



Minutes of the Campus Curricula Committee Meeting

January 10, 2017

9:00a.m., 216 Parker Hall

(For Faculty Senate Meeting of January 26, 2017)

Attendees: Ilene Morgan, Petra Dewitt, Steve Raper, Gearoid MacSithigh, Barry Flachsbart, Paul Worsey, Tom Schuman, and Kristy Giacomelli

The following curriculum forms were discussed and approved:

Course Change forms:

File# 216.1	BIO SCI 1201 : Biological Sciences Freshman Seminar
File# 4141.1	BIO SCI 2243: Sleep: Function and Dysfunction
File#: 4282	CHEM ENG 3131 : Separations in Chemical and Biochemical Engineering
File#: 4285	CHEM ENG 4091 : Chemical Process Design I
File#: 862.4	CHEM ENG 4097: Chemical Process Design II
File#: 2460.4	COMP ENG 5420: Introduction to Network Security
File#: 1521.1	COMP SCI 1575: Data Structures
File#: 4367	COMP SCI 1585: Data Structures Laboratory
File#: 39.1	COMP SCI 5800: Distributed Computing
File#: 2494.1	EDUC 2203: Problems of Teaching Mathematics
File#: 2555.1	ELEC ENG 3400: Continuous Linear Systems
File#: 2556.1	ELEC ENG 3401: Continuous Linear Systems Laboratory
File#: 2388.1	ELEC ENG 3420: Communication Systems
File#: 4377	EXP ENG 5711: Explosives in Industry
File#: 4378	EXP ENG 5721: Specialty Uses of Energetic Materials
File#: 4379	EXP ENG 5914: Explosives Manufacturing
File#: 4118.4	NUC ENG 5257: Introduction to Nuclear Thermal Hydraulics
File#: 411.1	NUC ENG 6257: Advanced Nuclear Thermal Hydraulics

Degree Change forms:

File# 150.44	CH ENG-BS: Chemical Engineering BS
File# 64.21	GL&GPH-BS: Geology and Geophysics BS
File#: 157.17	HIST-BA: History BA
File#: 104.9	NU ENG-BS: Nuclear Engineering BS



Experimental Course forms:

File# 4380	NUC ENG 6001.001: Advanced Particle Interactions
File# 4386	PET ENG 6001.003: Advanced Directional Drilling and MWD
File# 4387	PET ENG 6001.004: Advanced Petroleum Offshore Technology
File# 4373	SPANISH 3001.001: Spanish Translation for Technical Applications
File# 4339	SYS ENG 6001.001: Advanced Computational Intelligence

File# 4342 ART 3100: Innovation Through Design Thinking – *was rolled back to address concerns raised at the December CCC meeting.*

File# 4319.0 MIN ENG 6742: Integrating the National Environmental Policy Act and Project Management – *was denied/shredded due to low enrollment of experimental offerings.*

The following form was tabled pending further information:

File# 233.3 PHIL-BS: Philosophy BS

The meeting adjourned at 9:45 a.m.

Ilene H. Morgan, Chair
Missouri S&T Campus Curricula Committee

Course Inventory Change Request

Date Submitted: 11/15/16 11:20 am

Viewing: **BIO SCI 1201 : Biological Sciences**
Freshman Seminar ~~Introduction To~~
~~Biological Science~~

File: 216.1

Last edit: 12/05/16 2:35 pm

Changes proposed by: shannonk

In Workflow

1. RBIOLSCI Chair
2. CCC Secretary
3. Sciences DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting

Agenda

6. Campus Curricula Committee Chair
7. FS Meeting Agenda

8. Faculty Senate Chair
9. Registrar
10. Ishelton
11. Peoplesoft

Approval Path

1. 11/15/16 10:02

pm

David

Westenberg

(djwesten):

Approved for

RBIOLSCI Chair

Programs
referencing this
course

BIO SC-BA: Biological Sciences BA

BIO SC-BS: Biological Sciences BS

CMP SC-BS: Computer Science BS

Other Courses
referencing this
course

In The Prerequisites:

BIO SCI 2242 : Cave Biology

Requested Fall **2017** ~~2014~~
Effective Change
Date

Department
Biological Sciences

Discipline

Biological Sciences (BIO SCI)

Course Number 1201

Title

2. 12/01/16 3:42 pm
Kristy Giacomelli
(kristyg):
Approved for CCC
Secretary
3. 12/13/16 1:35 pm
Ilene Morgan
(imorgan):
Approved for
Sciences DSCC
Chair
4. 12/16/16 2:20 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:04
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:06 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Biological Sciences Freshman Seminar ~~Introduction To Biological Science~~

Abbreviated **Bio Sci Freshman Seminar**

Course Title ~~Intro To Biological Sci~~

Catalog

Description

An introduction to the study of biology at Missouri S&T. Students will consider personal and professional opportunities within the various areas of biology and become acquainted with Biological Sciences faculty and departmental and campus facilities. Required of freshman Biological Sciences majors.

Prerequisites

Biological Sciences majors only.

Field Trip

Statement

Credit Hours

LEC: **0** ~~1~~

LAB: 0

IND: 0

RSD: **1** ~~0~~

Total: 1

Required for

Yes ~~No~~

Majors

Elective for

No

Majors

Justification for
change:

The course title is confusing, students often think it is an Introductory Biology course rather than an Introduction to the Department and campus. It is a seminar, not a lecture. It needs to be a majors only course, as seniors from other departments are registering for this course for a one hour easy A, which is not the purpose of this course

Semesters

previously

offered as an

experimental

course

Co-Listed
Courses:

Course Reviewer
Comments

imorgan (12/05/16 2:35 pm): Changed effective date to FS 2017 and put a period at the end of the prerequisite.

Course Inventory Change Request

Date Submitted: 11/03/16 3:15 pm

Viewing: **BIO SCI 2243 : Sleep: Function and Dysfunction**

File: 4141.1

Last approved: 12/01/14 3:49 am

Last edit: 12/05/16 3:12 pm

Changes proposed by: thimgan

Requested **Fall 2017** ~~01/13/2015~~

Effective Change

Date

Department

Biological Sciences

Discipline

Biological Sciences (BIO SCI)

Course Number 2243

Title

In Workflow

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

Approval Path

- 1. 11/03/16 11:00 pm
David Westenberg
(djwesten):
Approved for
RBIOLSCI Chair

2. 11/08/16 1:38 pm
Shauntae Ellis
(smetg6):
Approved for CCC
Secretary
3. 12/13/16 1:36 pm
Ilene Morgan
(imorgan):
Approved for
Sciences DSCC
Chair
4. 12/16/16 2:22 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:04
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:06 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

History

1. Dec 1, 2014 by
kleb6b

Sleep: Function and Dysfunction

Abbreviated Sleep and Behavior

Course Title

Catalog

Description

Students will learn the genes, proteins, and anatomy that govern sleep regulation. The course will also cover how sleep deprivation changes the body and degrades health and performance as well as sleep disorders that may disrupt sleep.

Prerequisites

Bio Sci **1113 or Bio Sci** 1213.

Field Trip

Statement

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

Total: 3

Required for	No
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Majors

Elective for	Yes
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Majors

Justification for

change:

Adding Bio Sci 1113 as a prerequisite to Bio Sci 1213 is sensible because these courses cover similar material and both are introductory biological courses that will prepare students for this course. In addition, many students that transfer into our department are given introductory credit as Bio 1113. These students are clearly qualified to take this class and limiting prerequisites to Bio Sci 1213 does not make sense.

Semesters

previously

offered as an

experimental

course

Sp 2013, Sp 2014

Co-Listed

Courses:

Course Reviewer

Comments

imorgan (12/05/16 3:12 pm): Changed effective date from SP 2017 to FS 2017.

Key: 4141

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 01/10/17 11:22 am

Viewing: **CHEM ENG 3131 : Separations in Chemical and Biochemical Engineering**

File: 4282.11

Last approved: 01/10/17 11:19 am

Last edit: 01/10/17 11:22 am

Changes proposed by: kristyg

Programs

referencing this

course

[CH ENG-BS: Chemical Engineering BS](#)

Other Courses

referencing this

course

In The Prerequisites:

[CHEM ENG 4091 : Chemical Process Design I](#)

[CHEM ENG 4110 : Chemical Engineering Process Dynamics And Control](#)

[CHEM ENG 4130 : Chemical Engineering Laboratory II](#)

[CHEM ENG 5250 : Isolation and Purification of Biologicals](#)

Requested

Fall **2017** ~~2016~~

Effective Change

Date

Department

In Workflow

1. **RCHEMENG Chair**

2. **CCC Secretary**

3. **Engineering DSCC Chair**

4. **Pending CCC Agenda post**

5. **CCC Meeting Agenda**

6. **Campus Curricula Committee Chair**

7. **FS Meeting Agenda**

8. **Faculty Senate Chair**

9. **Registrar**

10. **Ishelton**

11. **Peoplesoft**

Approval Path

1. 01/10/17 11:22 am

Kristy Giacomelli
(kristyg):

Approved for
RCHEMENG Chair

2. 01/10/17 11:23 am

Chemical and Biochemical Engineering	Kristy Giacomelli
Discipline	(kristyg):
Chemical Engineering (CHEM ENG)	Approved for CCC Secretary
Course Number 3131	3. 01/10/17 11:23 am
Title	Kristy Giacomelli
	(kristyg):
	Approved for Engineering DSCC Chair
	4. 01/10/17 11:23 am
	Kristy Giacomelli
	(kristyg):
	Approved for Pending CCC Agenda post
	5. 01/10/17 11:23 am
	Kristy Giacomelli
	(kristyg):
	Approved for CCC Meeting Agenda
	6. 01/10/17 2:19 pm
	Ilene Morgan
	(imorgan):
	Approved for Campus Curricula Committee Chair

History

1. Jan 10, 2017 by
Daniel Forciniti
(forcinit)

Separations in Chemical and Biochemical Engineering

Abbreviated **Biochemical** Separations

Course Title

Catalog

Description

Flash and column distillation. McCabe-Thiele method, plate efficiencies. Azeotropes.
Batch distillation. Absorption and stripping. Washing and leaching.

Prerequisites

Chem Eng **3101**, ~~3101~~ and Chem Eng **3111**, and Chem Eng 3120. Admitted to the
Chemical Engineering Program.

Field Trip

Statement

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

Total: 3

Required for	Yes
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Majors

Elective for	No
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Majors

Justification for

change:

I am resubmitting this course so that it goes through as a CC form and not a new
course proposal. Course initially approved Faculty Senate February 2016, changes
submitted April 2016. Incorrectly rollback as a new course.

Semesters

previously

offered as an

experimental
course

Co-Listed
Courses:
Course Reviewer
Comments

Key: 4282
[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 01/10/17 11:40 am

Viewing: **CHEM ENG 4091 : Chemical
Process Design I**

File: 4285.12

Last approved: 01/10/17 11:37 am

Last edit: 01/10/17 2:21 pm

Changes proposed by: kristyg

Programs

referencing this

course

[CH ENG-BS: Chemical Engineering BS](#)

Other Courses

referencing this

course

In The Prerequisites:

[CHEM ENG 4097 : Chemical Process Design II](#)

In Workflow

1. **RCHEMENG Chair**

2. **CCC Secretary**

3. **Engineering DSCC
Chair**

4. **Pending CCC
Agenda post**

5. **CCC Meeting
Agenda**

6. **Campus Curricula
Committee Chair**

7. **FS Meeting
Agenda**

8. **Faculty Senate
Chair**

9. **Registrar**

10. **Ishelton**

11. **Peoplesoft**

Requested

Fall **2017** ~~2016~~

Effective Change

Date

Department

Chemical and Biochemical Engineering

Discipline

Chemical Engineering (CHEM ENG)

Approval Path

1. 01/10/17 11:40
am

Kristy Giacomelli
(kristyg):

Approved for

RCHEMENG Chair

2. 01/10/17 11:40
am

Course Number	4091	Kristy Giacomelli (kristyg): Approved for CCC
Title		Secretary
		3. 01/10/17 11:40 am
		Kristy Giacomelli (kristyg):
		Approved for Engineering DSCC Chair
		4. 01/10/17 11:40 am Kristy Giacomelli (kristyg): Approved for Pending CCC Agenda post
		5. 01/10/17 11:41 am Kristy Giacomelli (kristyg): Approved for CCC Meeting Agenda
		6. 01/10/17 2:21 pm Ilene Morgan (imorgan): Approved for Campus Curricula Committee Chair

History

1. Jan 10, 2017 by
Daniel Forciniti
(forcinit)

Chemical Process Design I

Abbreviated Chem Process Design I

Course Title

Catalog

Description

Economic analysis of a chemical process including capital requirements, operating costs, earnings, and profits. The economic balance is applied to chemical engineering operations and processes. Optimization and scheduling techniques are applied to process evaluation. Preliminary process design and use of **simulation** ~~simulations~~ software.

Prerequisites

Either (Chem Eng 3150, Chem Eng 3131 and Chem Eng 3141) or (Chem Eng 3150 and preceded or accompanied by Chem Eng 5250).

Field Trip

Statement

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

Required for	Yes
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Majors

Elective for	No
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Majors

Justification for
change:

See attached DC form. I changed the title of the course to make it consistent with our Chemical Process Design 2 course.

Semesters

previously

offered as an
experimental
course

Co-Listed

Courses:

Course Reviewer

Comments

imorgan (01/10/17 2:21 pm): Kristy Giacomelli's comments: I am making the Fall 2017 changes that were requested at our meeting 01/10/2017. This course was previously approved at the February 2016 Faculty Senate meeting.

Key: 4285

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 04/08/16 11:51 am

Viewing: **CHEM ENG 4097 : Chemical Process Design II**

File: 862.4

Last approved: 05/04/15 3:20 am

Last edit: 01/12/17 10:53 am

Changes proposed by: forcinit

Programs
referencing this
course

[CH ENG-BS: Chemical Engineering BS](#)

Requested Fall **2017** ~~2015~~

Effective Change

Date

Department

Chemical and Biochemical Engineering

Discipline

Chemical Engineering (CHEM ENG)

Course Number 4097

Title

In Workflow

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

8. Faculty Senate
Chair

9. Registrar

10. Ishelton

11. Peoplesoft

Approval Path

1. 04/08/16 2:15 pm
Muthanna Al-Dahhan
(aldahhanm):
Approved for
RCHEMENG Chair

	2. 04/08/16 2:19 pm kleb6b: Approved for CCC Secretary
	3. 04/27/16 4:25 pm sraper: Approved for Engineering DSCC Chair
	4. 07/14/16 9:30 am kleb6b: Approved for Pending CCC Agenda post
	5. 08/16/16 10:06 am Shauntae Ellis (smetg6): Rollback to CCC Secretary for CCC Meeting Agenda
	6. 12/01/16 3:46 pm Kristy Giacomelli (kristyg): Approved for CCC Secretary
	7. 12/08/16 1:45 pm sraper: Approved for Engineering DSCC Chair
	8. 12/16/16 2:27 pm Kristy Giacomelli (kristyg): Approved for Pending CCC Agenda post

9. 01/10/17 11:43
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda

10. 01/12/17 10:54
am
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

History

1. May 4, 2015 by
luksc (862.1)

Chemical Process Design II

Abbreviated **Chem** Process Design II

Course Title

Catalog

Description

Engineering principles involved in the design and layout of chemical process equipment. Material and energy balances, equipment selection and design, and preconstruction cost estimation are performed for a capstone design project.

Communication emphasized course.

Prerequisites

Chem Eng 3130 and Chem Eng 3150; preceded or accompanied by **either** Chem Eng **4091 or both 4110 and** Chem Eng **4110 and Chem Eng** 4096.

Field Trip

Statement

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

Total: 3

Required for
Majors

Elective for
Majors

Justification for
change:

The new prerequisite is needed to reflect the proposed new curriculum (See attached DC form). I changed the punctuation of the prerequisites to make them more clear.

Semesters
previously
offered as an
experimental
course

Co-Listed

Courses:

Course Reviewer

Comments

kleb6b (12/23/15 1:38 pm): Might want to clarify this prereq?

Key: 862

kleb6b (04/08/16 9:16 am): Rollback: Rollback

smetg6 (08/16/16 10:06 am): Changed to Spring 2017

smetg6 (08/16/16 10:06 am): Rollback: Rollback until Chem Process Design I is also in catalog

sraper (12/07/16 11:41 am): Is spring term 17 appropriate? will bring notes to CCC meeting. Changed abbreviated title.

sraper (12/08/16 1:45 pm): Awaiting clarification on prereqs. From Chem Eng: intent of prereq: must have Chem 3130 and 3150, and preceded or accompanied by either the combination of 4110 and 4096, or only chem Eng 4091.

imorgan (01/12/17 10:53 am): Edited the prerequisite based on the clarification from Chem Eng.

Course Inventory Change Request

Date Submitted: 11/07/16 10:10 am

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

File: 2460.4

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

Last edit: 11/07/16 10:10 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

In The Prerequisites:

[COMP ENG 6420 : Wireless Ad hoc and Sensor Networks](#)

[COMP ENG 6510 : Resilient Networks](#)

[COMP SCI 6605 : Advanced Network Security](#)

[ELEC ENG 6430 : Wireless Ad hoc and Sensor Networks](#)

[SYS ENG 6322 : Resilient Networks](#)

[SYS ENG 6324 : Wireless Ad hoc and Sensor Networks](#)

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. 11/07/16 10:52 am
Daryl Beetner
(daryl): Approved for RELECENG Chair
2. 11/08/16 1:40 pm
Shauntae Ellis

Requested Fall **2017** ~~2015~~
Effective Change
Date

Department
 Electrical and Computer Engineering

Discipline
 Computer Engineering (COMP ENG)

Course Number 5420

Title

(smetg6):

Approved for CCC
Secretary

3. 12/07/16 11:33
am

sraper: Approved
for Engineering
DSCC Chair

4. 12/16/16 2:27 pm
Kristy Giacomelli
(kristyg):

Approved for
Pending CCC
Agenda post

5. 01/10/17 11:43
am

Kristy Giacomelli
(kristyg):

Approved for CCC
Meeting Agenda

6. 01/10/17 2:32 pm
Ilene Morgan

(imorgan):
Approved for
Campus Curricula
Committee Chair

History

1. Feb 9, 2015 by
stanleyj (2460.1)

Introduction to Network Security

Intro Network Security

Abbreviated
Course Title

Catalog

Description

This course examines basic issues in network management, testing, and security; it also discusses key encryption, key management, authentication, intrusion detection, malicious attack, and insider threats. Security of electronic mail and electronic commerce systems is also presented.

Prerequisites

Comp Eng 5410 or Comp Sci **5600**. ~~4601~~.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

Yes

Majors

Justification for

change:

Comp Sci 4601 has not been offered for several years in the Computer Science department, and it appears that the course will not be offered any time soon. Comp Sci 5600 is really the more appropriate prerequisite course and is recognized in the Comp Eng program as an equivalent course to Comp Eng 5410. Comp Sci 5600 is consistently offered in the Computer Science department and, is thus, an appropriate prerequisite for Comp Eng 5420.

Semesters

previously

offered as an

experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 2460

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 11/16/16 10:29 am

Viewing: **COMP SCI 1575 ~~1510~~: Data Structures**

File: 1521.1

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

Changes proposed by: tauritzd

Requested Fall **2017** ~~2014~~

Effective Change

Date

Department

Computer Science

Discipline

Computer Science (COMP SCI)

Course Number **1575** ~~1510~~

Title

In Workflow

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

Approval Path

- 1. 11/18/16 3:03 pm
Sajal Das (sdas):
Approved for
RCOMPSCI Chair
- 2. 12/01/16 3:42 pm
Kristy Giacomelli
(kristyg):

Approved for CCC
Secretary

3. 12/07/16 11:20
am

sraper: Approved
for Engineering
DSCC Chair

4. 12/16/16 2:28 pm

Kristy Giacomelli
(kristyg):

Approved for
Pending CCC
Agenda post

5. 01/10/17 11:43
am

Kristy Giacomelli
(kristyg):

Approved for CCC
Meeting Agenda

6. 01/10/17 2:32 pm

Ilene Morgan
(imorgan):

Approved for
Campus Curricula
Committee Chair

Data Structures

Abbreviated Data Structures

Course Title

Catalog

Description

A continuation of **Object-Oriented Programming, with emphasis on the efficient
organization development of data through Abstract Data Types structured**

~~programming concepts~~ and **Data Structures**. ~~their use in program development.~~
Topics include Linked Lists, Vectors, Stacks, Queues, Trees, Hash Tables, Graphs
~~queues, linked list, arrays, trees, sorting and searching will be taught together with~~
their use in ~~implementations of~~ a **variety of** ~~number of~~ algorithms. **Recursive**
programming techniques are also covered. This course is programming intensive.

Prerequisites

Grade of "C" or better in Comp Sci 1570.

Field Trip

Statement

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

Required for	Yes No
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Majors

Elective for	No
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Majors

Justification for

change:

The proposed course number change will make it consistent with the department's overall course numbering scheme. The proposed catalog description brings it up to date with current practice.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

Course Inventory Change Request

New Course Proposal

Date Submitted: 11/16/16 10:31 am

Viewing: **COMP SCI 1585 : Data Structures Laboratory**

File: 4367

Last edit: 11/16/16 10:31 am

Changes proposed by: tauritzd

Requested Fall 2017

Effective Change

Date

Department

Computer Science

Discipline

Computer Science (COMP SCI)

Course Number 1585

Title

In Workflow

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

Approval Path

1. 11/18/16 3:03 pm
Sajal Das (sdas):
Approved for
RCOMPSCI Chair
2. 12/01/16 3:42 pm
Kristy Giacomelli
(kristyg):

Approved for CCC
Secretary

3. 12/07/16 11:21
am

sraper: Approved
for Engineering
DSCC Chair

4. 12/16/16 2:28 pm

Kristy Giacomelli
(kristyg):

Approved for
Pending CCC
Agenda post

5. 01/10/17 11:43
am

Kristy Giacomelli
(kristyg):

Approved for CCC
Meeting Agenda

6. 01/10/17 2:32 pm

Ilene Morgan
(imorgan):

Approved for
Campus Curricula
Committee Chair

Data Structures Laboratory

Abbreviated Data Structures Lab

Course Title

Catalog

Description

Hands-on instruction in programming development tools such as version control systems, integrated development environments, debuggers, profilers, and event-

based programming environments. Exercises will complement the concepts presented in COMP SCI 1575.

Prerequisites

Preceded or accompanied by COMP SCI 1575.

Field Trip

Statement

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

Total: 1

Required for	Yes
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Majors

Elective for	No
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Majors

Justification for

new course:

This lab addresses a weakness identified by ABET in preparing our students to connect to application domains and use modern development methods. It has successfully run twice as an experimental course, so now we're requesting to make it permanent.

Semesters

previously

offered as an

experimental

course

SP2016, FS2016

Co-Listed

Courses:

Course Reviewer

Comments

Course Inventory Change Request

Date Submitted: 11/14/16 6:10 pm

Viewing: **COMP SCI 5800 : Distributed**

Computing ~~Operating Systems~~

File: 39.1

Last edit: 01/10/17 11:44 am

Changes proposed by: tauritzd

In Workflow

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

Other Courses
referencing this
course

In The Prerequisites:

[COMP SCI 6304 : Cloud Computing and Big Data Management](#)

[COMP SCI 6800 : Distributed Systems Theory And Analysis](#)

Requested Fall **2017** ~~2014~~
Effective Change
Date

Department
Computer Science

Discipline
Computer Science (COMP SCI)

Course Number 5800

Title

Approval Path

1. 11/14/16 8:28 pm
Sajal Das (sdas):
Approved for
RCOMPSCI Chair
2. 12/01/16 3:41 pm
Kristy Giacomelli
(kristyg):

- Approved for CCC
Secretary
3. 12/07/16 11:27
am
craper: Approved
for Engineering
DSCC Chair
 4. 12/16/16 2:29 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
 5. 01/10/17 11:44
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
 6. 01/10/17 2:33 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Distributed **Computing** ~~Operating Systems~~
Abbreviated **Distributed Computing** ~~Dist~~
Course Title **Operating Systems**
Catalog
Description

This is **an introduction to the fundamentals** ~~a study of modern operating systems,~~
~~particularly distributed computing. operating systems.~~ Topics include a review of

communication between ~~network systems and interprocess communication, causality,~~ distributed **processes, causality, distributed** state maintenance, failure detection, reconfiguration and recovery, ~~load balancing, distributed file systems,~~ distributed mutual exclusion, **clock synchronization, and leader election.** ~~and stable property detection including deadlock detection.~~ **Students will implement select course concepts.** ~~A group project in Distributed Systems programming will be required.~~

Prerequisites

A **grade of "C"** or better ~~grade~~ in both Comp Sci 3800 and Comp Sci 2500.

Field Trip

Statement

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

Total: 3

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

Majors

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

Majors

Justification for
change:

Over the years, the emphasis of this course has shifted from distributed operating systems to more general distributed systems, which is reflected by the proposed modified title & course description.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer Comments

Key: 39

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 12/12/16 12:05 pm

Viewing: **EDUC 2203 : Problems Of Teaching Mathematics**

File: 2494.1

Last edit: 12/12/16 12:05 pm

Changes proposed by: dewittp

Requested Fall **2017** ~~2014~~

Effective Change

Date

Department

Arts, Languages, & Philosophy

Discipline

Education (EDUC)

Course Number 2203

Title

In Workflow

1. **RPHILOS** 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. 12/12/16 1:20 pm
Audra Merfeld-Langston
(audram):
Approved for
RPHILOS Chair

2. 12/16/16 11:19
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Secretary
3. 12/16/16 12:34
pm
Petra Dewitt
(dewittp):
Approved for Arts
& Humanities
DSCC Chair
4. 12/16/16 2:29 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:44
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:33 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Abbreviated Probs Of Teaching Math

Course Title

Catalog

Description

A study of current methodologies for teaching in area of specialization.

Prerequisites

Field Trip

Statement

Credit Hours

LEC: 3 2

LAB: 0

IND: 0

RSD: 0

Total: 3 2

Required for

No

Majors

Elective for

No

Majors

Justification for
change:

New DESE requirements turn this course into a three hour, not two hour, lecture course.

Semesters

previously
offered as an
experimental
course

Co-Listed

Courses:

Course Reviewer

Comments

Course Inventory Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 10/19/16 3:56 pm

Viewing: **ELEC ENG 3400 : Continuous Linear Systems**

File: 2555.1

Last edit: 10/19/16 3:56 pm

Changes proposed by: martins

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

Other Courses
referencing this
course

In The Prerequisites:

- COMP ENG 5450 : Digital Image Processing
- COMP ENG 5460 : Machine Vision
- COMP ENG 5610 : Real-Time Digital Signal Processing
- ELEC ENG 3401 : Continuous Linear Systems Laboratory
- ELEC ENG 3420 : Communication Systems
- ELEC ENG 5170 : Introduction To Circuit Synthesis
- ELEC ENG 5210 : Fourier Optics
- ELEC ENG 5450 : Digital Image Processing
- ELEC ENG 5460 : Machine Vision
- ELEC ENG 5600 : Interference Control in Electronic Systems
- PHYSICS 5503 : Fourier Optics

Approval Path

1. 11/07/16 2:17 pm
Daryl Beetner
(daryl): Approved
for RELECENG
Chair
2. 11/08/16 1:40 pm
Shauntae Ellis

Fall **2017** ~~2014~~

Requested
Effective Change
Date
Department
Electrical and Computer Engineering
Discipline
Electrical Engineering (ELEC ENG)
Course Number 3400
Title

(smetg6):
Approved for CCC
Secretary
3. 12/07/16 11:32
am
sraper: Approved
for Engineering
DSCC Chair
4. 12/16/16 2:31 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:44
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:33 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Continuous Linear Systems

Abbreviated Continuous Linear Systems
Course Title

Catalog
Description

Analysis methods for continuous-time signals and systems in the time and frequency domains including signal models, Fourier transforms, and Laplace transforms. Examples of control and communication systems are included.

Prerequisites

Math 3304 with a grade of "C" or better; Elec Eng 2120 with a grade of "C" or better; passing the Elec Eng Advancement Exam II.

Field Trip

Statement

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

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

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

Justification for change:

This course will be taught for the last time FS 2016. The EE Undergraduate Curriculum Committee approved that this course to not be taught and deleted from catalog December 12, 2013. A motion was made at the ECE Department Faculty Meeting on December 12, 2013 and approved.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer Comments

Key: 2555

[Preview Bridge](#)

Course Inventory Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 10/19/16 4:04 pm

Viewing: **ELEC ENG 3401 : Continuous Linear Systems Laboratory**

File: 2556.1

Last edit: 10/19/16 4:04 pm

Changes proposed by: martins

Requested Fall **2017** ~~2014~~
Effective Change
Date

Department
Electrical and Computer Engineering

Discipline
Electrical Engineering (ELEC ENG)

Course Number 3401

Title

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. 11/07/16 2:17 pm
Daryl Beetner
(daryl): Approved for RELECENG Chair
2. 11/08/16 1:40 pm
Shauntae Ellis

- (smetg6):
Approved for CCC
Secretary
3. 12/07/16 11:41
am
sraper: Approved
for Engineering
DSCC Chair
4. 12/16/16 2:32 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:44
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:33 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Continuous Linear Systems Laboratory

Abbreviated Continuous Linear Sysys Lab

Course Title

Catalog

Description

Laboratory and software tools for the analysis of linear and non-linear systems.
Topics include spectral analysis, transforms, and applications.

Prerequisites

Math 3304 with a grade of "C" or better; Elec Eng 2120 with a grade of "C" or better;
passing the Elec Eng Advancement Exam II. Preceded or accompanied by Elec Eng
3400.

Field Trip

Statement

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

Total: 1

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

Majors

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

Majors

Justification for

change:

This lab course will be taught for the last time FS 2016. The EE Undergraduate
Curriculum Committee approved that this course to not be taught and deleted from
the catalog on December 12, 2013. A motion was made at the ECE Department
Faculty Meeting on December 12, 2013 and approved.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

Course Inventory Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 10/19/16 4:09 pm

Viewing: **ELEC ENG 3420 : Communication Systems**

File: 2388.1

Last edit: 10/19/16 4:09 pm

Changes proposed by: martins

Other Courses
referencing this
course

In The Prerequisites:

[COMP ENG 5430 : Wireless Networks](#)

[COMP ENG 5450 : Digital Image Processing](#)

[COMP ENG 5460 : Machine Vision](#)

[ELEC ENG 4096 : Electrical Engineering Senior Project I](#)

[ELEC ENG 5120 : Communication Circuits](#)

[ELEC ENG 5400 : Digital Signal Processing II](#)

[ELEC ENG 5420 : Communications Systems II](#)

[ELEC ENG 5430 : Wireless Networks](#)

[ELEC ENG 5450 : Digital Image Processing](#)

[ELEC ENG 5460 : Machine Vision](#)

[SYS ENG 5323 : Wireless Networks](#)

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. 11/07/16 2:18 pm
Daryl Beetner
(daryl): Approved for RELECENG Chair
2. 11/08/16 1:41 pm
Shauntae Ellis

Fall **2017** ~~2014~~

Requested
Effective Change
Date
Department
Electrical and Computer Engineering
Discipline
Electrical Engineering (ELEC ENG)
Course Number 3420
Title

(smetg6):
Approved for CCC
Secretary
3. 12/07/16 11:21
am
sraper: Approved
for Engineering
DSCC Chair
4. 12/16/16 2:33 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:44
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:33 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Communication Systems

Abbreviated Communication Systems
Course Title

Catalog
Description

Signals and their spectra; signal filtering; amplitude, angle and pulse modulation; multiplexing; noise in communications systems.

Prerequisites

Elec Eng 3400 with a grade of "C" or better.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

No

Majors

Justification for

change:

This course was taught for the last time SP 2016. The EE Undergraduate Curriculum Committee approved that this course to not be taught and deleted from the catalog on December 12, 2013. A motion was made at the ECE Department Faculty Meeting on December 12, 2013 and approved.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments



Mining and Nuclear Engineering

MEMORANDUM

TO: Provost, Robert Marley

FROM: Braden Lusk, Professor & Chair, Dept. of Mining & Nuclear Engineering
Richard Brow, Interim Dean, College of Engineering and Computing *PK Brow*

DATE: December 6, 2016

RE: New course request for Explosives Engineering program

This is a request for approval to waive the Campus Curricular Committee (CCC) Experimental Course (EC) policy, which was voted on and made effective June 2014: *An EC form must be submitted before an experimental course is to be offered. An EC form allows an experimental course to be offered unlimited times during the five year period following its approval. A CC form may be submitted to request a permanent course number, if that course has been offered experimentally at least two times during the preceding five year period.* The waiver request is based on the fact that the three Explosives Engineering courses listed below are part of the Explosives Certificate program for ATF agents. Although they are not a part of the general curriculum requirements for the Explosives Certificate, they are required for the curriculum the ATF agents follow, thus they are not experimental courses. The CCC has asked for a signed waiver from your office in order to fulfill the approval to provide course numbers to the following new courses and avoid the experimental course stage.

Exp Eng 5711 Explosives in Industry
Exp Eng 5721 Specialty Uses of Energetic Materials
Exp Eng 5914 Explosives Manufacturing

Thank you for your consideration,

Braden Lusk, PhD., P.E.
Department Chair, Mining and Nuclear Engineering

Approved/Not Approved

Robert Marley, Ph.D.
Provost and Executive Vice Chancellor
for Academic Affairs

Date 4 Jan 2017

MINERS DIG DEEPER

Course Inventory Change Request

New Course Proposal

Date Submitted: 11/29/16 8:58 am

Viewing: **EXP ENG 5711 : Explosives in Industry**

File: 4377

Last edit: 01/10/17 2:35 pm

Changes proposed by: kapqh4

Requested Fall 2017

Effective Change

Date

Department

Mining & Nuclear Engineering

Discipline

Explosives Engineering (EXP ENG)

Course Number 5711

Title

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. 11/29/16 9:01 am
Braden lusk
(blusk): Approved
for RMINNUCL
Chair
2. 12/01/16 3:44 pm
Kristy Giacomelli
(kristyg):

- Approved for CCC
Secretary
3. 12/07/16 11:47
am
craper: Approved
for Engineering
DSCC Chair
4. 12/16/16 2:34 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:45
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:35 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Explosives in Industry

Abbreviated Explosives in Industry

Course Title

Catalog

Description

Overview of how explosives are applied in various industrial settings. Focus is placed on the general application, identification, and necessity of explosives in industry.

Topics include explosive use in surface and underground mining, road development, construction, utility placement, demolition, oil, gas, and underwater.

Prerequisites

Field Trip

Statement

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

Total: 3

Required for	Yes
--------------	-----

Majors

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

Majors

Justification for

new course:

One of three courses added to accommodate a request from the ATF (Bureau of Alcohol, Tobacco, Firearms, and Explosives), our major client, who is planning on adding 60+ additional students. This course is included in a list of courses of which one is required.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

sraper (12/07/16 11:47 am): Approved, but this would currently violate policy.

Program will provide information for next meeting if a waiver can be approved.

imorgan (01/10/17 2:35 pm): Approved based on request for exception to policy by Provost.

Course Inventory Change Request

New Course Proposal

Date Submitted: 11/29/16 8:59 am

Viewing: **EXP ENG 5721 : Specialty Uses of Energetic Materials**

File: 4378

Last edit: 01/10/17 2:37 pm

Changes proposed by: kapqh4

Requested Fall 2017

Effective Change

Date

Department

Mining & Nuclear Engineering

Discipline

Explosives Engineering (EXP ENG)

Course Number 5721

Title

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. 11/29/16 9:01 am
Braden lusk
(blusk): Approved
for RMINNUCL
Chair
2. 12/01/16 3:43 pm
Kristy Giacomelli
(kristyg):

- Approved for CCC
Secretary
3. 12/07/16 11:48
am
craper: Approved
for Engineering
DSCC Chair
4. 12/16/16 2:35 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:45
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:37 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Specialty Uses of Energetic Materials

Abbreviated Spec Use Enrg Matl

Course Title

Catalog

Description

Overview of special, less common uses of energetic materials and how they can be applied as a functional tool. Topics include the use of energetics in aerospace,

explosive ordnance, oil field development, welding, pyrotechnics, theatrics, and cinematic special effects.

Prerequisites

Field Trip

Statement

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

Total: 3

Required for	Yes
--------------	-----

Majors

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

Majors

Justification for

new course:

One of three courses added to accommodate a request from the ATF (Bureau of Alcohol, Tobacco, Firearms, and Explosives), our major client, who is planning on adding 60+ additional students. This course is included in a list of courses of which one is required.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

sraper (12/07/16 11:48 am): Approved, but this would currently violate policy.

Program will provide information for next meeting if a waiver can be approved.

imorgan (01/10/17 2:37 pm): Edited the abbreviated title to be more descriptive.

Approved based on request for exception to policy by Provost.

Course Inventory Change Request

New Course Proposal

Date Submitted: 11/29/16 8:59 am

Viewing: **EXP ENG 5914 : Explosives Manufacturing**

File: 4379

Last edit: 01/10/17 2:37 pm

Changes proposed by: kapqh4

Requested Fall 2017

Effective Change

Date

Department

Mining & Nuclear Engineering

Discipline

Explosives Engineering (EXP ENG)

Course Number 5914

Title

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. 11/29/16 9:01 am
Braden lusk
(blusk): Approved
for RMINNUCL
Chair
2. 12/01/16 3:43 pm
Kristy Giacomelli
(kristyg):

- Approved for CCC
Secretary
3. 12/07/16 11:48
am
craper: Approved
for Engineering
DSCC Chair
4. 12/16/16 2:35 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:45
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:37 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Explosives Manufacturing

Abbreviated Explosives Manufacturing

Course Title

Catalog

Description

History of industrial explosives from discovery to what is used today. Manufacturing processes for packaged and bulk explosives are explored along with specialty

explosives such as detonating cord, cast boosters, detonators, shaped charges, and commercial fireworks. Field manufacturing of explosives by mixing or gassing is also covered.

Prerequisites

Field Trip

Statement

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

Total: 3

Required for	Yes
--------------	-----

Majors

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

Majors

Justification for

new course:

One of three courses added to accommodate a request from the ATF (Bureau of Alcohol, Tobacco, Firearms, and Explosives), our major client, who is planning on adding 60+ additional students. This course is included in a list of courses of which one is required.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

sraper (12/07/16 11:48 am): Approved, but this would currently violate policy. Program will provide information for next meeting if a waiver can be approved.

imorgan (01/10/17 2:37 pm): Approved based on request for exception to policy by Provost.

Key: 4379

[Preview Bridge](#)

Course Inventory Change Request

Date Submitted: 10/11/16 4:28 pm

Viewing: **NUC ENG 5257 : Introduction to Nuclear Thermal Hydraulics**

File: 4118.4

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

Last edit: 01/17/17 2:42 pm

Changes proposed by: schlegelj

Requested Fall **2017** ~~2015~~

Effective Change

Date

Department

Mining & Nuclear Engineering

Discipline

Nuclear Engineering (NUC ENG)

Course Number 5257

Title

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. 11/02/16 10:10 am
Braden lusk
(blusk): Approved for RMINNUCL Chair
- 2. 11/08/16 1:42 pm
Shauntae Ellis

(smetg6):

Approved for CCC
Secretary

3. 12/07/16 11:46
am

sraper: Approved
for Engineering
DSCC Chair

4. 12/16/16 2:36 pm
Kristy Giacomelli

(kristyg):
Approved for
Pending CCC
Agenda post

5. 01/17/17 2:42 pm
Kristy Giacomelli

(kristyg):
Approved for CCC
Meeting Agenda

History

1. Feb 9, 2015 by
Joshua Schlegel
(schlegelj)

Introduction to Nuclear Thermal Hydraulics

Abbreviated Intro Nuclear Therm Hydr

Course Title

Catalog

Description

An introductory course in the application of **thermal-hydraulic principles to two-phase flow in energy systems, with emphasis on nuclear energy issues. systems. Will include the development of constitutive models and applications to power**

systems, fluid mechanics, and heat transfer problems (including multiphase flows).

~~Students will be acquainted 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. Intended for graduate student enrollment.~~

Prerequisites

Graduate standing.

Field Trip

Statement

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

Total: 3

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

Majors

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

Majors

Justification for
change:

Due to faculty expansion and the ability to offer some additional graduate courses, this course and another course, NE 6207, are being slightly modified to avoid duplicated topics and present material in a more logical order.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

sraper (12/07/16 11:46 am): current catalog states course is intended for graduate students. Should a prereq of "grad standing" be added? will verify.

Course Inventory Change Request

Date Submitted: 10/11/16 4:32 pm

Viewing: **NUC ENG 6257 ~~6207~~: Advanced Nuclear Thermal Hydraulics**

File: 411.1

Last edit: 11/08/16 1:47 pm

Changes proposed by: schlegelj

Requested Fall **2017** ~~2014~~
Effective Change
Date

Department
Mining & Nuclear Engineering

Discipline
Nuclear Engineering (NUC ENG)

Course Number **6257** ~~6207~~

Title

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. 11/02/16 10:10 am
Braden lusk
(blusk): Approved for RMINNUCL Chair
2. 12/01/16 3:46 pm
Kristy Giacomelli

- (kristyg):
Approved for CCC
Secretary
3. 12/07/16 11:46
am
sraper: Approved
for Engineering
DSCC Chair
4. 12/16/16 2:37 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:46
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:38 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Advanced Nuclear Thermal Hydraulics

Abbreviated Adv Nuc Thermal Hydraulics

Course Title

Catalog

Description

Treatment ~~Integrated treatment of~~ **advanced topics in nuclear reactor thermal-hydraulics including analysis of fuel elements thermodynamics and fuel melting, multiphase flow dynamics advanced mass, momentum and two-fluid models, interfacial transfer of mass, momentum, energy transport in solids and energy, multiphase flow scaling, fluids; velocity and numerical applications. temperature distributions in laminar and turbulent flow; flow and thermal analysis with applications to nuclear engineering systems.**

Prerequisites

Math 5325.

Field Trip

Statement

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

Total: 3

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

Majors

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

Majors

Justification for
change:

The course number is being changed to align more closely with other courses in the curriculum (NUC ENG 4207 and 5207 are courses in nuclear reactor physics, while NUC ENG 4257 and 5257 are introductory courses in thermal hydraulics)

The course description has been altered because, due to expansion of the faculty and the ability to teach additional courses, the content of this course and NUC ENG 5257 is being modified to avoid overlap and present material in a more logical order.

Semesters

previously

offered as an

experimental

course

Co-Listed

Courses:

Course Reviewer

Comments

Key: 411

[Preview Bridge](#)

Program Change Request

Date Submitted: 04/08/16 8:40 am

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

File: 150.44

Last approved: 03/07/16 2:04 pm

Last edit: 01/10/17 2:16 pm

Changes proposed by: forcinit

In Workflow

1. **RCHEMENG Chair**
2. **CCC Secretary**
3. **Engineering DSCC Chair**
4. **Pending CCC Agenda post**
5. **CCC Meeting Agenda**
6. **Campus Curricula Committee Chair**
7. **FS Meeting Agenda**
8. **Faculty Senate Chair**
9. **Registrar**
10. **kristyg**

Catalog Pages

Using this

Program

[Chemical & Biochemical Engineering](#)

Approval Path

1. 04/08/16 2:13 pm
Muthanna Al-Dahhan
(aldahhanm):
Approved for
RCHEMENG Chair
2. 04/08/16 2:18 pm
kleb6b: Approved
for CCC Secretary
3. 04/27/16 4:24 pm
sraper: Approved
for Engineering
DSCC Chair
4. 07/14/16 10:27 am
kleb6b: Approved
for Pending CCC
Agenda post
5. 08/16/16 10:34 am
Shauntae Ellis
(smetg6): Rollback
to CCC Secretary
for CCC Meeting
Agenda

Start Term **Fall 2017** ~~08/22/2016~~

Program Code
CH ENG-BS

Department
Chemical and Biochemical Engineering

Title

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 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:

1. 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.
2. Depth requirement. Three credit hours must be taken in humanities or social sciences at the 1000 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 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 3000 level or above. All courses taken to satisfy the depth requirement must be taken after graduating from high school.
3. 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](#).
4. Any specific departmental requirements in the general studies area must be satisfied.
5. 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.

6. 12/01/16 3:45 pm
Kristy Giacomelli
(kristyg): Approved for CCC Secretary
7. 12/07/16 11:26 am
srafer: Approved for Engineering DSCC Chair
8. 12/16/16 2:38 pm
Kristy Giacomelli
(kristyg): Approved for Pending CCC Agenda post
9. 01/10/17 11:49 am
Kristy Giacomelli
(kristyg): Approved for CCC Meeting Agenda
10. 01/10/17 2:18 pm
Ilene Morgan
(imorgan): Approved for Campus Curricula Committee Chair

History

1. Mar 18, 2014 by
Lahne Black (lahne)
2. May 2, 2014 by
Lahne Black (lahne)
3. Jan 30, 2015 by
kleb6b
4. Jul 15, 2015 by
pantaleoa
5. Jul 15, 2015 by
pantaleoa
6. Nov 18, 2015 by
marlene
7. Mar 7, 2016 by
Daniel Forciniti
(forcinit)

Chemical Engineering BS

Freshman Year			
First Semester	Credits	Second Semester	Credits
FR ENG 1100	1	MECH ENG 1720	3
CHEM 1310	4		3

		CHEM ENG 1100 , or COMP SCI 1972 <i>and</i> COMP SCI 1982 , or COMP SCI 1971 <i>and</i> COMP SCI 1981	
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		
CHEM 1100	1		
	17		17
Sophomore Year			
First Semester	Credits	Second Semester	Credits
CHEM ENG 2100 ¹	3	CHEM ENG 2310 ²	1
CHEM 2210	4	CHEM ENG 2110 ¹	3
MATH 2222	4	Humanities and Social Sciences Elective ⁴	3
PHYSICS 2135	4	Humanities and Social Sciences Elective ⁴	3
CHEM ENG 2300	3	MATH 3304	3
		Science Elective ⁵	4
	18		17
Junior Year			
First Semester	Credits	Second Semester	Credits
CHEM ENG 3120 ¹	3	CHEM ENG 3141	2
CHEM ENG 3101	4	CHEM ENG 3131	3
CHEM ENG 3111	3	CHEM ENG 3150	3
ECON 1100 or 1200	3	STAT 3113	3
Upper level Humanities or Social Science Elective ⁴	3	ENGLISH 1160 or 3560	3
	16		14
Senior Year ³			
First Semester	Credits	Second Semester	Credits
CHEM ENG 4110	3	CHEM ENG 4097 ²	3
CHEM ENG 5XXX-Chem Eng Elective ⁶	3	CHEM ENG 5XXX-Chem Eng Elective ⁶	3
CHEM ENG 4101 ²	3	CHEM ENG 4130 ²	3
CHEM ENG 4140	3	Chem Eng 5xxx --Chem Eng Elective ⁶	3
CHEM ENG 4091	3	Chem Eng 5xxx -Chem Eng Elective ⁶	3
	15		15

Total Credits: 129

Note: The minimum number of hours required for a degree in chemical engineering is 129.

A cumulative grade point average of 2.50 or better and a "C" or better in Chem 1310, Chem 1319, Chem 1320, Math 1214, Math 1215 and Physics 1135 are required to be admitted into the chemical engineering major.

¹	A grade of "C" or better is required in Chem Eng 2100 & Chem Eng 2110 in order to enroll in Chem Eng 3120 .
²	Communications emphasized course (See bachelor of science degree, general education communications requirement).
³	Chemical engineering majors are encouraged to take the fundamentals of engineering exam prior to graduation. It is the first step toward becoming a registered professional engineer.
⁴	From approved list published on the website of Undergraduate Studies. The prerequisites for the upper level course must be completed with a passing grade.
⁵	<u>CHEM 2510</u> , or <u>CHEM 4610</u> and <u>CHEM 4619</u> , or <u>BIO SCI 2213</u> and <u>BIO SCI 2219</u> , or <u>CHEM 2220</u> and <u>CHEM 2289</u> , or <u>Bio Sci 3313</u> and <u>Bio Sci 3319</u> , or <u>CHEM 3420</u> and <u>CHEM 3459</u> .
⁶	Any Chem Eng 5xxx and any class from the approved list published in the Chemical Engineering web site but only 3 cr. hr of Chem. Eng. 4000, Chem Eng 4099 or Chem Eng 4099. Students may have no more than three hours from approved, out-of-department elective.

Chemical Engineering Biochemical Engineering Emphasis

Freshman Year			
First Semester	Credits	Second Semester	Credits
<u>FR ENG 1100</u>	1	<u>MECH ENG 1720</u>	3
<u>CHEM 1310</u>	4	<u>CHEM ENG 1100</u> , or <u>COMP SCI 1972</u> and <u>COMP SCI 1982</u> , or <u>COMP SCI 1971</u> and <u>COMP SCI 1981</u>	3
<u>CHEM 1319</u>	1	<u>CHEM 1320</u>	3
<u>ENGLISH 1120</u>	3	<u>MATH 1215</u>	4
<u>HISTORY 1200</u> , or <u>1300</u> , or <u>1310</u> , or <u>POL SCI 1200</u>	3	<u>PHYSICS 1135</u>	4
<u>MATH 1214</u>	4		
<u>CHEM 1100</u>	1		
	17		17
Sophomore Year			
First Semester	Credits	Second Semester	Credits
<u>CHEM ENG 2100</u> ¹	3	<u>CHEM ENG 2110</u> ¹	3
<u>CHEM 2210</u>	4	<u>STAT 3113</u>	3

MATH 2222	4	CHEM ENG 2310 ²	1
PHYSICS 2135	4	Science Elective ⁵	4
CHEM ENG 2300	3	MATH 3304	3
	18		14
Junior Year			
First Semester	Credits	Second Semester	Credits
CHEM ENG 3120 ¹	3	ECON 1100 or 1200	3
CHEM ENG 3101	4	Science Elective ⁵	4
Humanities or Social Sciences Elective ⁴	3	CHEM ENG 3141	2
Science Elective ⁵	4	CHEM ENG 3131	3
CHEM ENG 3111	3	ENGLISH 1160 (or English 3560)	3
		CHEM ENG 3150	3
	17		18
Senior Year³			
First Semester	Credits	Second Semester	Credits
CHEM ENG 4110	3	CHEM ENG 4210	3
Upper Level Humanities or Social Sciences Elective ⁴	3	CHEM ENG 4097 ²	3
CHEM ENG 4091	3	Humanities or Social Science Elective ⁴	3
CHEM ENG 4220 ²	3	CHEM ENG 4201 ²	3
CHEM ENG 5250	3	CHEM ENG 4241	3
	15		15
Total Credits: 131			

Note: The minimum number of hours required for a degree in chemical engineering with an emphasis in biochemical engineering is 131.

A cumulative grade point average of 2.50 or better and a "C" or better in Chem 1310, Chem 1319, Chem 1320, Math 1214, Math 1215 and Physics 1135 are required to be admitted into the chemical engineering major.

¹	A grade of "C" or better is required in Chem Eng 2100 & Chem Eng 2110 in order to enroll in Chem Eng 3120.
²	Communications emphasized course (See bachelor of science degree, general education communications requirement).
³	Chemical engineering majors are encouraged to take the fundamentals of engineering exam prior to graduation. It is the first step toward becoming a registered professional engineer.
⁴	From approved list published on the website of Undergraduate Studies. The prerequisites for the upper level course must be completed with a passing grade.
⁵	

A minimum of 12 credit hours in Science Electives are required. Select three courses from Chem 2220, Chem 4610, Chem 4620, BioSci 2213, BioSci 3313, and BioSci 4323; and a minimum of two laboratory courses from Chem 2229 or Chem 2289, Chem 4619, BioSci 2219, BioSci 3319, and BioSci 4329.

Justification for
request

Computer Science 1972/1982 are a better match for our students' needs than
Computer Science 1970/1980

The Chem. Eng. Faculty decided not to require our students to take the FE exam
anymore.

Chemistry 3459 is a better match for our students' needs than Chem 3419.

The names of the classes in footnote 5 (emphasis program) for completeness.

Supporting
Documents

~~new curriculum justification.docx~~

Course Reviewer
Comments

kleb6b (04/08/16 6:45 am): Update effective term

kleb6b (04/08/16 8:12 am): Rollback: Rollback

kleb6b (07/11/16 3:02 pm): Update Effective Term

smetg6 (08/16/16 10:34 am): Rollback: Tabled until degree program has necessary
paper. Courses 3101,3141, & 4101 do not have necessary forms at this time.

sraper (12/07/16 11:26 am): It is suggested to remove course titles in foot note 5.

kristyg (01/10/17 11:49 am): Per the meeting I removed the titles from footnote 5 and
added a footnote 1 to Chem Eng 3120.

imorgan (01/10/17 2:16 pm): Edited Footnote 5 in the Biochemical emphasis.

Program Change Request

Date Submitted: 09/15/16 9:58 pm

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

File: 64.21

Last approved: 04/24/15 3:34 pm

Last edit: 10/03/16 8:21 am

Changes proposed by: liukh

Catalog Pages

Using this

Program

[Geology and Geophysics](#)

Start Term

Fall **2017** ~~2015~~

Program Code

GL&GPH-BS

Department

Geosciences and Geological and Petroleum Engineering

Title

Program Requirements and Description

Bachelor of Science Geology and Geophysics

A minimum of 127 credit hours is required for a Bachelor of Science degree in Geology and Geophysics. Students must average at least two grade points per credit hour and must obtain a letter grade of "C" or better in all Geology and Geophysics courses.

In Workflow

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

Approval Path

1. 09/30/16 2:32 pm
Francisca Oboh-Ikuenobe
(ikuenobe):
Approved for
RGEOENG Chair
2. 10/03/16 8:21 am
Shauntae Ellis
(smetg6): Approved
for CCC Secretary
3. 11/08/16 6:24 pm
Ilene Morgan
(imorgan):
Approved for
Sciences DSCC
Chair
4. 12/07/16 11:24 am
srafer: Approved
for Engineering
DSCC Chair
5. 12/16/16 2:39 pm
Kristy Giacomelli

The Geology and Geophysics curriculum must include [ENGLISH 1120](#) and [ENGLISH 1160](#) , [ECON 1100](#) or [ECON 1200](#) , either [HISTORY 1200](#) , [HISTORY 1300](#) , [HISTORY 1310](#) or [POL SCI 1200](#) , and nine elective hours in humanities/social sciences. Specific requirements for the bachelor degree program are outlined in the sample program below

- (kristyg): Approved for Pending CCC Agenda post
6. 01/10/17 11:49 am
Kristy Giacomelli
(kristyg): Approved for CCC Meeting Agenda
7. 01/10/17 2:38 pm
Ilene Morgan
(imorgan):
Approved for Campus Curricula Committee Chair

History

1. May 6, 2014 by
Francisca Oboh-
Ikuenobe
(ikuenobe)
2. Apr 24, 2015 by
wronk

Geology and Geophysics BS

Freshman Year					
First Semester	Credits	Second Semester	Credits		
GEOLOGY 1110	3	GEOLOGY 1120 ¹	3		
GEOLOGY 1119	1	GEOLOGY 1129 ¹	1		
ENGLISH 1120	3	MATH 1208 ²	5		
CHEM 1310	4	Elective (Science & Eng) ³	3		
CHEM 1319	1	Humanities/Social Science Elective	3		
CHEM 1100	1				
	13		15		
Sophomore Year					
First Semester	Credits	Second Semester	Credits	Summer Semester	Credits
GEOLOGY 2610	4	GEOLOGY 2620 ¹	4	GEOLOGY 2096	3
GEOPHYS 3210	3	GEOLOGY 3410	3		
MATH 1221 ²	5	ENGLISH 1160 or 3560	3		
COMP SCI 1970 & COMP SCI 1980 (or	3	ECON 1100 or 1200	3		

COMP SCI 1971 & COMP
SCI 1981)

		HISTORY 1200 , or 1300 , or 1310 , or POL SCI 1200	3		
	15		16		3
Junior Year					
First Semester	Credits	Second Semester	Credits	Summer Semester	Credits
GEOLOGY 3310	3	GEOLOGY 3620	3	GEOLOGY 4097	3
GEOLOGY 3319	1	GEOLOGY 3629	1		
PHYSICS 1135 ⁴	4	PHYSICS 2135 ⁴	4		
STAT 3113 , or 3115 , or 3117 , or GEO ENG 4115	3	Elective (Geo & Geop) ⁵	6		
Elective (Geo & Geop) ⁵	3	Humanities/Social Sciences Elective	3		
	14		17		3
Senior Year					
First Semester	Credits	Second Semester	Credits		
GEOLOGY 4010	1	GEOPHYS 4096 ⁴	3		
Humanities/Social Sciences Elective	3	GEOLOGY 4310	3		
Elective (Science & Eng) ³	6	GEOPHYS 5096	3		
Elective (Geo & Geop) ⁵	6	Elective (Science & Eng) ³	6		
		Free Elective ⁶	3		
	16		15		
Total Credits: 127					

¹ Communications Emphasized (CE) courses

² Students may substitute [MATH 1214](#) for [MATH 1208](#); [MATH 1215](#) for [MATH 1221](#).

³ All Geology/Geophysics students must complete at least 15 hours of elective course work in science (which may include additional Geology/Geophysics courses), mathematics, and/or engineering, courses required for the basic program. 12 hours of this course work must be numbered 2000 or above.

⁴ Students may substitute [PHYSICS 1111](#) and [PHYSICS 1119](#) for [PHYSICS 1135](#); [PHYSICS 2111](#) and [PHYSICS 2119](#) for [PHYSICS 2135](#).

⁵ All Geology and Geophysics students must complete at least 15 hours of elective course work numbered 2000 or above in the Department of Geology and Geophysics, in addition to the required core curriculum.

⁶ Free elective hours may be taken in any combination of credit hours (1, 2, 3, etc.) and can include any course offerings at the University.

Core Curriculum

Taken by all students in Geology & Geophysics.		
GEOLOGY 1110	Physical And Environmental Geology	3
GEOLOGY 1119	Physical and Environmental Geology Laboratory	1
GEOLOGY 1120	Evolution Of The Earth	3
GEOLOGY 1129	Evolution of the Earth Laboratory ⁵	1
GEOLOGY 2610	Mineralogy And Crystallography	4
GEOLOGY 2620	Igneous And Metamorphic Petrology	4
GEOLOGY 3310	Structural Geology	3
GEOLOGY 3319	Structural Geology Lab	1
GEOLOGY 3410	Introduction To Geochemistry	3
GEOLOGY 3620	Stratigraphy And Sedimentation	3
GEOLOGY 3629	Stratigraphy Lab	1
GEOLOGY 4010	Seminar	1
GEOLOGY 4310	Remote Sensing Technology	3
GEOLOGY 2096	Field Geology	3
GEOLOGY 4097	Advanced Field Geology	3
GEOPHYS 3210	Introduction to Geophysics	3
GEOPHYS 4096	Course GEOPHYS 4096 Not Found	3
GEOPHYS 5096	Global Tectonics	3
Total Credits		43

Geology and Geophysics Focus Areas

Geochemistry

Students should complete at least 5 courses (15 hours minimum) from the list. Students may also choose additional courses to be selected from an approval list and with guidance from student's advisor.		
GEOLOGY 3511	Introduction to Mineral Deposits	3
GEOLOGY 4451	Aqueous Geochemistry	3
GEOLOGY 4461	Isotope Geochemistry	3
GEOLOGY 4631	Advanced Igneous and Metamorphic Petrology	4
GEOLOGY 4841	Geological Field Studies	3
GEOLOGY 5611	Granites And Rhyolites	4
GEOLOGY 5671	Clay Mineralogy	3

CER ENG 2110	Atomic Structure Of Crystalline Ceramics	3
CER ENG 3220	Phase Equilibria	3

General Geology

Students should complete at least 5 courses (15 hours minimum) from the list. Students may also choose additional courses to be selected from an approval list and with guidance from student's advisor.		
GEOLOGY 3511	Introduction to Mineral Deposits	3
GEOLOGY 3631	Systematic Paleontology	3
GEOLOGY 3811	Fundamentals Of Geographic Information Systems	3
GEOLOGY 4631	Advanced Igneous and Metamorphic Petrology	4
GEOLOGY 4711	Paleoclimatology and Paleoecology	3
GEOLOGY 4841	Geological Field Studies	3
GEOLOGY 5513	Petroleum Geology	3
GEOLOGY 5611	Granites And Rhyolites	4
GEOLOGY 5741	Micropaleontology	3
GEOLOGY 6311	Advanced Structural Geology	3
GEO ENG 3175	Geomorphology And Terrain Analysis	3

Geophysics

Students must choose 1 math and 3 geophysics courses from the list. Students should also choose at least one additional course to be selected from an approved list and with guidance from student's advisor.		
MATH 2222	Calculus with Analytic Geometry III	4
MATH 3304	Elementary Differential Equations	3
MATH 3108	Linear Algebra I	3
MATH 5325	Partial Differential Equations	3
GEOPHYS 4231	Seismic Interpretation	3
GEOPHYS 5202	Exploration and Development Seismology	3
GEOPHYS 5231	Seismic Data Processing	3
GEOPHYS 5261	Computational Geophysics	3
GEOPHYS 5736	Geophysical Field Methods	3

Groundwater and Environmental Geochemistry

Students should complete at least 5 courses (15 hours minimum) from the list. Students may also choose additional courses to be selected from an approval list and with guidance from student's advisor.		
GEOLOGY 4411	Hydrogeology	3

GEOLOGY 4431	Methods Of Karst Hydrogeology	3
GEOLOGY 4451	Aqueous Geochemistry	3
GEOLOGY 4711	Paleoclimatology and Paleoecology	3
GEOPHYS 5782	Environmental and Engineering Geophysics	3
BIO SCI 1173	Introduction to Environmental Sciences	3
ENV ENG 2601	Fundamentals of Environmental Engineering and Science	3
ENV ENG 5640	Environmental Law And Regulations	3
GEO ENG 5237	Geological Aspects Of Hazardous Waste Management	3
GEO ENG 5331	Subsurface Hydrology	3

Petroleum Geology

Students should complete at least 5 courses (15 hours minimum) from the list. Students may also choose additional courses to be selected from an approval list and with guidance from student's advisor.		
GEOLOGY 3631	Systematic Paleontology	3
GEOLOGY 5311	Depositional Systems	3
GEOLOGY 5513	Petroleum Geology	3
GEOLOGY 5621	Course GEOLOGY 5621 Not Found	3
GEOLOGY 5661	Advanced Stratigraphy and Basin Evolution	3
GEOLOGY 5741	Micropaleontology	3
GEOPHYS 5202	Exploration and Development Seismology	3
PET ENG 3330	Well Logging	3

Justification for
request

Geophys 4096 and Geology 5621 were renumbered to Geophys 5096 and Geology 5661.

Supporting
Documents

Course Reviewer
Comments

smetg6 (10/03/16 8:21 am): Changed to Fall 2017

Program Change Request

Date Submitted: 12/09/16 10:22 am

Viewing: **HIST-BA : History BA**

File: 157.17

Last approved: 06/27/16 9:25 am

Last edit: 12/09/16 10:22 am

Changes proposed by: dewittp

Catalog Pages

Using this

Program

[History](#)

Start Term

Fall **2017** ~~2016~~

Program Code

HIST-BA

Department

History and Political Science

Title

Program Requirements and Description

Bachelor of Arts History

(In addition to general requirements for bachelor of arts degree.)

In Workflow

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

Approval Path

1. 12/09/16 10:32 am
sfogg: Approved for
RHISTORY Chair
2. 12/16/16 11:19 am
Kristy Giacomelli
(kristyg): Approved
for CCC Secretary
3. 12/16/16 12:33 pm
Petra Dewitt
(dewittp): Approved
for Arts &
Humanities DSCC
Chair
4. 12/16/16 2:39 pm
Kristy Giacomelli
(kristyg): Approved
for Pending CCC
Agenda post
5. 01/10/17 11:49 am
Kristy Giacomelli
(kristyg): Approved
for CCC Meeting
Agenda

6. 01/10/17 2:38 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

History

1. Aug 6, 2014 by
Lahne Black (lahne)
2. Jul 21, 2015 by
pantaleoa
3. Jun 27, 2016 by
Petra Dewitt
(dewittp)

History BA

HISTORY 1790	Introduction to History	1
HISTORY 1300	American History To 1877	3
HISTORY 1310	American History Since 1877	3
HISTORY 2790	Historiography	3
2 American History Electives		6
2 European History Electives		6
3 History Electives		9
Total Credits		31

Note: History majors are also required to complete [HISTORY 1100](#) and [HISTORY 1200](#) as part of the general education requirements for the B.A. In addition, 9 hours of the 31 major hours must be taken at the 3000 or 4000 level.

Note: History majors interested in graduate or professional school should take HISTORY 4097 as independent research under the guidance of a faculty member in a short period (one semester).

Note: History majors must complete an experiential learning requirement. They can meet this requirement by taking HISTORY 4085 or HISTORY 4097 or study abroad, among other options, in consultation with their advisor.

Note: Entering students will normally take [ENGLISH 1120](#) either semester of the first year.

Secondary Education Emphasis Area

You may earn a B.A. degree in history from Missouri S&T and certification to teach in the schools of Missouri. This program may be completed in four academic years and student teaching is arranged with public schools within 30 miles of the Rolla campus.

Students interested in the certification program should consult with the advisor for history/education majors in the department of history and political science for requirements particular to those interested in this degree. Students should process a change of major form to designate history with an emphasis area of secondary education.

History students must complete **128** ~~124~~ credit hours, including the requirements of the teacher education program listed in this catalog. A minimum grade of "C" is required by the department in all history and political science courses counted towards this degree. Students must take the following courses:

Communication Skills: 9 hours		
ENGLISH 1120	Exposition And Argumentation	3
ENGLISH 1160	Writing And Research	3
SP&M S 1185	Principles Of Speech	3
Humanities: 12 hours with at least one course from the first three areas		
Art or Music or Theater Appreciation		
Philosophy		
Literature		
Foreign Language		
ETYM 4306	Introduction To Etymology	3
Social Sciences: 18 hours		
POL SCI 1200	American Government	3
POL SCI 3763	Contemporary Political Thought	3
or POL SCI 3211	American Political Parties	
ECON 1100	Principles Of Microeconomics	3
or ECON 1200	Principles Of Macroeconomics	
PSYCH 1101	General Psychology	3
PSYCH 4600	Social Psychology	3
HISTORY 2110	World Regional Geography	3
Natural Sciences: 7 hours = 2 courses and 1 lab		
One course in Physics or Chemistry or Geology and one course in Biology		
One laboratory in any of the above science courses		
Mathematics: 3 hours		
MATH 1120	College Algebra (or higher)	3-5
or MATH 1103	Fundamentals Of Algebra	
or MATH 1140	College Algebra	
Clinical Experience: 16 hours		
EDUC 1104	Teacher Field Experience	2
EDUC 1164	Aiding Elementary, Middle And Secondary Schools	2

EDUC 4299	Student Teaching	12
Professional Requirements: 26 hours		
EDUC 1040	Perspectives In Education	2
EDUC 1174	School Organization & Adm For Elementary & Secondary Teachers	2
EDUC 2216	Course EDUC 2216 Not Found	3
ENGLISH 3170	Teaching And Supervising Reading and Writing	3
EDUC 3216	Teaching Reading in Content Area	3
EDUC 3280	Teaching Methods And Skills In The Content Areas	6
EDUC 4298	Student Teaching Seminar	1
PSYCH 2300/EDUC 2102	Educational Psychology	3
PSYCH 3311	Psychological & Educational Development Of The Adolescent	3
PSYCH 4310/EDUC 4310	Psychology Of The Exceptional Child	3
PSYCH 3310	Developmental Psychology	3
History Requirements: 37 hours		
HISTORY 1790	Introduction to History	1
HISTORY 1100	Early Western Civilization	3
HISTORY 1200	Modern Western Civilization	3
HISTORY 1300	American History To 1877	3
HISTORY 1310	American History Since 1877	3
HISTORY 2790	Historiography	3
American History Electives		6
European History Electives		6
History Electives		9

Justification for
request

New Mandate from Department of Elementary and Secondary Education requires Social Psychology (4600) as added Social Science requirement and requires replacement of Adolescent Psychology (3311) with Developmental Psychology (3310). These requirements also add 3 hours to the degree.

Supporting
Documents

Course Reviewer
Comments

Program Change Request

Date Submitted: 04/07/16 3:31 pm

Viewing: **NU ENG-BS : Nuclear Engineering BS**

File: 104.9

Last approved: 07/21/15 12:11 pm

Last edit: 12/07/16 11:28 am

Changes proposed by: leehk

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. kristyg

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

Approval Path

- 1. 08/25/16 9:03 am
Braden lusk (blusk):
Approved for
RMINNUCL Chair
- 2. 08/31/16 1:33 pm
Shauntae Ellis
(smetg6): Approved
for CCC Secretary
- 3. 09/22/16 1:54 pm
sraper: Approved
for Engineering
DSCC Chair
- 4. 10/06/16 10:08 am
Shauntae Ellis
(smetg6): Approved
for Pending CCC
Agenda post
- 5. 11/03/16 9:39 am
Shauntae Ellis
(smetg6): Rollback
to CCC Secretary
for CCC Meeting
Agenda

Program Requirements and Description

**Bachelor of Science
Nuclear Engineering**

Entering freshmen desiring to study nuclear engineering will be admitted to the Freshman Engineering Program. They will, however, be permitted, to state a nuclear engineering preference, which will be used as a consideration for available departmental scholarships.

For the bachelor of science degree in nuclear engineering a minimum of 128 credit hours is required. These requirements are in addition to credit received for algebra, trigonometry, and basic ROTC courses. A student must maintain an average of at least two grade points overall and for all courses taken in nuclear engineering.

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

1. All students are required to take one American history course and one economics course. The history course is to be selected from [HISTORY 1200](#), [HISTORY 1300](#), [HISTORY 1310](#), or [POL SCI 1200](#). The economics course may be either [ECON 1100](#) or [ECON 1200](#).
2. Students must take [ENGLISH 1120](#). Students are also required to take one humanities course to be selected from "The Approved List of Humanities and Social Science Courses for Engineering Degrees" maintained by the office of undergraduate studies.
3. Of the remaining hours, six credit hours must be taken in humanities or social sciences at the 1000 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. One of these courses must have as a prerequisite one of the humanities or social sciences courses already taken. Foreign language courses numbered 1180 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 level.)
4. Skill courses are not allowed to meet humanities and social sciences requirements except in foreign languages. Students who select the foreign language option are urged to take more than one course.
5. Special topics, special problems courses and honors seminars are allowed only by petition to and approval by the student's department chair.

The nuclear engineering program at Missouri S&T is characterized by its focus on the scientific basics of engineering and its innovative application. The necessary interrelations

Nuclear Engineering BS

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.

6. 12/01/16 3:46 pm
Kristy Giacomelli
(kristyg): Approved for CCC Secretary
7. 12/07/16 11:28 am
srafer: Approved for Engineering DSCC Chair
8. 12/16/16 2:40 pm
Kristy Giacomelli
(kristyg): Approved for Pending CCC Agenda post
9. 01/10/17 11:49 am
Kristy Giacomelli
(kristyg): Approved for CCC Meeting Agenda
10. 01/10/17 2:39 pm
Ilene Morgan
(imorgan): Approved for Campus Curricula Committee Chair

History

1. Aug 6, 2014 by
[Lahne Black \(lahne\)](#)
2. Jul 21, 2015 by
[pantaleoa](#)

among the various topics, the

Freshman Year			
First Semester	Credits	Second Semester	Credits
Freshman Chemistry Requirement ¹	5	Elective-Hum or Soc Sci ³	3
ENGLISH 1120	3	HISTORY 1200 , or 1300 , or 1310 , or POL SCI 1200	3
FR ENG 1100	1	PHYSICS 1135	4
MATH 1214	4	MECH ENG 1720	3
NUC ENG 1105 ²	1	MATH 1215	4

	14		17
Sophomore Year			
First Semester	Credits	Second Semester	Credits
CIV ENG 2200	3	STAT 3111 , or 3113 , or 3115 , or 3117	3
Elective ⁶	3	ECON 1100 or 1200	3
MATH 2222	4	NUC ENG 2406	1
NUC ENG 2105	2	CIV ENG 2210	3
PHYSICS 2135	4	MATH 3304	3
		PHYSICS 2305	3
	16		16
Junior Year			
First Semester	Credits	Second Semester	Credits
Elective-Hum or Soc Sci ³	3	ENGLISH 1160 or 3560	3
COMP SCI 3200 (or any 3000-level MATH or 5000-level STAT)	3	NUC ENG 4312	3
MET ENG 2110	3	NUC ENG 3223	3
NUC ENG 3205	3	NUC ENG 4203	3
NUC ENG 3221	3	NUC ENG 4229	3
		Technical Electives-3000 or 4000 level ⁵	3
	15		18
Senior Year			
First Semester	Credits	Second Semester	Credits
Elective-Hum or Soc Sci ³	3	Elective-Hum or Soc Sci ³	3
NUC ENG 4428	2	Technical Elective-4000 level ⁵	3
NUC ENG 4207	3	Free Elective ⁴	6
Elective-4000 level MATH	3	NUC ENG 4438	2
NUC ENG 4496	1	NUC ENG 4497	3
NUC ENG 4241	3		
	15		17
Total Credits: 128			

Note: Minimum credit hours for graduation is 128.

¹ [CHEM 1310](#) and [CHEM 1319](#) or [CHEM 1351](#) and [CHEM 1100](#) or an equivalent training program approved by Missouri S&T.

²

Nuclear Engineering students are expected to take Nuclear Technology Applications ([NUC ENG 1105](#)) during their Freshman year. However, transfer students are exempt.

³ Humanities and Social Science to be taken in accordance with the policy described above.

⁴ Courses which do not count towards this requirement are remedial courses such as algebra and trigonometry, physical education courses, extra credits in required courses, and basic Air Force and Army ROTC courses (courses taught in the first two years of the ROTC program).

⁵ Any Math, Science, or Engineering courses.

⁶ The programming elective consists of a lecture and lab combination, and may be selected from [COMP SCI 1970](#) and [COMP SCI 1980](#), or [COMP SCI 1971](#) and [COMP SCI 1981](#), or [COMP SCI 1972](#) and [COMP SCI 1982](#), or [COMP SCI 1570](#) and [COMP SCI 1580](#). Note that [COMP SCI 1570](#) and [COMP SCI 1580](#) requires one more credit hour than the other options.

Fundamentals of Engineering Exam: All nuclear 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.

Justification for request

Comp Sci 1972 and Comp Sci 1982 are classes in Matlab programming methods, which are useful for engineering problem solving. By including these classes as alternatives to the recommended programming electives, nuclear engineering students are being provided with the opportunity to take classes relevant and useful to their degree program and engineering career.

Supporting Documents

Course Reviewer Comments

smetg6 (08/31/16 1:33 pm): Changed start to Fall 2017

sraper (09/22/16 1:54 pm): This is a tentative approval as there were questions concerning Foot note 1 "Chem 1100 or equivalent training program. This should be discussed at the CCC meeting and whether that foot note should be modified. Email comments will be brought to the meeting.

smetg6 (11/03/16 9:39 am): Rollback: Tabled

sraper (12/07/16 11:28 am): Chemistry requirement of 5 hours is consistent with at least two other engineering programs. (Chem 1100 not a part of DC),

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 11/30/16 12:49 pm

Viewing: **NUC ENG 6001.001 : Advanced
Radiation Interactions**

File: 4380

Last edit: 01/17/17 2:43 pm

Changes proposed by: grahamjose

Requested Fall 2017

Effective Change

Date

Department

Mining & Nuclear Engineering

Discipline

Nuclear Engineering (NUC ENG)

Course Number 6001

Topic ID 001

Experimental

Title

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. 11/30/16 12:50
pm
Braden lusk
(blusk): Approved
for RMINNUCL
Chair
2. 12/01/16 3:45 pm
Kristy Giacomelli
(kristyg):
Approved for CCC
Secretary
3. 12/07/16 11:43
am
srafer: Approved

- for Engineering
DSCC Chair
4. 12/16/16 2:49 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/17/17 2:43 pm
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda

Advanced Radiation Interactions

Experimental Adv Rad Interactions

Abbreviated

Course Title

Instructors Joseph Graham

Experimental

Catalog

Description

Introduction to classical and quantum scattering theories and their use in modeling interactions of radiations with atoms, nuclei and quasiparticles. Topics covered include: cross sections; stopping power; scattering kernels; preparation of cross section libraries; neutron scattering and diffraction; experimental techniques.

Prerequisites

Graduate standing

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for
new course:

The interaction of radiation with atoms, nuclei and matter is fundamental to all areas of nuclear engineering. This course seeks to familiarize nuclear engineering graduate students with some of the deeper theories of scattering, nuclear reactions, and energy deposition and also teach them how to use standard computer codes to prepare usable cross section libraries from evaluated nuclear data files. These skills and pieces of knowledge will be useful in many areas of graduate student research.

Semester(s)
previously taught

Co-Listed
Courses:
Course Reviewer
Comments

sraper (12/07/16 11:43 am): suggested course title change to "Advanced Particle Interactions". will verify with program. added period to end of course description.

Key: 4380

[Preview Bridge](#)

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 12/15/16 3:36 pm

Viewing: **PET ENG 6001.003 : Advanced Directional Drilling and MWD**

File: 4386

Last edit: 01/10/17 11:50 am

Changes proposed by: caolila

Requested Spring 2017

Effective Change

Date

Department

Geosciences and Geological and Petroleum Engineering

Discipline

Petroleum Engineering (PET ENG)

Course Number 6001

Topic ID 003

Experimental Title

In Workflow

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

Approval Path

1. 12/15/16 10:31 pm
Francisca Oboh-Ikuenobe (ikuenobe):
Approved for RGEOENG Chair
2. 12/16/16 11:19 am
Kristy Giacomelli (kristyg):
Approved for CCC Secretary

3. 12/20/16 11:40
am
craper: Approved
for Engineering
DSCC Chair
4. 12/22/16 2:51 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:50
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:39 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Advanced Directional Drilling and MWD
Experimental Adv Dir Drilling
Abbreviated
Course Title
Instructors Dr. Rickey Hendrix
Experimental
Catalog
Description

In-depth study of directional well planning and drilling. The course covers the bottom hole assemblies and operational techniques used in directional drilling as well as the limiting factors and hole problems related to horizontal wells. Advanced research topics and well design in directional drilling.

Prerequisites

PET ENG 4210.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for

new course:

No upper level graduate courses currently exist in the area of well drilling. Students have requested faculty offer such courses.

Semester(s)

previously taught

Co-Listed

Courses:

Course Reviewer

Comments

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 12/15/16 3:55 pm

Viewing: **PET ENG 6001.004 : Advanced Petroleum Offshore Technology**

File: 4387

Last edit: 01/10/17 11:51 am

Changes proposed by: caolila

Requested Spring 2017

Effective Change

Date

Department

Geosciences and Geological and Petroleum Engineering

Discipline

Petroleum Engineering (PET ENG)

Course Number 6001

Topic ID 004

Experimental

Title

In Workflow

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

Approval Path

1. 12/15/16 10:31 pm
Francisca Oboh-Ikuenobe
(ikuenobe):
Approved for RGEOENG Chair
2. 12/16/16 11:20 am
Kristy Giacomelli
(kristyg):
Approved for CCC Secretary

3. 12/20/16 11:40
am
craper: Approved
for Engineering
DSCC Chair
4. 12/22/16 2:51 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 01/10/17 11:51
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 01/10/17 2:39 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Advanced Petroleum Offshore Technology
Experimental Adv Petr Offsh Tech
Abbreviated
Course Title
Instructors Dr. Rickey Hendrix
Experimental
Catalog
Description

A study of factors affecting offshore structural design and operation. Focus is on mobile offshore drilling units (MODUs). Subsea well systems and offshore pipelines are covered. Advanced topics in system design.

Prerequisites

Pet Eng 4210, Civ Eng 3330, Civ Eng 2210.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for

new course:

No upper level graduate courses currently exist in deepwater drilling and engineering. Students have requested faculty offer such a course.

Semester(s)

previously taught

Co-Listed

Courses:

Course Reviewer

Comments

Key: 4387

[Preview Bridge](#)

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 11/14/16 1:53 pm

Viewing: **SPANISH 3001.001 : Spanish**

Translation for Technical Applications

File: 4373

Last edit: 12/09/16 3:04 pm

Changes proposed by: kristyg

Requested Spring 2017

Effective Change

Date

Department

Arts, Languages, & Philosophy

Discipline

Spanish (SPANISH)

Course Number 3001

Topic ID 001

Experimental

Title

In Workflow

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

Approval Path

1. 11/14/16 1:56 pm
Kristy Giacomelli (kristyg):
Approved for RPHILOSO Chair
2. 11/14/16 1:57 pm
Kristy Giacomelli (kristyg):
Approved for CCC Secretary
3. 11/14/16 1:58 pm
Kristy Giacomelli (kristyg):

- Approved for Arts
& Humanities
DSCC Chair
4. 11/14/16 1:58 pm
Kristy Giacomelli
(kristyg):
Approved for
Pending CCC
Agenda post
5. 12/16/16 11:15
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 12/16/16 2:27 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Spanish Translation for Technical Applications

Experimental Span Tech Translation

Abbreviated

Course Title

Instructors Jorge Porcel

Experimental

Catalog

Description

Spanish Translation for Technical Applications aims to broaden students' skills by teaching translation and interpretation techniques for STEM and technical fields.

Prerequisites

Any Spanish 2000-level course or above.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for

new course:

This course will be developed for the new Minor in Latin American Studies for Technical Applications.

The justification for this course is based on the demands of modern multicultural, multilingual societies which require from new graduates more than the traditional foreign language skills. Specifically, students graduating from STEM disciplines need not only to be competent in one or more foreign languages but it is also increasingly required that technical communication skills and intercultural communication skills are part and parcel of their background. This course aims at addressing these global skills.

Semester(s)

previously taught

None

Co-Listed

Courses:

Course Reviewer

Comments

kristyg (11/14/16 1:56 pm): I am putting this course through as an EC, it was formerly put through as a CC form improperly.

imorgan (12/09/16 3:04 pm): Removed "instructor's approval" from prerequisites.

Key: 4373

[Preview Bridge](#)

Course Inventory Change Request

New Experimental Course Proposal

Date Submitted: 09/23/16 8:43 am

Viewing: **SYS ENG 6001.001 : Advanced Computational Intelligence**

File: 4339

Last edit: 10/18/16 4:21 pm

Changes proposed by: cornss

Requested 01/17/2017

Effective Change

Date

Department

Engineering Management and Systems Engineering

Discipline

Systems Engineering (SYS ENG)

Course Number 6001

Topic ID 001

Experimental

Title

In Workflow

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

Approval Path

1. 10/13/16 12:02 pm
Suzanna Long (longsuz):
Approved for RENG MNGT Chair
2. 10/13/16 12:29 pm
Shauntae Ellis (smetg6):
Approved for CCC Secretary

3. 10/18/16 4:21 pm
sraper: Approved
for Engineering
DSCC Chair
4. 11/08/16 12:59
pm
Shauntae Ellis
(smetg6):
Approved for
Pending CCC
Agenda post
5. 12/16/16 11:16
am
Kristy Giacomelli
(kristyg):
Approved for CCC
Meeting Agenda
6. 12/16/16 2:27 pm
Ilene Morgan
(imorgan):
Approved for
Campus Curricula
Committee Chair

Advanced Computational Intelligence
Experimental Adv Comp Intelligence
Abbreviated
Course Title
Instructors Corns
Experimental
Catalog
Description

Advanced topics in computational intelligence, including application areas in evolutionary computation, neural networks, and fuzzy systems. students will conduct challenging research projects involving advanced concept implementation, statistical analysis and paper writing.

Prerequisites

A "C" or better grade in one of Sys Eng 5211, Elec Eng 5310, or Comp Eng 5310.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for

new course:

Current computational intelligence course (SysEng5211/ECE5310) does not allow for advanced projects that allow for hands on learning of techniques. Other courses focus on one particular area, where hybridization of techniques can be pursued in this course.

Semester(s)

previously taught

Co-Listed

Courses:

Course Reviewer

Comments

smetg6 (10/13/16 12:29 pm): Added topic id

sraper (10/18/16 4:21 pm): Made changes to abbreviated title and prereqs.

Key: 4339

[Preview Bridge](#)

Program Change Request

Date Submitted: 04/25/16 3:19 pm

Viewing: **PHIL-BS : Philosophy BS**

File: 233.3

Last approved: 07/21/15 12:22 pm

Last edit: 10/05/16 10:00 am

Changes proposed by: dittmerj

Catalog Pages
Using this
Program

[Philosophy](#)

Start Term Fall **2017** ~~2015~~

Program Code PHIL-BS

Department Arts, Languages, & Philosophy

Title
Philosophy BS

Program Requirements and Description

Bachelor of Science Philosophy

A minimum of 120 credit hours is required for a bachelor of science degree in philosophy, and a grade point average of 2.0 must be obtained. These requirements for the B.S. are in addition to credit received for basic ROTC.

The B.S. in philosophy degree requires the following:

1. **ENGLISH 1120** ~~ENGLISH 1120~~ (entering students will normally take **ENGLISH 1120** ~~ENGLISH 1120~~ within their first year of study.) (3 hours)
2. Sciences. A total of 24 hours in biological, physical (chemistry, geology, and physics), and mathematical (mathematics, statistics, computer science, and information science and technology) sciences is required. A course from each of the biological and physical sciences is required. Students have to take two math or statistics courses; both must be at the level of college algebra or higher. At least one hour of lab coursework is required. Students may count up to 12 hours of engineering courses, at the discretion of the major advisor. Also, students may count up to 3 hours from the following list, but which may not be used to satisfy another requirement: History of science and technology classes (**HISTORY 2510**, **HISTORY 3510**, ~~HISTORY 2510~~, ~~HISTORY 3510~~, and **HISTORY 2530**), **PHILOS 4345**, ~~HISTORY 2530~~, ~~PHILOS 4345~~, or **PHILOS 3254** ~~PHILOS 3254~~ (24 hours)
3. Social Sciences. A total of 15 hours in social sciences is required. At least one course from two of the four areas

In Workflow

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

Approval Path

1. 08/25/16 9:01 am
Audra Merfeld-Langston (audram): Approved for RPHILOSO Chair
2. 08/31/16 1:34 pm
Shauntae Ellis (smetg6): Approved for CCC Secretary
3. 08/31/16 2:00 pm
Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC Chair
4. 10/05/16 10:00 am
Shauntae Ellis (smetg6): Rollback to CCC Secretary for Pending CCC Agenda post
5. 12/01/16 3:46 pm
Kristy Giacomelli (kristyg): Approved for CCC Secretary
6. 12/02/16 9:41 am
Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC Chair

must be taken: economics, sociology/anthropology, history/political science, and psychology. Six (6) hours from the biological, physical, and mathematical science, as well as engineering, not already used for the science requirement, may be substituted for 3 hours of social sciences; this substitution is only permitted once, unless allowed at the discretion of the major advisor. (15 hours)

4. Humanities. A total of 12 hours in humanities other than philosophy is required. Courses may be taken in literature, foreign/modern languages, speech and media studies, art, music, or theater. Three (3) hours from history not used for the social science requirement, and not HISTORY 1300 ~~HISTORY 1300~~ or HISTORY 1310, ~~HISTORY 1310~~, may be used to fulfill this requirement. (12 hours)

5. Two (2) Communication Intensive courses are required; waiving and substitutions are at the discretion of the student's advisor.

6. Minor: A minor will be selected from any discipline other than the major with approval of the major advisor. A total of at least 15 hours is required for the minor, but may include courses which also satisfy other requirements. At least nine hours must be beyond the introductory level.

7. Basic ROTC may be elected in the freshman and sophomore years, but is not creditable toward the B.S. in philosophy degree. Six credit hours of advanced ROTC may be credited toward this degree.

8. Elective Credits: In consultation with her/his advisor, each student will elect sufficient additional courses to complete a minimum of 120 credit hours which may include MATH 1120 ~~MATH 1120~~ or MATH 1140 ~~MATH 1140~~ and MATH 1160. ~~MATH 1160~~.

9. Philosophy: A total of at least 30 hours of philosophy courses is required. This is to include PHILOS 1105, PHILOS 1115, ~~PHILOS 1105~~, ~~PHILOS 1115~~, and at least 12 hours at the 4000-level, although substitutions may be permitted at the discretion of the major advisor. All philosophy work must accumulate to at least a 2.0 grade point average.

History

1. Apr 16, 2014 by [Lahne Black \(lahne\)](#)
2. Oct 20, 2014 by [pantaleoa](#)
3. Jul 21, 2015 by [pantaleoa](#)

Justification for request	See attached document for requested change, as well as for justification. (Justification: The current required course is no longer offered by our faculty; suitable and more appropriate alternative courses are offered regularly.)
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Supporting Documents

Course Reviewer Comments	smetg6 (08/31/16 1:34 pm): Changed Start Term to Fall 2017 from 2015 smetg6 (10/05/16 10:00 am): Rollback: Tabled per finding attachment
--------------------------	---