

Campus Curricula Committee Meeting Agenda

October 24, 2023

8:15am - 9:30am, Parker Hall 203

(For Faculty Senate Meeting of November 16, 2023)

Review of submitted Course Change forms:

File: 4280.11 CHEM ENG 3101 : Fundamentals of Transport in Chemical and Biochemical Engineering
File: 4279.31 CHEM ENG 3111 : Numerical Computing in Chemical and Biochemical Engineering
File: 1038.14 CHEM ENG 3150 : Chemical Engineering Reactor Design
File: 792.12 CHEM ENG 4130 : Chemical Engineering Laboratory II
File: 5001 CHEM ENG 5335 : Introduction to Process Intensification
File: 1627.7 COMP ENG 3150 : Introduction to Microcontrollers and Embedded System Design
File: 2451.4 COMP ENG 6510 : Resilient Networks
File: 924.1 MATH 1120 : College Algebra

Review of submitted Program Change forms:

File: 232.11 MIL AIR-MI : Military Aerospace Studies Minor

Review of submitted Experimental Course forms:

File: 5002 COMP SCI 5001.015 : Natural Language Processing
File: 5003 MATH 6001.009 : Fixed Income Models

New Business:

Discuss minor policy.

Graduate Oral Examination Fee.

Summer registration date moved to October 30, 2023, CCC calendar update.

Course Change Request

Date Submitted: 09/01/23 8:22 am

Viewing: **CHEM ENG 3101 : Fundamentals of Transport in Chemical and Biochemical Engineering**

File: 4280.11

Last approved: 06/16/22 6:01 am

Last edit: 09/07/23 10:03 am

Changes proposed by: luksc

Programs referencing this course	CH ENG-BS: Chemical Engineering BS EV ENG-BS: Environmental Engineering BS
Other Courses referencing this course	<u>In The Prerequisites:</u> CHEM ENG 3131 : Separations in Chemical and Biochemical Engineering CHEM ENG 3141 : Process Operations in Chemical and Biochemical Engineering CHEM ENG 3150 : Chemical Engineering Reactor Design CHEM ENG 5100 : Intermediate Transport Phenomena CHEM ENG 5340 : Principles of Environmental Monitoring NUC ENG 4257 : Two-phase Flow in Energy Systems - I

Requested [Fall 2024](#) ~~Spring 2023~~

Effective Change Date

Department Chemical and Biochemical Engineering

Discipline Chemical Engineering (CHEM ENG)

Course Number 3101

Title
Fundamentals of Transport in Chemical and Biochemical Engineering

Abbreviated Course Title
Transport Phenomena

Catalog

In Workflow

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

Approval Path

1. 09/07/23 8:50 am
Hu Yang (hy57v):
Approved for RCHEMENG Chair
2. 09/07/23 10:14 am
Jennifer Pohlsander (jpnfd): Approved for CCC Secretary
3. 09/13/23 10:46 pm
Mark Fitch (mfitch):
Approved for Engineering DSCC

Description

This course covers the fundamentals of momentum, energy, and mass transport. Phenomenological mechanisms of molecular transport, fluid static, analysis of a fluid in motion laminar and turbulent flow are covered. The general differential equations for momentum, energy and mass transfer are presented and solved for a variety of chemical engineering problems.

Prerequisites

A grade of "C" or better in Math [2222, Math](#) 3304 and Chem Eng 2110.

Field Trip

Statement

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

Required for Majors	Yes
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Elective for Majors	No
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Justification for change: At faculty retreat we reviewed our prerequisites for all courses to be sure they were in alignment with current practices. Since students are able to take or transfer in Math 3304 without Math 2222, the Calculus III course needed to be added.

Semesters previously offered as an experimental course

Co-Listed Courses:

Course Reviewer **jpnfd (09/07/23 10:03 am):** Updated effective date.
Comments

Chair

4. 10/09/23 3:31 pm
Jennifer Pohlsander
(jpnfd): Approved for Pending CCC Agenda post

History

1. May 24, 2016 by Daniel Forciniti (forciniti)
2. Jun 16, 2022 by luksc (4280.9)

Key: 4280

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/01/23 8:23 am

Viewing: **CHEM ENG 3111 : Numerical Computing in Chemical and Biochemical Engineering**

File: 4279.31

Last approved: 06/16/22 6:01 am

Last edit: 09/08/23 7:16 am

Changes proposed by: luksc

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

Other Courses
referencing this
course In The Prerequisites: [CHEM ENG 3131 : Separations in Chemical and Biochemical Engineering](#)
[CHEM ENG 3150 : Chemical Engineering Reactor Design](#)
[CHEM ENG 6180 : Advanced Applications of Computational Fluid Dynamics](#)

Requested [Fall 2024](#) ~~Spring 2023~~
Effective Change
Date

Department Chemical and Biochemical Engineering

Discipline Chemical Engineering (CHEM ENG)

Course Number 3111

Title
Numerical Computing in Chemical and Biochemical Engineering

Abbreviated
Course Title Numerical Computing

Catalog
Description
Students will add to their programming skills by exploring numerical computational techniques for solving and analyzing algebraic and calculus-based equations and

In Workflow

1. **RCHEMENG Chair**
2. **CCC Secretary**
3. **Engineering DSCC Chair**
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7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 09/07/23 8:50 am
Hu Yang (hy57v):
Approved for
RCHEMENG Chair
2. 09/08/23 7:21 am
Jennifer
Pohlsander
(jpnfd): Approved
for CCC Secretary
3. 09/13/23 10:45
pm
Mark Fitch
(mfitch):
Approved for
Engineering DSCC
Chair

systems of equations that describe chemical engineering processes.

Prerequisites

A grade of "C" or better in Math [2222 and Math](#) 3304. Comp Sci 1500, or both Comp Sci 1570 and Comp Sci 1580, or both Comp Sci 1971 and Comp Sci 1981, or both Comp Sci 1972 and Comp Sci 1982; preceded or accompanied by Chem Eng 2100.

Field Trip

Statement

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

Required for Majors	Yes
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Elective for Majors	No
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Justification for change:

At faculty retreat we reviewed our prerequisites for all courses to be sure they were in alignment with current practices. Since students are able to take or transfer in Math 3304 without Math 2222, the Calculus III course needed to be added.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer **jpnfd (09/07/23 10:04 am):** Updated effective date.

Comments **jpnfd (09/08/23 7:16 am):** Updated prerequisite to "A grade of "C" or better in Math 2222 and Math 3304," per dept email 9/7/23.

4. 10/09/23 3:31 pm
Jennifer
Pohlsander
(jpnfd): Approved
for Pending CCC
Agenda post

History

1. Jan 24, 2017 by
Daniel Forciniti
(forciniti)
2. Mar 6, 2017 by
kristyg (4279.14)
3. Feb 18, 2019 by
jcwang (4279.17)
4. Nov 4, 2019 by
jcwang (4279.21)
5. Oct 19, 2020 by
luksc (4279.22)
6. May 3, 2021 by
luksc (4279.25)
7. Jun 16, 2022 by
luksc (4279.27)

Key: 4279

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/01/23 8:26 am

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

File: 1038.14

Last approved: 06/16/22 6:01 am

Last edit: 09/07/23 10:04 am

Changes proposed by: luksc

Programs
referencing this
course

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

Other Courses
referencing this
course

In The Prerequisites:

[CHEM ENG 4091 : Chemical Process Design I](#)
[CHEM ENG 4097 : Chemical Process Design II](#)
[CHEM ENG 4110 : Chemical Engineering Process Dynamics And Control](#)
[CHEM ENG 4130 : Chemical Engineering Laboratory II](#)
[CHEM ENG 4140 : Chemical Process Safety](#)
[CHEM ENG 4210 : Biochemical Reactors](#)
[CHEM ENG 4241 : Process Safety in the Chemical and Biochemical Industries](#)
[CHEM ENG 5110 : Intermediate Chemical Reactor Design](#)
[CHEM ENG 5210 : Intermediate Biochemical Reactors](#)
[CHEM ENG 5325 : Carbon Capture Process Engineering](#)

Requested
Effective Change
Date

Fall ~~2022~~ 2024

Department

Chemical and Biochemical Engineering

Discipline

Chemical Engineering (CHEM ENG)

Course Number

3150

Title

Chemical Engineering Reactor Design

In Workflow

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

Approval Path

1. 09/07/23 8:50 am
Hu Yang (hy57v):
Approved for
RCHEMENG Chair
2. 09/07/23 10:43 am
Jennifer
Pohlsander
(jpnfd): Approved
for CCC Secretary
3. 09/13/23 10:45 pm
Mark Fitch
(mfitch):
Approved for
Engineering DSCC

Abbreviated
Course Title

Chem Engr Reactor Design

Chair

4. 10/09/23 3:31 pm

Jennifer

Pohlsander

(jpnfd): Approved
for Pending CCC
Agenda post

Catalog

Description

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

Prerequisites

Preceded or accompanied by both Chem Eng 3111 and Chem Eng 3120, ~~3101~~.

Field Trip

Statement

Credit Hours

LEC: 3

LAB: 0

IND: 0

RSD: 0

Total: 3

Required for
Majors

Yes

Elective for
Majors

No

History

1. Jun 29, 2015 by

luksc (1038.1)

2. May 24, 2016 by

forcinit (1038.5)

3. May 3, 2021 by

luksc (1038.10)

4. Jun 16, 2022 by

luksc (1038.12)

Justification for
change:

At faculty retreat we reviewed our prerequisites for all courses to be sure they were in alignment with current practices. Students should be successful if they have completed 3120 and this will allow students to progress through their degree more efficiently if they struggle with the 3101 course.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer
Comments

jpnfd (09/07/23 10:04 am): Updated effective date.

Key: 1038

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/01/23 8:28 am

Viewing: **CHEM ENG 4130 : Chemical Engineering Laboratory II**

File: 792.12

Last approved: 05/10/21 6:01 am

Last edit: 09/07/23 10:05 am

Changes proposed by: luksc

Programs CH ENG-BS: Chemical Engineering BS
referencing this
course

Requested Fall 2024 ~~Spring 2022~~
Effective Change
Date

Department Chemical and Biochemical Engineering

Discipline Chemical Engineering (CHEM ENG)

Course Number 4130

Title
Chemical Engineering Laboratory II

Abbreviated Chem Eng Lab II
Course Title

Catalog

Description

Experiments illustrating the unit operations of continuous and staged separation. Experimental design methods are extended to include the principles of regression and model building. Communication skills are stressed. This is a communication emphasized course.

Prerequisites

Stat 3113, Chem Eng 3141 and Chem Eng 3131; preceded or accompanied by Chem Eng 3150 and ~~either~~ English 3560. ~~3560 or English 1160~~.

Field Trip

In Workflow

1. **RCHEMENG Chair**
2. **CCC Secretary**
3. **Engineering DSCC Chair**
4. **Pending CCC Agenda post**
5. **CCC Meeting Agenda**

6. Campus Curricula Committee Chair
7. FS Meeting Agenda
8. Faculty Senate Chair
9. Registrar
10. CAT entry
11. Peoplesoft

Approval Path

1. 09/07/23 8:50 am
Hu Yang (hy57v):
Approved for
RCHEMENG Chair
2. 09/08/23 7:34 am
Jennifer
Pohlsander
(jpnfd): Approved
for CCC Secretary
3. 09/13/23 10:45
pm
Mark Fitch
(mfitch):
Approved for
Engineering DSCC
Chair

Statement

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

Required for
Majors Yes

Elective for
Majors No

Justification for change:

At faculty retreat we reviewed our prerequisites for all courses to be sure they were in alignment with current practices. English 1160 is no longer in our curriculum, so it is being removed.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer **jpnfd (09/07/23 10:05 am):** Updated effective date.
Comments

4. 10/09/23 3:31 pm
Jennifer
Pohlsander
(jpnfd): Approved
for Pending CCC
Agenda post

History

1. May 24, 2016 by
forcinit (792.1)
2. Jul 27, 2020 by
ershenb (792.7)
3. May 10, 2021 by
luksc (792.10)

Key: 792

[Preview Bridge](#)

Course Change Request

New Course Proposal

Date Submitted: 09/01/23 8:54 am

Viewing: **CHEM ENG 5335 : Introduction to Process Intensification**

File: 5001

Last edit: 09/07/23 10:13 am

Changes proposed by: luksc

Requested	Fall 2024
Effective Change Date	
Department	Chemical and Biochemical Engineering
Discipline	Chemical Engineering (CHEM ENG)
Course Number	5335
Title	Introduction to Process Intensification
Abbreviated	Process Intensification
Course Title	

Catalog Description	This course builds on basic knowledge of staged separations and reactor design to develop novel apparatus, techniques, and methods to increase process efficiency, lower energy/material costs, enhance safety, and increase sustainability. These topics are part of process intensification aimed at continuous process improvement.			
Prerequisites	Senior or Graduate standing.			
Field Trip Statement				
Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0
Total: 3				
Required for	No			

In Workflow

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

Approval Path

1. 09/07/23 8:50 am
Hu Yang (hy57v):
Approved for RCHEMENG Chair
2. 09/07/23 10:42 am
Jennifer Pohlsander (jpnfd): Approved for CCC Secretary
3. 09/13/23 10:45 pm
Mark Fitch (mfitch):
Approved for Engineering DSCC

Majors

Elective for
Majors Yes

Chair

4. 10/09/23 3:31 pm
Jennifer
Pohlsander
(jpnfd): Approved
for Pending CCC
Agenda post

Justification for
new course:

This is a growing area of interest for chemical engineers working in industry. The topic is excellent preparation for undergraduates and graduate students planning industrial careers. The course encompasses topics covered throughout the curriculum and uses those tools in new ways.

Semesters
previously
offered as an
experimental
course

Fall 2020 (34 students)
Fall 2022 (6 students)
Fall 2023 (18 students)

Co-Listed
Courses:

Course Reviewer
Comments

jpnfd (09/07/23 10:13 am): Updated prerequisite format.

Key: 5001

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/21/23 8:13 pm

Viewing: **COMP ENG 3150 : Introduction to**

Microcontrollers and Embedded System Design

File: 1627.7

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

Last edit: 09/27/23 11:56 am

Changes proposed by: stanleyj

Programs
referencing this
course

[CP ENG-BS: Computer Engineering BS](#)
[EL ENG-BS: Electrical Engineering BS](#)
[CP ENG-MI: Computer Engineering Minor](#)
[CMP SC-BS: Computer Science BS](#)

Other Courses
referencing this
course

In The Prerequisites:
[COMP ENG 3110 : Computer Organization and Design](#)
[COMP ENG 3151 : Digital Engineering Lab II](#)
[COMP ENG 4096 : Computer Engineering Senior Project I](#)
[COMP ENG 5120 : Digital Computer Design](#)
[COMP ENG 5151 : Digital Systems Design Laboratory](#)
[COMP ENG 5160 : Embedded Processor System Design](#)
[COMP ENG 5170 : Real-Time Systems](#)
[COMP ENG 5410 : Introduction to Computer Communication Networks](#)
[COMP ENG 5430 : Wireless Networks](#)
[COMP ENG 5620 : Signal Integrity in High-Speed Digital & Mixed Signal Design](#)
[COMP SCI 5205 : Real-Time Systems](#)
[COMP SCI 5803 : Introduction to High Performance Computer Architecture](#)
[ELEC ENG 5430 : Wireless Networks](#)
[ELEC ENG 5620 : Signal Integrity in High-Speed Digital & Mixed Signal Design](#)
[SYS ENG 5323 : Wireless Networks](#)

In Workflow

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

Approval Path

1. 09/22/23 10:37 am
Jonathan Kimball (kimballjw):
Approved for RELECENG Chair
2. 09/27/23 11:58 am
Jennifer Pohlsander (jpnfd): Approved for CCC Secretary
3. 10/02/23 4:44 pm
Mark Fitch (mfitch):
Approved for

Requested

Summer 2024 ~~08/17/2015~~

Effective Change

Date		Engineering DSCC Chair
Department	Electrical and Computer Engineering	4. 10/09/23 3:31 pm
Discipline	Computer Engineering (COMP ENG)	Jennifer
Course Number	3150	Pohlsander
Title	Introduction to Microcontrollers and Embedded System Design	(jpnfd): Approved for Pending CCC Agenda post
Abbreviated Course Title	Intro Micro Embed Design	

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

Prerequisites Comp Eng ~~COMP-ENG~~ 2210 and Comp Sci 1500 ~~COMP-SCI-1570~~ (or instructor approved programming course) ~~equivalent~~) each with grade of "C" or better.

Field Trip
Statement

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

Required for
Majors Yes

Elective for
Majors No

Justification for
change: Students pursuing a variety of degree programs seek taking this course due to the multidisciplinary nature of embedded system applications. The current prerequisite, Comp Sci 1570 (object oriented C++) has been the programming prerequisite since the inception of this course. However, the primary focus of this course is on computer organization and assembly language programming. The hybrid C language covered in this course does not require an extensive background in C/C++ programming. Required hybrid C language syntax and constructs are covered in the lecture material. The current Comp Sci 1570 prerequisite requires some of department students to take one or two additional prerequisite programming courses. Changing the programming prerequisite to Comp Sci 1500 is being done in order to make the course more attractive for out of department students. In addition, as indicated above, exposure to a high level programming is sufficient background for this lecture course. Note that the prerequisite for Comp Eng 3151, which is taken by Comp Eng majors, is remaining unchanged as Comp Sci 1570.

History

1. Jun 30, 2014 by stanleyj (1627.1)
2. Feb 9, 2015 by stanleyj (1627.3)

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer	jpnfd (09/25/23 9:23 am): Updated effective change date.
Comments	jpnfd (09/27/23 9:07 am): Updated prerequisite format from COMP ENG & COMP SCI to Comp Eng & Comp Sci to standardize. jpnfd (09/27/23 11:56 am): Updated prerequisite to Comp Sci 1500 (or instructor approved programming course) per dept email 9/27/23. Dept is aware that the term, "or instructor approved programming course," cannot be tracked or coded as a prerequisite in the system. They understand that this may cause permission numbers to have to be issued. Another reason for the vague listing is that students transfer a number of different programming courses that are not specifically equivalent to CS 1500.

Key: 1627

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/22/23 11:05 am

Viewing: **COMP ENG 6510 : Resilient Networks**

File: 2451.4

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

Last edit: 09/28/23 7:50 am

Changes proposed by: stanleyj

Programs referencing this course

[NET CNS-CT: Cyber Physical Systems CT](#)
[NET CNC-CT: Cyber Physical Systems CT](#)

Other Courses referencing this course

In The Catalog Description:

[SYS ENG 6322 : Resilient Networks](#)

Requested Effective Change Date Summer 2024 ~~08/17/2015~~

Department Electrical and Computer Engineering

Discipline Computer Engineering (COMP ENG)

Course Number 6510

Title Resilient Networks

Abbreviated Course Title Resilient Networks

Catalog Description

This course presents reliability and fault tolerance for network-centric systems, including models, metrics, and analysis techniques. This course also concentrates on security, including technical tools and methods for audit and assessment as well as management and policy issues.

Prerequisites

~~Sys Eng 6410~~, Comp Eng 5410 ~~6410~~, or ~~Comp Eng 5420~~.

In Workflow

1. RELECENG Chair

2. CCC Secretary

3. Engineering DSCC Chair

4. Pending CCC Agenda post

5. CCC Meeting Agenda

6. Campus Curricula Committee Chair

7. FS Meeting Agenda

8. Faculty Senate Chair

9. Registrar

10. CAT entry

11. Peoplesoft

Approval Path

1. 09/22/23 11:39 am
Jonathan Kimball (kimballjw):
Approved for RELECENG Chair

2. 09/28/23 8:05 am
Jennifer Pohlsander (jpnfd): Approved for CCC Secretary

3. 10/02/23 4:45 pm
Mark Fitch (mfitch):
Approved for Engineering DSCC

Field Trip
Statement

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

Required for
Majors No

Elective for
Majors No ~~Yes~~

Justification for
change:

The prerequisites have been updated to the only necessary course prerequisite,
which is Comp Eng 5410.

Semesters
previously
offered as an
experimental
course

Co-Listed SYS ENG 6322 - Resilient Networks
Courses:

Course Reviewer **jpnfd (09/25/23 9:31 am):** Updated Effective Change Date.
Comments **jpnfd (09/27/23 7:18 am):** Grad course, updated to Elective for Majors- No.
 jpnfd (09/28/23 7:50 am): Course is co-listed with Sys Eng 6322. Dr. Enke,
 Engineering Management & Systems Engineering Department Chair approved of the
 prerequisite change via email on 9/28/23.

Chair

4. 10/09/23 3:31 pm
Jennifer
Pohlsander
(jpnfd): Approved
for Pending CCC
Agenda post

History

1. May 4, 2015 by
stanleyj (2451.1)

Key: 2451

[Preview Bridge](#)

Course Change Request

Date Submitted: 09/11/23 10:17 am

Viewing: **MATH 1120 : College Algebra**

File: 924.1

Last edit: 09/13/23 1:19 pm

Changes proposed by: prunnion

Programs referencing this course	HIST-BA: History BA PSYCH-BS: Psychological Science BS PHIL-BS: Philosophy BS EDUC-BS: Education BS PROPOSED: Biological Sciences BS with Emphasis area in Medical Laboratory Scientist ECON-BA: Economics BA
Other Courses referencing this course	<u>In The Prerequisites:</u> ECON 1300 : Business And Economic Statistics I EDUC 3221 : Methods of Teaching Math EDUC 3222 : Geometric Concepts for Elementary Teachers MATH 1160 : Trigonometry MATH 1208 : Calculus With Analytic Geometry I MATH 3921 : Methods of Teaching Math MATH 3922 : Geometric Concepts for Elementary Teachers STAT 1111 : Business And Economic Statistics I

Requested Effective Change Date	<u>Fall 2024</u> 07/01/2024
Department	Mathematics & Statistics
Discipline	Mathematics (MATH)
Course Number	1120
Title	College Algebra
Abbreviated Course Title	College Algebra

- 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

- Approval Path
1. 09/11/23 10:18 am
Xiaoming Wang (xwx4z):
Approved for RMATHEMA Chair
 2. 09/13/23 1:19 pm
Jennifer Pohlsander (jpnfd): Approved for CCC Secretary
 3. 09/25/23 9:39 am
Katie Shannon (shannonk):
Approved for

Catalog

Description

Contains the same topics as covered in Math 1140, and preceded by a thorough review of the basic principles of algebra.

Prerequisites

A grade of "C" or better in Math 1103; or by placement examination. ~~By placement examination.~~

Field Trip

Statement

Credit Hours	LEC: 5	LAB: 0	IND: 0	RSD: 0	Total: 5
Required for Majors	No				
Elective for Majors	<u>Yes</u> No				

Justification for change:

The current prerequisite on Math 1120 pre-dates the existence of Math 1103 (which was created a long time ago). This update simply reflects the existing practice of allowing students who are successful in Math 1103 to move to Math 1120. This should not have a negative impact on any students and should shorten the PERC reports and the need for permission numbers, particularly in the spring semesters.

Semesters
previously
offered as an
experimental
course

Co-Listed
Courses:

Course Reviewer **jpnfd (09/13/23 1:19 pm):** Selected "Yes" elective for Major per department email
Comments 9/13/23.

Sciences DSCC

Chair

4. 10/09/23 3:32 pm

Jennifer

Pohlsander

(jpnfd): Approved

for Pending CCC

Agenda post

Program Change Request

Date Submitted: 09/20/23 3:51 pm

Viewing: MIL AIR-MI : Military Aerospace Studies Minor

File: 232.11

Last approved: 05/03/16 9:30 am

Last edit: 09/20/23 3:51 pm

Changes proposed by: dwdwr

Catalog Pages Using this Program
[Aerospace Studies](#)

Start Term
~~Fall 2024~~ 08/15/2016
Program Code
MIL AIR-MI
Department
Aerospace Studies - Air Force ROTC
Title
Military Aerospace Studies Minor

Program Requirements and Description

In Workflow

- 1. CCC Secretary
- 2. Pending CCC Agenda post
- 3. CCC Meeting Agenda
- 4. Campus Curricula Committee Chair
- 5. FS Meeting Agenda
- 6. Faculty Senate Chair
- 7. Registrar

Approval Path

- 1. 09/22/23 6:37 am
Jennifer Pohlsander (jpnfd): Approved for CCC Secretary
- 2. 10/09/23 3:32 pm
Jennifer Pohlsander (jpnfd): Approved for Pending CCC Agenda post

History

- 1. Oct 15, 2014 by Bradley Chronister (chronisterbk)
- 2. May 3, 2016 by kleb6b
- 3. May 3, 2016 by pantaleoa

Military Aerospace Studies Minor

Air Force Reserve Officer Training Corps (ROTC) is administered by the Department of Aerospace Studies. Although Air Force ROTC is set up as a four-year program, students can choose a four, three and a half, or three year course of study. The first two years of the program, called the General Military Course (GMC), cover basic introductory military topics as well as communication and leadership. The final two years of the program, called the Professional Officer Course (POC), cover topics such as leadership, management, doctrine, international events, quality, communication, and officership. To fulfill the requirements for the proposed Aerospace Studies minor, students will complete all of the following classes for a total of ~~12~~ 46 credit hours.

MIL AIR 1110	Air Force Heritage and Values I	.5
MIL AIR 1120	Air Force Heritage and Values II	.5
MIL AIR 2110	Team and Leadership Fundamentals I	.5
MIL AIR 2120	Team and Leadership Fundamentals II	.5
MIL AIR 3110	Leading People & Effective Communication I	2.5

MIL AIR 3120	Leading People & Effective Communication II	2.5
MIL AIR 4110	National Security, Leadership Responsibilities & Commissioning Preparation I	2.5
MIL AIR 4120	National Security, Leadership Responsibilities & Commissioning Preparation II	2.5

Justification for request

Supporting Documents

Course Reviewer Comments

Course Change Request

New Experimental Course Proposal

Date Submitted: 09/01/23 10:39 am

Viewing: **COMP SCI 5001.015 : Natural Language**

Processing

File: 5002

Last edit: 09/05/23 7:58 am

Changes proposed by: mrghx4

Requested	Spring 2024
Effective Change Date	
Department	Computer Science
Discipline	Computer Science (COMP SCI)
Course Number	5001
Topic ID	015
Experimental Title	Natural Language Processing
Experimental Abbreviated Course Title	Natural Lang Processing
Instructors	Suman Maity

Experimental Catalog Description	Natural Language Processing (NLP) is a dynamic field that focuses on the interaction between computers and human language. In this comprehensive course, students will delve into the theories, techniques, and applications that underpin the understanding and generation of human language by machines. NLP has a profound impact on a wide range of domains, from communication technologies to artificial intelligence and beyond. This course provides a deep exploration of NLP concepts, tools, and methodologies from foundational concepts to state-of-the-art advancements; empowering students to effectively process, analyze, and generate
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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. 09/05/23 7:27 am
Seung-Jong Park (spxzb): Approved for RCOMPSCI Chair
- 2. 09/05/23 8:09 am
Jennifer Pohlsander (jpnfd): Approved for CCC Secretary
- 3. 09/13/23 10:45 pm
Mark Fitch (mfitch): Approved for Engineering DSCC Chair
- 4. 10/09/23 3:32 pm
Jennifer Pohlsander (jpnfd): Approved

human language using computational techniques.

for Pending CCC
Agenda post

Prerequisites

Basic knowledge of programming (Python preferred) and familiarity with linear algebra and probability.

Field Trip

Statement

Credit Hours	LEC: 3	LAB: 0	IND: 0	RSD: 0	Total: 0
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Justification for new course:

In today's rapidly evolving technological landscape, the ability to process and understand human language is of paramount importance. Natural Language Processing (NLP) is at the heart of this capability, enabling machines to comprehend and generate human language in a way that is meaningful and contextually relevant. The emergence of advanced models like ChatGPT further underscores the significance of NLP education. Here's why a dedicated course on NLP is crucial:

Ubiquity of Text Data: Textual information is ubiquitous, present in communication, social media, documents, and more. Equipping students with NLP skills prepares them to extract valuable insights from this vast pool of unstructured text data.

AI and Automation: As artificial intelligence continues to grow, NLP plays a pivotal role in creating conversational agents, chatbots, virtual assistants, and other human-computer interaction systems that bridge the gap between humans and machines. Models like OpenAI's ChatGPT, Google's BARD exemplify the latest advancements in this direction.

Language Understanding: Businesses and organizations strive to understand customer sentiment, feedback, and preferences. NLP techniques enable sentiment analysis, topic modeling, and trend analysis to decode user opinions and interests.

Language Generation: NLP isn't just about understanding language; it's also about creating it. Automated content generation, language translation, and even creative writing are areas where NLP-driven systems excel. ChatGPT and similar models are at the forefront of creative text generation.

Search and Information Retrieval: Search engines, recommendation systems, and information retrieval heavily depend on NLP algorithms to deliver accurate and relevant results to users' queries. Advanced language models enhance the effectiveness of these systems.

Healthcare and Biomedicine: NLP has revolutionized the healthcare industry by

enabling efficient clinical text analysis, medical record digitization, and drug discovery from scientific literature. Cutting-edge models aid medical professionals in information retrieval and decision-making.

Ethical Considerations: As NLP systems become more advanced, concerns related to biases, fairness, and ethical implications emerge. A dedicated course on NLP provides students with the knowledge to address these critical issues, particularly in the context of models like ChatGPT and their potential impacts.

Semester(s)

previously taught

Co-Listed

Courses:

Course Reviewer **jpnfd (09/05/23 7:58 am):** Updated abbreviated course title.

Comments

Key: 5002

[Preview Bridge](#)

Course Change Request

New Experimental Course Proposal

Date Submitted: 09/13/23 4:40 pm

Viewing: **MATH 6001.009 : Fixed Income Models**

File: 5003

Last edit: 09/14/23 7:55 am

Changes proposed by: singlerj

Requested	Spring 2024
Effective Change	
Date	
Department	Mathematics & Statistics
Discipline	Mathematics (MATH)
Course Number	6001
Topic ID	009
Experimental	
Title	Fixed Income Models
Experimental	Fixed Income Models
Abbreviated	
Course Title	
Instructors	Martin Bohner

Experimental	
Catalog	
Description	Definition of interest rates, no-arbitrage pricing and numeraire change, one-factor short-rate models, two-factor short-rate models, HJM framework, market models, volatility smile, market payoffs, inflation-indexed swaps and caplets/floorlets, credit derivatives, CDS.
Prerequisites	Math 5737 or Econ 5337.
Field Trip	
Statement	

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. CAT entry
8. Registrar

Approval Path

1. 09/13/23 8:28 pm
Xiaoming Wang
(xwx4z):
Approved for
RMATHEMA Chair
2. 09/14/23 7:56 am
Jennifer
Pohlsander
(jpnfd): Approved
for CCC Secretary
3. 09/25/23 9:40 am
Katie Shannon
(shannonk):
Approved for
Sciences DSCC
Chair
4. 10/09/23 3:32 pm
Jennifer
Pohlsander
(jpnfd): Approved

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

Justification for new course: This course leverages the expertise of our faculty to add another course related to financial mathematics, which is of interest to many students.

Semester(s) previously taught none

Co-Listed Courses:

Course Reviewer Comments **jpnfd (09/14/23 7:55 am):** Updated prerequisite format.