



UNIVERSITY Curriculum and Course Change System - Print Change/Delete Course Form

X Change a Course - Abbrev & Number: BIOE- 4510

Corresponding Lab Course: --

Corresponding Honors course: --

.. Add Honors course: --

Corresponding Graduate course: --

.. Add Graduate course: --

Course Title: Creative Inq Bio E

Brief Statement of Change:

Remove "may be repeated for a maximum of 6 credits". Our curriculum contains 12 credits of 'BioE Tech reqt', of which we allow 6 to be fulfilled by experiential learning courses such as CI, mentored research, internship. Since these credits can be earned through multiple courses, this ultimately is enforced through the departmental guidelines for BioE Tech Req that are coordinated with the Registrar's office. Many students take more than 6 credits of CI even though those above 6 only count as free elective-this change will simply remove the need to provide registration overrides for their enrollment.

Last Term taught: 201408

.. Change Abbrev to:

Effective Term: 08/2015

.. Change Number to:

.. Change Catalog Title:

.. Change Transcript Title:

from:

from: Creative Inq Bio E

to:

to:

.. From: Fixed Credit: (,)

To: Fixed Credit: (,)

Change of Credit Variable Credit: 1-6 (-), (-) Variable Credit: - (-), (-) *1 to 99*

.. Add cross-listing with the following child course(s):

.. Delete cross-listing with the following child course(s):

.. Reverse Parent/Child relationship with:

.. Change Method of Instruction	.. Change Course Modifier	.. Change General Education Designation
from:	to:	from: to:
.. A-Lecture Only	.. .. Pass/Fail Only	.. .. Creative Inquiry
.. B-Lab (w/fee)	.. X Graded	.. .. English Composition
X D-Seminar	.. .. Variable Title	.. .. Oral Communication
.. E-Independent Study	.. .. Creative Inquiry	.. .. Mathematics
.. F-Tutorial (w/fee)	.. X Repeatable	.. .. Natural Science w/Lab
.. G-Studio	.. maximum credits	.. .. Natural Science w/Lab
.. H-Field course	.. from:	.. .. Math or Science
.. I-Study Abroad	.. to:	.. .. A&H (Literature)
.. L-Lab (no/fee)	..	.. .. A&H (Non-Literature)
.. N/B-Lecture/Lab(w/fee)	..	.. .. Social Science
.. N/L-Lecture/Lab(no fee)	..	.. .. CCA
		.. .. STS

X Change Catalog Description:

from: Disciplinary and multidisciplinary team research projects with the goal of developing the students' skills in literature research, engineering design, and data analysis. May be repeated for a maximum of six credits.

to: Disciplinary and multidisciplinary team research projects with the goal of developing the students' skills in literature research, engineering design, and data analysis.

.. Change Prerequisite(s):

from:

to:

Learning Objectives: Example syllabus objectives:

- 1) To learn to work with a team
- 2) To develop skills utilizing library and internet resources
- 3) To develop laboratory skills, including biomaterials handling and data collection
- 4) To build hypotheses and frame research questions
- 5) To design experiments to assess creative inquiry activities
- 6) To compile and evaluate research data
- 7) To communicate results in oral and written form.

Topical Outline: Example syllabus topical outline:

Literature research (3 weeks)

Outreach project (3 weeks)

Experimental labwork (9 weeks)

Evaluation: Individual Program Development Efforts

- o Journal Club participation and homework 20%
- o FoCI and Department Poster Shows, Community Outreach Project 20%
- Individual Clinical Partner Management
- o Active Efforts to Engage clinical collaborators and collect implants 20%

o Logging and Management of Implant Data 20%
and Active Participation in Implant Cleaning and Processing

☐ Small Group Activities

o Prosthesis Descriptive Worksheets 10%

o New Ideas and Adding Value to the Program 10%

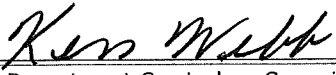


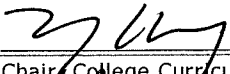
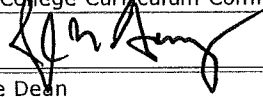
Grading Scale: A = 90 - 100% B = 80 - 89% C = 70 - 79% D = 60 - 69% F = 0 - 59%

Form Originator: KWEBB, Webb, Charles K **Date Form Created:** 4/6/2015

Form Last Updated by: , **Date Form Last Updated:** 4/6/2015

Form Number: 8150

Approval

	4/6/15		5/1/2015
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
	4/6/15		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
	4/17/15	J Robert Jones	7/14/15
Chair, College Curriculum Committee	Date	Provost	Date
	4/24/15		
College Dean	Date	President	Date
Director, Calhoun Honors College	Date		



Curriculum and Course Change System - Print Change/Delete Course Form

X Change a Course - Abbrev & Number: BIOE- 4910

Corresponding Lab Course: --

Corresponding Honors course: BIOE--4910

.. Add Honors course: --

Corresponding Graduate course: --

.. Add Graduate course: --

Course Title: Research in Bio E

Brief Statement of Change:

Remove "may be repeated for a maximum of 6 credits" Our curriculum contains 12 credits of 'BioE Tech Reqt', of which we allow 6 to be fulfilled by experiential learning courses such as CI, mentored research, and internship. Since these credits can be earned through multiple courses, this ultimately is enforced through the departmental guidelines for BioE Tech Reqt that are coordinated with the Registrar's office. Many students take more than 6 credits of mentored research even though those above 6 only count as free elective-this change will simply remove the need to provide registration overrides for their enrollment.

Last Term taught: 201408 .. Change Abbrev to:

Effective Term: 08/2015 .. Change Number to:

.. Change Catalog Title: .. Change Transcript Title:

from: from: Research in Bio E

to: to:

.. From: Fixed Credit: (,) To: Fixed Credit: (,)

Change of Credit Variable Credit: 1-6 (-), (-) Variable Credit: - (-),(-) 1 to 99

.. Add cross-listing with the following child course(s):

.. Delete cross-listing with the following child course(s):

.. Reverse Parent/Child relationship with:

.. Change Method of Instruction	.. Change Course Modifier	.. Change General Education Designation
---------------------------------	---------------------------	---

from:	to:	from:	to:	from:	to:
.. A-Lecture Only	.. .. Pass/Fail Only	..	.. Creative Inquiry	..	..
X B-Lab (w/fee)	.. X Graded	..	.. English Composition	..	..
.. D-Seminar	.. .. Variable Title	..	.. Oral Communication	..	..
.. E-Independent Study	.. .. Creative Inquiry	..	.. Mathematics	..	..
.. F-Tutorial (w/fee)	.. X Repeatable	..	.. Natural Science w/Lab	..	..
.. G-Studio	.. maximum credits	..	.. Natural Science w/Lab	..	..
.. H-Field course	.. from:	..	.. Math or Science	..	..
.. I-Study Abroad	.. to:	..	.. A&H (Literature)	..	..
.. L-Lab (no/fee)	..	..	.. A&H (Non-Literature)	..	..
.. N/B-Lecture/Lab(w/fee)	..	..	.. Social Science	..	..
.. N/L-Lecture/Lab(no fee)	..	..	.. CCA	..	..
			.. STS	..	..

X Change Catalog Description:

from: Mentored research training for undergraduate students working with a faculty advisor, including literature review, experimental design, research documentation, and presentation of results. May be repeated for a maximum of 6 credits. Departmental honors students must take six credits under a single advisor and write an honors thesis.

to: Mentored research training for undergraduate students working with a faculty advisor, including literature review, experimental design, research documentation, and presentation of results. Departmental honors students must take six credits under a single advisor and write an honors thesis.

.. Change Prerequisite(s):

from:

to:

Learning Objectives: Students will be able to:

- Perform literature searches on biomedical engineering topics and identify the current state of knowledge and gaps for continued research
- Design and conduct experimental procedures
- Document experimentation in laboratory notebooks
- Disseminate research findings

Topical Outline: Literature review (6 hours / credit)

Experimental design (9 hours / credit)

Experimental research (28 hours / credit)

Evaluation: Quiz on safety / laboratory skills training: 10%

Attendance: 20%

Journal club presentation: 15%

Bi-weekly written goals /progress reports: 25%

End of semester oral research presentation: 30%

Form Originator: KWEBB, Webb, Charles K **Date Form Created:** 4/6/2015
Form Last Updated by: KWEBB, Webb, Charles K **Date Form Last Updated:** 4/6/2015
Form Number: 8151

Approval

<i>Ken Webb</i>	<i>4/6/15</i>	<i>Charles W. Webb</i>	<i>5/1/2015</i>
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
<i>Matthew P. S. C.</i>	<i>4/6/15</i>		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
<i>[Signature]</i>	<i>4/7/15</i>		
Chair, College Curriculum Committee	Date	Provost	Date
<i>[Signature]</i>	<i>4/7/15</i>	<i>Robert S. Jones</i>	<i>7/15/15</i>
College Dean	Date	President	Date
Director, Calhoun Honors College	Date		



Curriculum and Course Change System - Print New Course Form

Course Abbreviation & Number:

X New Undergraduate Course: CH- 4360

.. New Honors Course: --

X New Graduate Course: CH- 636

Effective Term: 05/2015**Catalog Title:** Computational Quantum Chemistry and Electronic Structure Methods**Transcript Title:** Comput. Quantum Chemistry**Fixed Credit Course:** 3 (3,0)**Variable Credit Course:** - (-), (-)

Method of Instruction	Course Modifier	General Education Designation
X A-Lecture Only	.. Pass/Fail Only	.. Creative Inquiry
.. B-Lab (w/fee)	X Graded	.. English Composition
.. D-Seminar	.. Variable Title	.. Oral Communication
.. E-Independent Study	.. Creative Inquiry	.. Mathematics
.. F-Tutorial (w/fee)	.. Repeatable	Natural Science No
.. G-Studio	maximum credits:	.. Lab
.. H-Field course		.. Natural Science w/Lab
.. I-Study Abroad		.. Math or Science
.. L-Lab (no/fee)		.. A&H (Literature)
.. N/B-Lecture/Lab(w/fee)		.. A&H (Non-Literature)
.. N/L-Lecture/Lab(no fee)		.. Social Science
		.. CCA
		.. STS

Add cross-listing with the following child course(s):

Catalog Description: Hands-on introduction to electronic structure calculations. Topics include types of quantum mechanical calculations, the theory behind ab initio and density functional theory methods, basis sets and basis set effects. Emphasis will be placed on understanding the results of the calculations and relating them to basic chemical principles.

Prerequisite(s): for CH 4360: CH 3320 / for CH 6360: graduate standing

Projected Enrollment:

Year 1 - 6 Year 2 - 8 Year 3 - 10 Year 4 - 10

Required course for students in:

Statement of need and justification based on assessment results of student learning outcomes: Computational chemistry is being increasingly used by chemists across a wide variety of disciplines. As computing power increases, quantum mechanical calculations are becoming more widely available and can be applied to larger systems. Today's chemists, no matter what their field, will be at an advantage if they can perform quantum mechanical electronic structure calculations and understand the results. The proposed course will be aimed at synthetic chemists as well as physical chemists. This course is intended to complement the computational chemistry course that is currently offered by the department (CH 8380). CH 6360 will be more hands-on, and will not cover molecular dynamics simulations. In addition, CH 6360 will also compliment the various quantum mechanics courses offered by the department.

Textbook(s): 1. Foresman, J. B. and Frisch, A.E. Exploring Chemistry with Electronic Structure Methods, 2nd Ed.; Gaussian, Inc: Pittsburg, PA, 1993.

2. Szabo, A. and Ostlund, N. S. Modern Quantum Chemistry: Introduction to Advanced Electronic Structure Theory; MacMillan Publishing Co, Inc: New York, 1982.

Learning Objectives: By the end of this course students should be able to:

- Explain the theory behind Hartree-Fock calculations, post-Hartree-Fock methods, and Density Functional Theory
- Choose a suitable basis set and level of theory for a calculation that is relevant to current undergraduate/graduate research projects
- Choose a proper type of calculation (ie single-point energy, vibrational calculation, geometry optimization) to answer a particular question
- Recognize common errors and take steps to correct the error.
- Critically evaluate relevant literature

Topical Outline: Week 1: Overview of computational chemistry

Week 2: Single-point energy calculations

Week 3: Basics of running a Gaussian calculation

Week 4: Geometry optimizations, frequency calculations, and characterizing stationary points

Week 5: Choice of model chemistry

Week 6: Basis set effects; use of the Gaussian checkpoint file

Week 7: Theory: Dirac notation; wave functions and operators

Week 8: Hartree-Fock calculations

Week 9: Configuration Interaction and Couple Cluster Theory

Week 10: Perturbation Theory

Week 11: Finish Perturbation Theory / Begin Density Functional Theory

Week 12: Density Functional Theory and the Kohn-Sham Equations

Week 13: Periodic boundary conditions, plane-wave basis sets, and pseudopotentials

Week 14: Calculation of NMR chemical shifts

Week 15: Final Project Presentations

Evaluation: Grading Scale - CH 4360

Homework.....10% A: 90-100%

Quizzes.....10% B: 80-89.9%

Two hour exams.....20% C: 70-79.9%

Final Presentation.....40% D: 60-69.9%

Final Exam.....20% F: < 60%

Grading Scale – CH 6360

Homework.....10% A: 90-100%

Quizzes.....10% B: 80-89.9%

Two hour exams.....20% C: 70-79.9%

Final Presentation.....40% F: < 70%

Final Paper.....20%




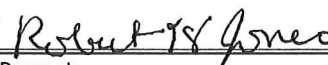
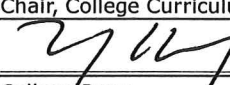
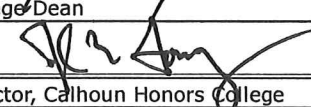
Add course requirements for honors and/or 600-level courses (if applicable): Final Exam

For students enrolled in CH 4360, the final exam will consist of performing calculations similar to those done in the homework, and interpreting the results. Students who have an A average on all work up to the final exam will be excused from the final.

Final Paper

For students enrolled in CH 6360, the final project will also have a written component. A 3-5 page paper in the format of a peer-reviewed scientific journal will be due by the end of the final exam period. The purpose of this component is to gain experience reading and citing the relevant scientific literature, and presenting results in a scientific paper. The written paper will be done individually, with no external help of any kind.

Form Originator: LCASABI, Casabianca, Leah Beck **Date Form Created:** 1/10/2015**Form Last Updated by:** LCASABI, Casabianca, Leah Beck **Date Form Last Updated:** 4/14/2015**Form Number:** 7974**Approval**

			5/1/2015
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
	4/17/15		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
	4-17-15		7/14/15
Chair, College Curriculum Committee	Date	Provost	Date
	4/17/15		
College Dean	Date	President	Date
	4/17/15		
Director, Calhoun Honors College	Date		

000105

Change 4000/6000 Course**Change a Course**

Subject: BE-Biosystems Engineering
Number: 4150/6150
Effective Term: Fall 2015

Title:

Honors Course:

☐ Add Honors Course:**Last Term Course was taught:**201001**Brief Statement of Change Based on Assessment Results:**

Since this course requires both ECE2070 and ECE2080, the review on basic electric circuit is not necessary. The credit hours can be reduced from 4 to 3. This course will be offered for graduate students also. But, the graduate students need to do more work than undergraduates. (See details in the syllabus)

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
☒ Alignment of Student Learning Outcomes
☐ Alternative Delivery of Content
☐ Improve Time to Degree
☐ Evolution of the Discipline
☒ Changing Prerequisites
☐ Address DWF Rates
☐ General Education Modifications
☐ Other (Please specify.)

☒ **Change of Credit**

From

Fixed Credit Course

Credit HrsContact Hrs

4 3

Variable Credit Course

Credit Hrs Contact Hrs

Min Max Min Max

To

Fixed Credit Course

Credit HrsContact Hrs

3 3

Variable Credit Course

Credit Hrs Contact Hrs

Min Max Min Max☒ **Change Prerequisite(s) / Corequisite(s)**

From

ECE2070

To

ECE2070 & ECE2080

Learning Objectives

To produce engineering students with the ability to analyze and design physical and biological systems, and to demonstrate that they have: a) the ability to apply knowledge of mathematics, science and engineering * b) the ability to design and conduct experiments, and analyze and interpret data * c) the ability to design a system, component or process to meet desired needs * d) the ability to function on multi-disciplinary teams e) the ability to identify, formulate, and solve engineering problems * f) the understanding of professional and ethical responsibility g) the ability to communicate effectively h) the broad education necessary to understand the impact of engineering solutions in a global and societal context i) a recognition of the need for, and an ability to engage in, life-long learning j) a knowledge of contemporary issues k) the ability to use techniques, skills and modern engineering tools used in engineering practice * * indicates ABET objective addressed in BE 415

Topical Outline

Lecture Topics#: Week 1. Introduction to process control* Week 2. Analog signal conditioning Week 3. Digital signal conditioning Weeks 4-5. Temperature measurement Week 6. Displacement, location or position measurements Week 7. Strain and pressure measurements Week 8. Flow measurement and level measurement Week 9. Optical sensors Week 10. Controller principles Week 11. Analog controllers Week 12. Analytical instrumentation Week 13. Instrument calibration and controller tuning Weeks 14-15. Data acquisition, relay controller, and programmable logic controller (PLC) Week 16. Final # No review will be given any longer on the basic electrical circuit knowledge and digital number system which are covered by the ECE2070 and ECE 2080. * Laplace transformation and second-order sensor are required only for graduate students Laboratory Topics: Week 1. Linear instrument models and dynamic

measurements (Get familiar with Oscilloscope) Week 2.
Operational Amplifier Week 3. Hysteresis comparator (Schmitt Trigger) Week 4. Magnitude comparator Week 5. Analog-to-digital converter and digital-to-analog converter Week 6.
Thermocouple sensor Week 7. Pressure sensor Week 8.
Photoconductive detector Week 10. pH measurement and control Week 11. Humidity measurement Week 12. Turbidity measurement Week 13. Conductivity measurement Week 14.
Time proportioning DC control circuit Week 15. PLC

Add course requirements for 6000-level courses

The weight of lab for 6000-level is increased to 35% including lab, lab summary report and extra project. The weights of midterm and final are reduced to 20% and 25%, respectively. Laplace transformation and second-order sensor are required only for graduate students.

Evaluation

4000

A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60

Homework (20%)-Individual activity Lab reports (20%)-Group activity Midterm (30%) Final (30%)

6000

A 90 - 100
B 80 - 89
C 70 - 79
F < 70

Homework (20%)-Individual activity Lab (35%):Lab (10%)
Group activity and Lab summary report (10%): Besides the lab data summary,the graduate students need to write a whole lab report, including the background, objectives, methodology, and conclusions. In addition, the graduate students will have two more assays in the pre-lab and post-lab questions, respectively.
Extra project (15%):The graduate students will be also asked to do two extra projects. Midterm (20%) Final:25%

Syllabus

Upload File: BE415 syllabus-20141202161049.pdf

Description: updated syllabus for BE415/615

Form

User ID:zheng9 Name: Yi Zheng

Date: 04/02/2015Number:7091

Chair, Department Curriculum Committee		Date
<i>David J. Freedman</i>		4/21/15
Department Chair		Date
<i>[Signature]</i>	9/17/15	
Chair, College Curriculum Committee		Date
<i>[Signature]</i>	4/21/15	
College Dean		Date
Director, College Honors College		Date
<i>[Signature]</i>	5/1/2015	
Chair, Undergraduate Curriculum Committee		Date
Chair, Graduate Curriculum Committee		Date
<i>Robert S. Jones</i>	7/17/15	
Provost		Date
President		Date

000108

Chair, Department Curriculum Committee _____ Date _____

Department Chair _____ Date _____

Chair, College Curriculum Committee _____ Date _____

College Dean _____ Date _____

Director, Calhoun Honors College _____ Date _____

Chair, Undergraduate Curriculum Committee _____ Date _____

Chair, Graduate Curriculum Committee _____ Date _____

Provost _____ Date _____

President _____ Date _____

Add Undergraduate Course

000109

Course Attributes

Subject Abbreviation: ENGR-Engineering **Catalog Title:** Major Discovery Seminar
Course Number: 1000 **Transcript Title:** Major Discovery Seminar
Effective Term: Summer 2015 **Cross-reference(s):**
College: Engineering and Science **Grade Mode:** Pass/No Pass
Department: General Engineering

☐ Additional Fee?

Justification

Provide opportunity for students who are unsure of which engineering major to explore the profession and careers to be able to make a more informed decision about their major. Also, to allow students to explore engineering as a major who may not currently be engineering majors.

Form

User ID: jminor **Name:** John Minor
Date: 04/06/2015 **Number:** 7184

Syllabus

Upload File: ENGR 1000 Syllabus Fall 2015-20150406144451.pdf

Description: ENGR 1000 - Major Discovery Seminar

Hours

Fixed Credit Course
Credit Hrs **Contact Hrs**

1 1

Variable Credit Course
Credit Hrs **Contact Hrs**
Min **Max** **Min** **Max**

Rationale for Add Course

- ☐ Strengthen Program Requirement(s)
☐ Alignment of Student Learning Outcomes
☐ Alternative Delivery of Content
☐ Improve Time to Degree
☐ Evolution of the Discipline
☐ Changing Prerequisites
☐ Address DWF Rates
☐ General Education Modifications
☒ Other (Please specify.)

Profession and career exploration

Schedule Types

- ☐ Field Course
☐ Independent Study
☐ Internship
☐ Lab No Fee
☐ Lab With Fee
☐ Lecture
☐ Other
☒ Seminar
☐ Studio
☐ Tutorial

Projected Enrollment

Year 1: 60
Year 2: 60
Year 3: 60
Year 4: 60

Evaluation

Undergraduate

A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60

Attendance: 50% Final Paper: 50%

Catalog Description

Introduction to the Engineering Majors offered at Clemson including the profession, best student practices, and career paths. Invited presenters and faculty provide lectures and demonstrations.

Statement of need and justification based on assessment of student learning outcomes

Provide opportunity for students who are unsure of which engineering major to explore the profession and careers to be able to make a more informed decision about their major. Also, to allow students to explore engineering as a major who may not currently be engineering majors.

Textbook(s)

None

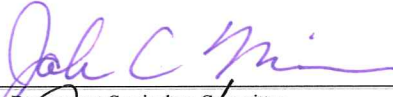
Learning Objectives

Introduce Students to the different majors offered at Clemson; Provide Students with the available information about each discipline to help the student make an informed choice; Help Students understand the different career paths for the various engineering disciplines

000110

Topical Outline

Major Presentations: 7 hours – 88%; Majors' Curriculum and registration: 1 hrs - 12%


Chair, Department Curriculum Committee


Date


Department Chair

Date


Chair, College Curriculum Committee

Date


College Dean

Date

Director, Calhoun Honors College

Date


Chair, Undergraduate Curriculum Committee

Date

Chair, Graduate Curriculum Committee

Date


Provost

Date

President

Date

000111

Change Undergraduate Course

Change a Course

Subject: ENGR-Engineering
Number: 1060
Effective Term: Summer 2015
Title: Engr Discipline & Skills II
Honors Course: HON 1060
☐ Add Honors Course:
Last Term Course was taught: 201501
Brief Statement of Change Based on Assessment Results:
Change existing prerequisites to make the prerequisites match the requirements of the course and to make enrollment in ENGR 1060 easier for transfer students and students with Advanced Placement credit.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ Change Prerequisite(s) / Corequisite(s)

From Pre-Req: ENGR 1051 with a grade of C or higher; Co-Req: MTHS 1040 or 1060
To Preq: ENGR 1050 with a grade of C or better

Evaluation

Undergraduate
A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60
Assignments: 5% Mid-term exam: 35% Final exam: 60%

Syllabus

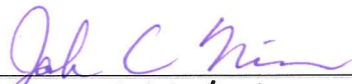

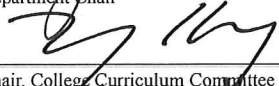
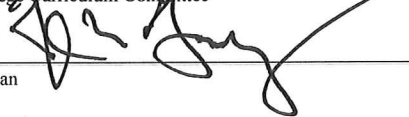
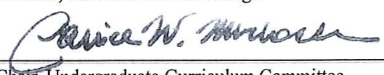
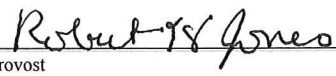
Upload File: ENGR 1060 Syllabus-20150406090652.pdf

Description: ABET Syllabus for ENGR 1060

Form

User ID: jminor **Name:** John Minor
Date: 04/06/2015 **Number:** 7147

000112

	4/6/15
Chair, Department Curriculum Committee	Date
	4/6/15
Department Chair	Date
	4/17/15
Chair, College Curriculum Committee	Date
	4/20/15
College Dean	Date
Director, Calhoun Honors College	Date
	5/1/2015
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
	7/14/15
Provost	Date
President	Date

Change Undergraduate Course

000113

Change a Course

Subject: ENGR-Engineering
Number: 1070
Effective Term: Summer 2015
Title: Programming & Prob Solving I
Honors Course: HON 1070
☐ Add Honors Course:
Last Term Course was taught: 201501
Brief Statement of Change Based on Assessment Results:
Change existing prerequisites to make the prerequisites match the requirements of the course and to make enrollment in ENGR 1070 easier for transfer students and students with Advanced Placement credit.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ **Change Prerequisite(s) / Corequisite(s)**

From Co-Req: MTHS 1060 or 1070; Co-Req for honors students: MTHS 1080; Pre-Req with a grade of C or better or concurrent Enrollment: ENGR 1061
To Preq or concurrent enrollment: ENGR 1060 with a grade of C or better

Evaluation

Undergraduate

A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60

Assignments: 5% Mid-term exam: 35% Final exam: 60%

Syllabus

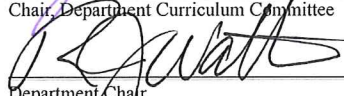
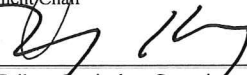

Upload File: ENGR 1070 Syllabus-20150406090552.pdf

Description: ABET Syllabus for ENGR 1070

Form


User ID: jminor **Name:** John Minor
Date: 04/06/2015 **Number:** 7153

000114


Chair, Department Curriculum Committee4/6/15
Date
Department Chair4/6/15
Date
Chair, College Curriculum Committee4/17/15
Date
College Dean4/24/15
Date

Director, Calhoun Honors College

Date


Chair, Undergraduate Curriculum Committee5/1/2015
Date

Chair, Graduate Curriculum Committee

Date


Provost7/14/15
Date

President

Date

000115

Change Undergraduate Course**Change a Course**

Subject: ENGR-Engineering
Number: 1080
Effective Term: Summer 2015
Title: Programming & Prob Solving II
Honors Course: HON 1080

☐ Add Honors Course:

Last Term Course was taught: 201408

Brief Statement of Change Based on Assessment Results:

Change existing prerequisites to make the prerequisites match the requirements of the course and to make enrollment in ENGR 1080 easier for transfer students and students with Advanced Placement credit.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ **Change Prerequisite(s) / Corequisite(s)**

From Pre-Req: ENGR 1061 with a grade of C or higher and
ENGR 1071 with a grade of C or higher; Co-Req:
MTHS 1060 or 1070. Co-Req for honors students: MTHS 1080.
To Preq: ENGR 1060 with a grade of C or better and
ENGR 1070 with a grade of C or better

Evaluation

Undergraduate

A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60

Assignments: 5% Mid-term exam: 35% Final exam: 60%

Syllabus


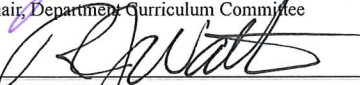

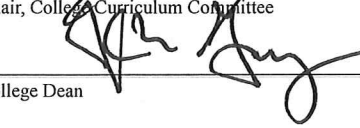

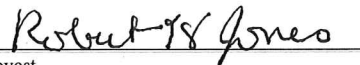
Upload File: ENGR 1080 Syllabus-20150406095217.pdf

Description: ABET Syllabus for ENGR 1080

Form

User ID: jminor **Name:** John Minor
Date: 04/06/2015 **Number:** 7155

000116

	4/6/15
Chair, Department Curriculum Committee	Date
	4/6/15
Department Chair	Date
	4/17/15
Chair, College Curriculum Committee	Date
	4/20/15
College Dean	Date
Director, Calhoun Honors College	Date
	5/1/2015
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
	7/14/15
Provost	Date
President	Date

000117

Change Undergraduate Course**Change a Course**

Subject: ENGR-Engineering
Number: 1090
Effective Term: Summer 2015
Title: Prog/Problem Solving Apps
Honors Course: HON 1090

☐ Add Honors Course: v

Last Term Course was taught: 201408

Brief Statement of Change Based on Assessment Results:

Change existing prerequisites to make the prerequisites match the requirements of the course and to make enrollment in ENGR 1090 easier for transfer students and students with Advanced Placement credit.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ **Change Prerequisite(s) / Corequisite(s)**

From Co-Req: MTHS 1060 or 1070. Co-Req for honors students: MTHS 1080. Pre-Req with a grade of C or higher or concurrent enrollment: ENGR 1081

To Preq or concurrent enrollment: ENGR 1080 with a grade of C or better

Evaluation

Undergraduate

A 90 - 100

B 80 - 89

C 70 - 79

D 60 - 69

F < 60

Project 1: 40% Project 2: 60%

Syllabus

Upload File: ENGR 1090 Syllabus-20150406095852.pdf


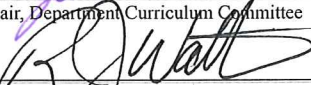
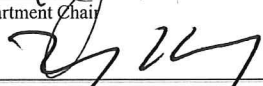
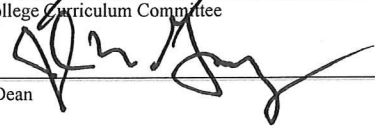
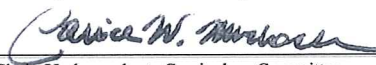
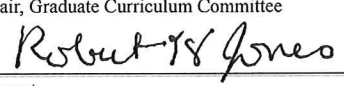
Description: ABET Syllabus for ENGR 1090

Form

User ID: jminor **Name:** John Minor

Date: 04/06/2015 **Number:** 7157

000118

	4/6/15
Chair, Department Curriculum Committee	Date
	4/6/15
Department Chair	Date
	4/17/15
Chair, College Curriculum Committee	Date
	4/20/15
College Dean	Date
Director, Calhoun Honors College	Date
	5/1/2015
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
	7/14/15
Provost	Date
President	Date

000120

Change Undergraduate Course**Change a Course**

Subject: ENGR-Engineering
Number: 1490
Effective Term: Summer 2015
Title: Introduction to Engineering
Honors Course:
☐ Add Honors Course:
Last Term Course was taught: 201408
Brief Statement of Change Based on Assessment Results:
Change existing prerequisites to make the prerequisites match the requirements of the course.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ **Change Prerequisite(s) / Corequisite(s)**

From Pre-requisite or concurrent enrollment:
MTHS 1050
To None

Evaluation

Undergraduate
A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60
Projects: 50% Assignments: 50%

Syllabus


Upload File: ENGR 1490 Syllabus-20150406103114.pdf

Description: ABET Syllabus for ENGR 1490

Form

User ID: jminor **Name:** John Minor
Date: 04/06/2015 **Number:** 7159

000119


Chair, Department Curriculum Committee Date 4/6/15


Department Chair Date 4/6/15


Chair, College Curriculum Committee Date 4/17/15


College Dean Date 4/20/15

Director, Calhoun Honors College Date


Chair, Undergraduate Curriculum Committee Date 5/1/2015

Chair, Graduate Curriculum Committee Date


Provost Date 7/14/15

President Date

000121

Change Undergraduate Course**Change a Course**

Subject: ENGR-Engineering
Number: 1510
Effective Term: Summer 2015
Title: Engineering Skills
Honors Course:
☐ Add Honors Course:
Last Term Course was taught: 999999
Brief Statement of Change Based on Assessment Results:
Change existing prerequisites to make the prerequisites match the requirements of the course.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ **Change Prerequisite(s) / Corequisite(s)**

From Pre-requisite or concurrent enrollment:
MATH 1040 or 1060; Co-requisite:
ENGR 1511.
To Co-requisite: ENGR 1511

Evaluation

Undergraduate
A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60
Exams: (4 @ 15% each) 60% Projects: (2 @ 5% each) 10%
Assignments: 30%

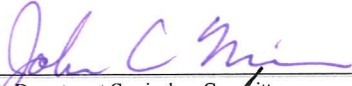
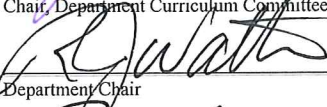
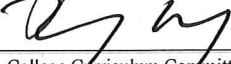


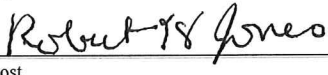
Syllabus

Upload File: ENGR 1510 Syllabus-20150406104833.pdf
Description: ABET Syllabus for ENGR 1510

Form

User ID: jminor Name: John Minor
Date: 04/06/2015 Number: 7161

000122

	4/6/15
Chair, Department Curriculum Committee	Date
	4/6/15
Department Chair	Date
	4/17/15
Chair, College Curriculum Committee	Date
	4/24/15
College Dean	Date
Director, Calhoun Honors College	Date
	5/1/2015
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
	7/14/15
Provost	Date
President	Date

000123

Change Undergraduate Course

Change a Course

Subject: ENGR-Engineering
Number: 1520
Effective Term: Summer 2015
Title: Engineering Computer Skills
Honors Course:
☐ Add Honors Course:
Last Term Course was taught: 201408
Brief Statement of Change Based on Assessment Results:
Change existing prerequisites to make the prerequisites match the requirements of the course.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ Change Prerequisite(s) / Corequisite(s)

From Pre-requisite: ENGR 1510 with a grade of C or higher; Pre-requisite or concurrent enrollment: MATH 1060; Co-requisite: ENGR 1521.
To Preq: ENGR 1510 with a grade of C or better; Co-requisite: ENGR 1521

Evaluation

Undergraduate
A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60
Exams: (4 @ 15% each) 60% Projects: (2 @ 5% each) 10%
Assignments: 30%

Syllabus

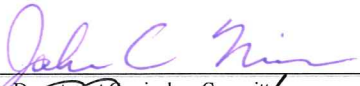
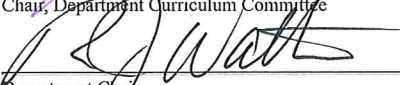
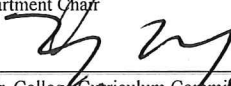


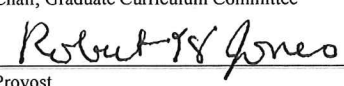
Upload File: ENGR 1520 Syllabus-20150406115409.pdf

Description: ABET Syllabus for ENGR 1520

Form

User ID: jminor **Name:** John Minor
Date: 04/06/2015 **Number:** 7169

000124

 Chair, Department Curriculum Committee	4/6/15 Date
 Department Chair	4/6/15 Date
 Chair, College Curriculum Committee	4/17/15 Date
 College Dean	4/20/15 Date
Director, Calhoun Honors College	Date
 Chair, Undergraduate Curriculum Committee	5/1/2015 Date
Chair, Graduate Curriculum Committee	Date
 Provost	7/14/15 Date
President	Date

000125

Change Undergraduate Course**Change a Course**

Subject: ENGR-Engineering
Number: 1530
Effective Term: Summer 2015
Title: Engineering Foundation Skills
Honors Course:
☐ Add Honors Course:
Last Term Course was taught: 201408
Brief Statement of Change Based on Assessment Results:
Change existing prerequisites to make the prerequisites match the requirements of the course.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ **Change Prerequisite(s) / Corequisite(s)**

From Pre-requisite or concurrent enrollment:
MATH 1040 or 1060; Co-requisite:
ENGR 1531.
To Co-requisite: ENGR 1531

Evaluation

Undergraduate
A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60
Exams: (4 @ 15% each) 60% Projects: (2 @ 5% each) 10%
Assignments: 30%

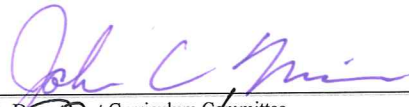
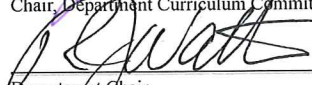

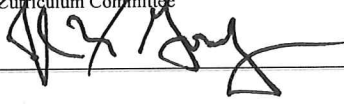
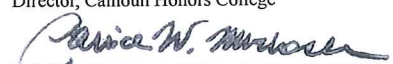
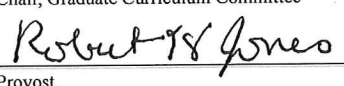
Syllabus

Upload File: ENGR 1530 Syllabus-20150406120028.pdf

Description: ABET Syllabus for ENGR 1530

Form

User ID: jminor **Name:** John Minor
Date: 04/06/2015 **Number:** 7171

 Chair, Department Curriculum Committee	4/6/15 Date
 Department Chair	4/6/15 Date
 Chair, College Curriculum Committee	4/17/15 Date
 College Dean	4/20/15 Date
Director, Calhoun Honors College	
 Chair, Undergraduate Curriculum Committee	5/1/2015 Date
Chair, Graduate Curriculum Committee	
 Provost	7/14/15 Date
President	

000127

Change Undergraduate Course**Change a Course**

Subject: ENGR-Engineering
Number: 1640
Effective Term: Summer 2015
Title: Engineering MATLAB Programming
Honors Course:
☐ Add Honors Course:
Last Term Course was taught: 999999
Brief Statement of Change Based on Assessment Results:
Change existing prerequisites to make the prerequisites match the requirements of the course.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

☒ **Change Prerequisite(s) / Corequisite(s)**

From Pre-requisite: ENGR 1520 or 1530 with a grade of C or higher. Pre-requisite or concurrent enrollment: MATH 1040 or 1060; Co-requisite: ENGR 1631.
To Preq: ENGR 1520 or ENGR 1530 with a grade of C or better. Co-requisite: ENGR 1641

Evaluation

Undergraduate

A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60

Exams: (3 @ 20% each) 60% Projects: (3 @ 10% each) 30%
Assignments: 10%

Syllabus

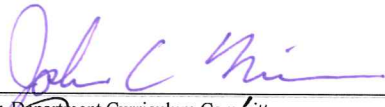
Upload File: ENGR 1640 Syllabus-20150406120955.pdf

Description: ABET Syllabus for ENGR 1640**Form**

User ID: jminor **Name:** John Minor
Date: 04/06/2015 **Number:** 7173

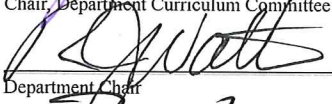
000128

4/6/15



Chair, Department Curriculum Committee

Date



Department Chair

Date

4/6/15

4/17/15

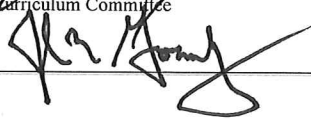
Chair, College Curriculum Committee

Date

4/20/15

College Dean

Date



Director, Calhoun Honors College

Date



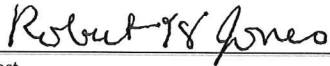
5/1/2015

Chair, Undergraduate Curriculum Committee

Date

Chair, Graduate Curriculum Committee

Date



7/14/15

Provost

Date

President

Date

000129

Add 4000/6000 Course

Course Attributes

Subject Abbreviation: IE-Industrial Engineering
Course Number: 4460 / 6460
Effective Term: Fall 2015
College: Engineering and Science
Department: Industrial Engineering

Catalog Title: Modeling and Analysis of Manufacturing Systems
Transcript Title: Model & Analyze Mfg Systemss
Cross-reference(s):
Grade Mode: Standard Letter

Additional Fee?

Justification

This course, an elective, will appeal to students to intend to pursue careers as industrial engineers in assembly and manufacturing settings.

Form

User ID: mkyrz Name: Mary Kurz-Edsall
Date: 04/02/2015 Number: 7096

Syllabus

Upload File: IE 4640 6460 - modeling and analysis of mfg systems-20150402114323.docx

Description: syllabus

Hours

Fixed Credit Course
Credit Hrs Contact Hrs

3 3

Variable Credit Course
Credit Hrs Contact Hrs
Min Max Min Max

Rationale for Add Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☒ Evolution of the Discipline
- ☐ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

Schedule Types

- ☐ Field Course
- ☐ Independent Study
- ☐ Internship
- ☐ Lab No Fee
- ☐ Lab With Fee
- ☒ Lecture
- ☐ Other
- ☐ Seminar
- ☐ Studio
- ☐ Tutorial

Projected Enrollment

Year 1: 40
Year 2: 0
Year 3: 40
Year 4: 0

000130

Evaluation		
4000		
A	90	- 100
B	80	- 89
C	70	- 79
D	60	- 69
F	<	60
Homework 25% Implementation Project 25% Midterm Exam 30% Final Exam 20%		
6000		
A	90	- 100
B	80	- 89
C	70	- 79
F	<	70
Homework 5% Implementation Project 25% Case Study 20% Midterm Exam 30% Final Exam 20%		

Catalog Description

The course promotes competence in developing and applying quantitative models to improve the design and operation of manufacturing and assembly systems. We emphasize underlying principles and analytical models for guiding how resources (humans, machines, tools, information) should be utilized to facilitate the flow of production jobs through a facility.

Prerequisite(s) Corequisite(s)

IE 4460: IE 2800, IE 3810, IE 4400 IE 6460: IE 8030, programming competence

Statement of need and justification based on assessment of student learning outcomes

These course topics, while included in the IE Fundamentals of Engineering exam, are not currently included in any required or elective IE course. With an increase in teaching capacity, we can offer this course at this time.

Textbook(s)

Askin and Standridge. Modeling and Analysis of Manufacturing Systems, Wiley, (1993).

Learning Objectives

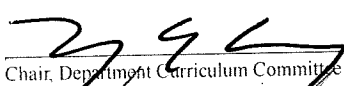
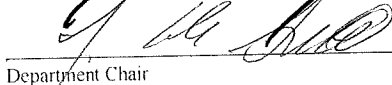
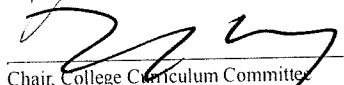

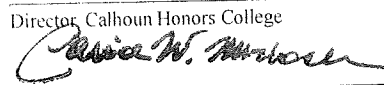
Students who are successful in this course will demonstrate: 1. Understanding of the basic physical and social laws that affect mfg. system performance. 2. Ability to design an assembly system for one or more products. 3. Ability to evaluate and exploit value of manufacturing flexibility. 4. Understanding of the impact of WIP level and buffer capacity on system performance. 5. Understanding of the basics of push and pull production control. 6. Ability to design and evaluate mfg. layouts and material handling systems. 7. Ability to apply stochastic models to analyze a proposed open or closed mfg. system. 8. Understanding of the impact of variability on production rate and cycle time. 9. Ability to develop an appropriate model and solution algorithm for manufacturing system design or operational control.

Topical Outline

Manufacturing Models. (1 week) Assembly Lines: Reliable Serial Systems. (2 weeks) Transfer Lines and General Serial Systems. (2 week) Shop Scheduling with Many Products. (2 weeks) Flexible Manufacturing Systems. (2 weeks) Group Technology. (2 weeks) General Manufacturing Systems: Analytic Queueing Models. (2 weeks) Case Studies (1 week) Exams (1 week)

Add course requirements for 6000-level courses

Graduate students will complete a case study in which they design and analyze a manufacturing system.

	4/2/15	Date
	4/7/15	Date
	4/17/15	Date
	4/2/15	Date
	5/1/2015	Date

000131

Chair, Undergraduate Curriculum Committee

Date

Chair, Graduate Curriculum Committee

Date

Robert S Jones

7/14/15

Provost

Date

President

Date

000132

Change 4000/6000 Course**Change a Course**

Subject: IE-Industrial Engineering
Number: 4810/6810
Effective Term: Fall 2015
Title:
 Honors Course:
☐ Add Honors Course:
Last Term Course was taught: 198901
Brief Statement of Change Based on Assessment Results:
 A draft description was included initially, as well as a typo in the preqs for IE 4810 and an error in the preqs for 6810.

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
☐ Alignment of Student Learning Outcomes
☐ Alternative Delivery of Content
☐ Improve Time to Degree
☐ Evolution of the Discipline
☒ Changing Prerequisites
☐ Address DWF Rates
☐ General Education Modifications
☐ Other (Please specify.)

Change Catalog Description

From This second probabilistic operations course builds upon material presented in IE 3810 with a broader, more applied range of topics. Topics may include decision making; utility theory; portfolio risk; optimization and hedging; inventory models for perishable products; revenue management; risk analysis; and static simulation.

To This is a second probabilistic operations research course, but with a broader, more applied range of topics than the first (IE 3810 or IE 8030). Potential topics include decision making; utility theory; portfolio risk, optimization and hedging; inventory models for perishable products; revenue management; risk analysis; and static simulation

☒ **Change Prerequisite(s) / Corequisite(s)**

From 4810: IE 2800, 3600, 3810, 3840 6810: IE 8030, 8090, 8840
To 4810: IE 2800, 3600, 3610, 3840 6810: IE 8030, 8090

Learning Objectives

To construct probabilistic models to describe real-world systems.
 To use probabilistic methods to support decision making.

Topical Outline

decision making; 3 weeks utility theory; 2 weeks portfolio risk, optimization and hedging; 2 weeks inventory models for perishable products; 2 weeks revenue management; 2 weeks risk analysis; 2 weeks static simulation 2 weeks

Add course requirements for 6000-level courses

Exams (30%) Homework (10%) Quizzes (20%) Research Project (20%)

Evaluation

4000

A 90 - 100

B 80 - 89

C 70 - 79

D 60 - 69

F < 60

Exams (40%) Homework (15%) Quizzes (20%) Final Exam (25%)

6000

A 90 - 100

B 80 - 89

C 70 - 79

F < 70

Exams (30%) Homework (10%) Quizzes (20%) Research Project (20%) Final Exam (20%)

000133

Syllabus

Description: syllabus

Form

User ID:mkurz Name: Mary Kurz-Edsall

Date: 03/31/2015 Number:6967

Chair, Department Curriculum Committee

Date

Department Chair

Date

Chair, College Curriculum Committee

Date

College Dean

Date

Director, Calhoun Honors College

Date

Chair, Undergraduate Curriculum Committee

Date

Chair, Graduate Curriculum Committee

Date

Provost

Date

President

Date

Change Undergraduate Course

Change a Course

Subject: STAT-Statistics
 Number: 4020
 Effective Term: Fall 2015
 Title: Intro to Statistical Computing

Honors Course:

☐ Add Honors Course:

Last Term Course was taught: 201408

Brief Statement of Change Based on Assessment Results:

Currently the prerequisite for this course is STAT 2300. The Mathematical Sciences department would like to amend the prerequisites to include MATH 3020 (our math major undergraduate Statistics course) and MGT 3100 (the second semester of a two semester Business Statistics course). Both MATH 3020 and MGT 3100 students would have covered similar material to STAT 2300.

☒ Change Prerequisite(s) / Corequisite(s)

From STAT 2300
 To MATH 3020 or
 STAT 2300 or
 MGT 3100 or IE 3610

Evaluation

Undergraduate

A 90 - 100

B 80 - 89

C 70 - 79

D 60 - 69

F < 60

3 In-class projects - 20% each Projects - 40% each

Syllabus

Description: Spring 2015 Current Syllabus for STAT 4020


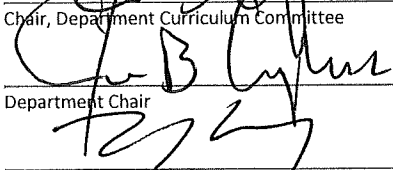
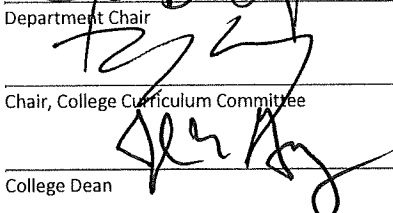
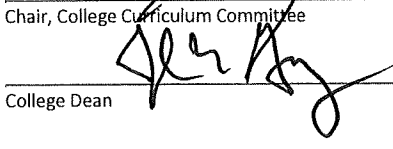
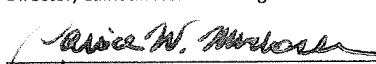
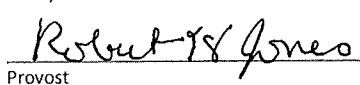
Form

User ID: ehpferr Name: Ellen Breazel

Date: 04/17/2015 Number: 7499

Rationale for Changing a Course

- ☐ Strengthen Program Requirement(s)
- ☐ Alignment of Student Learning Outcomes
- ☐ Alternative Delivery of Content
- ☐ Improve Time to Degree
- ☐ Evolution of the Discipline
- ☒ Changing Prerequisites
- ☐ Address DWF Rates
- ☐ General Education Modifications
- ☐ Other (Please specify.)

	_____	Date
Chair, Department Curriculum Committee		
	_____	Date
Department Chair		
	_____	9/17/15 Date
Chair, College Curriculum Committee		4/26/15 Date
	_____	Date
College Dean		
_____	_____	Date
Director, Calhoun Honors College		
	_____	5/1/2015 Date
Chair, Undergraduate Curriculum Committee		
_____	_____	Date
Chair, Graduate Curriculum Committee		
	_____	7/14/15 Date
Provost		
_____	_____	Date
President		

X Change a Course - Abbrev & Number: ME- 4000

Corresponding Lab Course: --

Corresponding Honors course: --

.. Add Honors course: --

Corresponding Graduate course: --

.. Add Graduate course: --

Course Title: Senior Seminar

Brief Statement of Change:

Prerequisite definition due to change to iROAR

Last Term taught: 201408|.. **Change Abbrev to:**

Effective Term: 05/2015 .. **Change Number to:**

.. Change Catalog Title:	.. Change Transcript Title:
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from: Senior Seminar

to:

From: Fixed Credit: 1 (1,0) To: Fixed Credit: (,)

11	From Fixed Credit: 2 (-), 0	From Fixed Credit: 0
Change of Credit	Variable Credit: - (-), (-)	Variable Credit: - (-), (-)

.. Add cross-listing with the following child course(s):

.. Delete cross-listing with the following child course(s):

... Reverse Parent/Child relationship with:

.. Change Method of Instruction	.. Change Course Modifier	.. Change General Education Designation
---------------------------------	---------------------------	---

from:	to:	from:	to:	from:	to:
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X A-Lecture Only Pass/Fail Only Creative Inquiry	..
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X X Lecture Only	.. X Lab (w/fee)	.. X Graded	.. English Composition
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.. D-Seminar	.. Variable Title	.. Oral Communication
..

.. E-Independent Study Creative Inquiry Mathematics	..
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.. F-Tutorial (w/fee) Repeatable Natural Science w/Lab ..
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.. G-Studio	.. maximum credits	.. Natural Science w/Lab ..
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.. H-Field course	.. from:	.. Math or Science	..
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.. I-Study Abroad	.. to:	.. A&H (Literature)	..
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.. L-Lab (no/fee) A&H (Non-Literature)	..
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.. N/B-Lecture/Lab(w/fee) Social Science ..
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.. N/L-Lecture/Lab(no fee) CCA	..
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.. STS	..
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.. **Change Catalog Description:**

from:

to:

X **Change Prerequisite(s):**

from: All 3000 level ME courses

to: Prereq ME 4010 with a C or better or Concurrent enrollment

Learning Objectives:

Topical Outline:



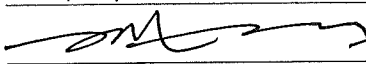
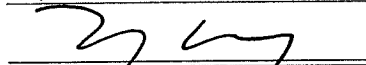
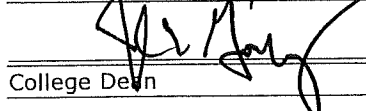
Evaluation:

Form Originator: JANEEN, Putman, Janeen Marie **Date Form Created:** 4/8/2015

Form Last Updated by: JANEEN, Putman, Janeen Marie Date Form Last Updated: 4/8/2015

Form Number: 8164

Approval

	4-9-15		5/1/2015
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
	4-9-15		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
	4/13/15	Robert S. Jones	7/14/15
Chair, College Curriculum Committee	Date	Provost	Date
	4/14/15		
College Dean	Date	President	Date
Director, Calhoun Honors College	Date		