) course		
MIN ENG 4922	Tunneling & Underground Construction Techniques	
or MIN ENG 5922	Advanced Tunneling & Underground Construction Techniques	
GEO ENG 5471	Rock Engineering	
In lieu of Technical Elective in Senior Year:		
EXP ENG 5622	Blasting Design And Technology	

Coal Emphasis

Junior and Senior Years		
MIN ENG 4322	Coal Mine Development And Production (in lieu of Technical Elective.)	3
MIN ENG 4414	Mine Plant Management (or approved substitute course in lieu of Technical Elective.)	2

Mining and the Environment Emphasis

Junior and Senior Years		
ENV ENG 5640	Environmental Law And Regulations	3
GEO ENG 5233	Risk Assessment In Environmental Studies (or approved substitute course in lieu of Technical Elective.)	3

Justification for request Request for curriculum changes to the B.S. in Mining Engineering Program are in order to fully meet ABET requirements.

Supporting
Documents

Course Reviewer **frimpong (10/20/14 1:45 pm)**: Rollback: Remove the superscript "1" after MEC ENG
Comments 2340

frimpong (10/20/14 4:45 pm): Rollback: Let's change GEO 3310 to 3 credits and add
GEO 3319 1 credit to make the 4 credits

sraper (10/22/14 10:17 am): Removed reference to mine safety from the FEP
paragraph and added a statement with regard to mine safety in the first or second
semester. Verified by email with Samuel Frimpong.

Key: 95

Course Inventory Change Request

New Course Proposal

Date Submitted: 09/08/14 9:28 am

Viewing: **ARCH ENG 5270 : Structural Masonry Design**

File: 4113

Last edit: 11/07/14 8:16 am

Changes proposed by: baur

Requested	Fall 2015
Effective Change Date	
Department	Civil, Architectural, and Environmental Engineering
Discipline	Architectural Engineering (ARCH ENG)
Course Number	5270
Title	Structural Masonry Design
Abbreviated Course Title	Struct Masonry Design

Catalog

Description

Review of the theory and practice of analyzing low-rise masonry structures, materials and assembly types, constructability considerations, structural masonry components, repair and strengthening, and model code requirements to ensure adequate load resisting buildings.

Prerequisites

Arch Eng 3201 or Civ Eng 3201.

Field Trip

Statement

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

Required for Majors	No
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Elective for Majors	Yes
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Justification for

In Workflow

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

Approval Path

1. 10/20/14 11:53 am
wschon: Approved for RCIVILEN Chair
2. 10/20/14 11:55 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 1:54 pm
srafer: Approved for Engineering DSCC Chair
4. 11/07/14 8:14 am
kleb6b: Approved for Pending CCC Agenda post

new course: The course has been taught 3 times as an experimental course and has had good attendance.

Semesters previously offered as an experimental course It was taught in the Fall 2011, Fall 2012 and Spring 2014

Co-Listed Courses: CIV ENG 5270 - **Course Not Found**

Course Reviewer **kleb6b (09/08/14 9:25 am)**: Rollback: Correct spelling
Comments

Key: 4113

Course Inventory Change Request

Date Submitted: 10/09/14 10:40 am

Viewing: **CIV ENG 2601 : Fundamentals Of Environmental Engineering And Science**

File: 1451.1

Last edit: 11/07/14 8:16 am

Changes proposed by: mfitch

Programs referencing this course: [CV ENG-BS: Civil Engineering BS](#)

Other Courses referencing this course:

In The Catalog Description:

[ENV ENG 2601 : Fundamentals of Environmental Engineering and Science](#)

In The Prerequisites:

[ARCH ENG 5665 : Indoor Air Pollution](#)
[BIO SCI 5313 : Pathogenic Microbiology](#)
[CIV ENG 3615 : Water And Wastewater Engineering](#)
[CIV ENG 5605 : Environmental Systems Modeling](#)
[CIV ENG 5650 : Public Health Engineering](#)
[CIV ENG 5665 : Indoor Air Pollution](#)
[CIV ENG 5670 : Solid Waste Management](#)
[CIV ENG 6608 : Environmental Engineering Analysis Laboratory](#)
[ENV ENG 3615 : Water And Wastewater Engineering](#)
[ENV ENG 5605 : Environmental Systems Modeling](#)
[ENV ENG 5650 : Public Health Engineering](#)
[ENV ENG 5665 : Indoor Air Pollution](#)
[ENV ENG 5670 : Solid Waste Management](#)
[ENV ENG 6608 : Environmental Engineering Analysis Laboratory](#)

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

Department: Civil, Architectural, and Environmental Engineering

Discipline: Civil Engineering (CIV ENG)

Course Number: 2601

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. 10/18/14 9:21 am wschon: Approved for RCIVILEN Chair
2. 10/20/14 8:21 am kleb6b: Approved for CCC Secretary
3. 11/04/14 1:54 pm sraper: Approved for Engineering DSCC Chair

Title	Fundamentals Of Environmental Engineering And Science				
Abbreviated Course Title	Fund Of Env Engr & Sci				
Catalog Description	Course discusses fundamental chemical, physical, and biological principles in environmental engineering and science. Topics include environmental phenomena, aquatic pollution and control, solid waste management, air pollution and control, radiological health, and water and wastewater treatment systems, sustainability and life cycle analyses. systems.				
Prerequisites					
Field Trip Statement					
Credit Hours	LEC: 2	LAB: 1	IND: 0	RSD: 0	Total: 3
Required for Majors	Yes				
Elective for Majors	No				
Justification for change:	ABET Program Criteria requires: "The curriculum must prepare graduates to ... design environmental engineering systems that include considerations of risk, uncertainty, sustainability, life-cycle principles, and environmental impacts;" This change codifies that sustainability and life cycle principles are in the program and thus address the weakness the PEV kindly identified.				
Semesters previously offered as an experimental course					
Co-Listed Courses:	ENV ENG 2601 - Fundamentals of Environmental Engineering and Science				
Course Reviewer Comments	sraper (10/21/14 9:38 am): Changed to Required for major, verified by phone with Mark Fitch.				

Key: 1451

Course Inventory Change Request

New Course Proposal

Date Submitted: 10/20/14 11:32 am

Viewing: **CIV ENG 5270 : Structural Masonry Design**

File: 4134

Last edit: 10/20/14 11:32 am

Changes proposed by: kleb6b

Requested	Spring 2015
Effective Change Date	
Department	Civil, Architectural, and Environmental Engineering
Discipline	Civil Engineering (CIV ENG)
Course Number	5270
Title	Structural Masonry Design
Abbreviated Course Title	Struct Masonry Design

Catalog

Description

Review of the theory and practice of analyzing low-rise masonry structures, materials and assembly types, constructability considerations, structural masonry components, repair and strengthening, and model code requirements to ensure adequate load resisting buildings.

Prerequisites

ArchE 3201 or CE 3201.

Field Trip

Statement

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

Required for Majors	No
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Majors

Elective for Majors	Yes
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Majors

Justification for	The course has been taught 3 times as an experimental course and has had good
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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. 10/20/14 11:53 am
wschon: Approved for RCIVILEN Chair
2. 10/20/14 11:56 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 1:54 pm
srafer: Approved for Engineering DSCC Chair

new course: attendance.

Semesters It was taught in the Fall 2011, Fall 2012 and Spring 2014
previously
offered as an
experimental
course

Co-Listed ARCH ENG 5270 - **Course Not Found**
Courses:

Course Reviewer
Comments

Key: 4134

Course Inventory Change Request

Date Submitted: 10/13/14 9:30 am

Viewing: **CIV ENG 5448 ~~5460~~: Green Engineering: Analysis of Constructed Facilities**

File: 439.1

Last edit: 11/07/14 8:22 am

Changes proposed by: wes

Programs referencing this course	CV ENG-BS: Civil Engineering BS
Requested Effective Change Date	Fall 2014 2015
Department	Civil, Architectural, and Environmental Engineering
Discipline	Civil Engineering (CIV ENG)
Course Number	5460 5448
Title	Green Engineering: Analysis of Constructed Facilities
Abbreviated Course Title	Green Building

Catalog Description
Environmentally sound design and construction practices. Includes design issues, material selection and site issues that can reduce the impact on the environment caused by the construction process. LEED certification covered in depth.

Prerequisites
Civ Eng 4448 or Arch Eng 4448; and Junior Standing.

Field Trip Statement

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

Required for Majors **No**

In Workflow

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

Approval Path

1. 10/18/14 9:21 am wschon: Approved for RCIVILEN Chair
2. 10/20/14 8:21 am kleb6b: Approved for CCC Secretary
3. 11/04/14 1:54 pm sraper: Approved for Engineering DSCC Chair
4. 11/07/14 8:22 am kleb6b: Approved for Pending CCC Agenda post

Elective for
Majors

Yes

Justification for
change:

This course is co-listed with Arch Eng 5448 but somehow got the number CE 5460. It was formerly 348 in both programs and should now end in -48 to be consistent with our re-numbering scheme. Arch Eng will be unchanged, this course will become CE 5448.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

ARCH ENG 5448 - Green Engineering: Analysis of Constructed Facilities

Course Reviewer
Comments

sraper (10/21/14 9:39 am): Changed to Elective for majors verified by phone with Stuart Baur.

Key: 439

Course Inventory Change Request

Date Submitted: 09/26/14 11:59 am

Viewing: **COMP ENG 2210 : Introduction to Digital Logic**

~~Introduction To Computer Engineering~~

File: 649.1

Last edit: 09/26/14 11:59 am

Changes proposed by: stanleyj

Programs referencing this course	ARC ENG-BS: Architectural Engineering BS CMP SC-BS: Computer Science BS CP ENG-BS: Computer Engineering BS CP ENG-MI: Computer Engineering Minor EL ENG-BS: Electrical Engineering BS
Other Courses referencing this course	<p><u>In The Prerequisites:</u></p> COMP ENG 2211 : Computer Engineering Laboratory COMP ENG 3110 : Computer Organization and Design COMP ENG 3150 : Digital Systems Design COMP ENG 3151 : Digital Engineering Lab II COMP ENG 4096 : Computer Engineering Senior Project I COMP ENG 5210 : Introduction To VLSI Design COMP ENG 5220 : Digital System Modeling COMP ENG 5230 : Optical Computing COMP ENG 5460 : Machine Vision COMP ENG 5510 : Fault-Tolerant Digital Systems COMP ENG 5803 : Mathematical Logic I COMP ENG 6210 : Digital Logic COMP SCI 3803 : Computer Organization COMP SCI 5203 : Mathematical Logic I ELEC ENG 3100 : Electronics I ELEC ENG 3101 : Electronics I Laboratory ELEC ENG 3340 : Controllers For Factory Automation ELEC ENG 4096 : Electrical Engineering Senior Project I ELEC ENG 5250 : Optical Computing ELEC ENG 5460 : Machine Vision MATH 5154 : Mathematical Logic I PHILOS 4354 : Mathematical Logic I

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

In Workflow

1. RELECENG 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. 09/29/14 2:17 pm
kte: Approved for RELECENG Chair
2. 09/30/14 7:52 am
kleb6b: Approved for CCC Secretary
3. 10/13/14 10:01 am
sraپر: Approved for Engineering DSCC Chair

Department Electrical and Computer Engineering

Discipline Computer Engineering (COMP ENG)

Course Number 2210

Title **Introduction to Digital Logic**~~Introduction To Computer Engineering~~

Abbreviated **Intro to Digital Logic**~~Intro To~~

Course Title ~~Computer Engr~~

Catalog Description Binary arithmetic, Boolean algebra, logic and memory elements, computer organization.

Prerequisites Sophomore standing. Comp Eng 2211 is also a co-requisite for Comp Eng and Elec Eng majors.

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: The current course title "Introduction to Computer Engineering" does not properly reflect the course content. The course title "Introduction to Digital Logic" provides a more accurate description of the course content.

The course title change was approved by the Computer Engineering faculty on September 25, 2014.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments

Course Inventory Change Request

Date Submitted: 09/26/14 12:06 pm

Viewing: **COMP ENG 3150 : Introduction to Microcontrollers and Embedded System Design** ~~Digital Systems Design~~

File: 1627.3

Last approved: 06/30/14 3:54 am

Last edit: 11/07/14 8:26 am

Changes proposed by: stanleyj

Programs referencing this course	CMP SC-BS: Computer Science BS CP ENG-BS: Computer Engineering BS CP ENG-MI: Computer Engineering Minor EL ENG-BS: Electrical Engineering BS
Other Courses referencing this course	<u>In The Prerequisites:</u> COMP ENG 3110 : Computer Organization and Design COMP ENG 3151 : Digital Engineering Lab II COMP ENG 4096 : Computer Engineering Senior Project I COMP ENG 4151 : Digital Systems Design Laboratory COMP ENG 4160 : Embedded Processor System Design COMP ENG 5120 : Digital Computer Design COMP ENG 5170 : Real-Time Systems COMP ENG 5410 : Digital Network Design COMP ENG 5430 : Wireless Networks COMP SCI 3800 : Introduction To Operating Systems COMP SCI 5803 : Introduction to High Performance Computer Architecture ELEC ENG 5430 : Wireless Networks ELEC ENG 5620 : Signal Integrity In High-Speed Digital & Mixed Signal Design SYS ENG 5323 : Wireless Networks

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

Department: Electrical and Computer Engineering

Discipline: Computer Engineering (COMP ENG)

Course Number: 3150

Title: **Introduction to Microcontrollers and Embedded System Design** ~~Digital~~

In Workflow

1. RELECENG 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. 09/29/14 2:17 pm
kte: Approved for RELECENG Chair
2. 09/30/14 7:52 am
kleb6b: Approved for CCC Secretary
3. 10/13/14 10:02 am
srafer: Approved for Engineering DSCC Chair

History

1. Jun 30, 2014 by stanleyj (1627.1)

~~Systems Design~~

Abbreviated

Micro and Embed Design

Course Title

~~Digital Systems Design~~

Catalog

Description

Microcontroller-based digital system design methodology and techniques. Topics include basic machine organization, interface design, and C and assembly language programming for real-time embedded systems.

Prerequisites

COMP ENG 2210 and COMP SCI 1570 (or programming equivalent) each with grade of "C" or better.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

Yes~~No~~

Majors

Elective for

No

Majors

Justification for
change:

The current course title "Digital System Design" does not properly reflect the course content. The course title "Introduction to Microcontrollers and Embedded System Design" provides a more accurate description of the course content.

The course title change was approved by the Computer Engineering faculty on September 25, 2014.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

sraper (10/13/14 10:02 am): Form had Fall 2014, so changed to Spring 2015

Comments

Course Inventory Change Request

Date Submitted: 09/26/14 1:52 pm

Viewing: **COMP ENG 5151 4151: Digital Systems Design Laboratory**

File: 71.3

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

Last edit: 11/07/14 8:27 am

Changes proposed by: stanleyj

Requested	Fall 2015 2014
Effective Change Date	
Department	Electrical and Computer Engineering
Discipline	Computer Engineering (COMP ENG)
Course Number	5151 4151
Title	Digital Systems Design Laboratory
Abbreviated Course Title	Digital Sys Design Lab

Catalog

Description

Experimental studies of problems with high speed digital signals in circuits. Student designs, wires, tests, and programs a microprocessor based single board computer project. A FPGA design is programmed and tested.

Prerequisites

COMP ENG 3150 or 5110.

Field Trip

Statement

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

Required for Majors	No
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Elective for Majors	Yes No
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Justification for This course was originally Comp Eng 312 before the 4-digit course number change to

In Workflow

1. RELECENG 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. 09/29/14 2:17 pm
kte: Approved for RELECENG Chair
2. 09/30/14 7:52 am
kleb6b: Approved for CCC Secretary
3. 10/13/14 10:02 am
srafer: Approved for Engineering DSCC Chair

History

1. Jun 30, 2014 by stanleyj (71.1)

change: Comp Eng 4151, effective in fall 2014. This course has been commonly taken by undergraduate and graduate students who have interests in microprocessors and hardware /software codesign. In order to sustain the course offering for undergraduate and graduate students, the course number change from Comp Eng 4151 to Comp Eng 5151 is sought. The Computer Engineering faculty approved this course number change (from Comp Eng 4151 to Comp Eng 5151) on September 25, 2014.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer **sraper (10/06/14 5:00 pm):** changed effective date from Fall 2014 to Spring 2015

Comments

Key: 71

Course Inventory Change Request

Date Submitted: 09/26/14 1:55 pm

Viewing: **COMP ENG 5160 4160: Embedded Processor System Design**

File: 764.3

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

Last edit: 10/13/14 10:04 am

Changes proposed by: stanleyj

Requested	Fall 2015 2014
Effective Change Date	
Department	Electrical and Computer Engineering
Discipline	Computer Engineering (COMP ENG)
Course Number	5160-4160
Title	Embedded Processor System Design
Abbreviated Course Title	Embedded Proc Sys Design

Catalog

Description

Development of hardware and software for embedded systems, including real-time operating systems, advanced programming, communication schemes, hardware peripherals and sensors, control methodologies, printed-circuit board design, interrupts, microcontrollers, and hardware-software co-design. One or more team design projects.

Prerequisites

COMP ENG 3150 or equivalent and 80x51 processor experience.

Field Trip

Statement

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

Required for Majors	No
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Elective for	Yes No
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In Workflow

1. RELECENG 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. 09/29/14 2:17 pm
kte: Approved for RELECENG Chair
2. 09/30/14 7:52 am
kleb6b: Approved for CCC Secretary
3. 10/13/14 10:04 am
srafer: Approved for Engineering DSCC Chair

History

1. Jun 30, 2014 by stanleyj (764.1)

Majors

Justification for change: This course was originally Comp Eng 314 before the 4-digit course number change to Comp Eng 4160, effective in fall 2014. This course has been commonly taken by undergraduate and graduate students who have interests in embedded systems. In order to sustain the course offering for undergraduate and graduate students, the course number change from Comp Eng 4160 to Comp Eng 5160 is sought. The Computer Engineering faculty approved this course number change (from Comp Eng 4160 to Comp Eng 5160) on September 25, 2014.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments **sraper (10/13/14 10:04 am):** The DSCC committee questioned the Prerequisite. Joe Stanley replied as follows: The 8051 microcontroller is the primary topic for CpE 3150. I believe that this prereq for CpE 5160 was included for graduate students who have not explicitly taken CpE 3150 but who have 8051 processor experience.

Key: 764

Course Inventory Change Request

Date Submitted: 10/28/14 11:09 am

Viewing: **COMP ENG 5410 : Introduction to Computer Communication Networks** ~~Digital Network Design~~

File: 2454.1

Last edit: 11/05/14 9:52 am

Changes proposed by: stanleyj

Catalog Pages referencing this course	Systems Engineering
Programs referencing this course	CP ENG-BS: Computer Engineering BS CP ENG-MI: Computer Engineering Minor
Other Courses referencing this course	<u>In The Prerequisites:</u> COMP ENG 5420 : Introduction to Network Security COMP ENG 6430 : High Speed Networks COMP ENG 6440 : Network Performance Analysis COMP SCI 6303 : Pervasive Computing COMP SCI 6602 : Network Performance Analysis

Requested Effective Change Date	Fall 2014 2015
Department	Electrical and Computer Engineering
Discipline	Computer Engineering (COMP ENG)
Course Number	5410
Title	Introduction to Computer Communication Networks Digital Network Design
Abbreviated Course Title	Communication Networks Digital Network Design

Catalog Description: Design of computer networks with emphasis on network architecture, protocols and standards, performance considerations, and network technologies. Topics include: LAN, MAN, WAN, congestion/flow/error control, routing, addressing, broadcasting, multicasting, switching, and internetworking. A modeling tool is used for network

In Workflow

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

Approval Path

1. 11/03/14 1:59 pm daryl: Approved for RELECENG Chair
2. 11/03/14 2:11 pm kleb6b: Approved for CCC Secretary
3. 11/07/14 12:58 pm sraper: Approved for Engineering DSCC Chair

design and simulation.

Prerequisites Comp Eng **3150** ~~3550~~ or computer hardware competency.

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: Course title change is sought to better reflect the course content.

The course title change was approved by the Computer Engineering faculty on
September 25, 2014.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer **sraper (11/05/14 9:52 am):** Changed to required for majors via email approval from
Comments Joe Stanley

Key: 2454

Course Inventory Change Request

Date Submitted: 10/28/14 11:12 am

Viewing: **COMP ENG 5420 : Introduction to Network Security**

Trustworthy, Survivable Computer Networks

File: 2460.1

Last edit: 11/05/14 9:52 am

Changes proposed by: stanleyj

Catalog Pages referencing this course	Systems Engineering
Programs referencing this course	CP ENG-BS: Computer Engineering BS
Other Courses referencing this course	<p><u>In The Prerequisites:</u></p> <p>COMP ENG 6420 : Wireless Ad hoc and Sensor Networks</p> <p>COMP ENG 6510 : Resilient Networks</p> <p>COMP SCI 6605 : Advanced Network Security</p> <p>ELEC ENG 6430 : Wireless Ad hoc and Sensor Networks</p> <p>SYS ENG 6322 : Network-Centric Systems Reliability and Security</p> <p>SYS ENG 6324 : Wireless Ad hoc and Sensor Networks</p>

Requested Effective Change Date	Fall 2015 2014
Department	Electrical and Computer Engineering
Discipline	Computer Engineering (COMP ENG)
Course Number	5420
Title	Introduction to Network Security Trustworthy, Survivable Computer Networks
Abbreviated Course Title	Network Security Trustworthy Networks

Catalog Description: This course examines basic issues in network management, testing, and security; it also discusses key encryption, key management, authentication, intrusion detection,

In Workflow

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

Approval Path

1. 11/03/14 2:00 pm daryl: Approved for RELECENG Chair
2. 11/03/14 2:11 pm kleb6b: Approved for CCC Secretary
3. 11/07/14 12:58 pm sraper: Approved for Engineering DSCC Chair

malicious attack, and insider threats. Security of electronic mail and electronic commerce systems is also presented.

Prerequisites Comp Eng 5410 or Comp Sci 4601.

Field Trip
Statement

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

Required for
Majors **No**

Elective for
Majors **Yes**

Justification for
change: Course title change is sought to better reflect the course content.

The course title change was approved by the Computer Engineering faculty on September 25, 2014.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer **sraper (11/05/14 9:52 am):** changed to elective for majors via email from Joe
Comments Stanley

Key: 2460

Course Inventory Change Request

New Course Proposal

Date Submitted: 10/24/14 4:09 pm

Viewing: **ECON 4512 : Mine Management**

File: 4137

Last edit: 11/07/14 8:30 am

Changes proposed by: marcys

Requested	Fall 2015
Effective Change Date	
Department	Economics
Discipline	Economics (ECON)
Course Number	4512
Title	Mine Management
Abbreviated Course Title	Mine Management

Catalog

Description

Theory and practice of mine management, including basic managerial functions, management theories, communication skills, motivation, leadership, organization, maintenance management, managerial decision making, cost control, labor relations, government relations, ethics and risks management, with emphasis in presentation skills.

Prerequisites

Completion of 100 credits in Mining Engineering curriculum.

Field Trip

Statement

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

Required for

Majors

Elective for

Majors

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. 10/24/14 4:17 pm
gelles: Approved for RECONOMI Chair
2. 10/28/14 10:46 am
kleb6b: Approved for CCC Secretary
3. 10/29/14 10:08 am
barryf: Approved for Social Sciences DSCC Chair

Justification for new course: This course will be cross-listed with existing course Mi Eng 4512 / Mine Management. This crosslist is needed as part of our developing curriculum for our new proposed Master's Degree in Mining/Mineral Economics.

Semesters previously offered as an experimental course

Co-Listed Courses: MIN ENG 4512 - Mine Management

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

Key: 4137

Course Inventory Change Request

Date Submitted: 06/19/14 9:50 am

Viewing: **EXP ENG 6099 : Research**

File: 948.1

Last edit: 11/07/14 8:32 am

Changes proposed by: lahne

Catalog Pages referencing this course [Explosives Engineering](#)

Programs referencing this course [EXP EN-MS: Explosives Engineering MS](#)

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

Department Mining & Nuclear Engineering

Discipline Explosives Engineering (EXP ENG)

Course Number 6099

Title Research

Abbreviated Course Title Research

Catalog Description
Investigations of an advanced nature leading to the preparation of a thesis or dissertation. Consent of instructor required.

Prerequisites

Field Trip Statement

Credit Hours LEC: 0 LAB: 0 IND: ~~0-15~~ **0** RSD: 0
Total: ~~0-15~~ **0-15**
~~1-6~~

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. 08/04/14 10:19 am
frimpong:
Approved for
RMINNUCL Chair
2. 08/04/14 10:33 am
kleb6b: Approved
for CCC Secretary
3. 08/12/14 9:16 am
srafer: Rollback
to RMINNUCL
Chair for
Engineering DSCC
Chair
4. 10/16/14 10:53 am
frimpong:

Required for
Majors **No**

Elective for
Majors **No**

Justification for
change:

Credit hours need to be adjusted since there are both Explosive Engineering Masters and PhD programs.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Approved for
RMINNUCL Chair
5. 10/16/14 11:18
am
kleb6b: Approved
for CCC Secretary
6. 11/04/14 1:55 pm
sraper: Approved
for Engineering
DSCC Chair

Course Reviewer **sraper (08/12/14 9:16 am):** Rollback: Effective date cannot be Fall 2014. Required for
Comments Majors and Elective for Majors cannot both be No.

sraper (10/21/14 9:40 am): During CCC meeting with this form, we need to discuss required versus elective. I will have email from Paul Worsey at the meeting where this form comes up.

sraper (11/04/14 1:55 pm): unclear on this one, will discuss with CCC committee.

Key: 948

Course Inventory Change Request

Date Submitted: 10/30/14 1:55 pm

Viewing: **EXP ENG 6292 : Research Methods**

File: 795.1

Last edit: 11/05/14 9:55 am

Changes proposed by: cifarellit

Other Courses
referencing this
course

In The Catalog Description:
[MIN ENG 6992 : Research Methods](#)

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

Department Mining & Nuclear Engineering
Discipline Explosives Engineering (EXP ENG)
Course Number 6292
Title Research Methods
Abbreviated Research Methods
Course Title

Catalog
Description
Foundations, dimensions, and methods for designing and investigating research problems. Focus on fundamentals and applied research, research methods, literature review, experimental design and experimentation, dissertation composition, concepts of originality and intellectual property.

Prerequisites
PhD Candidates only. ~~Graduate standing.~~

Field Trip
Statement

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

Required for
Majors **Yes**

Elective for
Majors **No**

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. 10/30/14 2:34 pm
frimpong:
Approved for
RMINNUCL Chair
2. 10/30/14 3:25 pm
kleb6b: Approved
for CCC Secretary
3. 11/07/14 12:57
pm
srafer: Approved
for Engineering
DSCC Chair

Justification for change: Graduate Standing was too broad of a prereq statement. PhD Candidates makes the enrollment more specific.

Semesters previously offered as an experimental course

Co-Listed Courses: MIN ENG 6992 - Research Methods

Course Reviewer Comments **sraper (11/05/14 9:55 am):** Changed to Required for majors via email from Tina Alobaidan

Key: 795

Course Inventory Change Request

Date Submitted: 10/16/14 11:16 am

Viewing: **MIN ENG 4096 : Mine Design Project I**

File: 1944.3

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

Last edit: 10/16/14 11:28 am

Changes proposed by: cifarellit

Programs referencing this course	MI ENG-BS: Mining Engineering BS
Other Courses referencing this course	<u>In The Prerequisites:</u> MIN ENG 4097 : Mine Design Project II

Requested Effective Change
Date

Fall **2015** ~~2014~~

Department Mining & Nuclear Engineering

Discipline Mining Engineering (MIN ENG)

Course Number 4096

Title Mine Design Project I

Abbreviated Course Title
Mine Design Project I

Catalog
Description

Mine planning and design using commercial software. Orebody description. Surface mining: geometric design, pit limits, and production planning. Underground mining: development planning, opening and support design, ventilation and production planning. Group projects with real-world mining data. Preparation for capstone design project. Formation of mine design project teams and acquisition of project data from industry. Geostatistical methods for ore reserves estimation. Develop complete project schedule and milestones for executing the project tasks in Min Eng 4097 (Mine Design Project II). Set up database for Min Eng 4097 and interact with selected mine design software packages.

Prerequisites

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. 10/16/14 11:22 am
frimpong: Approved for RMINNUCL Chair
2. 10/16/14 11:28 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:40 pm
srafer: Approved for Engineering DSCC Chair

History

1. May 2, 2014 by lahne (1944.1)

Min Eng ~~4522, 2914 and~~ Min Eng **4932 and Min Eng 4933. 2924.**

Field Trip
Statement

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

Required for
Majors Yes

Elective for
Majors No

Justification for
change: This course is being modified to implement a new curriculum for the B.S. degree in
Mining Engineering to satisfy ABET requirements.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer **frimpong (10/16/14 11:11 am):** Rollback: Modification of the justification: This
Comments course is being modified to implement a new curriculum for the B.S. degree in
Mining Engineering to satisfy ABET requirements.

Key: 1944

Course Inventory Change Request

Date Submitted: 10/16/14 11:18 am

Viewing: **MIN ENG 4097 : Mine Design Project II**

File: 1128.3

Last approved: 04/25/14 3:07 pm

Last edit: 11/07/14 8:34 am

Changes proposed by: cifarellit

Programs referencing this course	MI ENG-BS: Mining Engineering BS
Other Courses referencing this course	<u>In The Catalog Description:</u> MIN ENG 4096 : Mine Design Project I

Requested Effective Change
Date

Fall ~~2014~~ **2015**

Department	Mining & Nuclear Engineering
Discipline	Mining Engineering (MIN ENG)
Course Number	4097
Title	Mine Design Project II
Abbreviated Course Title	Mine Design Project II

Catalog
Description

Capstone project with written and oral presentations. Includes mine design and optimization, production plan, equipment and flowsheet design based on geology, resources/reserves, geotechnics, hydrology and hydro-geology. Project also incorporates markets, environmental and permitting, mine-mill organization, support facilities, economic and risk analyses. →

Prerequisites

Min Eng ~~4932~~, ~~Min Eng 4933~~, ~~Min Eng~~ 4096 and completion of 110 hours in the Mining Engineering Curriculum.

Field Trip
Statement

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. 10/16/14 11:22 am
frimpong: Approved for RMINNUCL Chair
2. 10/16/14 11:29 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:40 pm
srafer: Approved for Engineering DSCC Chair

History

1. Apr 25, 2014 by lahne (1128.1)

Credit Hours	LEC: 1	LAB: 3	IND: 0	RSD: 0	Total: 4
Required for Majors	Yes				
Elective for Majors	No				

Justification for change: Pre-Requisite changes are being made to implement a new curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements. Min Eng 4932 and Min Eng 4933 have been removed as pre-requisites because they have been made pre-requisites to Min Eng 4096. The latter is a pre-requisite requirement to this course.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments **frimpong (10/16/14 11:14 am):** Rollback: Pre-Requisite changes are being made to implement a new curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements. Min Eng 4932 and Min Eng 4933 have been removed as pre-requisites because they have been made pre-requisites to Min Eng 4096. The latter is a pre-requisite requirement to this course.

Key: 1128

Course Inventory Change Request

Date Submitted: 10/16/14 11:27 am

Viewing: **MIN ENG 4113 : Mine Atmosphere Control**

File: 2260.1

Last edit: 10/21/14 9:42 am

Changes proposed by: cifarellit

Programs referencing this course	<u>MI ENG-BS: Mining Engineering BS</u>
Other Courses referencing this course	<u>In The Prerequisites:</u> <u>MIN ENG 6133 : Mine Atmospheric Control II</u>
Requested Effective Change Date	Fall 2014 2015
Department	Mining & Nuclear Engineering
Discipline	Mining Engineering (MIN ENG)
Course Number	4113
Title	Mine Atmosphere Control
Abbreviated Course Title	Mine Atmosphere Control

Catalog Description
 Fundamentals of mine ventilation, including the principles of airflow, control of gases, dust, and temperature, methane drainage, mine fans, network theory, computer network simulation, and economics of airflow, with emphasis on analysis, systems design and practical application.

Prerequisites
Chem 3410 and Civ Eng 3330.

Field Trip Statement

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

Required 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. 10/16/14 11:29 am
frimpong: Approved for RMINNUCL Chair
2. 10/16/14 11:31 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:40 pm
sraper: Approved for Engineering DSCC Chair

Majors

Elective for
Majors **No**

Justification for
change: Pre-Requisite change is being made to implement a new curriculum for the B.S.
degree in Mining Engineering to satisfy ABET requirements.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments **frimpong (10/16/14 11:15 am)**: Rollback: This course is being modified to
implement a new curriculum for the B.S. degree in Mining Engineering to satisfy
ABET requirements.
frimpong (10/16/14 11:25 am): Rollback: Pre-Requisite change is being made to
implement a new curriculum for the B.S. degree in Mining Engineering to satisfy
ABET requirements.
sraper (10/21/14 9:42 am): Changed to Required for Majors, verified via email with
Samuel Frimpong.

Key: 2260

Course Inventory Change Request

Date Submitted: 10/16/14 11:19 am

Viewing: **MIN ENG 4512 : Mine Management**

File: 1302.1

Last edit: 10/16/14 11:29 am

Changes proposed by: cifarellit

Programs
referencing this
course

[MI ENG-BS: Mining Engineering BS](#)

Requested Effective Change
Date

Fall **2015** ~~2014~~

Department

Mining & Nuclear Engineering

Discipline

Mining Engineering (MIN ENG)

Course Number

4512

Title

Mine Management

Abbreviated
Course Title

Mine Management

Catalog

Description

Theory and practice of mine management, including basic managerial functions, management theories, communication skills, motivation, leadership, organization, maintenance management, managerial decision making, cost control, labor relations, government relations, **ethics and risks management** ~~ethics~~, with emphasis in presentation skills.

Prerequisites

Completion of 100 credits in Mining Engineering curriculum.

Field Trip

Statement

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

Required for
Majors

Yes

Elective for

No

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. 10/16/14 11:23 am
frimpong: Approved for RMINNUCL Chair
2. 10/16/14 11:29 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:40 pm
sraper: Approved for Engineering DSCC Chair

Majors

Justification for change: Description and credit hour changes are being made to implement a new curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments **frimpong (10/16/14 11:16 am):** Rollback: Description and credit hour changes are being made to implement a new curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements.

Key: 1302

Course Inventory Change Request

Date Submitted: 10/29/14 8:39 am

Viewing: **MIN ENG 4742 : Environmental Aspects Of Mining**

File: 529.1

Last edit: 10/29/14 11:33 am

Changes proposed by: kabp3

Programs
referencing this
course

[MI ENG-BS: Mining Engineering BS](#)

Other Courses
referencing this
course

In The Catalog Description:
[GEO ENG 4276 : Environmental Aspects Of Mining](#)

In The Prerequisites:
[MIN ENG 6522 : Mining Property Feasibility Studies And
Evaluation Procedure](#)
[MIN ENG 6735 : Sustainability In Mining](#)

Requested
Effective Change
Date

Spring 2015 ~~Fall 2014~~

Department Mining & Nuclear Engineering

Discipline Mining Engineering (MIN ENG)

Course Number 4742

Title Environmental Aspects Of Mining

Abbreviated
Course Title Env Aspects Of Mining

Catalog
Description

Permitting: the legal environment of reclamation and environmental impact assessment; post-mining land-use selection and mine planning for optimum reclamation of all mines: metal, nonmetal, and coal; unit operations of reclamation: drainage, backfill, soil replacement, revegetation, maintenance, etc.

Prerequisites **Co-requisites: MIN ENG Geo-Eng-1150; Min-Eng-4932 and 4933 or GEO ENG 5441 or ENV ENG 5619. ~~prereq./coreq.-Civ-Eng-3715.~~**

Field Trip
Statement

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. 10/29/14 8:54 am
frimpong:
Approved for
RMINNUCL Chair
2. 10/29/14 11:34
am
kleb6b: Approved
for CCC Secretary
3. 11/07/14 12:57
pm
srafer: Approved
for Engineering
DSCC Chair

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

Required for
Majors **Yes**

Elective for
Majors **No**

Justification for
change: Streamline pre-requisites to be consistent with course content.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses: GEO ENG 4276 - Environmental Aspects Of Mining

Course Reviewer **frimpong (10/28/14 10:25 pm):** Rollback: Indicate YES for Required for Majors.
Comments

Key: 529

Course Inventory Change Request

Date Submitted: 10/16/14 11:20 am

Viewing: **MIN ENG 4823 : Rock Mechanics**

File: 1823.1

Last edit: 10/21/14 9:43 am

Changes proposed by: cifarellit

Programs referencing this course	GE ENG-BS: Geological Engineering BS GEOL-MI: Geology Minor MI ENG-BS: Mining Engineering BS
Other Courses referencing this course	<u>In The Prerequisites:</u> GEO ENG 6477 : Discontinuous Rock MIN ENG 4922 : Tunneling & Underground Construction Techniques MIN ENG 4932 : Underground Mining Methods And Equipment MIN ENG 4933 : Surface Mining Methods And Equipment MIN ENG 5822 : Strata Control MIN ENG 6842 : Advanced Rock Mechanics MIN ENG 6843 : Rock Mechanics IV

Requested Effective Change Date	Fall 2014 2015
Department	Mining & Nuclear Engineering
Discipline	Mining Engineering (MIN ENG)
Course Number	4823
Title	Rock Mechanics
Abbreviated Course Title	Rock Mechanics

Catalog Description

Applications of the fundamental principles of mechanics to engineering problems of equilibrium, strength and stiffness of rock materials. Review of in-situ stresses, laboratory and field instrumentation, rock and rockmass properties, pillar design, roof span design, rock reinforcement, surface subsidence, slope stability, and violent failures.

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. 10/16/14 11:23 am
frimpong: Approved for RMINNUCL Chair
2. 10/16/14 11:30 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:41 pm
sraper: Approved for Engineering DSCC Chair

Prerequisites **Physics 2135; ~~IDE 2340, or~~ Civ Eng 2210; ~~2200~~ and ~~IDE 2350; and~~ Geology 3310.**

Field Trip Statement Field trip required.

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

Required for Majors **Yes**

Elective for Majors **No**

Justification for change: Pre-Requisite changes are being made to implement a new curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments **frimpong (10/16/14 11:18 am):** Rollback: Pre-Requisite changes are being made to implement a new curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements.
sraper (10/21/14 9:43 am): Changed to Required for Majors verified via email with Samuel Frimpong.

Key: 1823

Course Inventory Change Request

Date Submitted: 10/16/14 11:20 am

Viewing: **MIN ENG 4824 : Soils and Overburden Materials for Mining Engineering**

File: 1067.1

Last edit: 10/21/14 9:43 am

Changes proposed by: cifarellit

Programs
referencing this
course

[MI ENG-BS: Mining Engineering BS](#)

Requested Effective Change
Date

Fall ~~2014~~ **2015**

Department

Mining & Nuclear Engineering

Discipline

Mining Engineering (MIN ENG)

Course Number

4824

Title

Soils and Overburden Materials for Mining Engineering

Abbreviated
Course Title

Soils and Overburden

Catalog
Description

Physical and mechanical properties of soils and overburden materials. Soils and overburden characterization for reclamation and mine closure and overburden blasting. Soil failure modes and slope stability for surface mine layouts, waste dumps, tailings and earth dams, and foundations for heavy mining machinery.

Prerequisites

Civ Eng 2210. ~~IDE 2340, or Civ Eng 2200 and IDE 2350.~~

Field Trip
Statement

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

Required for
Majors

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. 10/16/14 11:23 am
frimpong: Approved for RMINNUCL Chair
2. 10/16/14 11:30 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:41 pm
sraper: Approved for Engineering DSCC Chair

Elective for
Majors

No

Justification for
change:

Pre-Requisite changes are being made to implement a new curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

frimpong (10/16/14 11:19 am): Rollback: Pre-Requisite changes are being made to implement a new curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements.

sraper (10/21/14 9:43 am): Changed to Required for Majors verified via email from Samuel Frimpong.

Key: 1067

Course Inventory Change Request

Date Submitted: 10/16/14 11:34 am

Viewing: **MIN ENG 4912 : Mine Power And Drainage**

File: 1145.1

Last edit: 11/07/14 8:41 am

Changes proposed by: cifarellit

Programs
referencing this
course MI ENG-BS: Mining Engineering BS

Other Courses
referencing this
course In The Prerequisites:
MIN ENG 4322 : Coal Mine Development And Production

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

Department Mining & Nuclear Engineering

Discipline Mining Engineering (MIN ENG)

Course Number 4912

Title Mine Power And Drainage

Abbreviated
Course Title Mine Power And Drainage

Catalog

Description

Engineering principles of mine power distribution and application and mine dewatering. ~~Electric power:Basics basics~~ of electrical circuits, AC/DC power, transformers, electric meters, power distribution, power management. ~~Fundamentals of thermodynamics~~. Hydraulic power systems. Compressed air in mines. Mine ~~dewatering. dewatering: passive and active systems~~. Controlling water inflow. Dewatering ~~wells. wells: horizontal and vertical~~. Water pumping and pumping systems.

Prerequisites **Chem 3410 and Civ Eng 3330.**

Field Trip
Statement **Field trip required.**

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

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. 10/16/14 11:35 am
frimpong: Approved for RMINNUCL Chair
2. 10/16/14 11:38 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:41 pm
srafer: Approved for Engineering DSCC Chair

Required for
Majors **Yes**

Elective for
Majors **No**

Justification for
change: Description and pre-requisite changes are being made to implement a new
curriculum for the B.S. degree in Mining Engineering to satisfy ABET requirements.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1145

Course Inventory Change Request

New Course Proposal

Date Submitted: 10/20/14 3:13 pm

Viewing: **MIN ENG 5532 : Advanced Mining Economics**

File: 4135

Last edit: 11/07/14 8:42 am

Changes proposed by: jrussell

Requested	Fall 2015
Effective Change Date	
Department	Mining & Nuclear Engineering
Discipline	Mining Engineering (MIN ENG)
Course Number	5532
Title	Advanced Mining Economics
Abbreviated Course Title	Adv Min Econ

Catalog

Description

Mining industry & national economics. Social & economics significance of mined commodities. Marketing of mined commodities. Innovation approaches to mine financing, project loans, and leasing. Mining feasibility studies, government influence & policy, mining industry foreign investment, investment strategies, mining taxation, cost predictions. Case Studies.

Prerequisites

None.

Field Trip

Statement

None.

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

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

Elective for Majors	Yes
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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. 10/20/14 4:00 pm
frimpong:
Approved for
RMINNUCL Chair
2. 10/20/14 4:19 pm
kleb6b: Approved
for CCC Secretary
3. 11/04/14 2:41 pm
srafer: Approved
for Engineering
DSCC Chair

Justification for new course: Course taught twice successfully . Title change to Advance Mining Economics, student must complete prerequisite course prior to advance level.

Semesters previously offered as an experimental course: SP2013 & SP2014

Co-Listed Courses:

Course Reviewer Comments: **frimpong (10/20/14 11:46 am)**: Rollback: Consider making this course a 4000 level course since the first Mining Industry Economics course is a 3000 level course.
frimpong (10/20/14 12:42 pm): Rollback: Remove II from title.
frimpong (10/20/14 12:53 pm): Rollback: Title must be changed into Advanced Mining Economics
kleb6b (10/20/14 2:48 pm): Rollback: Edit Catalog Description to 160 characters.

Key: 4135

Course Inventory Change Request

New Course Proposal

Date Submitted: 10/23/14 2:46 pm

Viewing: **MIN ENG 6080 : Graduate Project**

File: 4095

Last edit: 11/07/14 8:43 am

Changes proposed by: jrussell

Requested	Spring 2015
Effective Change Date	
Department	Mining & Nuclear Engineering
Discipline	Mining Engineering (MIN ENG)
Course Number	6080
Title	Graduate Project
Abbreviated Course Title	Graduate Project

Catalog

Description

Advanced engineering design, experimentation, evaluation and assessment leading to the preparation of a project report. For practicing professionals, this project could be based on an actual industry problem.

Prerequisites

Graduate Standing.

Field Trip

Statement

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

Required for Majors Yes

Elective for Majors No

Justification for new course: Mining Engineering needs an Industry Project course.

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. 10/23/14 2:51 pm frimpong: Approved for RMINNUCL Chair
2. 10/23/14 2:53 pm kleb6b: Approved for CCC Secretary
3. 11/04/14 2:42 pm sraper: Approved for Engineering DSCC Chair

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer **sraper (08/12/14 9:19 am):** Rollback: Effective Date cannot be Fall 2014. Required
Comments for Majors and Effective for Majors cannot be both No.
frimpong (10/16/14 11:20 am): Rollback: sraper (08/12/14 9:19 am): Rollback:
Effective Date cannot be Fall 2014. Required for Majors and Effective for Majors
cannot be both No.
kleb6b (10/23/14 12:04 pm): Rollback: Rollback

Key: 4095

Course Inventory Change Request

New Course Proposal

Date Submitted: 09/24/14 10:25 am

Viewing: **NUC ENG 5257 : Two-Phase Flow in Energy Systems - I**

File: 4118

Last edit: 11/07/14 8:45 am

Changes proposed by: schlegelj

Requested	Fall 2015
Effective Change Date	
Department	Mining & Nuclear Engineering
Discipline	Nuclear Engineering (NUC ENG)
Course Number	5257
Title	Two-Phase Flow in Energy Systems - I
Abbreviated Course Title	Two-Phase Flow Systems

Catalog

Description

It is an introductory course for both undergraduate or graduate students who are interested in the application of two-phase flow in energy systems. It will acquaint students with governing equations for both single-phase and two-phase fluid flow, state-of-the-art analytical methods and various two-phase flow phenomena related to energy systems.

Prerequisites

Field Trip

Statement

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

Total: 3

Required for Majors No

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. 10/16/14 11:20 am
frimpong: Approved for RMINNUCL Chair
2. 10/16/14 11:30 am
kleb6b: Approved for CCC Secretary
3. 11/04/14 2:42 pm
srapr: Approved for Engineering DSCC Chair
4. 11/07/14 8:44 am
kleb6b: Approved for Pending CCC Agenda post

Majors

Justification for
new course:

This course should have been added during the change in course numbering. Previously it was offered as Nuc Eng 317, a combined graduate/undergraduate course. When the course numbers were changed, it was listed as Nuc Eng 4257 but should have been split into Nuc Eng 4257 and Nuc Eng 5257. Since the course was not offered for the last couple of years, no one caught the error. However as a new faculty, I would like to offer this course again in Spring of 2015.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

sraper (10/21/14 9:44 am): Changed to Elective for Majors verified via email from Hank Lee.

Key: 4118

Course Inventory Change Request

Date Submitted: 11/03/14 2:18 pm

Viewing: **RUSSIAN 4320 : Russian Phonetics and Intonation**

File: 1886.1

Last edit: 11/03/14 4:45 pm

Changes proposed by: ivliyeva

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

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

Department: Arts, Languages, & Philosophy

Discipline: Russian (RUSSIAN)

Course Number: 4320

Title: Russian Phonetics and Intonation

Abbreviated Course Title: Russian Phonetics

Catalog Description

Description

This course focuses on pronunciation improvement, development of basic transcription skills, comprehension of Russian speech at fast tempo, interactions of intonation and syntax. Lab work is required.

Prerequisites

Russian 1102.

Field Trip Statement

Statement

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

Total: 3

Required for Majors: **No**

Elective for Majors: **Yes**

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. 11/03/14 2:23 pm lance: Approved for RPHILOSO Chair
2. 11/03/14 4:25 pm kleb6b: Approved for CCC Secretary
3. 11/03/14 4:46 pm ivliyeva: Approved for Arts & Humanities DSCC Chair

Justification for change: To enhance the course content to better serve students' needs.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments

Key: 1886

Course Inventory Change Request

Date Submitted: 11/03/14 2:19 pm

Viewing: **RUSSIAN 4330 : Business Russian**

File: 1536.1

Last edit: 11/03/14 4:44 pm

Changes proposed by: ivliyeva

Programs MUL&DIV-MI: Multiculture & Diversity Minor

referencing this course

Requested Effective Change Date

Fall ~~2014~~ **2015**

Department

Arts, Languages, & Philosophy

Discipline

Russian (RUSSIAN)

Course Number

4330

Title

Business Russian

Abbreviated Course Title

Business Russian

Catalog Description

The course addresses practical language skills and strategies for conducting business in Russian-speaking countries. Students will improve their knowledge of contemporary Russian culture and business etiquette. Readings, lectures, and discussions are in Russian. ~~Lab work is required weekly.~~

Prerequisites

Russian 1180.

Field Trip Statement

Credit Hours

LEC: ~~3~~ **2**

LAB: ~~0~~ **1**

IND: 0

RSD: 0

Total: 3

Required for Majors

No

Elective for

Yes

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. 11/03/14 2:23 pm lance: Approved for RPHILOSO Chair
2. 11/03/14 4:25 pm kleb6b: Approved for CCC Secretary
3. 11/03/14 4:45 pm ivliyeva: Approved for Arts & Humanities DSCC Chair

Majors

Justification for change: To enhance the course content to better serve students' needs.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments

Key: 1536

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/29/14 2:04 pm

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

File: 4140

Last edit: 10/29/14 2:45 pm

Changes proposed by: malonee

Requested Spring 2015

Effective Change
Date

Department English and Technical Communication

Discipline Technical Communication (TCH COM)

Course Number 3001

Topic ID TBD

Experimental Title
Special Topics: Writing in the Sciences

Experimental Abbreviated
Course Title
Writing in the Sciences

Instructors Bill Klein, Ed Malone

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 procedures/instructions manual. 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, Malone or another English/tech com professor will teach it (with Dr. Klein or Dr. 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. Our approved and funded course-sharing proposal had all of the required signatures of campus and system administrators.

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

In Workflow

1. **REGLISH 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. 10/29/14 2:06 pm
kswenson:
Approved for
REGLISH Chair
2. 10/29/14 2:45 pm
kleb6b: Approved
for CCC Secretary
3. 10/29/14 4:34 pm
ivliyeva:
Approved for Arts
& Humanities
DSCC Chair

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 there is a need for such a course.

Semester(s) previously taught This course in writing in the sciences has not been offered at S&T in the past, but it has been offered for many years in UMSL's English department and has been quite successful.

Co-Listed

Courses:

Course Reviewer

Comments

Key: 4140

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/02/14 4:17 pm

Viewing: **ARCH ENG 5001.TBD : Daylighting**

File: 4129

Last edit: 10/20/14 11:29 am

Changes proposed by: baur

Requested Fall 2015

Effective Change
Date

Department Civil, Architectural, and Environmental Engineering

Discipline Architectural Engineering (ARCH ENG)

Course Number 5001

Topic ID TBD

Experimental
Title Daylighting

Experimental
Abbreviated
Course Title Daylighting

Instructors Julian Wang

Experimental
Catalog
Description This course focuses on daylighting technologies and design. Students will use physical model techniques (Heliodon and light meters) and computer techniques (Radiance, Daysim, and EvaGlare) for exploring qualities of daylight with some attention to an understanding of the physical and perceptual mechanisms that shape our experience of daylight.

Prerequisites CE 3842 Building Systems or ArchE/ME 5871 Environmental Controls or instructor's consent.

Field Trip
Statement

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

Justification for
new course: The course will provide students interested in sustainable building design a course to understand the importance of daylight integration as this is a growing requirement in every building design. Additionally this course would lend itself to the growing interest in developing a masters program in architectural engineering.

Semester(s)
previously taught

Co-Listed
Courses:

Course Reviewer **kleb6b (10/20/14 11:25 am):** Rollback: Rollback

In Workflow

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

Approval Path

1. 10/18/14 9:22 am
wschon:
Approved for
RCIVILEN Chair
2. 10/20/14 8:19 am
kleb6b: Approved
for CCC Secretary
3. 10/20/14 11:25
am
kleb6b: Rollback
to RCIVILEN Chair
for Engineering
DSCC Chair
4. 10/20/14 11:29
am
wschon:
Approved for
RCIVILEN Chair
5. 10/20/14 11:35
am
kleb6b: Approved
for CCC Secretary
6. 11/04/14 1:54 pm
sraper: Approved
for Engineering
DSCC Chair

Comments

Key: 4129

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/02/14 4:29 pm

Viewing: **ARCH ENG 5001.TBD : Sustainable Building: Design and Performance**

File: 4130

Last edit: 10/20/14 8:21 am

Changes proposed by: baur

Requested Spring 2016

Effective Change
Date

Department Civil, Architectural, and Environmental Engineering

Discipline Architectural Engineering (ARCH ENG)

Course Number 5001

Topic ID TBD

Experimental Sustainable Building: Design and Performance
Title

Experimental Sust Bldg: Des & Perform
Abbreviated

Course Title

Instructors Julian Wang

Experimental Build on the principles of building sustainability, this course provides students with
Catalog the knowledge, skills, and tools to be able to design, evaluate, and advise on the
Description creation of building performance. By lectures and projects, the course employs
critical analysis, measurement and simulation, and architectural expression to inform
building performance.

Prerequisites CE 3842 Building Systems or ArchE/ME 5872 Environmental Controls or instructors
consent.

Field Trip
Statement

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

Justification for The increasing demand for buildings to meet certain performance criteria has fueled
new course: the interest of how building professionals determine a design that optimizes certain
benchmarks. The case for commissioning a building is more and more tied to not
only the predicted but the actual performance of the building's systems. This course
will help future building professional determine effective means to measure a
buildings performance.

Semester(s)
previously taught

In Workflow

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

Approval Path

1. 10/18/14 9:23 am
wschon:
Approved for
RCIVILEN Chair
2. 10/20/14 8:21 am
kleb6b: Approved
for CCC Secretary
3. 11/04/14 1:54 pm
sraprer: Approved
for Engineering
DSCC Chair

Co-Listed

Courses:

Course Reviewer

Comments

Key: 4130

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/17/14 4:16 pm

Viewing: **ART 3001.TBD : Experimental Film & Video**

File: 4133

Last edit: 11/03/14 4:24 pm

Changes proposed by: denises

Requested Spring 2015

Effective Change
Date

Department Arts, Languages, & Philosophy

Discipline Art (ART)

Course Number 3001

Topic ID TBD

Experimental Title
Experimental Film & Video

Experimental Abbreviated
Course Title
Experimental Film

Instructors Tohline, Andrew

Experimental Catalog Description
A free exploration of cinema history's most audacious, moving, and important avant-garde works in film and video, covering classic films by the likes of Stan Brakhage, Maya Deren, and Andy Warhol, as well as contemporary experiments in digital and animation. Students will get the change to create their own experimental work, too.

Prerequisites Art 1185 or a studio art course (such as Drawing, Painting, or Photography).

Field Trip
Statement

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

Justification for new course: Expansion of film curriculum.

Semester(s) previously taught None

Co-Listed
Courses:

Course Reviewer
Comments

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. Registrar

Approval Path

1. 11/03/14 2:23 pm
lance: Approved for RPHILOSO Chair
2. 11/03/14 4:24 pm
kleb6b: Approved for CCC Secretary
3. 11/03/14 4:46 pm
ivliyeva: Approved for Arts & Humanities DSCC Chair

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/01/14 10:08 am

Viewing: **MECH ENG 5001.TBD : Non-Intrusive Measurement Methods**

File: 4125

Last edit: 10/01/14 10:46 am

Changes proposed by: nisbett

Requested Spring 2015

Effective Change
Date

Department Mechanical & Aerospace Engineering

Discipline Mechanical Engineering (MECH ENG)

Course Number 5001

Topic ID TBD

Experimental Non-Intrusive Measurement Methods
Title

Experimental Non-Intrusive Measuremnt

Abbreviated
Course Title

Instructors Ed Kinzel

Experimental Fundamentals of non-contact measurement methods for engineers. Basic
Catalog engineering optics with a focus on radiation measurement methods including the
Description effects of various sources and detectors.

Prerequisites Phys 2135; Mech Eng 3525 or consent of instructor for non-Mech Eng majors.

Field Trip
Statement

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

Justification for This is a topic of practical usefulness for engineers, particularly mechanical
new course: engineers, and is in the research area of Dr. Kinzel.

Semester(s) None
previously taught

Co-Listed
Courses:

Course Reviewer
Comments

In Workflow

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

Approval Path

1. 10/01/14 10:44 am
drallmei: Approved for RMECHENG Chair
2. 10/01/14 10:46 am
kleb6b: Approved for CCC Secretary
3. 10/13/14 10:05 am
srafer: Approved for Engineering DSCC Chair

Key: 4125

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 09/25/14 11:10 am

Viewing: **MET ENG 3001.TBD : Applied Metal Forming**

File: 4123

Last edit: 11/05/14 3:54 pm

Changes proposed by: jnewkirk

Requested Spring 2015

Effective Change
Date

Department Materials Science & Engineering

Discipline Metallurgical Engineering (MET ENG)

Course Number 3001

Topic ID TBD

Experimental Applied Metal Forming
Title

Experimental Applied Metal Forming
Abbreviated
Course Title

Instructors Joseph W. Newkirk

Experimental Course will teach principles of metal forming using the traditional methods of the
Catalog Blacksmith. Use of the forge for heating iron for working, use of the anvil for shaping,
Description heat treating for properties, finishing operations, etc. will be covered. Safe use of
tools and equipment. Students will work on standard project plans and also
individual projects.

Prerequisites Met Eng 2110.

Field Trip
Statement

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

Justification for The new RSO, the Blacksmithing Club of Rolla, is opening a new forge shop this fall
new course: and proper instruction is necessary for safe and non-destructive use of the tools and
equipment. The course will train students to be able to work independently in the
shop in the future as well as maximize their experience in Blacksmithing. This course
is directly analogous to the Applied Glass Forming course which serves the same
purpose for the Glass Shop. This will provide another significant experiential learning
opportunity for Missouri S&T students.

Semester(s) N/A
previously taught

Co-Listed
Courses:

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. Registrar

Approval Path

1. 09/25/14 1:55 pm
huebner:
Approved for
RMATSENG Chair
2. 09/25/14 2:18 pm
kleb6b: Approved
for CCC Secretary
3. 10/13/14 10:06
am
sraper: Approved
for Engineering
DSCC Chair

Course Reviewer **sraper (10/13/14 10:06 am)**: I removed "or permission of instructor." as I recall the
Comments CCC has made it a policy not remove that statement. If not, the pre req was originally
Met Eng 2110; or permission of instructor.

Key: 4123

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/20/14 4:07 pm

Viewing: **MIN ENG 6001.TBD : Mineral Industry Environmental**

Considerations

File: 4136

Last edit: 11/05/14 3:56 pm

Changes proposed by: jrussell

Requested Spring 2015

Effective Change
Date

Department Mining & Nuclear Engineering

Discipline Mining Engineering (MIN ENG)

Course Number 6001

Topic ID TBD

Experimental Title
Mineral Industry Environmental Considerations

Experimental Abbreviated
Min Ind Enviro Consider

Course Title

Instructors David Weiss

Experimental Catalog Description
Mineral Industry projects can impact the environment, and public health and safety. Regulatory approval of a proposed action requires compliance with the National Environmental Policy Act (NEPA). The student will learn to identify impacts, determine their significance and develop mitigation measures for those impacts through the NEPA process.

Prerequisites Min Eng 4742, or an equivalent course.

Field Trip Statement
None

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

Justification for new course:
Instructor request

Semester(s) previously taught

Co-Listed Courses:

Course Reviewer
Comments

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. Registrar

Approval Path

1. 10/20/14 4:24 pm frimpong: Approved for RMINNUCL Chair
2. 10/21/14 7:47 am kleb6b: Approved for CCC Secretary
3. 11/04/14 2:42 pm sraper: Approved for Engineering DSCC Chair

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/01/14 3:29 pm

Viewing: **MS&E 5001.TBD : Intergrated Computational Materials Engineering**

File: 4127

Last edit: 10/01/14 4:16 pm

Changes proposed by: smiller

Requested Spring 2015

Effective Change
Date

Department Materials Science & Engineering

Discipline Materials Science & Eng (MS&E)

Course Number 5001

Topic ID TBD

Experimental Intergrated Computational Materials Engineering
Title

Experimental ICME
Abbreviated
Course Title

Instructors Mohsen Asle Zaeem

Experimental Introduction to different computational tools for studying materials at different
Catalog length scales. Several atomistic, mesoscale and continuum models will be introduced
Description and bridging between different modeling scales will be discussed. The course
includes computer lab sessions to build models for solidification, solid state phase
tranformation, etc.

Prerequisites Met Eng 2120 and Math 3304.

Field Trip
Statement

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

Justification for Offer course as replacement for previously offered Materials Selection technical
new course: elective course

Semester(s) Spring 2014
previously taught

Co-Listed
Courses:

Course Reviewer
Comments

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. Registrar

Approval Path

1. 10/01/14 3:48 pm
huebner:
Approved for
RMATSENG Chair
2. 10/01/14 4:16 pm
kleb6b: Approved
for CCC Secretary
3. 10/13/14 10:06
am
sraeper: Approved
for Engineering
DSCC Chair

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/01/14 3:33 pm

Viewing: **MS&E 6001.TBD : Advanced Integrated Computational Materials Engineering**

File: 4128

Last edit: 10/13/14 10:10 am

Changes proposed by: smiller

Requested Spring 2015

Effective Change Date

Department Materials Science & Engineering

Discipline Materials Science & Eng (MS&E)

Course Number 6001

Topic ID TBD

Experimental Title Advanced Integrated Computational Materials Engineering

Experimental Abbreviated Course Title Adv ICME

Instructors Mohsen Asle Zaeem

Experimental Catalog Description Advanced study of different computational tools for studying materials at different length scales. Several atomistic, mesoscale and continuum models will be discussed and bridging between different modeling scales will be discussed. The course includes computer lab sessions to build models for solidification, solid state phase transformation, etc.

Prerequisites Met Eng 2120 and Math 3304 or permission of the instructor.

Field Trip Statement

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

Justification for new course: Offer course as replacement for previously offered graduate level Materials Selection course

Semester(s) previously taught Spring 2014

Co-Listed Courses:

Course Reviewer Comments **sraper (10/13/14 10:10 am)**: there was a question from the DSCC committee about the difference between MS&E 5001 and this form. Scott Miller replied: "The two

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. Registrar

Approval Path

1. 10/01/14 3:48 pm huebner: Approved for RMATSENG Chair
2. 10/01/14 4:17 pm kleb6b: Approved for CCC Secretary
3. 10/13/14 10:10 am sraper: Approved for Engineering DSCC Chair

courses will be taught at the same days and times, but the graduate students enrolled in the 6001 course are expected to do semester research project in addition to the other assignments that all students will complete, and the 6001 students will submit a final report on their semester project to the instructor and present to both classes." He also confirmed that the 6001 course does not need the 5001 course as a prerequisite.

Key: 4128

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 08/04/14 9:58 am

Viewing: **NUC ENG 6001.TBD : Neutron Transport Theory**

File: 4102

Last edit: 10/16/14 11:27 am

Changes proposed by: xinliu

Requested	Spring 2015
Effective Change Date	
Department	Mining & Nuclear Engineering
Discipline	Nuclear Engineering (NUC ENG)
Course Number	6001
Topic ID	TBD
Experimental Title	Neutron Transport Theory
Experimental Abbreviated Course Title	Neutron Transport Theory
Instructors	Xin Liu

Experimental Catalog Description
 The objective of this course is to introduce the student to neutron transport theory. The main content of this course are derivation and physical interpretation of the linearized Boltzmann equation, numerical solution and methodology including Pn approximation, Sn method, Method of Characteristics, etc.

Prerequisites
 Nuc Eng 4203.

Field Trip Statement

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

Justification for new course:
 Neutron transport theory within the context of nuclear reactor physics is a very important area for advanced nuclear engineering research and education. Currently, there is no such course offered in our Nuclear Engineering program. This course will enhance our graduate students' ability in the areas of reactor physics, numerical simulation, and hands-on experience of large computer simulation codes for reactor core simulations.

Semester(s) previously taught
 None

Co-Listed Courses:

Course Reviewer **sraper (08/12/14 9:20 am):** Rollback: Requested change date cannot be Fall 2014.

- 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. Registrar

- Approval Path
1. 08/04/14 10:20 am
 frimpong:
 Approved for RMINNUCL Chair
 2. 08/04/14 10:35 am
 kleb6b: Approved for CCC Secretary
 3. 08/12/14 9:20 am
 sraper: Rollback to RMINNUCL Chair for Engineering DSCC Chair
 4. 10/16/14 11:21 am
 frimpong:
 Approved for RMINNUCL Chair
 5. 10/16/14 11:27 am
 kleb6b: Approved for CCC Secretary
 6. 11/04/14 2:42 pm
 sraper: Approved for Engineering DSCC Chair

Comments

Key: 4102

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 10/29/14 1:55 pm

Viewing: **TCH COM 3001.TBD : Special Topics: Business Writing**

File: 4139

Last edit: 10/29/14 2:44 pm

Changes proposed by: malonee

Requested Spring 2015

Effective Change
Date

Department English and Technical Communication

Discipline Technical Communication (TCH COM)

Course Number 3001

Topic ID TBD

Experimental Special Topics: Business Writing
Title

Experimental Business Writing
Abbreviated
Course Title

Instructors Jeanne Allison, Ed Malone

Experimental Catalog Description This course further develops the experienced writer's style and analytical capabilities to the level of sophistication necessary for upper-division writing assignments and for business and professional settings. Writing assignments may include business correspondence, reports, resumes, proposals, analyses, and feasibility studies.

Prerequisites English 1120 or equivalent and at least junior standing.

Field Trip Statement n/a

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. Jeanne Allison will teach it (with Dr. Ed Malone as instructor of record at S&T); in other semesters, Malone or another English/tech com professor will teach it (with Dr. Allison or Dr. Bill Klein as instructor of record at UMSL). Our course-sharing project -- and the UM System course-sharing initiative in general -- are predicated on the sharing 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. Our approved and funded course-sharing proposal had all of the required signatures of campus and system administrators.

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

In Workflow

1. **REGLISH 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. 10/29/14 2:06 pm
kswenson:
Approved for
REGLISH Chair
2. 10/29/14 2:44 pm
kleb6b: Approved
for CCC Secretary
3. 10/29/14 4:34 pm
ivliyeva:
Approved for Arts
& Humanities
DSCC Chair

it fills a gap. Although business writing is an important part of several of our courses (e.g., ENGL/TCH COM 1600), we do not have a course devoted to business writing, and there is a need for a course.

Semester(s) previously taught This course in business writing has not been offered at S&T in the past, but it has been offered for many years in UMSL's English department and has been quite successful.

Co-Listed
Courses:

Course Reviewer
Comments

Key: 4139