



Campus Curricula Committee Meeting Agenda

October 7, 2020

8:15am - 9:45am, Zoom

(For Faculty Senate Meeting of October 22, 2020)

Review of submitted Course Change forms:

ECON 4440 : Environmental And Natural Resource Economics
ECON 4540 : Energy Economics
EDUC 1104 : Teacher Field Experience I
EDUC 2002 : Problems Of Teaching Social Studies
EDUC 2205 : Problems Of Teaching Science/Chemistry
EDUC 2206 : Problems Of Teaching Science/Physics
EDUC 2207 : Problems Of Teaching English
EDUC 2219 : Art For Elementary Teachers
EDUC 2231 : Methods In Physical Education 5-9
EDUC 3320 : Professional Development
GEOLOGY 6551 : Global Tectonics and Metallogeny
IS&T 1552 : Implementing Information Systems: Data Perspective
IS&T 5168 : Design Thinking and Technological Innovation
IS&T 5335 : Fundamentals of Mobile Technology for Business
IS&T 5445 : Database Marketing
IS&T 5450 : Introduction to Information Visualization
IS&T 5641 : Digital Commerce and IoT Analytics
IS&T 5780 : Human and Organizational Factors in Cybersecurity
IS&T 5885 : Human-Computer Interaction and User Experience
IS&T 6251 : Technological Innovation Management and Leadership
IS&T 6336 : Internet Computing and the Internet of Things
IS&T 6723 : Artificial Intelligence, Robotics, and Digital Transformation
MKT 5410 : Big Data Consumer Analytics
PHILOS 4665 : Creating Future Cities
PHILOS 4666 : Technology, Ethics, and Philosophy
PSYCH 3340 : Assessment of Student Learning
STAT 6545 : Multivariate Statistical Methods



Review of submitted Degree Change forms:

AI-MI : Minor in Artificial Intelligence and Machine Learning in Business
ANA&DTA-MI : Business Analytics and Data Science Minor
BUSAPPS-MI : Business Applications and Software Development Minor
CYBERMG-MI : Cybersecurity Management and Information Assurance Minor
FINANCE-MI : Finance Minor
HCI-MI : Human-Computer Interaction and User Experience Minor
IST-BS : Information Science and Tch BS
MARKET-MI : Marketing Minor
MOBLB&T-MI : Mobile Bus & Digital Transformation
PROPOSED : Human Factors Psychology

Review of submitted Certificate forms:

AI-CT : AI, Mach Lrn & Auto for Bus CT
ANA&DTA-CT : Bus Analytics & Data Sci CT
CYBERMG-CT : Cyber Mgmt & Info Assurance CT
DIGITMD-CT : Digital Media & Web Design CT
E&S COM-CT : Elec & Social Commerce CT
FIN ENG-CT : Financial Engineering CT
HCI-CT : Human Computer Interaction CT
MGTLEAD-CT : Management and Leadership
PROPOSED : Mine Reclamation CT
PROPOSED : Mining Project Evaluation CT
PROPOSED : Sustainability in Mining CT
PROPOSED : UCT - Logic and the Philosophical Foundations of STEM
PROPOSED : UCT - PROFESSIONAL ETHICS AND MORAL REASONING

Review of submitted Experimental Course forms:

ENGLISH 3001.008 : Pandemic Literature
PHYSICS 4001.001 : Cosmology and Galaxies

Review of forms referred back to the committee for additional input:

COMP SCI 5001.008 : Computer Science BootCamp Part 1
COMP SCI 5001.009 : Computer Science BootCamp Part 2

Course Change Request

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

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

File: 2470.1

Last edit: 08/19/20 9:09 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

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 Majors	No
------------------------	----

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

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: 08/19/20 9:10 am

Changes proposed by: davismc

Programs
referencing this
course

[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

History

1. Feb 25, 2019 by
ershenb (1747.1)
2. Nov 21, 2019 by
ershenb (1747.3)

Energy Economics

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

Total: 3

No

Required for
Majors

Elective for No
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](#)

[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

Teacher Field Experience I

Abbreviated Teach Field Experience I
Course Title

Catalog

Description

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.

Prerequisites

Educ 1040.

Field Trip

Statement

- 09/15/20 11:33 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Secretary
- 09/15/20 8:10 pm
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair

History

- Jan 18, 2019 by
ershenb (2086.1)
- Nov 25, 2019 by
bakm75 (2086.3)

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

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

Catalog

Description

Prerequisites

Beth Kania-

Gosche

(bkaniagosche):

Approved for

REDUCATION

Chair

2. 09/15/20 11:33
am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Secretary

3. 09/15/20 8:11 pm

Cecil Eng Huang

Chua (cchua):

Approved for

Social Sciences

DSCC Chair

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.

Field Trip

Statement

Credit Hours

LEC: 2

LAB: 0

IND: 0

RSD: 0

Total: 2

Required for

No

Majors

Elective for

No

Majors

Justification for
change:

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.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1111

[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

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

REDUCATION

Chair

2. 09/15/20 11:33
am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Secretary

3. 09/15/20 8:11 pm

Cecil Eng Huang

Chua (cchua):

Approved for
Social Sciences
DSCC Chair

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.

Field Trip

Statement

Credit Hours

LEC: 2

LAB: 0

IND: 0

RSD: 0

Total: 2

Required for

No

Majors

Elective for

No

Majors

Justification for
change:

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.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 404

[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

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

REDUCATION

Chair

2. 09/15/20 11:33
am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Secretary

3. 09/15/20 8:11 pm

Cecil Eng Huang

Chua (cchua):

Approved for

Social Sciences

DSCC Chair

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.

Field Trip

Statement

Credit Hours

LEC: 2

LAB: 0

IND: 0

RSD: 0

Total: 2

Required for

No

Majors

Elective for

No

Majors

Justification for
change:

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.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1069

[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

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

REDUCATION

Chair

2. 09/15/20 11:33
am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Secretary

3. 09/15/20 8:11 pm

Cecil Eng Huang

Chua (cchua):

Approved for

Social Sciences

DSCC Chair

History

1. Jan 18, 2019 by
ershenb (513.1)

Problems Of Teaching English

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

Field Trip

Statement

Credit Hours

LEC: 2

LAB: 0

IND: 0

RSD: 0

Total: 2

Required for

No

Majors

Elective for

No

Majors

Justification for
change:

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.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 513

[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: 05/19/20 12:15 pm

Changes proposed by: bakm75

Requested 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

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

REDUCATION

Chair

2. 09/15/20 11:34
am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Secretary

3. 09/15/20 8:11 pm

Cecil Eng Huang

Chua (cchua):

Approved for
Social Sciences
DSCC Chair

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.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for

No

Majors

Elective for

No

Majors

Justification for
change:

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

Semesters
previously
offered as an
experimental
course

Co-Listed

Courses:

ART 3219 - Art For Elementary Teachers

Course Reviewer

Comments

Key: 1550

[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

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

REDUCATION

Chair

2. 09/15/20 11:34
am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Secretary

3. 09/15/20 8:11 pm

Cecil Eng Huang

Chua (cchua):

Approved for

Social Sciences

DSCC Chair

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).

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:

We do not offer PE certification.

Semesters
previously
offered as an
experimental
course

Co-Listed

Courses:

ED 2310 - **Course Not Found**

Course Reviewer
Comments

Key: 2503

[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

REDUCATION

Chair

2. 09/15/20 11:34
am

Marita Tibbetts

(tibbettsmg):

Approved for CCC
Secretary

3. 09/15/20 8:12 pm

Cecil Eng Huang

Chua (cchua):

Approved for

Social Sciences

DSCC Chair

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.

Field Trip

Statement

Credit Hours

LEC: 1

LAB: 0

IND: 0

RSD: 0

Total: 1

No

Required for
Majors

Elective for No
Majors

Justification for
change:

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.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 177

[Preview Bridge](#)

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: 06/29/20 12:29 pm

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 (kristyg):
Approved for CCC
Secretary
3. 08/19/20 11:04
am
Katie Shannon
(shannonk):
Approved for
Sciences DSCC
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. **This course must also be preceded or accompanied by Geology 4521**

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

Key: 1168

[Preview Bridge](#)

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

(tibbettsmg):
Approved for CCC
Secretary
3. 08/31/20 11:25
am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair

History

1. Oct 31, 2016 by
barryf (1565.1)
2. Apr 3, 2017 by
barryf (1565.7)

Implementing Information Systems: Data Perspective

Abbreviated Info Sys: Data Perspective
Course Title

Catalog

Description

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.

Prerequisites

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

Field Trip

Statement

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

Justification for
change:

To be consistent with the prerequisite for IS&T 1562

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 1565

[Preview Bridge](#)

Course Change Request

Date Submitted: 08/27/20 8:39 am

Viewing: **IS&T 5168 : Design Thinking and Technological Innovation** ~~Law and Ethics in E-Commerce~~

File: 1068.1

Last edit: 08/31/20 11:25 am

Changes proposed by: cecq8z

Programs
referencing this
course

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

[PRE LAW-MI: Pre Law Minor](#)

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

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

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

[MGTLEAD-CT: Management and Leadership](#)

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

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

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

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

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

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 11:20
am
siauk: Approved
for RINFSCTE
Chair
2. 08/31/20 11:25
am
Marita Tibbetts

In The Catalog Description:

PHILOS 4368 : Law and Ethics in E-Commerce

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

Effective Change

Date

Department

Business and Information Technology

Discipline

Info Science & Technology (IS&T)

Course Number 5168

Title

Design Thinking and Technological Innovation ~~Law and Ethics in E-Commerce~~

Abbreviated **Design Thinking** ~~Law & Ethics~~

Course Title ~~E-Commerce~~

(tibbettsmg):

Approved for CCC
Secretary

3. 08/31/20 11:32
am

Cecil Eng Huang

Chua (cchua):

Approved for

Social Sciences

DSCC Chair

Catalog

Description

Design transforms the way companies create value. Design thinking is an iterative user-centered approach. The success of innovation increases dramatically when design principles are applied to innovation. This course covers design thinking techniques and design principles for technological innovation. Provides the ethical framework to analyze the ethical, legal, and social issues that arise for citizens and computer professionals regarding the computerization of society. Topics include: free speech, privacy, intellectual property, product liability, and professional responsibility.

Prerequisites

Field Trip
Statement

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

Justification for
change:

Topics the course covers are in a highly sought after area.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

~~PHILOS 4368 - Law and Ethics in E-Commerce~~

Course Reviewer
Comments

Key: 1068

[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
3. 08/31/20 11:32
am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair

History

1. Apr 28, 2014 by
barryf (2391.1)
2. Jun 30, 2014 by
lahne (2391.5)
3. Feb 5, 2018 by
barryf (2391.6)

Fundamentals of Mobile Technology for Business

Abbreviated Fund MobileTech for Bus
Course Title

Catalog

Description

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.

Prerequisites

Junior standing or above.

Field Trip
Statement

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

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: 2391

[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: 08/27/20 8:40 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

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
Total: 3				
Required for Majors	No			
	No			

Elective for
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: 08/27/20 8:40 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

History

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

Introduction to Information Visualization

Abbreviated Course Title Intro Info Visualization

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

Total: 3

Required for
Majors Yes

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 5641 4641 : Digital Commerce and IoT Analytics ~~the Internet of Things~~**

File: 925.11

Last approved: 07/09/18 8:47 am

Last edit: 08/31/20 11:33 am

Changes proposed by: cecq8z

Programs

referencing this

course

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

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

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

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

[ANA&DTA-CT: Bus Analytics & Data Sci 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 01/09/2018

Effective Change

Date

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

Department
Business and Information Technology

Discipline
Info Science & Technology (IS&T)

Course Number **5641** ~~4641~~

Title

(tibbettsmg):
Approved for CCC
Secretary

3. 08/31/20 11:36
am

Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair

History

1. May 2, 2014 by
barryf (925.1)
2. Jun 30, 2014 by
lahne (925.4)
3. Jul 9, 2018 by
barryf (925.5)

Digital Commerce and **IoT Analytics** ~~the Internet of Things~~

Abbreviated Digital Commerce & IoT
Course Title

Catalog

Description

Introduction to methods and concepts of data analytics that provides digital marketers and managers the foundation needed to make decisions or detect patterns based on data from eCommerce websites or from Internet of Things (IoT) devices. Key metrics, process, and challenges will be covered. ~~Introduction to fundamental concepts of management and application to IT and support of commerce. Examines the use of IT in business processes and everyday interactions such as IoT. Explores management issues of integrating IT into processes to run businesses better.~~

Prerequisites

IS&T 1750 and at least Sophomore standing.

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:

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

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

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: 08/31/20 11:34 am

Changes proposed by: cecq8z

Programs
referencing this
course

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

Other Courses
referencing this
course

In The Prerequisites:

- [IS&T 5886 : Prototyping Human-Computer Interactions](#)
- [IS&T 5887 : Human-Computer Interaction Evaluation](#)

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

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

Effective Change

Date

Department

Business and Information Technology

Discipline

Info Science & Technology (IS&T)

Course Number 5885

Title

(tibbettsmg):

Approved for CCC

Secretary

3. 08/31/20 11:36

am

Cecil Eng Huang

Chua (cchua):

Approved for

Social Sciences

DSCC Chair

History

1. Dec 1, 2014 by
barryf (2560.1)

Human-Computer Interaction **and User Experience**

Abbreviated Human-Computer Interact

Course Title

Catalog

Description

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.

Prerequisites

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for
Majors Yes

Elective for
Majors Yes

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 6251 ~~5251~~ : Technological Innovation Management and Leadership**

File: 2412.1

Last edit: 08/27/20 8:43 am

Changes proposed by: cecq8z

Programs
referencing this
course

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

[MGTLEAD-CT: Management and Leadership](#)

[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 **6251 ~~5251~~**

Title
Tech Innovation Mgt

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

(tibbettsmg):
Approved for CCC
Secretary
3. 08/31/20 11:36
am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC Chair

Technological Innovation Management and Leadership
Abbreviated
Course Title

Catalog

Description

The course **covers strategic focuses on the knowledge and skills necessary for the development and implementation of effective strategies for the management of technological innovation and leadership in managing** technology-based organizations. ~~This involves: It focuses on~~ developing a general management perspective **on technology, on technology and** innovation, **industry dynamics examining the problems of new product development, identifying distinctive technological innovation, and new product development. competencies, licensing and marketing technologies, assessing the organizational and industrial context of technology.**

Prerequisites

Senior or Graduate Standing.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for
Majors

No

Elective for
Majors

No

Justification for
change:

Renumbering to provide 9 hrs of 6000 level courses required for MS IST students.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

Key: 2412

[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](#)

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

Business and Information Technology

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 11:36
am

Marita Tibbetts

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

History

1. Feb 9, 2015 by
barryf (75.1)

~~Foundations of~~ Internet Computing **and the Internet of Things**

Abbreviated Internet Computing

Course Title

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 Majors	No			
Elective for Majors	No			

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

Catalog

Description

Prerequisites

Field Trip

Statement

In Workflow

1. RINFSCTE Chair

2. CCC Secretary

3. Social Sciences
DSCC Chair

4. Pending CCC
Agenda post

5. CCC Meeting
Agenda

6. Campus Curricula
Committee Chair

7. FS Meeting
Agenda

8. Faculty Senate
Chair

9. Registrar

10. 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):

Approved for CCC
Secretary
3. 08/31/20 6:28 pm
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC 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: 08/31/20 4:11 pm

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

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 Majors	No			
Elective for Majors	No			

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.

Key: 4731

[Preview Bridge](#)

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: gamezpz

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 RPHILOSOSO 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 RPHILOSOSO 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

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 though 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.

[Preview Bridge](#)

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. RPHILOSOSO 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
RPHILOSOSO Chair

Catalog Description
Prerequisites
Field Trip Statement

2. 07/21/20 9:00 am
Kristy Giacomelli-
Feys (kristyg):
Approved for CCC
Secretary
3. 07/30/20 2:22 pm
Petra Dewitt
(dewittp):
Rollback to
Initiator
4. 09/08/20 7:06 pm
Audra Merfeld-
Langston
(audram):
Approved for
RPHILOSOSO Chair
5. 09/09/20 7:16 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Secretary
6. 09/09/20 8:40 am
Petra Dewitt
(dewittp):
Approved for Arts
& Humanities
DSCC 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.

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

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

Justification for

new course:

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.

Semesters

previously

offered as an

experimental

course

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

Co-Listed

Courses:

Course Reviewer

Comments

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

Key: 4728

[Preview Bridge](#)

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: 06/12/20 12:55 pm

Changes proposed by: burnsde

Requested Fall 2020

Effective Change
Date

Department
Psychological Science

Discipline
Psychology (PSYCH)

Course Number 3340

Title

Abbreviated Assessment of Learning
Course Title

Catalog
Description
Prerequisites
Field Trip
Statement

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):

Approved for CCC
Secretary
3. 08/28/20 6:46 am
Cecil Eng Huang
Chua (cchua):
Approved for
Social Sciences
DSCC 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: prunion

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

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 8:49 am

Viewing: **AI-MI : Minor in Artificial Intelligence and Machine Learning in Business**

File: 253.9

Last approved: 04/19/18 12:27 pm

Last edit: 08/27/20 8:49 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~04/09/2018~~

Program Code

AI-MI

Department

Business and Information Technology

Title

Minor in Artificial Intelligence and Machine Learning in Business

In Workflow

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

Approval Path

1. 08/29/20 11:14 am
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:18 am
Marita Tibbetts (tibbettsmg):
Approved for CCC Secretary
3. 08/31/20 11:24 am
Cecil Eng Huang Chua (cchua):
Approved for Social Sciences DSCC Chair

History

1. Dec 11, 2017 by Barry Flachsbart (barryf)
2. Mar 12, 2018 by Brittany Parnell (ershenb)

Program Requirements and Description

3. Apr 18, 2018 by Brittany Parnell (ershenb)
4. Apr 19, 2018 by Brittany Parnell (ershenb)
5. Apr 19, 2018 by Brittany Parnell (ershenb)

Minor in Artificial Intelligence and Machine Learning in Business

The Minor requires 15 credit hours, as follows:

BUS 5730	Machine Learning and Artificial Intelligence for Business	3
IS&T 5535	Machine Learning Algorithms and Applications	3
IS&T 3420	Introduction to Data Science and Management	3
And two courses from the following list:		
STAT 3111	Statistical Tools For Decision Making	3
IS&T 3333	Data Networks and Information Security	3
IS&T 3343	Systems Analysis	3
IS&T 4450	Introduction to Information Visualization	3
IS&T 5420	Business Analytics and Data Science	3
IS&T 5450	Course IST 5450 Not Found	3
IS&T 5520	Data Science and Machine Learning with Python	3
ERP 5410	Use of Business Intelligence	3
IS&T 5620	Course IST 5620 Not Found	

Justification for request

Strong overlap in machine learning and data science. Update to reflect course renumbering.

Supporting Documents

Course Reviewer Comments

Program Change Request

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

Viewing: **ANA&DTA-MI : Business**

Analytics and Data Science Minor

File: 239.16

Last approved: 09/19/17 10:37 am

Last edit: 08/27/20 8:50 am

Changes proposed by: cecq8z

Catalog Pages Using this Program

[Information Science and Technology](#)

Start Term

Spring 2021 ~~01/09/2018~~

Program Code

ANA&DTA-MI

Department

Business and Information Technology

Title

Business Analytics and Data Science 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
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:18 am
Marita Tibbetts (tibbettsmg): Approved for CCC Secretary
3. 08/31/20 11:24 am
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair

History

1. Mar 17, 2015 by Barry Flachsbar (barryf)
2. Jul 28, 2015 by kleb6b
3. Jul 29, 2015 by pantaleoa

Program Requirements and Description

4. Jul 29, 2015 by pantaleoa
5. Feb 1, 2016 by Barry Flachsbart (barryf)
6. Sep 19, 2017 by Barry Flachsbart (barryf)

Minor in Business Analytics and Data Science

The minor in business analytics and data science requires the following 15 hours of coursework:

IS&T 1750	Introduction to Management Information Systems	3
IS&T 3423	Database Management	3
IS&T 3420	Introduction to Data Science and Management	3
Two courses from the following list:		6
IS&T 4450	Introduction to Information Visualization	
IS&T 5420	Business Analytics and Data Science	
IS&T 5450	Course IST 5450 Not Found	
IS&T 5520	Data Science and Machine Learning with Python	
IS&T 5641	Course IST 5641 Not Found	
IS&T 5620	Course IST 5620 Not Found	
BUS 5730	Machine Learning and Artificial Intelligence for Business	

Justification for request

Adding other analytics courses as options. Course renumbering.

Supporting Documents

Course Reviewer Comments

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: 08/27/20 8:50 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall-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
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:19 am
Marita Tibbetts (tibbettsmg): Approved for CCC Secretary
3. 08/31/20 11:24 am
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair

History

1. Mar 21, 2018 by Barry Flachsbart (barryf)
2. Apr 19, 2018 by Brittany Parnell (ershenb)

Program Requirements and Description

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

Program Change Request

Date Submitted: 08/27/20 8:51 am

Viewing: **CYBERMG-MI : Cybersecurity
Management and Information
Assurance Minor**

File: 247.12

Last approved: 06/26/17 9:25 am

Last edit: 08/27/20 8:51 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~08/14/2017~~

Program Code

CYBERMG-MI

Department

Business and Information Technology

Title

Cybersecurity Management and Information Assurance 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 11:15 am
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:20 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

History

1. Apr 7, 2017 by Barry Flachsbart (barryf)
2. Jun 26, 2017 by Kristy Giacomelli-Feys (kristyg)

Program Requirements and Description

3. Jun 26, 2017 by
Crystal Wilson
(wilsoncry)

Minor in Cybersecurity Management and Information Assurance

This minor requires the following 15 hours of coursework:

The following three courses are required:

BUS 5910	Privacy and Information Security Law	3
IS&T 4780	Human and Organizational Factors in Cybersecurity	3
IS&T 5780	Course IST 5780 Not Found	3
IS&T 3333	Data Networks and Information Security	3

Two of the following ~~three~~ courses must also be taken:

ERP 5240	Enterprise Application Development and Software Security	3
IS&T 4335	Fundamentals of Mobile Technology for Business	3
IS&T 4644	Digital Commerce and the Internet of Things	3
IS&T 5641	Course IST 5641 Not Found	3
IS&T 3420	Introduction to Data Science and Management	3
BUS 5910	Privacy and Information Security Law	3
IS&T 5620	Course IST 5620 Not Found	

Justification for request

There is a data science element in information assurance. Update to reflect course renumbering.

Supporting Documents

Course Reviewer Comments

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: 08/31/20 11:21 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall 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

History

1. Apr 28, 2014 by Barry Flachsbart (barryf)
2. Jan 30, 2015 by Barry Flachsbart (barryf)

Program Requirements and Description

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

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

Program Change Request

Date Submitted: 08/27/20 8:51 am

Viewing: **HCI-MI : Human-Computer Interaction and User Experience Minor**

File: 238.11

Last approved: 02/27/18 10:03 am

Last edit: 08/27/20 8:51 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~05/28/2018~~

Program Code

HCI-MI

Department

Business and Information Technology

Title

Human-Computer Interaction and User Experience 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

History

1. Mar 17, 2015 by Barry Flachsbart (barryf)
2. Jul 28, 2015 by kleb6b
3. Jul 29, 2015 by pantaleoa

Program Requirements and Description

4. May 16, 2016 by pantaleoa
5. Feb 27, 2018 by Barry Flachsbart (barryf)

Minor in Human-Computer Interaction and User Experience

The minor in human-computer interaction and user experience requires the following 15 hours of coursework:

PSYCH 1101	General Psychology	3
IS&T 4654	Web and Digital Media Development	3
IS&T 5885	Human-Computer Interaction	3
And two of the following		6
IS&T 4680	Introduction to Web and New Media Studies	
IS&T 5886	Prototyping Human-Computer Interactions	
IS&T 5887	Human-Computer Interaction Evaluation	
IS&T 5168	Law and Ethics in E-Commerce	

Justification for request

Updated to reflect course renumbering.

Supporting Documents

Course Reviewer Comments

Program Change Request

Date Submitted: 06/01/20 11:15 am

Viewing: **IST-BS : Information Science and Tch BS**

File: 75.32

Last approved: 06/18/18 12:29 pm

Last edit: 06/01/20 11:15 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall 2018~~

Program Code

IST-BS

Department

Business and Information Technology

Title

Information Science and Tch BS

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 11:27 am
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:58 am
Marita Tibbetts (tibbettsmg): Approved for CCC Secretary
3. 08/31/20 12:06 pm
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair

History

1. Apr 28, 2014 by Barry Flachsbart (barryf)
2. Jan 30, 2015 by Barry Flachsbart (barryf)

Program Requirements and Description

3. Jul 21, 2015 by pantaleoa
4. Jul 21, 2015 by pantaleoa
5. Jul 28, 2015 by kleb6b
6. Mar 7, 2016 by Barry Flachsbart (barryf)
7. Apr 21, 2017 by Crystal Wilson (wilsoncry)
8. Jun 18, 2018 by Barry Flachsbart (barryf)

Bachelor of Science Information Science and Technology

In Information Science and Technology, the Bachelor of Science degree consists of 120 credit hours. All undergraduate students in Business and Management Systems are required to complete a General Education Requirements Core, including courses in Humanities, Social Sciences, Mathematics, Science, and Communication Skills.

A common departmental core of courses in Management and Information Technology helps provide students with skills to succeed in a fast-changing and globalized environment. Information Science and Technology (IST) Core courses and IST Electives provide students with comprehensive knowledge of information technology utilization in businesses. These courses include business analytics & data science, database management, systems analysis, introduction to data science and management, computing internals, networks and communications, and electronic and mobile commerce. The electives for this degree consist of advanced coursework in the areas introduced by the required courses.

A minimum grade of "C" is required in the IST Core, IST Electives, Management, and Information Technology courses. Students have 9 credit hours for free electives.

Freshman Year			
First Semester	Credits	Second Semester	Credits
BUS 1810 ¹	1	PSYCH 1101	3
ENGLISH 1120	3	MATH 1212	4
MATH 1140 ⁵	3	IS&T 1561	3
Science Elective ²	3	BUS 1110	3
IS&T 1750	3	BUS 1210	3
Laboratory w/Science Elective	1		
	14		16

Sophomore Year			
First Semester	Credits	Second Semester	Credits
ECON 1200	3	IS&T 3131	3
SP&M S 1185	3	Science Elective ²	3
IS&T 1562	3	IS&T Elective ⁴	3
ENGLISH 1600 or TCH COM 1600 ⁶	3	STAT 3111	3
ERP 2110	3	ECON 1100	3
	15		15
Junior Year			
First Semester	Credits	Second Semester	Credits
IS&T 4654	3	IS&T 3343	3
FINANCE 2150	3	MKT 3110	3
IS&T 3423	3	IS&T 3420	3
IS&T 3333	3	IS&T 4641	3
IS&T Elective ⁴	3	ENGLISH 2560 or TCH COM 2560	3
	15		15
Senior Year			
First Semester	Credits	Second Semester	Credits
Free Elective	3	BUS 5980	3
Fine Art, Social Science, or Humanities Elective ³	3	POL SCI 1200	3
IS&T Electives ⁴	6	IS&T Elective ⁴	3
History Elective	3	Free Electives	6
	15		15
Total Credits: 120			

A grade of "C" or better is required in the following courses for graduation; [BUS 1110](#) , [BUS 1210](#) , [BUS 1810](#) , [BUS 5980](#) , [ECON 1100](#) , [ECON 1200](#) , [ERP 2110](#) , [FINANCE 2150](#) , [MKT 3110](#), [IS&T 1561](#), [IS&T 1562](#) , [IS&T 1750](#) , [IS&T 3131](#) , [IS&T 3333](#) , [IS&T 3343](#) , [IS&T 3420](#) , [IS&T 3423](#), [IS&T 4641](#), [IS&T 4654](#), and all IS&T Electives.

1	Writing intensive course
2	Any course in the following areas: biology, chemistry, geology, geological engineering, physics.
3	Any course in the following areas not used for other degree requirements: art, economics, English, foreign language, history, literature, music, philosophy, political science, psychology, sociology, theater.
4	<p>A grade of "C" or better is required in IS&T elective courses for graduation. Electives may be</p> <ul style="list-style-type: none"> • any IS&T or ERP designated course at the 3000-level or above • BUS 5730, • BUS 5910 • COMP SCI 4700

• or [COMP SCI 5601](#).

5 [MATH 1120](#) may be substituted for [MATH 1140](#).

6 **ENGLISH 1160 may be substituted for ENGLISH 1600**

Justification for request

Compatibility with AI and Cybersecurity minors

Supporting Documents

Course Reviewer Comments

Key: 75

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: 08/27/20 8:49 am

Changes proposed by: cecq8z

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

Start Term

Spring 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 (tibbetmsg): Approved for CCC Secretary
4. 08/31/20 11:25 am
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair

History

1. Apr 28, 2014 by
Barry Flachsbart (barryf)

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.

Program Change Request

Date Submitted: 08/27/20 8:52 am

Viewing: **MOBLB&T-MI : Mobile Bus & Digital Transformation ~~Tech Minor~~**

File: 101.7

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

Last edit: 08/31/20 11:23 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~08/17/2015~~

Program Code

MOBLB&T-MI

Department

Business and Information Technology

Title

Mobile Bus & **Digital Transformation** ~~Tech 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 11:30 am
siauk: Approved for RINFSCTE Chair
2. 08/31/20 11:23 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

History

1. Aug 5, 2014 by pantaleoa
2. Jun 17, 2015 by pantaleoa
3. Jul 14, 2015 by pantaleoa

Program Requirements and Description

Minor in Mobile Business and Digital Transformation Technology

The minor in mobile business and technology requires the following 15 hours of coursework:

IS&T 4644	Digital Commerce and the Internet of Things	3
IS&T 4335	Fundamentals of Mobile Technology for Business	3
Two or three of the following courses must be taken:		
IS&T 5641	Course IST 5641 Not Found	
IS&T 4654	Web and Digital Media Development (Two or three of the following courses must be taken:)	
IS&T 5335	Course IST 5335 Not Found	
ERP 5240	Enterprise Application Development and Software Security	
Two or three of the following courses must be taken:		6
BUS 1414	Course BUS 1414 Not Found	
IS&T 3333	Data Networks and Information Security	
IS&T 5652	Advanced Web Development	
IS&T 5886	Prototyping Human-Computer Interactions	
ERP 4610	Customer Relationship Management in ERP Environment	
ERP 5310	Supply Chain Management Systems in an ERP Environment	
ERP 5210	Performance Dashboard, Scorecard and Data Visualization	
IS&T 5168	Law and Ethics in E-Commerce	
IS&T 4680	Introduction to Web and New Media Studies	
MKT 5310	Digital Marketing and Promotions	

Justification for request

Provides more flexibility for students to take relevant electives. AACSB requirements.

Supporting Documents

Course Reviewer Comments

tibbetmsg (08/31/20 11:23 am): updated term to Sp21-mt

Program Change Request

New Program Proposal

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

Viewing: **PROPOSED : Human Factors Psychology**

File: 363

Last edit: 08/27/20 1:08 pm

Changes proposed by: burnsde

Start Term

Spring 2021

Program Code

PROPOSED

Department

Psychological Science

Title

Human Factors Psychology

Program Requirements and Description

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

- 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

Program Change Request

Date Submitted: 08/27/20 8:45 am

Viewing: **AI-CT : AI, Mach Lrn & Auto for
Bus CT**

File: 292.6

Last approved: 07/01/20 1:37 pm

Last edit: 08/27/20 8:45 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall 2020~~

Program Code

AI-CT

Department

Business and Information Technology

Title

AI, Mach Lrn & Auto for Bus 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. Kristy Giacomelli-
Feys

Approval Path

1. 08/29/20 11:11 am
siau: Approved for
RINFSCTE Chair
2. 08/31/20 11:17 am
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Secretary
3. 08/31/20 11:24 am
Cecil Eng Huang
Chua (cchua):
Approved for Social
Sciences DSCC
Chair

History

1. Jun 12, 2019 by
Brittany Parnell
(ershenb)
2. Jul 1, 2020 by Cecil
Eng Huang Chua
(cchua)

Program Requirements and Description

AI, Machine Learning and Automation in Business

Artificial Intelligence is a disruptive technology in the business realm with transformational impact. From detecting malware and preventing money laundering to automating insurance claims and optimizing inventory and improving product recommendations and more, AI will continue to necessitate changes in core business processes and models. Within the past few years, machine learning, while not fully tapped in the business sphere, has become more effective and widely utilized. Tomorrow's leaders and managers will need to integrate machine learning where appropriate, incorporating its capabilities with those of humans. The design and implementation of new combinations of technologies with human skills to meet customers' needs will require critical thinking skills, creativity, and project planning.

Required Core Courses:	
<u>BUS 5730</u>	Machine Learning and Artificial Intelligence for Business
<u>IS&T 5535</u>	Machine Learning Algorithms and Applications
Elective courses (choose two):	
<u>IS&T 5420</u>	Business Analytics and Data Science
<u>IS&T 5520</u>	Data Science and Machine Learning with Python
<u>IS&T 6443</u>	Information Retrieval and Analysis
<u>IS&T 5445</u>	Course IST 5445 Not Found
<u>BUS 6723</u>	Artificial Intelligence, Robotics, and Information Systems Management
<u>ERP 6220</u>	Data Modeling & Visualization Prototyping for Enterprise Decision Dashboards
<u>IS&T 5620</u>	Course IST 5620 Not Found

~~A student admitted to this graduate certificate must complete four courses: Required Courses: BUS 5730 Machine Learning and Artificial Intelligence for Business IS&T 5535 Machine Learning Algorithms and Applications Elective Courses (choose two): BUS 6723 Artificial Intelligence, Robotics, and Information Systems IS&T 5520 Data Science and Machine Learning with Python IS&T 6443 Information Retrieval and Analysis IS&T 6445 Database Marketing IST6450: Information Visualization ERP5410: Use of Business Intelligence~~

Justification for request
Added data science courses to the elective mix.
Supporting Documents
Course Reviewer Comments

Program Change Request

Date Submitted: 08/27/20 8:45 am

Viewing: **ANA&DTA-CT : Bus Analytics & Data Sci CT**

File: 293.2

Last approved: 06/12/19 10:03 am

Last edit: 08/27/20 8:45 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall 2019~~

Program Code

ANA&DTA-CT

Department

Business and Information Technology

Title

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. Kristy Giacomelli-Feys

Approval Path

1. 04/20/20 9:14 pm
siauk: Rollback to Initiator
2. 08/29/20 11:13 am
siauk: Approved for RINFSCTE Chair
3. 08/31/20 11:58 am
Marita Tibbetts (tibbetmsg):
Approved for CCC Secretary
4. 08/31/20 12:06 pm
Cecil Eng Huang Chua (cchua):
Approved for Social Sciences DSCC Chair

History

1. Jun 12, 2019 by
Brittany Parnell (ershenb)

Program Requirements and Description

Business Analytics and Data Science

Data analytics facilitates realization of objectives by identifying trends, creating predictive models for forecasting, and optimizing business processes for enhanced performance. Three main categories of analytics are:

- Descriptive - the use of data to find out what happened in the past.
- Predictive - the use of data to find out what could happen in the future.
- Prescriptive - the use of data to prescribe the best course of action for the future.

Big data is an emerging phenomenon. Computing systems today are generating 15 petabytes of new information every day—eight times more than the combined information in all the libraries in the U.S.; about 80% of the data generated every day is textual and unstructured data.

This graduate certificate is one of three graduate certificates offered by cooperating departments at Missouri S&T to fulfill the needs in the area described as "big data." The other two graduate certificates are:

- Big Data and Security
- Big Data Management and Analytics

Required Core Courses:	
<u>IS&T 5420</u>	Business Analytics and Data Science
<u>IS&T 5450</u>	Course IST 5450 Not Found
One course from the following:	
<u>BUS 5730</u>	Machine Learning and Artificial Intelligence for Business
<u>IS&T 5520</u>	Data Science and Machine Learning with Python
<u>ERP 5410</u>	Use of Business Intelligence
<u>COMP SCI 5204</u>	Regression Analysis
<u>COMP SCI 5402</u>	Introduction to Data Mining
<u>COMP SCI 6304</u>	Cloud Computing and Big Data Management
<u>COMP ENG 6330</u>	Clustering Algorithms
<u>STAT 5814</u>	Applied Time Series Analysis
One course from the following:	
<u>IS&T 5445</u>	Course IST 5445 Not Found
<u>IS&T 5535</u>	Machine Learning Algorithms and Applications
<u>IS&T 5641</u>	Course IST 5641 Not Found
<u>IS&T 6443</u>	Information Retrieval and Analysis
<u>IS&T 6444</u>	Essentials of Data Warehouses
<u>IS&T 6448</u>	Building the Data Warehouse

<u>IS&T 6887</u>	Research Methods in Business and IS&T
<u>ERP 5210</u>	Performance Dashboard, Scorecard and Data Visualization
<u>ERP 6610</u>	Advanced Customer Relationship Management in ERP Environment
<u>ERP 6220</u>	Data Modeling & Visualization Prototyping for Enterprise Decision Dashboards
<u>BUS 6425</u>	Supply Chain and Project Management
IS&T 5620	Course IST 5620 Not Found

A student admitted to this graduate certificate must complete four courses:

IS&T 5420	Business Analytics and Data Science
IS&T 6450	Information Visualization
One course from the following:	
IS&T 5001	Special Topics (Data Methodologies Using Python)
ERP 5410	Use of Business Intelligence
COMP SCI 5204	Regression Analysis
COMP SCI 5402	Introduction to Data Mining
COMP SCI 6304	Cloud Computing and Big Data Management
COMP ENG 6330	Clustering Algorithms
STAT 5814	Applied Time Series Analysis
One course from the following:	
IS&T 6443	Information Retrieval and Analysis
IS&T 6444	Essentials of Data Warehouses
IS&T 6445	Database Marketing
IS&T 6448	Building the Data Warehouse
IS&T 6887	Research Methods in Business and IS&T
ERP 5210	Performance Dashboard, Scorecard and Data Visualization
ERP 6610	Advanced Customer Relationship Management in ERP Environment
ERP 6220	Data Modeling & Visualization Prototyping for Enterprise Decision Dashboards
BUS 6425	Supply Chain and Project Management

Justification for request

Course number has changed. Added various analytics and business intelligence courses to the mix.

Supporting Documents

Course Reviewer Comments

si auk (04/20/20 9:14 pm): Rollback: Is IST 6443 supposed to be in the third block?

Program Change Request

Date Submitted: 08/27/20 8:46 am

Viewing: **CYBERMG-CT : Cyber Mgmt & Info Assurance CT**

File: 295.2

Last approved: 06/12/19 11:51 am

Last edit: 08/31/20 11:52 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall 2019~~

Program Code

CYBERMG-CT

Department

Business and Information Technology

Title

Cyber Mgmt & Info Assurance CT

Program Requirements and Description

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 11:15 am
siau: Approved for RINFSCTE Chair
2. 08/31/20 11:59 am
Marita Tibbetts (tibbettsmg): Approved for CCC Secretary
3. 08/31/20 12:06 pm
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair

History

1. Jun 12, 2019 by
Brittany Parnell (ershenb)

Cybersecurity and Information Assurance Management

Cybersecurity is one of the fastest growing employment segments in IT. As technology grows and progresses, with our devices and lives becoming more and more interconnected, the challenges of cybersecurity and information assurance will continue to grow. This presents a career to those with the necessary skills that will be exciting, rewarding, fast-paced, and highly sought after.

A student admitted to this graduate certificate must complete four courses:

Required core courses:	
BUS 5910	Privacy and Information Security Law
IS&T 6780	Adv Human and Organizational Factors in Cybersecurity
IS&T 5780	Course IST 5780 Not Found
Two courses from the following list:	
IS&T 5335	Course IST 5335 Not Found
IS&T 5520	Data Science and Machine Learning with Python
IS&T 5641	Course IST 5641 Not Found
ERP 5240	Enterprise Application Development and Software Security
IS&T 6335	Mobile Technology for Business
IS&T 6336	Foundations of Internet Computing
IS&T 6644	Advanced Digital Commerce and the Internet of Things
IS&T 5620	Course IST 5620 Not Found

Justification for request

Course numbering change. Added course with information assurance component to elective mix.

Supporting Documents

Course Reviewer Comments

tibbettsmg (08/31/20 11:52 am): updated term to Sp21-mt

Program Change Request

Date Submitted: 08/27/20 8:48 am

Viewing: **DIGITMD-CT : Digital Media & Web Design CT**

File: 296.2

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

Last edit: 08/27/20 8:48 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall 2019~~

Program Code

DIGITMD-CT

Department

Business and Information Technology

Title

Digital Media & Web Design CT

Program Requirements and Description

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 11:16 am
siau: Approved for RINFSCTE Chair
2. 08/31/20 11:59 am
Marita Tibbetts (tibbettsmg): Approved for CCC Secretary
3. 08/31/20 12:06 pm
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair

History

1. Jun 12, 2019 by
Brittany Parnell (ershenb)

Digital Media and Web Design

Digital media is growing as consumers change the way they access information. In pursuing this certificate, students will acquire the skills and knowledge to create, design and analyze digital media. The focus will be on the media itself, the social/digital network that connects these media, the interfaces that connect these media with users, and the application of these skills in business and other creative contexts. Thus this certificate program will address the pressing demand and opportunities for graduates with advanced knowledge and skills in areas such as networked communication and marketing, web-based media creation and design, and methods for designing and building effective human-media interfaces.

A student admitted to this graduate certificate must complete four courses:

Required core course:	
IS&T 6654	Advanced Web and Digital Media Development
Two courses from the following list:	
IS&T 5885	Human-Computer Interaction
IS&T 6680	Advanced Web and New Media Studies
MKT 5310	Digital Marketing and Promotions
One course from the following:	
IS&T 5652	Advanced Web Development
IS&T 5886	Prototyping Human-Computer Interactions
IS&T 5168	Law and Ethics in E-Commerce

Justification for request

Added HCI course to the electives.

Supporting Documents

Course Reviewer Comments

Program Change Request

Date Submitted: 08/27/20 8:47 am

Viewing: **E&S COM-CT : Elec & Social
Commerce CT**

File: 298.2

Last approved: 06/12/19 12:17 pm

Last edit: 08/27/20 8:47 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall 2019~~

Program Code

E&S COM-CT

Department

Business and Information Technology

Title

Elec & Social Commerce CT

Program Requirements and Description

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 11:18 am
siauk: Approved for
RINFSCTE Chair
2. 08/31/20 12:03 pm
Marita Tibbetts
(tibbettsmg):
Approved for CCC
Secretary
3. 08/31/20 12:06 pm
Cecil Eng Huang
Chua (cchua):
Approved for Social
Sciences DSCC
Chair

History

1. Jun 12, 2019 by
Brittany Parnell
(ershenb)

Electronic and Social Commerce

Social commerce is just one sub-set of e-commerce, however it is growing rapidly. The department of business and information technology (BIT) has leveraged its' strengths in both business and technology for this program, which is designed to create successful students by developing skills in technological business practices that will provide opportunities for succeeding in today's fast paced world. To that end, the program focuses on the following competencies:

- Management concepts applied to IT
- Management concepts applied to support of electronic commerce
- Use of business processes in IT integration
- Competitive advantage through IT
- Electronic commerce through collaborative shopping

A student admitted to this graduate certificate must complete four courses:

IS&T 6641	Advanced Digital Commerce and the Internet of Things
Required core courses:	
IS&T 5251	Technological Innovation Management and Leadership
IS&T 5641	Course IST 5641 Not Found
Core Courses (choose one or two):	
IS&T 6251	Course IST 6251 Not Found
BUS 6723	Artificial Intelligence, Robotics, and Information Systems Management
Elective courses (choose one or two):	
IS&T 5168/PHILOS 4368	Law and Ethics in E-Commerce
IS&T 5335	Course IST 5335 Not Found
IS&T 5445	Course IST 5445 Not Found
IS&T 5652	Advanced Web Development
IS&T 5885	Human-Computer Interaction
IS&T 5886	Prototyping Human-Computer Interactions
IS&T 6335	Mobile Technology for Business
IS&T 6445	Database Marketing
IS&T 6680	Advanced Web and New Media Studies
MKT 5310	Digital Marketing and Promotions
MKT 6580	Advanced Marketing Strategy

Justification for request
 Course renumbering
 Supporting Documents

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: 07/22/20 12:48 pm

Changes proposed by: cornss

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

Start Term

Spring 2021 ~~Fall 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 (kristyg): Approved for CCC Secretary
4. 09/02/20 12:22 pm
Stephen Raper (sraper): Approved for Engineering DSCC Chair

Program Requirements and Description

History

1. 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
ENG MGT 6211	Advanced Financial Management

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

Program Change Request

Date Submitted: 08/27/20 8:47 am

Viewing: **HCI-CT : Human Computer Interaction CT**

File: 300.2

Last approved: 06/12/19 3:37 pm

Last edit: 08/27/20 8:47 am

Changes proposed by: cecq8z

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

Start Term

Spring 2021 ~~Fall 2019~~

Program Code

HCI-CT

Department

Business and Information Technology

Title

Human Computer Interaction CT

Program Requirements and Description

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 12:04 pm
Marita Tibbetts (tibbettsmg): Approved for CCC Secretary
3. 08/31/20 12:06 pm
Cecil Eng Huang Chua (cchua): Approved for Social Sciences DSCC Chair

History

1. Jun 12, 2019 by
Brittany Parnell (ershenb)

Human-Computer Interaction and User Experience

There is a growing demand within industry for workers with expertise in human-computer interaction (HCI), who generally hold titles such as interface designer; usability researcher analyst; usability engineer; user experience specialist; or information architect. HCI specialists bridge the gap in organizations between groups who build the technologies and groups who use the technologies. The qualifications for these positions generally fall into the following categories:

- Knowledge of human-computer interaction principles
- Skills in collecting user requirements
- Skills in developing prototypes, both low fidelity (e.g., paper) and high fidelity (e.g., html mock-up)
- Skills in evaluation of the impact of technologies on humans

A student admitted to this graduate certificate must complete four courses:

Required core courses:	
IS&T 5885	Human-Computer Interaction
IS&T 5886	Prototyping Human-Computer Interactions
IS&T 5887	Human-Computer Interaction Evaluation
One course from the following:	
IS&T 6680	Advanced Web and New Media Studies
IS&T 6887	Research Methods in Business and IS&T
IS&T 5168	Law and Ethics in E-Commerce

Justification for request
Course renumbering
Supporting Documents
Course Reviewer Comments

Program Change Request

Date Submitted: 08/27/20 8:48 am

Viewing: **MGTLEAD-CT : Management and Leadership**

File: 291.5

Last approved: 07/01/20 1:39 pm

Last edit: 08/27/20 8:48 am

Changes proposed by: cecq8z

Catalog Pages Using this Program
[Business Administration](#)

Start Term

Spring 2021 ~~Fall 2020~~

Program Code

MGTLEAD-CT

Department

Business and Information Technology

Title

Management and Leadership

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 11:28 am
siau: Approved for RINFSCTE Chair
2. 08/31/20 12:05 pm
Marita Tibbetts (tibbetmsg):
Approved for CCC Secretary
3. 08/31/20 12:06 pm
Cecil Eng Huang Chua (cchua):
Approved for Social Sciences DSCC Chair

History

1. Jun 12, 2019 by
Brittany Parnell (ershenb)
2. Jul 1, 2020 by Cecil
Eng Huang Chua (cchua)

Program Requirements and Description

Management and Leadership

This certificate is designed to prepare students to be the leaders of the future, by enabling them to manage through the use of technology. Understanding technology is becoming ever more critical in business as a tool used by efficient and effective managers. These leaders not only understand the managerial process and how to inspire others, but also know how to harness technology to expedite the process. The certificate incorporates management theories, technological savvy, and leadership skills to create a student who is ready for the challenges of a fast paced managerial position.

A student admitted to this graduate certificate must complete four courses:

Required Core Course:	
<u>BUS 6121</u>	Teambuilding and Leadership
Elective courses (choose three):	
<u>BUS 5580</u>	Strategic Management
<u>BUS 5111</u>	Course BUS 5111 Not Found
<u>BUS 5470</u>	Human Resource Management
<u>BUS 6425</u>	Supply Chain and Project Management
<u>BUS 6723</u>	Artificial Intelligence, Robotics, and Information Systems Management
<u>IS&T 6251</u>	Course IST 6251 Not Found
<u>IS&T 6261</u>	Advanced Information Systems Project Management
<u>IS&T 5168</u>	Law and Ethics in E-Commerce
<u>MKT 5150</u>	Course MKT 5150 Not Found
<u>ENG MGT 5320</u>	Project Management

~~Required Core Course: BUS 6121 Team-building and Leadership~~
~~Elective Courses (Choose Three): BUS 5580: Strategic Management | IST 5251 Technological Innovation Mgmt and Leadership | IST 6261: Advanced Information Systems Project Management | IST/PHILOS 5168 – Law and Ethics in E-Commerce | BUS 6111 – Business Negotiations | MKT 6150 – Advanced Customer Focus and Satisfaction | BUS 5470 – Human Resource Management | EMGT 5320 – Project Management | BUS 6425 – Supply Chain and Project Management | BUS 6723 – Artificial Intelligence, Robotics, and Information Systems Management~~

Justification for request
Course renumbering. Expansion of elective offerings.
Supporting Documents
Course Reviewer Comments

Program Change Request

New Program Proposal

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

Viewing: **PROPOSED : Mine Reclamation CT**

File: 360

Last edit: 09/01/20 3:56 pm

Changes proposed by: kabp3

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

Program Requirements and Description

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 (kristyg):
Approved for CCC Secretary
3. 09/02/20 12:22 pm
Stephen Raper (sraper): Approved for Engineering DSCC 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

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

Program Change Request

New Program Proposal

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

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

File: 361

Last edit: 09/01/20 3:56 pm

Changes proposed by: kabp3

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

Program Requirements and Description

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 (kristyg):
Approved for CCC Secretary
3. 09/02/20 12:22 pm
Stephen Raper (sraper): Approved for Engineering DSCC 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.

Program Change Request

New Program Proposal

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

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

File: 362

Last edit: 09/01/20 3:57 pm

Changes proposed by: kabp3

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

Program Requirements and Description

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 (kristyg):
Approved for CCC Secretary
3. 09/02/20 12:23 pm
Stephen Raper (sraper): Approved for Engineering DSCC 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.

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: 09/08/20 3:04 pm

Changes proposed by: gamezpz

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

Program Requirements and Description

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 7:47 am
Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC 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

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: 09/08/20 3:27 pm

Changes proposed by: gamezpz

Start Term

Spring 2021

Program Code

PROPOSED

Department

Arts, Languages, & Philosophy

Title

UCT - PROFESSIONAL ETHICS AND MORAL REASONING

Program Requirements and Description

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

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

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

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

Key: 4735

[Preview Bridge](#)

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

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

Key: 4730

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 05/04/20 12:25 am

Viewing: **COMP SCI 5001.008 : Computer Science BootCamp Part 1**

File: 4709

Last edit: 08/03/20 9:27 am

Changes proposed by: zhupe

Requested Fall 2020

Effective Change
Date

Department
Computer Science

Discipline
Computer Science (COMP SCI)

Course Number 5001

Topic ID 008

Experimental
Title

Experimental CS BootCamp 1

Abbreviated
Course Title

Instructors
Ricardo Morales

In Workflow

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

Approval Path

1. 05/04/20 8:08 am
Bruce McMillin
(ff): Approved for RCOMPSCI Chair
2. 06/09/20 3:13 pm
Kristy Giacomelli-Feys (kristygf): Approved for CCC Secretary
3. 07/23/20 9:15 am
Stephen Raper (sraper):
Approved for

Engineering DSCC
Chair
4. 08/03/20 9:27 am
Kristy Giacomelli-
Feys (kristyg):
Approved for
Pending CCC
Agenda post

Computer Science BootCamp Part 1

Experimental

Catalog

Description

This non-credit course prepares the non-computer science engineers or natural science educated students, with no computing background, for the pathway to a Master in Computer Science at Missouri S&T. Topics covered include Problem Solving with Computing with Python, Discrete Mathematics, The C++ Programming Language, and Data Structures.

Prerequisites

None

Field Trip

Statement

None

Credit Hours

LEC: 0

LAB: 0

IND: 0

RSD: 0

Total: 0

Justification for
new course:

Many of the incoming and prospective graduate students in Computer Science do not have a Computer Science background. This course will prepare them with the necessary background knowledge to make a successful transition to a graduate degree in Computer Science.

Semester(s)
previously taught
None

Co-Listed

Courses:

Course Reviewer

Comments

kristyg (06/09/20 3:13 pm): This was submitted too late for Sumerr 2020 deadline.

Key: 4709

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 05/04/20 12:26 am

Viewing: **COMP SCI 5001.009 : Computer Science BootCamp Part 2**

File: 4710

Last edit: 08/03/20 9:28 am

Changes proposed by: zhupe

Requested Fall 2020

Effective Change
Date

Department
Computer Science

Discipline
Computer Science (COMP SCI)

Course Number 5001

Topic ID 009

Experimental
Title

Experimental CS BootCamp 2

Abbreviated
Course Title

Instructors
Ricardo Morales

In Workflow

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

Approval Path

1. 05/04/20 8:09 am
Bruce McMillin
(ff): Approved for RCOMPSCI Chair
2. 06/09/20 3:14 pm
Kristy Giacomelli-Feys (kristygf): Approved for CCC Secretary
3. 07/23/20 9:15 am
Stephen Raper (sraper):
Approved for

Engineering DSCC
Chair
4. 08/03/20 9:28 am
Kristy Giacomelli-
Feys (kristyg):
Approved for
Pending CCC
Agenda post

Computer Science BootCamp Part 2

Experimental

Catalog

Description

This non-credit course prepares the non-computer science engineers or natural science educated students, with no computing background, for the pathway to a Master in Computer Science at Missouri S&T. Topics covered include Algorithms, Computer Architecture, Operating Systems and Databases.

Prerequisites

Computer Science BootCamp Part 1.

Field Trip

Statement

None

Credit Hours

LEC: 0

LAB: 0

IND: 0

RSD: 0

Total: 0

Justification for

new course:

Many of the incoming and prospective graduate students in Computer Science do not have a Computer Science background. This course will prepare them with the necessary background knowledge to make a successful transition to a graduate degree in Computer Science.

Semester(s)
previously taught
None

Co-Listed

Courses:

Course Reviewer
Comments

Key: 4710

[Preview Bridge](#)