



Minutes of the Campus Curricula Committee Meeting

October 7, 2020

8:15am, Virtual Zoom

(For Faculty Senate Meeting of October 22, 2020)

Attendees: Steve Raper, Petra Dewitt, Katie Shannon, Michael Gosnell, Cecil Eng Huang Chua, Michael Davis, Kyle Perry, Kristy Giacomelli-Feys and Marita Tibbetts

The following curriculum forms were discussed and approved:

Course Change Forms:

File: 2470.1 ECON 4440 : Environmental And Natural Resource Economics
File: 1747.4 ECON 4540 : Energy Economics
File: 2086.4 EDUC 1104 : Teacher Field Experience I
File: 1111.3 EDUC 2002 : Problems Of Teaching Social Studies
File: 404.3 EDUC 2205 : Problems Of Teaching Science/Chemistry
File: 1069.3 EDUC 2206 : Problems Of Teaching Science/Physics
File: 513.3 EDUC 2207 : Problems Of Teaching English
File: 1550.3 EDUC 2219 : Art For Elementary Teachers
File: 2503.3 EDUC 2231 : Methods In Physical Education 5-9
File: 177.3 EDUC 3320 : Professional Development
File: 1168.1 GEOLOGY 6551 : Global Tectonics and Metallogeny
File: 1565.10 IS&T 1552 : Implementing Information Systems: Data Perspective
File: 2391.9 IS&T 5335 : Fundamentals of Mobile Technology for Business
File: 1034.1 IS&T 5445 : Database Marketing
File: 4157.9 IS&T 5450 : Introduction to Information Visualization
File: 4157.9 IS&T 5780 : Human and Organizational Factors in Cybersecurity
File: 2560.8 IS&T 5885 : Human-Computer Interaction and User Experience
File: 75.5 IS&T 6336 : Internet Computing and the Internet of Things
File: 4732 IS&T 6723 : Artificial Intelligence, Robotics, and Digital Transformation
File: 4731 MKT 5410 : Big Data Consumer Analytics
File: 4729 PHILOS 4665 : Creating Future Cities
File: 4728 PHILOS 4666 : Technology, Ethics, and Philosophy
File: 4725 PSYCH 3340 : Assessment of Student Learning
File: 412.1 STAT 6545 : Multivariate Statistical Methods

Degree Change Forms:

File: 255.16 BUSAPPS-MI : Business Applications and Software Development Minor
File: 58.19 FINANCE-MI : Finance Minor

File: 81.9 MARKET-MI : Marketing Minor
File: 363 PROPOSED : Human Factors Psychology
File: 329.2 FIN ENG-CT : Financial Engineering CT
File: 360 PROPOSED : Mine Reclamation CT
File: 361 PROPOSED : Mining Project Evaluation CT
File: 362 PROPOSED : Sustainability in Mining CT
File: 366 PROPOSED : UCT - Logic and the Philosophical Foundations of STEM
File: 367 PROPOSED : UCT - PROFESSIONAL ETHICS AND MORAL REASONING

Experimental Course forms:

File: 4735 ENGLISH 3001.008 : Pandemic Literature
File: 4730 PHYSICS 4001.001 : Cosmology and Galaxies

Forms referred back for additional review and edits:

File: 1068.1 IS&T 5168 : Design Thinking and Technological Innovation
File: 925.11 IS&T 5641 : Digital Commerce and IoT Analytics
File: 2412.1 IS&T 6251 : Technological Innovation Management and Leadership
File: 253.9 AI-MI : Minor in Artificial Intelligence and Machine Learning in Business
File: 239.16 ANA&DTA-MI : Business Analytics and Data Science Minor
File: 247.12 CYBERMG-MI : Cybersecurity Management and Information Assurance Minor
File: 238.11 HCI-MI : Human-Computer Interaction and User Experience Minor
File: 75.32 IST-BS : Information Science and Tch BS
File: 101.7 MOBLB&T-MI : Mobile Bus & Digital Transformation
File: 292.6 AI-CT : AI, Mach Lrn & Auto for Bus CT
File: 293.2 ANA&DTA-CT : Bus Analytics & Data Sci CT
File: 295.2 CYBERMG-CT : Cyber Mgmt & Info Assurance CT
File: 296.2 DIGITMD-CT : Digital Media & Web Design CT
File: 298.2 E&S COM-CT : Elec & Social Commerce CT
File: 300.2 HCI-CT : Human Computer Interaction CT
File: 291.5 MGTLEAD-CT : Management and Leadership
File: 4709 COMP SCI 5001.008 : Computer Science BootCamp Part 1
File: 4710 COMP SCI 5001.009 : Computer Science BootCamp Part 2

The meeting adjourned at 9:18am.



Stephen A. Raper, Chair



Missouri S&T Campus Curricula Committee

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

Formerly University of Missouri-Rolla

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An equal opportunity institution

Course Change Request

Date Submitted: 08/07/20 4:21 pm

Viewing: **ECON 4440 : Environmental And Natural Resource Economics**

File: 2470.1

Last edit: 10/07/20 9:45 am

Changes proposed by: davismc

Programs
referencing this
course

[GS ECON-MI: Global Sustainable Economics Minor](#)

[HUM ENG-MI: Humanitarian Engineering and Science Minor](#)

[E/T ECN-MI: E/T Economics Minor](#)

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

Requested **Spring 2021 08/14/2018**

Effective Change
Date

Department
Economics

Discipline
Economics (ECON)

Course Number 4440

Title
Env & Nat Res Econ

In Workflow

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

Approval Path

1. 08/07/20 4:21 pm
Michael Davis
(davismc):
Approved for
RECONOMI Chair
2. 08/19/20 9:09 am
Marita Tibbetts
(tibbettsmg):

- Approved for CCC
Secretary
3. 08/28/20 6:46 am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair
 4. 09/15/20 2:24 pm
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
 5. 10/07/20 9:45 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
 6. 10/07/20 9:47 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

Environmental And Natural Resource Economics

Abbreviated

Course Title

Catalog

Description

Optimum use of replenishable and non-replenishable resources, public goods and common resources, externalities, private vs. public costs, and quality of the

environment; emphasis on public policy related to environmental and natural resource economics.

Prerequisites

Econ **1100.** ~~2100.~~

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:

We are trying to make many of our classes easier for students to take so have lowered the pre-req from Intermediate Microeconomics to Principles of Microeconomics.

Semesters
previously
offered as an
experimental
course

Co-Listed

Courses:

MIN ENG 4523 - Environmental And Natural Resource Economics

Course Reviewer

Comments

Key: 2470

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/07/20 3:12 pm

Viewing: **ECON 4540 : Energy Economics**

File: 1747.4

Last approved: 11/21/19 6:00 am

Last edit: 10/07/20 9:46 am

Changes proposed by: davismc

Programs
referencing this
course

[SCTCPL-MI: Science, Tech,& Politics Minor](#)

[GS ECON-MI: Global Sustainable Economics Minor](#)

[E/T ECN-MI: E/T Economics Minor](#)

[MC ENG-BS: Mechanical Engineering BS](#)

Requested **Spring 2021** ~~Fall 2019~~

Effective Change

Date

Department

Economics

Discipline

Economics (ECON)

Course Number 4540

Title

Abbreviated Energy Economics

Course Title

In Workflow

1. **RECONOMI Chair**

2. **CCC Secretary**

3. **Social Sciences**

DSCC Chair

4. **Pending CCC**

Agenda post

5. **CCC Meeting**

Agenda

6. **Campus Curricula**

Committee Chair

7. **FS Meeting**

Agenda

8. Faculty Senate

Chair

9. Registrar

10. CAT entry

11. Peoplesoft

Approval Path

1. 08/07/20 3:18 pm

Michael Davis

(davismc):

Approved for

RECONOMI Chair

2. 08/19/20 9:10 am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Secretary

3. 08/28/20 6:46 am

Cecil Eng Huang

Chua (cchua):

Approved for

Social Sciences

DSCC Chair

4. 09/15/20 2:25 pm

Marita Tibbetts

(tibbettsmg):

Approved for

Pending CCC

Agenda post

5. 10/07/20 9:46 am

Marita Tibbetts

(tibbettsmg):

Approved for CCC

Meeting Agenda

6. 10/07/20 9:47 am

Stephen Raper

(sraper):

Approved for

Campus Curricula

Committee Chair

History

1. Feb 25, 2019 by
ershenb (1747.1)

2. Nov 21, 2019 by
ershenb (1747.3)

Catalog

Description

For students interested in both economic and engineering issues of energy policy. Provides an assessment of economics and technology issues related to traditional and renewable energy resources. Presented in a framework that allows for analysis of the economic trade-offs between energy sources and the technologies associated with their use and extraction.

Prerequisites

Econ **1100 or Econ 1200.** ~~2100.~~

Field Trip

Statement

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

Required for	No
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Majors

Elective for	Yes No
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Majors

Justification for
change:

The course material does not really require knowledge of Intermediate Microeconomics (2100). Lowering the pre-req will allow a lot more students to enroll directly into the course that typically have to ask for instructor permission.

Semesters
previously
offered as an
experimental
course

Co-Listed

Courses:

CHEM ENG 4540 - Energy Economics

MIN ENG 4524 - Energy Economics

Course Reviewer

Comments

Key: 1747

[Preview Bridge](#)

Course Change Request

Date Submitted: 05/19/20 11:48 am

Viewing: **EDUC 1104 : Teacher Field**

Experience I

File: 2086.4

Last approved: 11/25/19 6:01 am

Last edit: 09/15/20 11:32 am

Changes proposed by: bakm75

Catalog Pages
referencing this
course

[Teacher Education and Certification](#)

Programs
referencing this
course

[PHYSIC-BS: Physics BS](#)

[AP MATH-BS: Applied Mathematics BS](#)

[BIO SC-BA: Biological Sciences BA](#)

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

[CHEM-BA: Chemistry BA](#)

[HIST-BA: History BA](#)

[PSYCH-BA: Psychology BA](#)

[PSYCH-BS: Psychology BS](#)

[PROPOSED: Education](#)

[ECON-BA: Economics BA](#)

In Workflow

1. **REDUCATION
Chair**

2. **CCC Secretary**

3. **Social Sciences
DSCC Chair**

4. **Pending CCC
Agenda post**

5. **CCC Meeting
Agenda**

6. **Campus Curricula
Committee Chair**

7. **FS Meeting
Agenda**

8. Faculty Senate
Chair

9. Registrar

10. CAT entry

11. Peoplesoft

Approval Path

1. 09/15/20 9:48 am
Beth Kania-
Gosche
(bkaniagosche):
Approved for
REDUCATION
Chair

Other Courses
referencing this
course

In The Prerequisites:

[EDUC 1164 : Teacher Field Experience II](#)

Requested **Fall 2021** ~~Spring 2020~~

Effective Change
Date

Department
Teacher Education and Certification

Discipline
Education (EDUC)

Course Number 1104

Title

Abbreviated Teach Field Experience I
Course Title

Catalog
Description

Prerequisites

Field Trip
Statement

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

Required for Yes

Majors

Elective for No

Majors

2. 09/15/20 11:33 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Secretary
3. 09/15/20 8:10 pm
Cecil Eng Huang Chua (cchua):
Approved for Social Sciences DSCC Chair
4. 09/16/20 9:45 am
Marita Tibbetts (tibbettsmg):
Approved for Pending CCC Agenda post
5. 10/07/20 9:39 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Meeting Agenda
6. 10/07/20 9:44 am
Stephen Raper (sraper):
Approved for Campus Curricula Committee Chair

History

1. Jan 18, 2019 by ershenb (2086.1)

Teacher Field Experience I

Students will spend **30** ~~60~~ clock hours in classrooms, including experiences in diverse settings. Students will attend seminar sessions and complete assignments related to the field experiences. A background check is required for enrollment in this course. Educ 1040.

Justification for
change:

DESE only requires a one hour course with 30 hours of observation. Students just investigating teacher education did not want to commit to 60 hours of observation, and some did not have transportation. Community colleges in the area use a one hour course, and students were having to retake the class because ours is two credit hours and 60 hours.

Students will take Teacher Field Experience III later in the program for the 30 hours. That will benefit them more because it is closer to student teaching.

Semesters
previously
offered as an
experimental
course

This course has been offered for many years.

Co-Listed
Courses:

Course Reviewer
Comments

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 09/15/20 9:31 am

Viewing: **EDUC 2002 : Problems Of Teaching
Social Studies**

File: 1111.3

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

Last edit: 09/15/20 9:31 am

Changes proposed by: bakm75

Requested **Fall 2021 01/07/2019**

Effective Change

Date

Department

Teacher Education and Certification

Discipline

Education (EDUC)

Course Number 2002

Title

Abbreviated Prob Of Teach Soc Study

Course Title

In Workflow

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

Approval Path

1. 09/15/20 9:48 am
Beth Kania-
Gosche
(bkaniagosche):
Approved for

Catalog

Description

Prerequisites

<p>Field Trip Statement</p> <p>Credit Hours LEC: 2 LAB: 0 IND: 0 RSD: 0 Total: 2</p> <p>Required for Majors No</p> <p>Elective for Majors No</p>	<p>REDUCATION Chair</p> <p>2. 09/15/20 11:33 am Marita Tibbetts (tibbettsmg): Approved for CCC Secretary</p> <p>3. 09/15/20 8:11 pm Cecil Eng Huang</p>
<p>Justification for change:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>Chua (cchua): Approved for Social Sciences DSCC Chair</p> <p>4. 09/16/20 9:46 am Marita Tibbetts (tibbettsmg): Approved for Pending CCC Agenda post</p>
<p>Course Reviewer Comments</p>	<p>5. 10/07/20 9:39 am Marita Tibbetts (tibbettsmg):</p> <p>Approved for CCC Meeting Agenda</p> <p>6. 10/07/20 9:46 am Stephen Raper (sraper): Approved for Campus Curricula Committee Chair</p>

Key: 1111

History

1. Jan 18, 2019 by ershenb (1111.1)

Problems Of Teaching Social Studies

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

This course is no longer used, and listing it is confusing for students. All content areas take one course; we no longer differentiate by subject. In addition, a two hour course is not sufficient.

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 09/15/20 9:32 am

Viewing: **EDUC 2205 : Problems Of Teaching
Science/Chemistry**

File: 404.3

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

Last edit: 09/15/20 9:32 am

Changes proposed by: bakm75

Requested **Fall 2021 01/07/2019**

Effective Change

Date

Department

Teacher Education and Certification

Discipline

Education (EDUC)

Course Number 2205

Title

Abbreviated Probs Of Teach Sci/Chem

Course Title

In Workflow

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

Approval Path

1. 09/15/20 9:48 am

Catalog

Description

Prerequisites

Beth Kania-

Gosche

(bkaniagosche):

Approved for

<p>Field Trip Statement</p> <p>Credit Hours LEC: 2 LAB: 0 IND: 0 RSD: 0 Total: 2</p> <p>Required for Majors No</p> <p>Elective for Majors No</p>	<p>REDUCATION Chair</p> <p>2. 09/15/20 11:33 am Marita Tibbetts (tibbettsmg): Approved for CCC Secretary</p> <p>3. 09/15/20 8:11 pm Cecil Eng Huang</p>
<p>Justification for change:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>Chua (cchua): Approved for Social Sciences DSCC Chair</p> <p>4. 09/16/20 9:47 am Marita Tibbetts (tibbettsmg): Approved for Pending CCC Agenda post</p>
<p>Course Reviewer Comments</p>	<p>5. 10/07/20 9:39 am Marita Tibbetts (tibbettsmg):</p> <p>Approved for CCC Meeting Agenda</p> <p>6. 10/07/20 9:46 am Stephen Raper (sraper): Approved for Campus Curricula Committee Chair</p>

Key: 404

History

1. Jan 18, 2019 by ershenb (404.1)

Problems Of Teaching Science/Chemistry

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

This course is no longer used, and listing it is confusing for students. All content areas take one course; we no longer differentiate by subject. In addition, a two hour course is not sufficient.

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 09/15/20 9:31 am

Viewing: **EDUC 2206 : Problems Of Teaching
Science/Physics**

File: 1069.3

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

Last edit: 09/15/20 9:31 am

Changes proposed by: bakm75

Requested **Fall 2021 01/07/2019**

Effective Change

Date

Department

Teacher Education and Certification

Discipline

Education (EDUC)

Course Number 2206

Title

Abbreviated Prob Of Teach Sci/Physic

Course Title

In Workflow

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

Approval Path

1. 09/15/20 9:48 am

Catalog

Description

Prerequisites

Beth Kania-

Gosche

(bkaniagosche):

Approved for

<p>Field Trip Statement</p> <p>Credit Hours LEC: 2 LAB: 0 IND: 0 RSD: 0 Total: 2</p> <p>Required for Majors No</p> <p>Elective for Majors No</p>	<p>REDUCATION Chair</p> <p>2. 09/15/20 11:33 am Marita Tibbetts (tibbettsmg): Approved for CCC Secretary</p> <p>3. 09/15/20 8:11 pm Cecil Eng Huang</p>
<p>Justification for change:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>Chua (cchua): Approved for Social Sciences DSCC Chair</p> <p>4. 09/16/20 9:48 am Marita Tibbetts (tibbettsmg): Approved for Pending CCC Agenda post</p>
<p>Course Reviewer Comments</p>	<p>5. 10/07/20 9:39 am Marita Tibbetts (tibbettsmg): Approved for CCC Meeting Agenda</p> <p>6. 10/07/20 9:46 am Stephen Raper (sraper): Approved for Campus Curricula Committee Chair</p>

Key: 1069

History

1. Jan 18, 2019 by ershenb (1069.1)

Problems Of Teaching Science/Physics

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

This course is no longer used, and listing it is confusing for students. All content areas take one course; we no longer differentiate by subject. In addition, a two hour course is not sufficient.

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 09/15/20 9:32 am

Viewing: **EDUC 2207 : Problems Of Teaching English**

File: 513.3

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

Last edit: 09/15/20 9:32 am

Changes proposed by: bakm75

Requested **Fall 2021** ~~01/07/2019~~

Effective Change

Date

Department

Teacher Education and Certification

Discipline

Education (EDUC)

Course Number 2207

Title

Abbreviated Prob Of Teaching English

Course Title

Catalog

Description

Prerequisites

In Workflow

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

Approval Path

1. 09/15/20 9:48 am
Beth Kania-Gosche
(bkaniagosche):
Approved for

<p>Field Trip Statement</p> <p>Credit Hours LEC: 2 LAB: 0 IND: 0 RSD: 0 Total: 2</p> <p>Required for Majors No</p> <p>Elective for Majors No</p>	<p>REDUCATION Chair</p> <p>2. 09/15/20 11:33 am Marita Tibbetts (tibbettsmg): Approved for CCC Secretary</p> <p>3. 09/15/20 8:11 pm Cecil Eng Huang</p>
<p>Justification for change:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>Chua (cchua): Approved for Social Sciences DSCC Chair</p> <p>4. 09/16/20 9:49 am Marita Tibbetts (tibbettsmg): Approved for Pending CCC Agenda post</p>
<p>Course Reviewer Comments</p>	<p>5. 10/07/20 9:41 am Marita Tibbetts (tibbettsmg): Approved for CCC Meeting Agenda</p> <p>6. 10/07/20 9:46 am Stephen Raper (sraper): Approved for Campus Curricula Committee Chair</p>

Key: 513

History

1. Jan 18, 2019 by ershenb (513.1)

Problems Of Teaching English

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

This course is no longer used, and listing it is confusing for students. All content areas take one course; we no longer differentiate by subject. In addition, a two hour course is not sufficient.

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 05/19/20 12:15 pm

Viewing: **EDUC 2219 : Art For Elementary**

Teachers

File: 1550.3

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

Last edit: 10/07/20 9:41 am

Changes proposed by: bakm75

Requested **Fall 2021 01/07/2019**

Effective Change

Date

Department

Teacher Education and Certification

Discipline

Education (EDUC)

Course Number 2219

Title

Abbreviated Art For Elem Teachers

Course Title

In Workflow

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

Approval Path

1. 09/15/20 9:48 am
Beth Kania-Gosche
(bkaniagosche):
Approved for

Catalog

Description

Prerequisites

<p>Field Trip Statement</p> <p>Credit Hours LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3</p> <p>Required for Majors No</p> <p>Elective for Majors No</p>	<p>REDUCATION Chair</p> <p>2. 09/15/20 11:34 am Marita Tibbetts (tibbettsmg): Approved for CCC Secretary</p> <p>3. 09/15/20 8:11 pm Cecil Eng Huang</p>
<p>Justification for change:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>Chua (cchua): Approved for Social Sciences DSCC Chair</p> <p>4. 09/16/20 9:50 am Marita Tibbetts (tibbettsmg): Approved for Pending CCC Agenda post</p>
<p>Course Reviewer Comments</p>	<p>5. 10/07/20 9:41 am Marita Tibbetts (tibbettsmg):</p> <p>Approved for CCC Meeting Agenda</p> <p>6. 10/07/20 9:46 am Stephen Raper (sraper): Approved for Campus Curricula Committee Chair</p>

Key: 1550

History

1. Jan 18, 2019 by
ershenb (1550.1)

Art For Elementary Teachers

Considers the vital role of art activities and creative experiences in the growth and development of children at their level.

Educ 1040.

This is no longer a required course for elementary teachers. We do not offer art certification.

ART 3219 - Art For Elementary Teachers

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 05/19/20 12:14 pm

Viewing: **EDUC 2231 : Methods In Physical Education 5-9**

File: 2503.3

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

Last edit: 09/15/20 11:34 am

Changes proposed by: bakm75

Requested **Fall 2021 01/07/2019**

Effective Change

Date

Department

Teacher Education and Certification

Discipline

Education (EDUC)

Course Number 2231

Title

Abbreviated Meths Physical Educ 5-9

Course Title

In Workflow

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

Approval Path

1. 09/15/20 9:48 am

Catalog

Description

Prerequisites

Beth Kania-

Gosche

(bkaniagosche):

Approved for

<p>Field Trip Statement</p> <p>Credit Hours LEC: 3 LAB: 0 IND: 0</p> <p> RSD: 0 Total: 3</p> <p>Required for No</p> <p>Majors</p> <p>Elective for No</p> <p>Majors</p>	<p>REDUCATION Chair</p> <p>2. 09/15/20 11:34 am</p> <p>Marita Tibbetts (tibbettsmg):</p> <p>Approved for CCC Secretary</p> <p>3. 09/15/20 8:11 pm</p>
<p>Justification for change:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>Cecil Eng Huang Chua (cchua):</p> <p>Approved for Social Sciences DSCC Chair</p> <p>4. 09/16/20 9:50 am</p> <p>Marita Tibbetts (tibbettsmg):</p> <p>Approved for Pending CCC Agenda post</p>
<p>Course Reviewer Comments</p>	<p>5. 10/07/20 9:41 am</p> <p>Marita Tibbetts (tibbettsmg):</p>
	<p>Approved for CCC Meeting Agenda</p> <p>6. 10/07/20 9:46 am</p> <p>Stephen Raper (sraper):</p> <p>Approved for Campus Curricula Committee Chair</p>

Key: 2503

History

1. Jan 18, 2019 by ershenb (2503.1)

Methods In Physical Education 5-9

The course will provide the opportunity to learn how to promote student fitness and skill development while building the foundation for a physically active life through specific activities aimed at the student in transition from childhood to young adulthood (5-9).

We do not offer PE certification.

ED 2310 - **Course Not Found**

[Preview Bridge](#)

Course Change Request

A deleted record cannot be edited

Course Deactivation Proposal

Date Submitted: 09/15/20 9:34 am

Viewing: **EDUC 3320 : Professional**

Development

File: 177.3

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

Last edit: 09/15/20 11:34 am

Changes proposed by: bakm75

Requested **Fall 2021** ~~01/07/2019~~

Effective Change

Date

Department

Teacher Education and Certification

Discipline

Education (EDUC)

Course Number 3320

Title

Abbreviated Professional Development

Course Title

Catalog

Description

Prerequisites

In Workflow

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

Approval Path

1. 09/15/20 9:49 am
Beth Kania-Gosche
(bkaniagosche):
Approved for

<p>Field Trip Statement</p> <p>Credit Hours LEC: 1 LAB: 0 IND: 0 RSD: 0 Total: 1</p> <p>Required for Majors No</p> <p>Elective for Majors No</p>	<p>REDUCATION Chair</p> <p>2. 09/15/20 11:34 am Marita Tibbetts (tibbettsmg): Approved for CCC Secretary</p> <p>3. 09/15/20 8:12 pm Cecil Eng Huang</p>
<p>Justification for change:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>	<p>Chua (cchua): Approved for Social Sciences DSCC Chair</p> <p>4. 09/16/20 9:51 am Marita Tibbetts (tibbettsmg): Approved for Pending CCC Agenda post</p>
<p>Course Reviewer Comments</p>	<p>5. 10/07/20 9:42 am Marita Tibbetts (tibbettsmg): Approved for CCC Meeting Agenda</p> <p>6. 10/07/20 9:46 am Stephen Raper (sraper): Approved for Campus Curricula Committee Chair</p>

Key: 177

History

1. Jan 18, 2019 by ershenb (177.1)

Professional Development

This online course focuses on the responsibilities of the professional development committee, state requirements, and components of effective programs that positively impact student performance. Students will examine the relationships among the district's Comprehensive School Improvement Plan, MSIP and the PD Plan.

Graduate standing.

This course is no longer offered. It requires graduate standing, which makes little sense for an undergraduate course. The items in the course description are not appropriate for an undergraduate teacher education program.

Course Change Request

Date Submitted: 06/29/20 12:29 pm

Viewing: **GEOLOGY 6551 : Global Tectonics and Metallogeny ~~Ore Deposition~~**

File: 1168.1

Last edit: 10/07/20 9:52 am

Changes proposed by: locmelism

Requested **Spring 2021** ~~08/01/2014~~

Effective Change

Date

Department

Geosciences and Geological and Petroleum Engineering

Discipline

Geology (GEOLOGY)

Course Number 6551

Title

Abbreviated **Global Tect & Metal Ore**
Course Title **Deposition**

Catalog

Description

Prerequisites

Field Trip

Statement

Credit Hours

LEC: 2

LAB: 1

IND: 0

In Workflow

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

Approval Path

1. 06/29/20 12:38 pm
David Borrok (borrokd):
Approved for RGEOENG Chair
2. 07/21/20 9:00 am
Kristy Giacomelli-

- Feys (kristy):
Approved for CCC
Secretary
3. 08/19/20 11:04
am
Katie Shannon
(shannonk):
Approved for
Sciences DSCC
Chair
4. 09/15/20 2:26 pm
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
5. 10/07/20 9:52 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 9:55 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

Global Tectonics and Metallogeny Ore Deposition

An advanced study of **metallic ore deposits**. ~~mineral deposits, time and space in deposition, theories of deposition and their effect on exploration.~~ **Theories of ore genesis in different tectonic regimes and the effects on exploration.** Discussions

based on maps, logs, **exploration datasets** and samples from the world's typical mineral deposits. ~~Two all day field trips at student expense required.~~
Geology 3511 and preceded or accompanied by Geology 4521. ~~Geology 3511.~~

RSD: 0 Total: 3

Required for No
Majors

Elective for No
Majors

Justification for
change:

The class was established >20 years ago and title and course description need to be modernized to better reflect modern concepts, i.e., that ore deposit formation is tied to specific stages during the tectonic evolution of continents. Modernizing this class is also a requirement of a NSF Career award to the faculty who is teaching it.

Geology 4521 - Ore Microscopy is proposed as a prerequisite because ore microscopy is an important part of the study of samples from the deposits that are mentioned in the description.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Course Change Request

Date Submitted: 06/01/20 11:14 am

Viewing: **IS&T 1552 : Implementing Information Systems: Data Perspective**

File: 1565.10

Last approved: 04/03/17 3:15 am

Last edit: 06/01/20 11:14 am

Changes proposed by: cecq8z

Programs

referencing this course

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

[BUSAPPS-MI: Business Applications and Software Development Minor](#)

Other Courses

referencing this course

In The Prerequisites:

[IS&T 3131 : Computing Internals and Operating Systems](#)

[IS&T 3420 : Introduction to Data Science and Management](#)

[IS&T 3553 : Modular Software Systems in Java](#)

[IS&T 5520 : Data Science and Machine Learning with Python](#)

[IS&T 5535 : Machine Learning Algorithms and Applications](#)

In Workflow

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

Approval Path

1. 08/29/20 11:20 am
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:24 am
Marita Tibbetts

Spring 2021 01/09/2018

Requested
Effective Change
Date

Department
Business and Information Technology

Discipline
Info Science & Technology (IS&T)

Course Number 1552

Title

Abbreviated Info Sys: Data Perspective
Course Title

(tibbettsmg):
Approved for CCC
Secretary

3. 08/31/20 11:25
am

Cecil Eng Huang
Chua (cchua):

Approved for
Social Sciences
DSCC Chair

4. 09/15/20 2:27 pm

Marita Tibbetts
(tibbettsmg):

Approved for
Pending CCC
Agenda post

5. 10/07/20 9:42 am
Marita Tibbetts

(tibbettsmg):

Approved for CCC
Meeting Agenda

6. 10/07/20 9:46 am

Stephen Raper
(sraper):

Approved for
Campus Curricula
Committee Chair

Catalog
Description

Prerequisites

Field Trip
Statement

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

Required for Yes

Majors

Elective for No

Majors

Justification for
change:

Semesters
previously
offered as an

History

1. Oct 31, 2016 by
barryf (1565.1)

2. Apr 3, 2017 by
barryf (1565.7)

Implementing Information Systems: Data Perspective

Continuation of object-oriented programming in the context of developing and implementing the various components of an information system with particular attention given to database incorporation. Class will include numerous projects covering intermediate topics.

IS&T 1551. ~~A grade of "C" or better in IS&T 1551.~~

To be consistent with the prerequisite for IS&T 1562
experimental
course

Co-Listed

Courses:

Course Reviewer

Comments

Key: 1565

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/27/20 8:40 am

Viewing: **IS&T 5335 ~~4335~~ : Fundamentals of Mobile Technology for Business**

File: 2391.9

Last approved: 02/05/18 3:29 am

Last edit: 08/31/20 11:29 am

Changes proposed by: cecq8z

Programs
referencing this
course

[MOBLB&T-MI: Mobile Bus & Digital Transformation](#)

[ENT&TEC-CT: Entrepreneur & Tech Innovat CT](#)

[CYBERMG-CT: Cyber Mgmt & Info Assurance CT](#)

[E&S COM-CT: Elec & Social Commerce CT](#)

[MOBLB&T-CT: Mobile Business and Digital Transformation CT](#)

Requested **Spring 2021** ~~08/14/2018~~

Effective Change

Date

Department

Business and Information Technology

Discipline

Info Science & Technology (IS&T)

Course Number **5335 ~~4335~~**

In Workflow

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

Approval Path

1. 08/29/20 11:20
am
siauk: Approved
for RINFSCTE
Chair
2. 08/31/20 11:29
am
Marita Tibbetts

Title					(tibbettsmg): Approved for CCC Secretary
Abbreviated Course Title	Fund MobileTech for Bus				3. 08/31/20 11:32
Catalog Description					am Cecil Eng Huang
Prerequisites					Chua (cchua): Approved for
Field Trip Statement					Social Sciences DSCC Chair
Credit Hours RSD: 0	LEC: 3 Total: 3	LAB: 0	IND: 0	4. 09/15/20 2:29 pm	
Required for Majors	Yes				Marita Tibbetts (tibbettsmg):
Elective for Majors	No				Approved for Pending CCC Agenda post
Justification for change:					5. 10/07/20 9:42 am
Semesters previously offered as an experimental course					Marita Tibbetts (tibbettsmg):
Co-Listed Courses:					Approved for CCC Meeting Agenda
Course Reviewer Comments					6. 10/07/20 9:46 am
					Stephen Raper (sraper):
					Approved for Campus Curricula Committee Chair
					History
					1. Apr 28, 2014 by barryf (2391.1)
					2. Jun 30, 2014 by lahne (2391.5)

Key: 2391

3. Feb 5, 2018 by
barryf (2391.6)

Fundamentals of Mobile Technology for Business

A broad overview of mobile technology use in business environments. Topics include the mobile industry; mobile network and wireless standards; mobile devices; mobile web design and app development; social and user experience issues; mobile marketing and commerce.

Junior standing or above.

Part of a departmental exercise to clean up the course catalog to reduce enrollment confusion..

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/27/20 8:40 am

Viewing: **IS&T 5445 6445 : Database**

Marketing

File: 1034.1

Last edit: 10/07/20 9:54 am

Changes proposed by: cecq8z

Programs
referencing this
course

- [AI-CT: AI, Mach Lrn & Auto for Bus CT](#)
- [ANA&DTA-CT: Bus Analytics & Data Sci CT](#)
- [DATA WR-CT: Business Intelligence CT](#)
- [E&S COM-CT: Elec & Social Commerce CT](#)

Requested **Spring 2021 08/01/2014**

Effective Change
Date

Department
Business and Information Technology

Discipline
Info Science & Technology (IS&T)

Course Number **5445 6445**

Title
Database Marketing

In Workflow

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

Approval Path

1. 08/29/20 11:21
am
siauk: Approved
for RINFSCTE
Chair
2. 08/31/20 11:30
am
Marita Tibbetts

- (tibbettsmg):
Approved for CCC
Secretary
- 3. 08/31/20 11:32
am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair
- 4. 09/15/20 2:31 pm
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
- 5. 10/07/20 9:54 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
- 6. 10/07/20 9:55 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

Database Marketing
Abbreviated
Course Title

Catalog
Description

Intro to methods and concepts used in database marketing: 1) predictive modeling techniques (e.g., regression, decision trees, cluster analysis) and 2) standard processes for mapping business objectives to data mining goals to produce a deployable marketing model. Metrics like lifetime value of a customer and ROI will be covered. ~~Several application areas covered.~~

Prerequisites

Statistics understanding, programming understanding, familiarity with spreadsheets.

Field Trip

Statement

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

Required for	No
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Majors

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

Majors

Justification for

change:

Part of a departmental exercise to clean up the course catalog to reduce enrollment confusion..

Semesters

previously
offered as an
experimental
course

Co-Listed

Courses:

Course Reviewer
Comments

Key: 1034

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/27/20 8:40 am

Viewing: **IS&T 5450 4450** : Introduction to
Information Visualization

File: 4157.9

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

Last edit: 10/07/20 9:54 am

Changes proposed by: cecq8z

Programs
referencing this
course

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

[AI-MI: Minor in Artificial Intelligence and Machine Learning in
Business](#)

[FIN TCH-CT: Financial Technology, Analytics and
Transformation CT](#)

[ANA&DTA-CT: Bus Analytics & Data Sci CT](#)

In Workflow

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

Requested **Spring 2021 08/17/2015**

Effective Change
Date

Department
Business and Information Technology

Discipline
Info Science & Technology (IS&T)

Course Number **5450 4450**

Approval Path

1. 08/29/20 11:21
am
siauk: Approved
for RINFSCTE
Chair
2. 08/31/20 11:32
am
Marita Tibbetts

Title

- (tibbettsmg):
Approved for CCC
Secretary
3. 08/31/20 11:32
am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair
4. 09/16/20 8:26 am
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
5. 10/07/20 9:54 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 9:55 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

History

1. Feb 9, 2015 by
Barry Flachsbart
(barryf)

Introduction to Information Visualization

Abbreviated Intro Info Visualization
Course Title

Catalog

Description

Topics include: the visualization development framework, traditional presentations of data, human perception and aesthetics, colorspace theory, visualization algorithms and software, modern visualizations of large data sets. Application of R packages will be emphasized throughout.

Prerequisites

Statistics, Calculus, and Programming Knowledge.

Field Trip

Statement

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

Required for Majors	No Yes
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Elective for Majors	Yes
------------------------	-----

Justification for
change:

Part of a departmental exercise to clean up the course catalog to reduce enrollment confusion..

Semesters
previously
offered as an
experimental
course

Co-Listed

Courses:

Course Reviewer
Comments

Key: 4157

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/27/20 8:42 am

Viewing: **IS&T 5780 4780** : Human and
Organizational Factors in Cybersecurity

File: 4349.10

Last approved: 10/11/17 3:29 am

Last edit: 08/27/20 8:42 am

Changes proposed by: cecq8z

Programs
referencing this
course

[CYBERMG-MI: Cybersecurity Management and Information Assurance Minor](#)

[FIN TCH-MI: Minor in Financial Technology, Analytics and Transformation](#)

[FIN TCH-CT: Financial Technology, Analytics and Transformation CT](#)

[CYBERMG-CT: Cyber Mgmt & Info Assurance CT](#)

Requested **Spring 2021 08/14/2017**

Effective Change

Date

Department

Business and Information Technology

Discipline

Info Science & Technology (IS&T)

In Workflow

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

Approval Path

1. 08/29/20 11:22 am
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:34 am
Marita Tibbetts

Course Number **5780** ~~4780~~

Title

- (tibbettsmg):
Approved for CCC
Secretary
3. 08/31/20 11:36
am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair
 4. 09/16/20 8:28 am
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
 5. 10/07/20 9:42 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
 6. 10/07/20 9:47 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

History

1. Oct 11, 2017 by
Barry Flachsbart
(barryf)

Human and Organizational Factors in Cybersecurity

Abbreviated Course Title: Factors in Cybersecurity

Catalog

Description

In-depth examination of human and organizational factors in cybersecurity and information assurance. Study of how to protect information integrity, availability, and confidentiality, as well as tools, methods, principles, and analytics for fraud prevention, insider threat detection, and forensic investigations. Assumes prior exposure to cybersecurity or IA.

Prerequisites

Field Trip

Statement

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

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

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

Justification for change:

Part of a departmental exercise to clean up the course catalog to reduce enrollment confusion..

Semesters previously offered as an

experimental

course

None

Co-Listed

Courses:

Course Reviewer

Comments

Key: 4349

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/27/20 8:42 am

Viewing: **IS&T 5885 : Human-Computer Interaction and User Experience**

File: 2560.8

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

Last edit: 10/07/20 9:57 am

Changes proposed by: cecq8z

Programs

referencing this
course

[SCTCPL-MI: Science, Tech,& Politics Minor](#)

[ARC ENG-BS: Architectural Engineering BS](#)

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

[HCI-MI: Human-Computer Interaction and User Experience Minor](#)

[DIGITMD-CT: Digital Media & Web Design CT](#)

[E&S COM-CT: Elec & Social Commerce CT](#)

[HCI-CT: Human Computer Interaction CT](#)

[HUM SIM-CT: Human Sys Integration CT](#)

[SFTYENG-CT: Safety Engineering](#)

[E&S COM-MI: Elect & Social Commerce Minor](#)

[IST-MS: Info Science & Tech MS](#)

Other Courses

referencing this
course

In Workflow

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

Approval Path

1. 08/29/20 11:23 am
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:35 am
Marita Tibbetts

In The Prerequisites:

[IS&T 5886 : Prototyping Human-Computer Interactions](#)

[IS&T 5887 : Human-Computer Interaction Evaluation](#)

Requested **Spring 2021** ~~08/17/2015~~

Effective Change

Date

Department

Business and Information Technology

Discipline

Info Science & Technology (IS&T)

Course Number 5885

Title

Abbreviated Human-Computer Interact

Course Title

Catalog

Description

Prerequisites

Field Trip

Statement

Credit Hours LEC: 3 LAB: 0 IND: 0

RSD: 0 Total: 3

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

Majors

Elective for Yes

Majors

(tibbettsmg):

Approved for CCC
Secretary

3. 08/31/20 11:36
am

Cecil Eng Huang
Chua (cchua):

Approved for
Social Sciences

DSCC Chair

4. 09/16/20 8:29 am

Marita Tibbetts
(tibbettsmg):

Approved for
Pending CCC

Agenda post

5. 10/07/20 10:25
am

Marita Tibbetts
(tibbettsmg):

Approved for CCC
Meeting Agenda

6. 10/07/20 10:30
am

Stephen Raper
(sraper):

Approved for
Campus Curricula

Committee Chair

History

1. Dec 1, 2014 by
barryf (2560.1)

Human-Computer Interaction **and User Experience**

Introduction to the field of Human-Computer Interaction (HCI). Students examine issues and challenges related to the interaction between people and technology. The class explores the social and cognitive characteristics of people who use information systems. Students learn techniques for understanding user needs, interface prototyping & interface evaluation.

Justification for
change:

Captures changes in industry language.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 2560

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/27/20 8:43 am

Viewing: **IS&T 6336 : Foundations of Internet Computing and the Internet of Things**

File: 75.5

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

Last edit: 08/31/20 11:37 am

Changes proposed by: cecq8z

Programs

referencing this course

[CYBERMG-CT: Cyber Mgmt & Info Assurance CT](#)

[IST-MS: Info Science & Tech MS](#)

Other Courses

referencing this course

In The Prerequisites:

[IS&T 6780 : Adv Human and Organizational Factors in Cybersecurity](#)

Requested **Spring 2021 08/17/2015**

Effective Change

Date

Department

In Workflow

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

Approval Path

1. 08/29/20 11:24 am
siau: Approved for RINFSCTE Chair
2. 08/31/20 11:36 am
Marita Tibbetts

Business and Information Technology

Discipline

Info Science & Technology (IS&T)

Course Number 6336

Title

(tibbettsmg):

Approved for CCC
Secretary

3. 08/31/20 11:46
am

Cecil Eng Huang
Chua (cchua):

Approved for
Social Sciences
DSCC Chair

4. 09/16/20 8:31 am

Marita Tibbetts

(tibbettsmg):

Approved for
Pending CCC
Agenda post

5. 10/07/20 9:43 am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Meeting Agenda

6. 10/07/20 9:47 am

Stephen Raper

(sraper):

Approved for
Campus Curricula
Committee Chair

History

1. Feb 9, 2015 by
barryf (75.1)

Abbreviated
Course Title

Internet Computing

Catalog

Description

The course principally focuses on what's "under the hood" in the Internet. The foundations of Internet Computing include computer networks and Websites. What Networks are the underlying protocols covered thoroughly and how do they work? research directions for networking and information security are discussed. How can constellations of devices (both traditional computing as well as Internet of Things) be configured into networks using the Internet Protocol suite to communicate with each other? Web site design and research findings about site usability considerations are examined.

Prerequisites

IS&T MS entrance requirements, including solid programming knowledge.

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:

New instructor and capturing new Industry concepts..

Semesters

previously

offered as an

experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 75

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/27/20 8:44 am

Viewing: **IS&T 6723 : Artificial Intelligence, Robotics, and Digital Transformation**

File: 4732

Last edit: 08/27/20 8:44 am

Changes proposed by: cecq8z

Requested Spring 2021
Effective Change
Date
Department
 Business and Information Technology
Discipline
 Info Science & Technology (IS&T)
Course Number 6723
Title
Abbreviated AI, Robot, DT
Course Title

In Workflow

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

Approval Path

- 1. 08/29/20 11:24 am
 siauk: Approved for RINFSCTE Chair
- 2. 08/31/20 4:05 pm
 Marita Tibbetts (tibbettsmg):

Catalog Description	
Prerequisites	
Field Trip Statement	

- Approved for CCC
Secretary
3. 08/31/20 6:28 pm
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair
4. 09/16/20 8:32 am
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
5. 10/07/20 9:43 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 9:47 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

Artificial Intelligence, Robotics, and Digital Transformation

The course, designed for business executives, covers management of information to revitalize business processes, improve business decision-making, embrace emerging and disruptive technologies, and gain competitive advantages. The course also covers implications of AI, automation, machine learning, and robotics on business and society. MBA core.

Graduate standing.

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

Justification for
new course:

This is just a cross-listing for BUS 6723

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

BUS 6723 - Artificial Intelligence, Robotics, and Information Systems Management

Course Reviewer
Comments

Key: 4732

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 08/27/20 8:44 am

Viewing: **MKT 5410 : Big Data Consumer**

Analytics

File: 4731

Last edit: 10/07/20 9:58 am

Changes proposed by: cecq8z

Programs
referencing this
course

[MARKET-MI: Marketing Minor](#)

Requested Spring 2021

Effective Change
Date

Department
Business and Information Technology

Discipline
Marketing (MKT)

Course Number 5410

Title

Abbreviated Consumer Analytics
Course Title

In Workflow

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

Approval Path

1. 08/29/20 11:29
am
siauk: Approved
for RINFSCTE
Chair
2. 08/31/20 4:11 pm
Marita Tibbetts
(tibbettsmg):

- Approved for CCC Secretary
3. 08/31/20 6:28 pm
Cecil Eng Huang Chua (cchua):
Approved for Social Sciences DSCC Chair
 4. 09/16/20 8:33 am
Marita Tibbetts (tibbettsmg):
Approved for Pending CCC Agenda post
 5. 10/07/20 9:58 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Meeting Agenda
 6. 10/07/20 9:59 am
Stephen Raper (sraper):
Approved for Campus Curricula Committee Chair

Big Data Consumer Analytics

Catalog

Description

In this course, we will discuss the challenges that companies face in extracting and utilizing insights from consumer Big Data to implement innovation in various marketing activities. Additionally, we will explore various approaches of analyzing consumer Big Data. The course will include lectures, case studies and simulation.

Prerequisites

BUS 6622 or both MKT 3110 and one of the following: STAT 1111, STAT 1115, STAT 1116, STAT 3111, STAT 3113, STAT 3115, or STAT 3117

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

Yes

Majors

Justification for

new course:

We are formalizing an existing experimental course.

Semesters

previously

offered as an

experimental

course

Spring 2019 and Spring 2017

Co-Listed

Courses:

Course Reviewer

Comments

tibbettsmg (08/31/20 4:11 pm): Mkt5001 enrollment 15 in Sp19; 10 in Sp17.

Course Change Request

New Course Proposal

Date Submitted: 09/08/20 3:58 pm

Viewing: **PHILOS 4665 : Creating Future**

Cities

File: 4729

Last edit: 09/08/20 3:58 pm

Changes proposed by: gamezp

Requested Spring 2021

Effective Change

Date

Department

Arts, Languages, & Philosophy

Discipline

Philosophy (PHILOS)

Course Number 4665

Title

Abbreviated Creating Future Cities

Course 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. CAT entry
11. Peoplesoft

Approval Path

1. 07/01/20 6:27 pm
Audra Merfeld-Langston
(audram):
Rollback to Initiator

Catalog

Description

Prerequisites

Field Trip

Statement

<p>Credit Hours RSD: 0</p> <p>Required for Majors</p> <p>Elective for Majors</p>	<p>LEC: 3 Total: 3</p> <p>No</p> <p>Yes</p>	<p>LAB: 0</p>	<p>IND: 0</p>	<p>2. 07/01/20 7:22 pm Audra Merfeld- Langston (audram): Approved for RPHILOSOPHY Chair</p> <p>3. 07/21/20 9:00 am</p>
<p>Justification for new course:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>				<p>Kristy Giacomelli- Feys (kristyg): Approved for CCC Secretary</p> <p>4. 07/30/20 2:22 pm Petra Dewitt (dewittp): Rollback to Initiator</p> <p>5. 09/08/20 7:06 pm Audra Merfeld- Langston (audram): Approved for RPHILOSOPHY Chair</p>
<p>Course Reviewer Comments</p>				<p>6. 09/09/20 7:15 am Marita Tibbetts (tibbettsmg): Approved for CCC Secretary</p> <p>7. 09/09/20 8:40 am Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC Chair</p>

Key: 4729

8. 09/16/20 8:33 am

Marita Tibbetts

(tibbettsmg):

Approved for

Pending CCC

Agenda post

9. 10/07/20 9:44 am

Marita Tibbetts

(tibbettsmg):

Approved for CCC

Meeting Agenda

10. 10/07/20 9:47 am

Stephen Raper

(sraper):

Approved for

Campus Curricula

Committee Chair

Creating Future Cities

Through texts in the history of philosophy, along with contemporary readings, this class examines how humankind's thinking about urban environments has progressed. It uses philosophical analysis to understand topics such as the ethical, political, aesthetic, and metaphysical dimensions of the city as such, zoning, housing, transportation, & infrastructure.

Sophomore standing or above.

No field trip.

Firstly, this will be new offering to meet distribution requirements for the newly proposed Technology, Philosophy, and Ethical Futures certificate. This certificate has been approved by MDHE and is pending approval from CCC.

Secondly, cities have been a recurrent topic throughout the history of philosophy. Yet, until recently, contemporary philosophers have neglected to give them sufficient attention. During the last decade, there has been an increasing trend in professional

philosophy to study cities, employing lessons throughout the history of philosophy to understand their many dimensions. This course aims to keep students current on the most recent advancements in the discipline of philosophy.

Thirdly, research on the future of cities at Missouri S & T has been on the cutting edge with trailblazing initiatives such as the Smart Living signature area, which “seamlessly improves quality of life by transforming home, workplace, transportation and energy infrastructures into “smart” environments.” This course complements and bolsters this kind of research through teaching students about the broader social, political, and ethical impacts of topics such as smart living.

Finally, this course will help prepare S & T students for a dynamic world that requires leaders who not only understand the physical challenges of designing cities for human flourishing, but it will enhance their education through teaching them about the values that underpin how they address such issues. For instance, the majority of Earth’s population now lives in cities, and many researchers predict that this trend will only increase. In turn, urban environments will also require additional attention to address the numerous challenges that this situation currently presents and will continue to raise. A course of this caliber will ready them to take on these challenges.

audram (07/01/20 6:27 pm): Rollback: Please change the "previously offered" section.

dewittp (07/30/20 2:22 pm): Rollback: Need to roll back until certificate is approved. Then submit with certificate.

Course Change Request

New Course Proposal

Date Submitted: 09/08/20 3:58 pm

Viewing: **PHILOS 4666 : Technology, Ethics, and Philosophy**

File: 4728

Last edit: 09/08/20 3:58 pm

Changes proposed by: gamezpz

Requested Spring 2021

Effective Change

Date

Department

Arts, Languages, & Philosophy

Discipline

Philosophy (PHILOS)

Course Number 4666

Title

Abbreviated Tech Ethics & Philosophy

Course 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. CAT entry
11. Peoplesoft

Approval Path

1. 07/01/20 5:53 pm
Audra Merfeld-Langston
(audram):
Approved for
RPHILOS Chair

Catalog

Description

Prerequisites

Field Trip

Statement

<p>Credit Hours RSD: 0</p> <p>Required for Majors</p> <p>Elective for Majors</p>	<p>LEC: 3 Total: 3</p> <p>No</p> <p>Yes</p>	<p>LAB: 0</p>	<p>IND: 0</p>	<p>2. 07/21/20 9:00 am Kristy Giacomelli- Feys (kristyg): Approved for CCC Secretary</p> <p>3. 07/30/20 2:22 pm Petra Dewitt</p>
<p>Justification for new course:</p> <p>Semesters previously offered as an experimental course</p> <p>Co-Listed Courses:</p>				<p>(dewittp): Rollback to Initiator</p> <p>4. 09/08/20 7:06 pm Audra Merfeld- Langston (audram): Approved for RPHILOS0 Chair</p> <p>5. 09/09/20 7:16 am Marita Tibbetts</p>
<p>Course Reviewer Comments</p>				<p>(tibbettsmg): Approved for CCC Secretary</p>
<p>Key: 4728</p>				<p>6. 09/09/20 8:40 am Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC Chair</p> <p>7. 09/16/20 8:34 am Marita Tibbetts (tibbettsmg): Approved for Pending CCC Agenda post</p>

8. 10/07/20 9:44 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
9. 10/07/20 9:47 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

Technology, Ethics, and Philosophy

Students will learn the conceptual tools & skills for reflection on the ethical, social, and philosophical dimensions of life in a technological society. Topics covered might include: philosophy of engineering, artificial intelligence, information ethics, cybernetics, technological unemployment, human enhancement and biotechnology, posthumanism, and others.

Sophomore standing or above.

No field trips.

First, this course will be a required capstone course for students taking a newly proposed certificate in Technology, Philosophy, and Ethical Futures. This certificate has been approved by MDHE and is pending approval from CCC.

Second, a philosophy of technology course will meet the needs of students in STEM fields who want to explore the humanities in a way that it is relevant to their central interests in science and technology. Especially for engineering students who are not interested in the epistemological issues raised by theorizing in the natural sciences, this will be a more attractive and important elective than, e.g., philosophy of science. Moreover, it will make our students more competitive; employers have recently stated that they want STEM graduates to have a humanities background, and philosophical reflection on technological society meets this desideratum.

Third, this course will serve to bolster existing minors, and majors in both the Philosophy BS and the multidisciplinary BS. The plan is to make this course a recommended elective for our existing minor in Philosophy of Technology, and develop a set of core courses for students interested in exploring ethical issues in interdisciplinary ways.

Third, this course will allow current and new faculty to integrate their research and teaching. As we do not have a graduate program, often our course offerings are not reflective of the research interests of our faculty. This is a rare opportunity to offer a course that is both highly relevant to both student and faculty interests.

1 (as Philosophy 3001 - special topics: Philosophy of Technology)

dewittp (07/30/20 2:22 pm): Rollback: Need to roll this back until the certificate is approved. Then submit with certificate to CCC

Course Change Request

New Course Proposal

Date Submitted: 06/12/20 12:55 pm

Viewing: **PSYCH 3340 : Assessment of Student Learning**

File: 4725

Last edit: 10/07/20 9:59 am

Changes proposed by: burnsde

Requested Spring 2021

Effective Change

Date

Department

Psychological Science

Discipline

Psychology (PSYCH)

Course Number 3340

Title

Abbreviated Assessment of Learning

Course Title

In Workflow

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

Approval Path

1. 06/12/20 1:02 pm
Susan Murray (murray):
Approved for RPSYCHOL Chair
2. 07/21/20 9:01 am
Kristy Giacomelli-Feys (kristyg):

Catalog

Description

Prerequisites

Field Trip

Statement

- Approved for CCC
Secretary
3. 08/28/20 6:46 am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair
4. 09/16/20 9:30 am
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
5. 10/07/20 9:59 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 9:59 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

Assessment of Student Learning

Students will learn to evaluate assessments for validity and reliability. Students will develop formative and summative assessments aligned with learning outcomes.

Writing quality rubrics and universal design will be introduced. Students will analyze data to make instructional decisions and learn to evaluate vendor assessments.

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

Justification for
new course:

Cross listing an existing course from the education department for Psych majors.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

EDUC 3340 - Assessment of Student Learning

Course Reviewer
Comments

Key: 4725

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/13/20 5:38 pm

Viewing: **STAT 6545 : Multivariate Statistical Methods**

File: 412.1

Last edit: 08/19/20 9:15 am

Changes proposed by: prunniion

Requested **Spring 2021** ~~08/01/2014~~

Effective Change

Date

Department

Mathematics & Statistics

Discipline

Statistics (STAT)

Course Number 6545

Title

Abbreviated Multivariate Stat Methds

Course Title

In Workflow

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

Catalog

Description

Prerequisites

Field Trip

Statement

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

Approval Path

1. 08/13/20 5:43 pm vsam: Approved for RMATHEMA Chair
2. 08/19/20 9:15 am Marita Tibbetts (tibbettsmg):

- Approved for CCC
Secretary
3. 08/26/20 10:35
am
Katie Shannon
(shannonk):
Approved for
Sciences DSCC
Chair
 4. 09/16/20 9:31 am
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
 5. 10/07/20 9:44 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
 6. 10/07/20 9:47 am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

Multivariate Statistical Methods

Analysis of data consisting of simultaneous measurements on many variables.

Multivariate normal distribution, multivariate analysis of variance, canonical correlation, principal components, classification and clustering techniques.

Stat 5644 and Math **3108. 3103.**

Required for
Majors

No

Elective for
Majors

No

Justification for
change:

Corrects prerequisite from Math 3103 (Matrix Algebra, not currently offered) to Math 3108 (Linear Algebra, offered every semester). Everything else remains unchanged.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 412

[Preview Bridge](#)

Program Change Request

Date Submitted: 08/27/20 8:50 am

Viewing: **BUSAPPS-MI : Business Applications and Software Development Minor**

File: 255.16

Last approved: 05/02/19 11:35 am

Last edit: 10/07/20 10:13 am

Changes proposed by: cecq8z

Catalog Pages Using this Program
[Business and Management Systems](#)
[Information Science and Technology](#)

Start Term

Fall **2021** ~~2019~~

Program Code

BUSAPPS-MI

Department

Business and Information Technology

Title

Business Applications and Software Development Minor

In Workflow

1. RINFSCTE Chair
2. CCC Secretary
3. Social Sciences DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. Kristy Giacomelli-Feys

Approval Path

1. 08/29/20 11:14 am
siau: Approved for RINFSCTE Chair
2. 08/31/20 11:19 am
Marita Tibbetts (tibbetmsg): Approved for CCC Secretary
3. 08/31/20 11:24 am
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair
4. 09/15/20 12:01 pm
Marita Tibbetts (tibbetmsg): Approved for Pending CCC Agenda post
5. 10/07/20 10:13 am
Marita Tibbetts (tibbetmsg):

Program Requirements and Description

Approved for CCC
Meeting Agenda
6. 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

History

1. Mar 21, 2018 by
Barry Flachsbart
(barryf)
2. Apr 19, 2018 by
Brittany Parnell
(ershenb)
3. Apr 19, 2018 by
Brittany Parnell
(ershenb)
4. May 2, 2019 by Zou
Cui (tracyzou)

Minor in Business Applications and Software Development

The Minor requires 15 credit hours, as follows:

Required Courses:		6
IS&T 3420	Introduction to Data Science and Management	
IS&T 5520	Data Science and Machine Learning with Python	
IS&T 4680	Introduction to Web and New Media Studies	
And three courses from the following list:		9
IS&T 1552	Implementing Information Systems: Data Perspective	3
or IS&T 1562	Java and Data Structures	
IS&T 3131	Computing Internals and Operating Systems	3
IS&T 3423	Database Management	3
IS&T 3443	Database Applications in Business	3
ERP 5240	Enterprise Application Development and Software Security	3
IS&T 5520	Data Science and Machine Learning with Python	3

Justification for request

The new 4680 is being treated as an advanced software development course.

Supporting Documents

Course Reviewer Comments

tibbettsmg (10/07/20 10:13 am): changed term to FS21. MT

Key: 255

Program Change Request

Date Submitted: 06/01/20 4:30 pm

Viewing: **FINANCE-MI : Finance Minor**

File: 58.19

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

Last edit: 10/07/20 10:14 am

Changes proposed by: cecq8z

Catalog Pages Using this Program
[Business and Management Systems](#)
[Information Science and Technology](#)

Start Term

Fall **2021** ~~2019~~

Program Code

FINANCE-MI

Department

Business and Information Technology

Title

Finance Minor

In Workflow

1. RINFSCTE Chair
2. CCC Secretary
3. Social Sciences DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. Kristy Giacomelli-Feys

Approval Path

1. 08/29/20 11:19 am
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:21 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Secretary
3. 08/31/20 11:25 am
Cecil Eng Huang Chua (cchua):
Approved for Social Sciences DSCC Chair
4. 09/15/20 12:09 pm
Marita Tibbetts (tibbettsmg):
Approved for Pending CCC Agenda post
5. 10/07/20 10:14 am
Marita Tibbetts (tibbettsmg):

Program Requirements and Description

Approved for CCC
Meeting Agenda
6. 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

History

1. Apr 28, 2014 by
Barry Flachsbart
(barryf)
2. Jan 30, 2015 by
Barry Flachsbart
(barryf)
3. Jul 14, 2015 by
pantaleoa
4. Jul 14, 2015 by
pantaleoa
5. Jun 14, 2019 by
Barry Flachsbart
(barryf)

Minor in Finance

The minor in finance requires the following 15 hours of coursework:

ECON 1100	Principles Of Microeconomics	3
or ECON 1200 or BUS 1414	Course ECON 1200 or BUS 1414 Not Found	
FINANCE 2150	Corporate Finance I	3
and three courses from the following:		9
BUS 5230	Financial Statement Analysis	
FINANCE 5160	Corporate Finance II	
FINANCE 5260	Investments I	
FINANCE 5310	Financial Technology and Analytics	
Total Credits		15

Justification for request

In line with new AACSB requirements

Supporting Documents

Course Reviewer Comments

tibbettsmg (08/31/20 11:21 am): Updated to term to Sp21-mt

tibbettsmg (10/07/20 10:14 am): updated term to FS21. MT

Program Change Request

Date Submitted: 08/27/20 8:49 am

Viewing: **MARKET-MI : Marketing Minor**

File: 81.9

Last approved: 07/14/15 3:41 pm

Last edit: 10/07/20 10:15 am

Changes proposed by: cecq8z

Catalog Pages Using this Program
[Business and Management Systems](#)
[Information Science and Technology](#)

Start Term

Fall 2021 ~~08/17/2015~~

Program Code

MARKET-MI

Department

Business and Information Technology

Title

Marketing Minor

In Workflow

1. RINFSCTE Chair
2. CCC Secretary
3. Social Sciences DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. Kristy Giacomelli-Feys

Approval Path

1. 07/21/20 9:01 am
Kristy Giacomelli-Feys (kristyg):
Rollback to Initiator
2. 08/29/20 11:27 am
siauk: Approved for RINFSCTE Chair
3. 08/31/20 11:22 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Secretary
4. 08/31/20 11:25 am
Cecil Eng Huang Chua (cchua):
Approved for Social Sciences DSCC Chair
5. 09/15/20 12:13 pm
Marita Tibbetts (tibbettsmg):
Approved for

Program Requirements and Description

- Pending CCC
Agenda post
- 10/07/20 10:15 am
Marita Tibbetts
(tibbetmsg):
Approved for CCC
Meeting Agenda
 - 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

History

- Apr 28, 2014 by
Barry Flachsbart
(barryf)
- Jul 14, 2015 by
pantaleoa

Minor in Marketing

The minor in marketing requires the following 15 hours of coursework:

ECON 1100	Principles Of Microeconomics	3
or ECON 1200 or BUS 1414	Course ECON 1200 or BUS 1414 Not Found	
MKT 3110	Marketing	
Three courses from the following list:		9
MKT 3210	Consumer Behavior	
MKT 4580	Marketing Strategy	
MKT 5310	Digital Marketing and Promotions	
MKT 4150	Customer Focus and Satisfaction	
MKT 5320	Marketing for Non-Profits	
ERP 4610	Customer Relationship Management in ERP Environment	
MKT 5410	Course MKT 5410 Not Found	
Other marketing electives approved by the department (MKT 3000 and above)		

Justification for request

In line with new AACSB requirements.

Adding new courses.

Supporting Documents

Course Reviewer Comments

kristyg (07/21/20 9:01 am): Rollback: Rollback per email.

tibbettsmg (10/07/20 10:15 am): updated term to FS21. MT

Key: 81

Program Change Request

New Program Proposal

Date Submitted: 08/27/20 1:08 pm

Viewing: **PROPOSED : Human Factors Psychology**

File: 363

Last edit: 10/07/20 10:15 am

Changes proposed by: burnsde

Start Term
Fall 2021
Program Code
PROPOSED
Department
Psychological Science
Title
Human Factors Psychology

In Workflow


1. RPSYCHOL Chair
2. CCC Secretary
3. Social Sciences DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. Kristy Giacomelli-Feys

Approval Path

1. 08/27/20 1:39 pm
Susan Murray (murray): Approved for RPSYCHOL Chair
2. 08/28/20 1:53 pm
Marita Tibbetts (tibbettsmg): Approved for CCC Secretary
3. 08/28/20 3:00 pm
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair
4. 09/15/20 2:12 pm
Marita Tibbetts (tibbettsmg): Approved for Pending CCC Agenda post

Program Requirements and Description

5. 10/07/20 10:15 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

- 
- *Psych 1101 - Gen Psych (3)*
 - *Psych 4710 & Eng Mgt 4330 - Human Factors (3)*
 - *Psych 4700 Industrial Psychology (3)*
 - *Psych 4720 Psych of Social Technology (3)*
 - ***Either*** *Psych 4411 S&P (3)* ***OR*** *Psych 4400 Cog (3)*

Justification for request

We want to offer a minor for students especially interested in human focused design and interaction.

Most relevant CIP code: 42.2813, Applied Psychology

Supporting Documents

Course Reviewer Comments

tibbettsmg (10/07/20 10:15 am): updated term to FS21. MT

Program Change Request

Date Submitted: 07/22/20 12:48 pm

Viewing: **FIN ENG-CT : Financial Engineering CT**

File: 329.2

Last approved: 06/12/19 2:20 pm

Last edit: 10/07/20 10:16 am

Changes proposed by: cornss

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

Start Term

Fall **2021** ~~2019~~

Program Code

FIN ENG-CT

Department

Engineering Management and Systems Engineering

Title

Financial Engineering CT

In Workflow

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

Approval Path

1. 07/22/20 11:42 am
Suzanna Long
(longsuz): Rollback to Initiator
2. 07/22/20 12:50 pm
Suzanna Long
(longsuz): Approved for RENG MNGT Chair
3. 07/30/20 1:53 pm
Kristy Giacomelli-Feys (kristygf): Approved for CCC Secretary
4. 09/02/20 12:22 pm
Stephen Raper (sraper): Approved for Engineering DSCC Chair
5. 09/15/20 12:08 pm
Marita Tibbetts (tibbettsmg): Approved for

Program Requirements and Description

- Pending CCC
Agenda post
- 10/07/20 10:16 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
 - 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

History

- Jun 12, 2019 by
Brittany Parnell
(ershenb)

Financial Engineering

The financial engineering certificate program aims to equip students with a set of tools that will help them meet the standards of the Global Association of Risk Professionals (GARP) and the Professional Risk Managers' International Association (PRMIA) certifications. While being separate organizations, both GARP and PRMIA have become the standards in financial engineering and financial risk management, due to their similar knowledge of requirements for certification.

Certificate topics will help prepare students to take the GARP Financial Risk Managers (FRM) exam and/or the PRMIA Professional Risk Managers (PRM) exam. Both exams are set around topics in financial theory, financial markets and financial instruments, market risk measures, quantitative analysis, mathematical foundations of risk management, financial derivatives for risk reduction, risk management best practices, operational risk, market risk, credit risk, case studies, ethics, and governance. The certificate courses will provide a strong foundation in these areas.

Students will be responsible for prerequisite knowledge as determined by course instructors and are expected to have taken [ENG MGT 5210](#) Economic Decision Analysis, ENG MGT 5202 Financial Decision Analysis, [SYS ENG 6103](#) Systems Life Cycle Costing, or an equivalent introduction to finance and/or engineering economics course, as a prerequisite to the certificate program. **To complete the certificate, students must complete any four of the five certificate courses.**

ENG MGT 6212	Investment
ENG MGT 6213	Financial Engineering
ENG MGT 6214	Financial Engineering II
ENG MGT 6215	Financial Risk Management
SYS ENG 5212	Introduction to Neural Networks and Applications
ENG MGT 5212	Intelligent Investing

Justification for request

Add courses related to financial engineering to allow more flexibility in how the certificate can be completed.

Supporting Documents

Course Reviewer Comments

longsuz (07/22/20 11:42 am): Rollback: Updates

tibbettsmg (10/07/20 10:16 am): updated term to FS21. MT

Program Change Request

New Program Proposal

Date Submitted: 07/22/20 10:53 am

Viewing: **PROPOSED : Mine Reclamation CT**

File: 360

Last edit: 10/07/20 10:17 am

Changes proposed by: kabp3

Start Term
Fall 2021
Program Code
PROPOSED
Department
Mining & Nuclear Engineering
Title
Mine Reclamation CT

In Workflow

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

Approval Path

1. 07/22/20 11:13 am
Kwame Awuah-Offei (kwamea):
Approved for
MINEXP ENG Chair
2. 07/30/20 1:53 pm
Kristy Giacomelli-Feys (kristy):
Approved for CCC
Secretary
3. 09/02/20 12:22 pm
Stephen Raper (sraper):
Approved for Engineering
DSCC Chair
4. 09/15/20 2:14 pm
Marita Tibbetts (tibbetmsg):
Approved for
Pending CCC
Agenda post

Program Requirements and Description

5. 10/07/20 10:17 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

PROGRAM DESCRIPTION:

The Mine Reclamation Certificate Program is designed to provide formalized education in mine reclamation. The program aims to equip students with skills that allow them to work as mine reclamation professionals and regulators on mine reclamation projects. The program is designed for engineers, geologists, and other scientists who find themselves working in mine reclamation without formal training.

Students admitted to this certificate program must take the four required courses provided in the curriculum section, and obtain a cumulative GPA of 3.0 or better to earn the certificate. Students are admitted in non-matriculated status; however, if they complete the graduate certificate with a grade of "B" or better in each of the courses taken, they may be admitted to the Master of Science degree program in mining engineering, if they choose to. The certificate credits taken by students admitted to the graduate degree program will count toward their master's degree.

ADMISSION:

The Mine Reclamation Certificate Program is open to all persons holding a B.S., M.S., or Ph.D. degree in Engineering, Science, and/or Mathematics or are currently accepted into a graduate degree program at Missouri S&T. Once admitted to the program, the student must take the four designated courses (provided in the curriculum section). In order to receive a Graduate Certificate, the student must have an average cumulative grade point of 3.0 or better in the certificate courses. Once admitted to the program, a student will be given three years to complete the program.

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

CONTRIBUTING FACULTY:

Mining Engineering; Environmental Engineering; Geological Engineering

CURRICULUM:

The graduate certificate in mine reclamation requires 12 credit hours (four courses) and must include at least two of the following courses:

1. *MIN ENG 5742 Environmental Aspects of Mining*

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

Delivery: Main Campus & Online/Spring Semester

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

Students learn the scientific basics of chemical transport in soil and groundwater and learn fundamental plant physiology and processes. Students then learn how these processes are utilized in design of phytoremediation and natural treatment systems, including the most up to date literature and design guidance available.

Delivery: Main Campus & Online/Spring Semester

3. *GEO ENG 5381 Intermediate Subsurface Hydrology and Contaminant Transport*

A study of the physical/chemical properties of rocks and sediments in the subsurface environment. Emphasis is put on waterrock properties such as permeability, capillarity, and mechanical dispersion. Both microscopic and macroscopic approaches are used.

Delivery: Main Campus & Online/Spring Semester

Students can select up to two more courses from the following courses:

1. *ENV ENG 5630 Remediation of Contaminated Groundwater and Soil.*

Course covers current in-situ and ex-situ remediation technologies. Current literature and case studies are utilized to provide the focus for class discussions and projects.

Delivery: Main Campus & Online/Summer Semester

2. *ENV ENG 5640 Environmental Law and Regulations*

This course provides comprehensive coverage of environmental laws and regulations dealing with air, water, wastewater, and other media. The primary focus is permitting, reporting, and compliance protocols. The course topics include U.S. and international legal systems and judicial processes, liability, enforcement, Clean Air Act, Clean Water Act (NPDES) permitting), Safe Drinking Water Act, OSGA, TSCA, RCRA, and CERCLA. Case studies will be emphasized.

Delivery: Main Campus & Online/Spring Semester

3. *ENV ENG 5642 Sustainability, Population, Energy, Water, and Materials*

This course will examine the concepts regarding the continued advancement of humankind while maintaining our ecological niche on earth. Key topics include: population growth, poverty, and impacts of development; energy consumption, sources, storage, conservation and policy; water quality and quantity; materials and building; and policy implications.

Delivery: Main Campus & Online/Fall Semester

4. **GEO ENG 5235 Environmental Geological Engineering**

Introduction to engineering geologic mapping for site selection for solid waste disposal facilities; landfill site selection, design, permitting, construction, operation, and closeout/reclamation.

Delivery: Main Campus & Online/Fall Semester

5. **GEO ENG 5331/5332 Fundamentals of Groundwater Hydrology**

Focus on fundamental analysis and survey of groundwater hydrology with emphasis on practical geo-environmental and subsurface hydrology issues of interest to working professionals. Topics will include general hydrology, surface and subsurface interconnection, basic groundwater flow and well test analysis, and a brief intro to contaminant transport.

Delivery: Main Campus & Online/Fall Semester

6. **MIN ENG 6712 Managing Social and Environmental Risks in Mining (Intro to Responsible Mining)**

This course is an introduction to responsible mining. It focuses on industry and NGO programs around sustainability and reporting in mining, financial community response, community of interest engagement and participation, and safety and crisis response and management.

Delivery: Main Campus & Online/Fall Semester

7. **MIN ENG 6735 Sustainability in Mining**

Sustainability defined: social, economic and environmental impacts. Mining as sustainable development interventions. Mine planning for sustainability, sustainability assessment and reporting, sustainable mine closure and post-mining land use.

Delivery: Main Campus & Online/Fall Semester

Justification for request

The Mine Reclamation Certificate Program is designed to provide formalized education in mine reclamation, which is currently absent in our offerings. The program aims to equip students with skills that allow them to work as mine reclamation professionals and regulators on mine reclamation projects. The program is designed for engineers, geologists, and other scientists who find themselves working in mine reclamation without formal training. By bring together the three programs (Mining, Environmental and Geological Engineering) we are able to offer unique training for these professionals.

Supporting Documents

[Mine Reclamation - Graduate Certificate.pdf](#)

[Signed - Mine Reclamation-cover letter.pdf](#)

[MS&T PC June 2020 REVISED.pdf](#)

Course Reviewer Comments

sraper (09/01/20 3:56 pm): Changed effective date to Spr 2021

tibbettsmg (10/07/20 10:17 am): updated term to FS21. MT

Program Change Request

New Program Proposal

Date Submitted: 07/22/20 10:57 am

Viewing: **PROPOSED : Mining Project Evaluation CT**

File: 361

Last edit: 10/07/20 10:17 am

Changes proposed by: kabp3

Start Term
Fall 2021
Program Code
PROPOSED
Department
Mining & Nuclear Engineering
Title
Mining Project Evaluation CT

In Workflow

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

Approval Path

1. 07/22/20 11:13 am
Kwame Awuah-Offei (kwamea):
Approved for
MINEXP ENG Chair
2. 07/30/20 1:53 pm
Kristy Giacomelli-Feys (kristy):
Approved for CCC
Secretary
3. 09/02/20 12:22 pm
Stephen Raper (sraper):
Approved for Engineering
DSCC Chair
4. 09/15/20 2:14 pm
Marita Tibbetts (tibbetmsg):
Approved for
Pending CCC
Agenda post

Program Requirements and Description

5. 10/07/20 10:17 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

PROGRAM DESCRIPTION:

The Mining Project Evaluation Certificate Program is designed to provide formalized education in mining project evaluation. The program aims to equip students with skills that allow them to evaluate mining projects in order to facilitate investment decisions.

Students admitted to this program must take the four required courses provided in the curriculum section, and obtain a cumulative GPA of 3.0 or better to earn the certificate. Students are admitted in non-matriculated status; however, if they complete the graduate certificate with a grade of "B" or better in each of the courses taken, they may be admitted to the Master of Science degree program in mining engineering, if they so choose. The certificate credits taken by students admitted to the graduate degree program will count toward their master's degree.

ADMISSION:

The Mining Project Evaluation Certificate Program is open to all persons holding a B.S., M.S., or Ph.D. degree in Engineering, Science, and/or Mathematics or are currently accepted into a graduate degree program at Missouri S&T. Once admitted to the program, the student must take the four designated courses (provided in the curriculum section). In order to receive a Graduate Certificate, the student must have an average cumulative grade point of 3.0 or better in the certificate courses. Once admitted to the program, a student will be given three years to complete the program.

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

CONTRIBUTING FACULTY:

Mining Engineering

CURRICULUM:

The graduate certificate in mining project evaluation requires 12 credit hours (four courses) and must include at least three of the following courses:

1. MIN ENG 5522 Ore Reserve Analysis and Geostatistics

Principles of geostatistics, theory of spatially correlated random variables, variance and co-variances and their application on the evaluation of mineral resources, ore reserve estimation, strategic exploration, and production planning. Real case studies from mining industry will be presented.

Delivery: Main Campus & Online/Spring Semester

2. MIN ENG 5532 Advanced Mining Economics

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

Delivery: Main Campus & Online/Fall Semester

3. MIN ENG 5913 Advanced Computer Aided Mine Design

Project-based mine planning and design course. Engineering design process applied to computer-aided mine planning and design. Mine layouts, production planning, and materials scheduling optimization.

Delivery: Main Campus & Online/Fall Semester

4. MIN ENG 6522 Mining Property Feasibility Studies and Evaluation Procedure

A systematic phased approach is presented, designed to increase the level of confidence and accuracy of estimates, moving from exploration through to a "bankable" study. Liability, ethics, resource/reserves, political/social/investment risk, economic parameters, and due diligence are discussed.

Delivery: Main Campus & Online/Spring semester

Students can select one from the following courses:

1. MIN ENG 5212 Aggregates and Quarrying

Advanced coverage of topics on the stone and aggregate industry, including surface and underground operations, plant equipment, economics, marketing, transportation, and environmental topics. The course will include at least one field trip and a design project.

Delivery: Main Campus & Online/Spring Semester

2. MIN ENG 6912 Simulation of Mining Systems

Overview of stochastic simulation. Model formulation using general purpose process simulation software. Model verification and validation. Simulation experimentation.

Delivery: Main Campus & Online/Fall Semester

3. MIN ENG 6932 Advanced Mining Systems

Principles of design for the development and production of hard rock mineral deposits that require integrated surface and underground mining methods. Cost considerations leading to optimization. Terminal feasibility report required.

Delivery: Main Campus & Online/Fall Semester

4. MIN ENG 6936 Surface Mine Design

This course will focus on the determinants of surface mine design, geomechanical and geometrical mine design for open pit and strip mining; mine layouts optimization; mine environmental systems; and research directions in surface mine design and optimization.

Delivery: Main Campus & Online/Spring Semester

Justification for request

The Mining Project Evaluation Certificate Program is designed to provide formalized education in mining project evaluation. The program aims to equip professionals with skills that allow them to evaluate mining projects in order to facilitate investment decisions. There is no such offering in our catalog now. There is demand for this sort of training as shown by University of Arizona's executive training program that contains some elements of this training.

Supporting Documents

[Mining Project Evaluation - Graduate Certificate.pdf](#)

[Signed - Mining Project Evaluation-cover letter.pdf](#)

[MS&T PC June 2020 REVISED.pdf](#)

Course Reviewer Comments

sraper (09/01/20 3:56 pm): Changed effective date to spr 2021.

tibbettsmg (10/07/20 10:17 am): updated term to FS21. MT

Program Change Request

New Program Proposal

Date Submitted: 07/22/20 11:12 am

Viewing: **PROPOSED : Sustainability in Mining CT**

File: 362

Last edit: 10/07/20 10:18 am

Changes proposed by: kabp3

Start Term
Fall 2021
Program Code
PROPOSED
Department
Mining & Nuclear Engineering
Title
Sustainability in Mining CT

In Workflow

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

Approval Path

1. 07/22/20 11:13 am
Kwame Awuah-Offei (kwamea):
Approved for
MINEXP ENG Chair
2. 07/30/20 1:53 pm
Kristy Giacomelli-Feys (kristy):
Approved for CCC
Secretary
3. 09/02/20 12:23 pm
Stephen Raper (sraper):
Approved for Engineering
DSCC Chair
4. 09/15/20 2:15 pm
Marita Tibbetts (tibbetmsg):
Approved for
Pending CCC
Agenda post

Program Requirements and Description

5. 10/07/20 10:18 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

PROGRAM DESCRIPTION:

The Sustainability in Mining Certificate Program is designed to provide formalized education in sustainability in mining. The program aims to equip students with skills that allow them work as professionals and regulators who deal with mine sustainability issues including sustainability assessment and reporting, stakeholder/community engagement, and similar matters. The program is designed for engineers, geologists, and other scientists who find themselves working in mine reclamation without formal training.

Students admitted to this certificate program must take the four required courses provided in the curriculum section, and obtain a cumulative GPA of 3.0 or better to earn the certificate. Students are admitted in non-matriculated status; however, if they complete the graduate certificate with a grade of "B" or better in each of the courses taken, they may be admitted to the Master of Science degree program in mining engineering, if they so choose. The certificate credits taken by students admitted to the graduate degree program will count toward their master's degree.

ADMISSION:

The Sustainability in Mining Certificate Program is open to all persons holding a B.S., M.S., or Ph.D. degree in Engineering, Science, and/or Mathematics or are currently accepted into a graduate degree program at Missouri S&T. Once admitted to the program, the student must take the four designated courses (provided in the curriculum section). In order to receive a Graduate Certificate, the student must have an average cumulative grade point of 3.0 or better in the certificate courses. Once admitted to the program, a student will be given three years to complete the program.

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

CONTRIBUTING FACULTY:

Mining Engineering; Environmental Engineering

CURRICULUM:

The graduate certificate in sustainability in mining requires the following courses:

1. MIN ENG 5742 Environmental Aspects of Mining

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

Delivery: Main Campus & Online/Spring Semester

2. MIN ENG 6712 Managing Social and Environmental Risks in Mining (Intro to Responsible Mining)

This course is an introduction to responsible mining. It focuses on industry and NGO programs around sustainability and reporting in mining, financial community response, community of interest engagement and participation, and safety and crisis response and management.

Delivery: Main Campus & Online/Fall Semester

3. MIN ENG 6735 Sustainability in Mining

Sustainability defined: social, economic and environmental impacts. Mining as sustainable development interventions. Mine planning for sustainability, sustainability assessment and reporting, sustainable mine closure and post-mining land use. Case studies.

Delivery: Main Campus & Online/Spring Semester

4. ENV ENG 5642 Sustainability, Population, Energy, Water and Materials

This course will examine the concepts regarding the continued advancement of humankind while maintaining our ecological niche on earth. Key topics include: population growth, poverty, and impacts of development; energy consumption, sources, storage, conservation and policy; water quality and quantity; materials and building; and policy implications.

Delivery: Main Campus & Online/Fall Semester

Justification for request

The Sustainability in Mining Certificate Program is designed to provide formalized education in mine sustainability issues. The program aims to equip students with skills that allow them work as professionals and regulators who deal with mine sustainability issues including sustainability assessment and reporting, stakeholder/community engagement, and similar matters. The program is designed for engineers, geologists, and other scientists who find themselves working on sustainability issues in mining without formal training. These days all major mining companies assess and disclose to their stakeholders their sustainability impacts (i.e. annual sustainability reports) and conduct activities to reduce such impacts. These same activities are done by governments and multinational institutions (e.g., World Bank) with mining interests. Formal education in this area is absent from our curriculum and that of many other universities. By bring together Mining and Environmental Engineering, S&T can provide unique training that is needed.

Supporting Documents

[MS&T PC June 2020 REVISED.pdf](#)

[Sustainability in Mining - Graduate Certificate.pdf](#)

[Signed - Sustainability in Mining-cover letter.pdf](#)

Course Reviewer Comments

sraper (09/01/20 3:57 pm): Changed effective date to Spr 2021.

tibbettsmg (10/07/20 10:18 am): updated term to FS21. MT

Program Change Request

New Program Proposal

Date Submitted: 09/08/20 3:04 pm

Viewing: **PROPOSED : UCT - Logic and the Philosophical Foundations of STEM**

File: 366

Last edit: 10/07/20 10:18 am

Changes proposed by: gamezpz

Start Term
Fall 2021
Program Code
PROPOSED
Department
Arts, Languages, & Philosophy
Title
UCT - Logic and the Philosophical Foundations of STEM

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. **Kristy Giacomelli-Feys**

Approval Path

1. 09/08/20 7:07 pm
Audra Merfeld-Langston (audram):
Approved for RPHILOSO Chair
2. 09/09/20 7:20 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Secretary
3. 09/10/20 7:47 am
Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC Chair
4. 09/15/20 2:16 pm
Marita Tibbetts (tibbettsmg):
Approved for Pending CCC Agenda post

Program Requirements and Description

5. 10/07/20 10:18 am
Marita Tibbetts
(tibbetmsg):
Approved for CCC
Meeting Agenda
6. 10/07/20 10:19 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

How can we tell what makes a scientific theory *true*? How do experimental results and observations serve as evidence for a theory or law? Indeed, what *are* theories and laws? While it's easy to make appeals to something called "the scientific method," the reality is much more complex. The certificate in Logic and the Philosophical Foundations of STEM will provide students with a working grasp of the basic intellectual framework of modern science, mathematics, and engineering. For those who want to learn more about the very nature of the modern scientific enterprise, this program provides a chance to understand their conceptual, historical, and epistemological foundations.

Students may elect to not only develop their formal skills in the logic and reasoning that allow for the development of scientific theories, but also to go beyond the formal dimensions of science and interrogate the ways in which science has developed historically, and what that tells us about its structure.

The abilities and base of knowledge provided by this certificate can serve as a fascinating supplement to the study of the natural and human sciences, and signal to potential employers not only advanced reasoning skills but a curiosity and intellectual energy that can be applied in a wide variety of areas.

REQUIRED COURSES:

PHILOS 1115 - Logic and Reasoning: An Introduction

PHILOS 3254 - Symbolic Logic in Argumentation

A further six (6) credits can be chosen from:

PHILOS 4320 - Minds and Machines

PHILOS 4325 - Epistemology

PHILOS 4345 - Philosophy of Science

PHILOS 3530 - History of Science

Justification for request

The purpose of this certificate is to allow STEM students to be recognized for pursuing a course of study that focuses on the historical, conceptual, and epistemological foundations of their chosen disciplines.

Currently, liberal arts, humanities, and – in particular – philosophy degrees have become sought after in surprising areas like tech; this certificate allows students to develop these skills in areas that still remain close to their chosen fields, and receive credentials for doing so.

Moreover, students who major in the natural and human sciences tend to do quite well in postgraduate studies in philosophy. This certificate allows students to explore their interests in the philosophical issues raised in their chosen area of study while developing a solid foundation for graduate school.

Supporting Documents

[Proposal Logic & the Philosophical Foundation of STEM.pdf](#)

[MS&T PC August 2020.pdf](#)

Course Reviewer Comments

tibbettsmg (10/07/20 10:18 am): updated term to FS21. MT

Program Change Request

New Program Proposal

Date Submitted: 09/08/20 3:27 pm

Viewing: **PROPOSED : UCT -**
PROFESSIONAL ETHICS AND MORAL
REASONING

File: 367

Last edit: 10/07/20 10:19 am

Changes proposed by: gamezpz

Start Term

Fall 2021

Program Code

PROPOSED

Department

Arts, Languages, & Philosophy

Title

UCT - PROFESSIONAL ETHICS AND MORAL REASONING

In Workflow

1. **RPHILOSOPHY 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. **Kristy Giacomelli-Feys**

Approval Path

1. 09/08/20 7:07 pm
Audra Merfeld-Langston (audram):
Approved for RPHILOSOPHY Chair
2. 09/09/20 7:20 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Secretary
3. 09/10/20 7:48 am
Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC Chair
4. 09/15/20 2:17 pm
Marita Tibbetts (tibbettsmg):
Approved for Pending CCC Agenda post

Program Requirements and Description

5. 10/07/20 10:24 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 10:30 am
Stephen Raper
(sraper): Approved
for Campus
Curricula
Committee Chair

This certificate signifies a commitment to moral leadership.

Professionals are granted a great deal of autonomy, respect, and power in their workplaces as compared to other sorts of employees. And, as we all know, with great power comes great responsibility. With these sorts of privileges, professionals often find themselves in a position of having to make difficult decisions on their own, as well as for others, whether directly or through policy. And while many professionals will find themselves armed with corporate guidelines or professional codes of conduct to guide one, these alone are not sufficient. Because some – if not all – decisions are ethical, or have an ethical dimension.

Pursuing this certificate will help one understand how to answer the question “What should I do?” in an ethical manner. Required courses in professional or “applied” ethics will familiarize students with the types of cases of ethical decision-making that they will likely encounter in professional life, and courses in normative or moral theory will strengthen their skills in moral reasoning, allowing them to adapt to new and changing situations.

REQUIREMENTS:

PHILOS 1130 - How Should I Live? An Introduction to Ethics

3 further credits from:

PHILOS 3223 Bioethics

PHILOS 3225 Business Ethics

PHILOS 3235 Engineering Ethics

6 further credits (excluding courses taken to meet above requirements) from:

PHILOS 3223 Bioethics

PHILOS 3225 Business Ethics

PHILOS 3235 Engineering Ethics

PHILOS 4340 From Activism to Zoos: Issues in Social Ethics

PHILOS 4350 Environmental Ethics

PHILOS 4360 Who Should Rule and Why? Debates in Political Philosophy

PHILOS 4368 Law and Ethics in E-Commerce

Justification for request

The purpose of this certificate is to demonstrate to employers and others that the student or recipient has a solid background in both applied ethics and normative theory. Demand for

excellence, or at the very least competence, in ethical decision-making is increasing, both in the tech and corporate worlds:

<https://qz.com/work/1793582/why-you-should-hire-a-moral-philosopher/>

<https://qz.com/1734381/why-tech-companies-need-to-hire-philosophers/>

<https://www.theguardian.com/business-to-business/2018/mar/29/i-work-therefore-i-am-why-businesses-are-hiring-philosophers>

Allowing students from STEM disciplines the chance to take a manageable 12-credit certificate in philosophy that will hone these skills will ultimately make them more attractive candidates, standing apart from those who have focused only on technical and/or management skills; moreover, for students primarily studying in the humanities, it provides an explicit area of emphasis on values, tying their studies to concrete cases in the real world.

Supporting Documents

[Proposal Professional Ethics & Moral Reasoning .pdf](#)

[MS&T PC August 2020 \(1\).pdf](#)

Course Reviewer Comments

tibbettsmg (10/07/20 10:19 am): updated term to FS21. MT

Course Change Request

New Experimental Course Proposal

Date Submitted: 08/12/20 11:33 am

Viewing: **ENGLISH 3001.008 : Pandemic Literature**

File: 4735

Last edit: 08/19/20 9:13 am

Changes proposed by: kswenson

Requested Spring 2021

Effective Change

Date

Department

English and Technical Communication

Discipline

English (ENGLISH)

Course Number 3001

Topic ID 008

Experimental

Title

Experimental Pandemic Literature

Abbreviated

Course Title

Instructors

Marie Lathers

In Workflow

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

Approval Path

1. 08/12/20 11:33 am
Kristine Swenson (kswenson):
Approved for RENGGLISH Chair
2. 08/19/20 9:14 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Secretary

3. 08/19/20 10:48
am
Petra Dewitt
(dewittp):
Approved for Arts
& Humanities
DSCC Chair
4. 09/15/20 2:22 pm
Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post
5. 10/07/20 10:25
am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda
6. 10/07/20 10:30
am
Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair
7. 10/07/20 12:27
pm
Marita Tibbetts
(tibbettsmg):
Approved for CAT
entry

Pandemic Literature

Experimental

Catalog

Description

Fiction that represents pandemics or epidemics. Authors from various eras and cultures, including Boccaccio, Defoe, Poe, Thomas Mann, Katherine Anne Porter, Albert Camus, José Saramago, and Colson Whitehead. Topics concern how literature narrates illness, contagion, and the possibility of rejuvenation.

Prerequisites

ENGL 1120 or PHIL 1105.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for
new course:

Dr. Lathers is the Weiner Distinguished Visiting Professor in the Humanities during 2020-21. This is the course she wishes to teach in the spring.

Semester(s)

previously taught

N/A

Co-Listed

Courses:

HISTORY 3001 - Special Topics

PHILOS 3001 - Special Topics

Course Reviewer

Comments

Course Change Request

New Experimental Course Proposal

Date Submitted: 07/06/20 11:06 am

Viewing: **PHYSICS 4001.001 : Cosmology and Galaxies**

File: 4730

Last edit: 08/21/20 2:12 pm

Changes proposed by: vojtat

Requested Spring 2021

Effective Change
Date

Department
Physics

Discipline
Physics (PHYSICS)

Course Number 4001

Topic ID 001

Experimental
Title

Experimental Cosmology and Galaxies

Abbreviated
Course Title

Instructors
Shun Saito

In Workflow

1. RPHYSICS Chair
2. CCC Secretary
3. Sciences DSCC Chair
4. Pending CCC Agenda post
5. CCC Meeting Agenda
6. Campus Curricula Committee Chair
7. CAT entry
8. Registrar

Approval Path

1. 07/06/20 11:09 am
Thomas Vojta (vojtat): Approved for RPHYSICS Chair
2. 07/21/20 9:00 am
Kristy Giacomelli-Feys (kristyg): Approved for CCC Secretary
3. 08/19/20 11:04 am

Katie Shannon
(shannonk):
Approved for
Sciences DSCC
Chair

4. 09/15/20 2:22 pm

Marita Tibbetts
(tibbettsmg):
Approved for
Pending CCC
Agenda post

5. 10/07/20 10:25
am

Marita Tibbetts
(tibbettsmg):
Approved for CCC
Meeting Agenda

6. 10/07/20 10:30
am

Stephen Raper
(sraper):
Approved for
Campus Curricula
Committee Chair

7. 10/07/20 12:28
pm

Marita Tibbetts
(tibbettsmg):
Approved for CAT
entry

Cosmology and Galaxies
Experimental

Catalog

Description

An introduction to modern cosmology. Topics include the big bang model of the Universe, the large-scale structure of the Universe, observational methods to test cosmological models (dark matter and dark energy) using the cosmic microwave background and galaxies.

Prerequisites

Physics 2305 or Physics 2311

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Justification for

new course:

This course will become part of the department's new focus area of astrophysics and will serve as an elective for physics majors. The existing "Astrophysics" course focuses on smaller structures such as stars, binary systems and nebulae while the new course deals with larger scales: the evolution of the universe as a whole and its large-scale structure.

Semester(s)

previously taught

Co-Listed

Courses:

Course Reviewer

Comments