

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

000152

X Change a Course - Abbrev & Number: BIOE- 4400

Corresponding Lab Course: --Corresponding Honors course: --

.. Add Honors course: --

Corresponding Graduate course: BIOE--6400

.. Add Graduate course: --Course Title: Biotech for Bio E

Brief Statement of Change:

We are updating the course title and making minor adjustments to the wording of the course description. Compared to our other technical elective courses, the title of this course is very generic and not readily recognizable by students. We are changing to a more specific title that is easily understood. Transcript title will be changed accordingly.

Last Term taught: 201308
Effective Term: 01/2015

X Change Catalog Title:
from: Biotechnology for Bioengineers to: Biopharmaceutical Engineering

... Change Abbrev to:
... Change Number to:

X Change Transcript Title:
from: Biotech for Bio E
to: Biopharmaceutical Engineering

.. | From: Fixed Credit: 3 (3,0)|To: Fixed Credit: (,)

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 Chan of Instruction		Change Course N	lodifier	Change General Education Designation	
from:	to:	from:	to:	from:	to:
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 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)	٠.,			CCA	••
•				STS	••

X Change Catalog Description:

from: Explores the principles necessary to use microorganisms, tissue culture, an enzymes in bioengineering applications, including molecular techniques, fermentation, process scale-up, purification processes, and FDA regulations. Emphasizes production of biopharmaceuticals derived from recombinant systems, including uses in medical systems.

to: This course studies the design principles necessary to use bacteria, fungi, and mammalian cells in bioengineering applications, including molecular techniques, fermentation, process scale-up, purification processes, and FDA regulations. The production of biopharmaceuticals derived from recombinant systems, including uses in medical systems is emphasized.

.. Change Prerequisite(s):

from:

to:

Learning Objectives: Students will be able to: 1) Characterize the differences between bacteria, yeast, insect, and mammalian cells including cellular organization and major chemical components. 2) Solve cell growth problems using well-characterized bioreactor models. 3) Identify major recombinant DNA techniques using to develop the organism used for biopharmaceutical production. 4) Design industrial-scale reactors to produce cell mass and biopharmaceutical products, including stoichiometry and kinetics considerations. 5) Characterize how genetic engineering can be used to manufacture unique biopharmaceutical products from cells. 6) Design purification process for biopharmaceutical products.

Topical Outline: Topic Weeks of Coverage

Cell growth models 1.5

Microbial growth & product formation 1.5

Stoichiometry 1

Bioreactors (Selection, Scale-up, Operation & Control) 3

Bioreactors Sterilization 1

Recombinant organisms (Microbial & Animal cell cultures) 3

Recovery & purification of biopharmaceutical products 3

FDA regulatory guidelines 1

Evaluation: BioE 4400 Course grading

Homework 40%

000153

BioE 4400 Grade Assignments

A 90 - 100%

B 80 - 90%

C 70 - 80% D 60 - 70%

F < 60%

BioE 6400 Course grading Homework 35% Project 15% Exams (3) 10% each Final Exam 20%

BioE 6400 Grade Assignments

A 90 - 100% B 80 - 90%

C 70 - 80%

F < 70%

Add course requirements for honors and/or 600-level courses (if applicable): BioE 6400: Projects will be an all semester

assignment. Students will research a commercial

biopharmaceutical, determine how it developed (including any patent information), outline or propose how it is manufactured including the cell culture and purification steps, and present these findings to the class.

Form Originator: KWEBB, Webb, Charles K Date Form Created: 9/2/2014

Form Last Updated by: KWEBB, Webb, Charles K Date Form Last Updated: 9/4/2014

Form Number: 7524

Ken Well	9/3/14	Parice W. Mulose	1013/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
Moduelosz	9/4/14		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
256	9/19/14	Robert Mones	11/5/2014
Chair, College Curriculum Committee	Date	Provost /	Date
Dr. Frunt	9/22/14		
College Dear	Date	President	Date
Director, Calhoun Honors College	Date		

000154

ERS J T Y Curriculum and Course Change System - Print Change/Delete Course Form

X Change a Course - Abbrev & Number: CH- 1010

Corresponding Lab Course: CH--1011 Corresponding Honors course: CH--1010

.. Add Honors course: --

Corresponding Graduate course: --

.. Add Graduate course: --

Course Title: General Chemistry

Brief Statement of Change:

The Department of Chemistry wishes to modify the existing pre-requisite for the course in order to ensure undergraduate students are adequately prepared for CH 1010 and have the appropriate Math background. Additionally, we wish to make the acceptable pre-requisites more obvious in terms of acceptable coursework. In the end, this will make enrollment in to CH 1010 easier for transfer students and students with Advanced Placement credit.

Last Term taught: 201405 .. Change Abbrev to:
.. Change Catalog Title:
from:
to:

.. Change Transcript Title:
from: General Chemistry
to:

.. From: Fixed Credit: 4 (3,3) To: Fixed Credit: (,)

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:
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 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)	
X N/B-Lecture/Lab(w/fee)					Social Science	••
N/L-Lecture/Lab(no fee)					CCA	**
					STS	

.. Change Catalog Description:

from:

to:

X Change Prerequisite(s):

from: CMPT score of 65 or higher or preq or concurrent enrollment: MATH 1010 or MATH 1020 or MATH 1030 or MATH 1050. to: CMPT score of 60 or higher; or completion of CH 1040 or MATH 1050; or a C or better in MATH 1010, 1020, or 1030; or concurrent enrollment in MATH 1040/1060, 1080, 2060, 2080, or STAT 2300.

Learning Objectives:	1070
Learning Objectives.	1070
Topical Outline:	

Evaluation:

Form Originator: CRISP, Crisp, Ashley E Date Form Created: 9/1/2014

Form Last Updated by: CRISP, Crisp, Ashley E Date Form Last Updated: 9/9/2014

Form Number: 7523

Annroval

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1350	9/9/14	Parice W. Murlosen	10/3/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
R. Xail Dieter	09-08-14		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date .
2724	9/19/14	Roberteraneo	11/5/201
Chair, College Curriculum Committee	Date	Provost	Date
Of Lang	a(2)/4		
College Dean	Date	President	Date

(TV E R S I 7 Y Curriculum and Course Change System - Print Change/Delete Course Form

X Change a Course - Abbrev & Number: CH- 4210

Corresponding Lab Course: --

Corresponding Honors course: CH--4210

.. Add Honors course: --

Corresponding Graduate course: CH--6210

.. Add Graduate course: -

Course Title: Adv Organic Chem

Brief Statement of Change:

The prerequisite for taking CH 3320 is being removed for CH4210, CH4210H, and CH6210. The CH 3320 prerequisite is not needed for success in the course. Historically, the 3320 (Physical Chemistry II) prerequisite was put in place since the Advanced Organic Course comprises a portion of Physical organic chemistry. In practice, however, an introduction to the basic principles of physical organic chemistry does not require two semesters of physical chemistry. Rather the foundation present from general chemistry should be sufficient. The removal of the prerequisite will more accurately reflect the way in which the course has been taught historically. The level of difficulty of the physical organic portion of the course does not warrant the Physical Chemistry II (3320) prerequisite. The current CH3320 prerequisite makes it very difficult for junior undergraduates to enroll for the course, and effectively inserts a year in between their last organic experience and CH 4210. The option of allowing the student to flow directly into CH4210 after a year of CH2230 and CH2240 will enhance the likelihood for success of undergraduate enrollees by minimizing learning-loss from the one-year hiatus.

Last Term taught: 201308 .. Change Abbrev to:
Effective Term: 01/2015 .. Change Number to:

.. Change Catalog Title: .. Change Transcript Title: from: Adv Organic Chem to:

to:

From: Fixed Credit: 3 (3,0) To: Fixed Credit: (,)

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 Modi	fier	Change General Edu	cation Designation
from:	to:	from:	to:	from:	to:
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 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)	٠.			Social Science	**
N/L-Lecture/Lab(no fee)				CCA	
				STS	••

.. Change Catalog Description:

from:

to:

X Change Prerequisite(s):

from: CH 2240, 3320, or equivalent.

to: For enrollment in CH4210 or CH4210H: CH 2240 or equivalent. For enrollment in CH6210: Graduate standing.

Learning Objectives:

Topical Outline:

Evaluation:

Form Originator: DWHITEH, Whitehead, Daniel C Date Form Created: 8/29/2014

Form Last Updated by: DWHITEH, Whitehead, Daniel C Date Form Last Updated: 9/5/2014

Form Number: 7520

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Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curpley um Committee	Date 43/201
R. Harl Dieter	59-D8-14	1 W toll	10/15/14
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
Zjey	9/19/1	y Robert & Jones	11/5/201
Chair, College Cyrriculum Committee	Date	Provost	Date
Sharley	7/27/4		
College Dean	Date	President	Date
Director, Calhoun Honors College	Date		



Add Undergraduate Course

Course Attributes	8			
Subject Abbreviation Course Number: Effective Term: College: Department: Form	3100 Spring 2015 Engineering and Science Environmental Engr & Earth Sci	Catalog Title: Transcript Title: Cross-reference(s): Grade Mode: Syllabus	INTRODUCTION TO NUCLEAR ENGINEER INTRO TO NUCLEAR ENGINEERING Standard Letter	ING Additional Fee? Justification
User ID: devol Date: 09/18/20	Name: Timothy Devol	•	0Syllabus-20140918152254.docx s for Spring 2015	
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Strengthen Pi Alignment of Alternative D Improve Tim Evolution of t Changing Pro Address DWI	rogram Requirement(s) Student Learning Outcomes delivery of Content e to Degree the Discipline erequisites F Rates eation Modifications		Field Course Independent Study Internship Lab No Fee Lab With Fee Other Seminar Studio Tutorial	
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(required) 25 % Pro lowest two grades w	Exam #1 15 % Exam #2 15 % Fin blem Sets** (11) 30 % *No make vill be dropped for determination of bblem set grade will be dropped for a final grade.	up quizzes, f the final		

Catalog Description

Technological, industrial and medical applications of ionizing radiation and radioactive materials. Topics to be covered include: basic nuclear physics, interactions of radiation with matter, radiation detection and measurement, fission reactors, and the nuclear fuel cycle.

Prerequisite(s) Corequisite(s)

Grade of a C or better in MthSC 2080.

Required course for students in

NERS minor

000167

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

New course being developed to support a Nuclear Regulatory Commission Scholarship grant that was recently awarded.

Textbook(s)

J. Kenneth Shultis and Richard E.Faw, Fundamentals of Nuclear Science and Engineering, 2nd edition, CRC Press, 2007.

Learning Objectives

Course Objectives: to study radiation, radioactivity and radioactive decay, to study basics of radiation interactions in matter and radiation detection, to study the basics of nuclear power reactors and the nuclear fuel cycle, to study the applications of nuclear energy in industry and medicine, and to lay the foundation for further study in nuclear engineering and radiological sciences. Learning Outcomes: Classify the difference between ionizing radiation and radioactivity, Evaluate possible risks and benefits of radiation and radioactivity, Identify means to protect the general public from radiation and radioactivity. Explain the basic operations of a nuclear power plant

Topical Outline

Fundamental Concepts; Modern Physics Concepts Atomic/Nuclear Models Nuclear Energetics Radioactivity Binary Nuclear Reactions Radiation Interactions in Matter Detection and Measurement of Radiation Doses and Hazard Assessment Nuclear Reactors Nuclear Fuel Cycle Nuclear Technology in Industry and Research Medical Applications of Nuclear Technology

9/18/2014	Add Undergraduate Course - Curriculum & Course Change System	00016
Chair, Department Curriculum Committee		9/19/14
Department Chair		9/19/14
Chair, College Curriculum Committee		9/19/14
College Dean College Dean		912/4 Date
Director, Calhoun Honors College		Date
Chair, Ondergraduate Curriculum Committee		10/3/30/4 Date
Chair, Graduate Curriculum Committee		Date
Provost		11/5/20 14 Date
President		Date

10/3 The committee appeared with a proper topical ontline. See attached

Add Undergraduate Course

Course Number: 3100 Tr Effective Term: Spring 2015 Cr College: Engineering and Science Gr Department: Environmental Engr & Earth Sci	anscript Title: INTRODUCTION TO NUCLEAR ENGINEERING anscript Title: INTRO TO NUCLEAR ENGINEERING coss-reference(s): cade Mode: Standard Letter Additional Fee? stification labus coad File: EES3100Syllabus-20140918152254.docx
Date: 10/22/2014Number: 3903 Desc	eription: Syllabus for Spring 2015
Fixed Credit Course Credit HrsContact Hrs 3	Schedule Types Field Course Independent Study Internship Lab No Fee Lab With Fee Lecture Other Seminar Studio Tutorial
— Evaluation ————————————————————————————————————	Year 1: 20 Year 2: 25 Year 3: 30 Year 4: 30
Undergraduate A 90 - 100 B 80 - 89 C 70 - 79 D 60 - 69 F < 60 Quizzes* (12) 15 % Exam #1 15 % Exam #2 15 % Final (required) 25 % Problem Sets** (11) 30 % *No make to quizzes, lowest two grades will be dropped for determine the final grade. **Lowest problem set grade will be dropped determination of the final grade. Catalog Description Technological, industrial and medical applications of ionize physics, interactions of radiation with matter, radiation determination determination of the final grade.	applation of

Grade of a C or better in MthSC 2080. Required course for students in

NERS minor

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

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Textbook(s)

J. Kenneth Shultis and Richard E.Faw, Fundamentals of Nuclear Science and Engineering, 2nd edition, CRC Press, 2007.

Learning Objectives

Course Objectives: to study radiation, radioactivity and radioactive decay, to study basics of radiation interactions in matter and radiation detection, to study the basics of nuclear power reactors and the nuclear fuel cycle, to study the applications of nuclear energy in industry and medicine, and to lay the foundation for further study in nuclear engineering and radiological sciences. Learning Outcomes: Classify the difference between ionizing radiation and radioactivity, Evaluate possible risks and benefits of radiation and radioactivity, Identify means to protect the general public from radiation and radioactivity. Explain the basic operations of a nuclear power plant

Topical Outline

Fundamental Concepts (3 hrs); Modern Physics Concepts (3 hrs); Atomic/Nuclear Models (3 hrs); Nuclear Energetics (1.5 hrs); Radioactivity (4.5 hrs); Binary Nuclear Reactions (3 hrs); Radiation Interactions in Matter (3 hrs); Detection and Measurement of Radiation (6 hrs); Radiation Doses and Hazard Assessment (3 hrs); Nuclear Reactors (6 hrs); Nuclear Fuel Cycle (3 hrs); Nuclear Technology in Industry and Research (3 hrs); Medical Applications of Nuclear Technology (3 hrs)

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

0001.69

Course Attributes						
Subject Abbreviation	n:EES-Env Engr and Science	Catalog T	itle:	Nuclear Fuel Cycle and Radioactive Waste Management		
Course Number:	4120	Transcrip	t Title:	Nuclear Fuel Cycle		
Effective Term:	Fall 2015	Cross-refe	٠,			
College:	Engineering and Science	Grade Mo		Standard Letter		
Department:	Environmental Engr & Earth		ional Fee	?		
_ Four		Justification				
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Evaluation			,ī			
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A 90 - 100						
B 80 - 89						
C 70 - 79						
D 60 - 69						
F < 60						
` '	nal Exam 15 % Homework (x5)	25 %				
Group Projects (x2)	20 % Quizzes 10 %					

Catalog Description

Materials flow throughout the nuclear fuel cycle emphasizing safe handling of radioactive material; environmental aspects of fuel cycle activities; radioactive waste management; nuclear nonproliferation and safeguards; nuclear forensics.

Prerequisite(s) Corequisite(s)

Add Undergraduate Course - Curriculum & Course Change System

Prerequisite: EES 3100 Corequisite: EES 4100 Concurrent registration in 4100

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

Interest expressed by students in geology and environmental engineering. Large enrollment of ME 4260 shows cross-disciplinary interest in nuclear energy topics.

Textbook(s)

The Nuclear Fuel Cycle: Analysis and Management, 3rd Edition, Nicholas Tsoulfanidis, American Nuclear Society (2013). Older editions may work, as well, but be sure to confirm assignments with the new edition.

Learning Objectives

• Sketch the nuclear fuel cycle and identify the materials (products and waste) flow throughout. • Identify long term vs. short term risk drivers for facilities and processes throughout the nuclear fuel cycle. • Discuss possible disposal options for different types of radioactive waste based on knowledge of the scientific, as well as political challenges, surrounding waste disposal.

Topical Outline

1. Intro to the Nuclear Fuel Cycle (3 MWF lectures) 2. Front end: mining, milling, conversion, enrichment, fuel fabrication (6 MWF lectures) 3. Nuclear reactors intro (3 MWF lectures) 4. Linking legacies (5 MWF lectures) 5. Spent Nuclear Fuel (4 MWF lectures) 6. Reprocessing (3 MWF lectures) 7. Nuclear Waste Forms (5 MWF lectures) 8. Geologic Disposal (5 MWF lectures) 9. Low Level Waste (3 MWF lectures) 10. Nuclear Nonproliferation and Safeguards (3 MWF lectures) 11. Nuclear Forensics (3 MWF lectures) 12. Two course exams (2 MWF lectures)

9/18/14	Add Undergraduate Course - Curriculum & Course Change System	000
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Charr, Department Curriculum Committee		Date
Wand I Dreedy	Marie Contraction of the Contrac	9/19/14
Department Chair		9/19/14
Chair, College Curriculum Committee		9/23/14 Date
College Dean		Date
Director, Calhoun Honors College		Date
arice W. Murbose		10/3/2014
Chair, Undergraduate Curriculum Committee		Date
Chair, Graduate Curriculum Committee		Date
Robert & Mones		11/5/2014
Provost		Date
President		Date

9/8/2014		Curriculum	and Course Change System	
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E-Independent Study	Creative Inquiry	M	athematics	
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G-Studio	maximum credits	N	atural Science w/Lab	
H-Field course	from:		ath or Science	
I-Study Abroad	to:		&H (Literature)	
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Approval				
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Department Chair		Data	Chair Cardinate Contact Contact	
Spart Wiene Chair		Date	Chair, Graduate Curriculum Committee	Date
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		Lucia Milai	110131001
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
	9/11/2014		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
Shoul I Treeden	9/11/14	Robut & Jones	11/5/2014
Chair, College Curriculum Committee	Date	Provost	Date
2747	9/19/14		
College Dean	Date	President	Date
the day	9/2/14		- Transfer Control Con
Director, Calhoun Honors College	Date		

/8/2014		Curriculu	ım and Course Change Sy	stem	
CLEMSON Curricu	ulum and Course Ch	ange Svet	em - Print Change/I	Delete Course Form	000
X Change a Course - Abb Corresponding Lab Course: E Corresponding Honors course Add Honors course:- Corresponding Graduate cour Add Graduate course:- Course Title: Cpstone De	rev & Number: EES ES4751 : se:		em « Frinc Guange)	criete course rorm	
Brief Statement of Change The prerequisites are being clenvironmental curriculum. The with the current courses requests Term taught: 201401 (Effective Term: 08/2015 (1975)	nanged to reflect the co e change is to replace ired in the major.	the water a			
to: to: From: Fixe	m: Capstone Design Pled Credit: 3 (1,6) To: F	roject ixed Credit:	(,)		
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from: to	: from:	to: fr	om:	to:	
A-Lecture Only	Pass/Fail Only		Creative Inquiry	**	
B-Lab (w/fee)	X Graded		English Composition	••	
	Variable Title	I	Oral Communication		
	Creative Inquiry	1	Mathematics	••	
,	Repeatable	4	Natural Science w/Lab		
	maximum credits		Natural Science w/Lab	••	
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X N/B-Lecture/Lab(w/fee)			Social Science		
N/L-Lecture/Lab(no fee)	1 .	- I	CCA		
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from:					
to:					
X Change Prerquisit(s): from:Preq: CE 3410 and EES to:Preq: CE 3410 and EES 30	4020 and EES 4030 a 30 and EES 3040 and	nd EES 430 EES 3050 a	0. Coreq: EES 4751. nd EES 4300. Coreq: El	ES 4751.	
LearningObjectives:		Articulary West Patricular Science and Communication of the Communicatio	and the second s		
Topical Outline:				inimelligibility (IS 1814 fortunate surrepresentati	
Evaluations		CONTRACT OF COLUMN STATE OF THE		Made and associate with an adding to proper principle.	

Form Originator: TJVRC, Overcamp, Thomas J Date Form Created: /6.7/2014
Form Last Updated by: TJVRC, Overcamp, Thomas J Date FormLast Updated: 6/17/2014
Form Number 7451

	,	Parice W. Muliose	10/3/2011
Chair, Department Curriculum Committee	Date /	Chair, Undergraduate Curriculum Committee	Date
	9/11/201	4	
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
David I treeling	9/11/19	Robut IN Jones	11/5/2014
Chair, College Curriculum Committee	Date	Provost	Date
274	9/19/14		
College Dean	bate	President	Date
- Ar An	NY A		See a se
Director, Calhoun Honors College	Date		

Director, Calhoun Honors College

UNIVERSITY Curricul	um and Course Chang	je System -	Print Change/D	Delete Course Form	
X Change a Course - Abbro	ev & Number: MSE- 21	.00			Mrs. cs -
Corresponding Lab Course: -					0001.74
Corresponding Honors course	<u> </u>				
Add Honors course: Corresponding Graduate cour	rco:				
Add Graduate course:					
Course Title: Intro to Mat					
Brief Statement of Change	4:				
Change the prerequisite of M		te or Concur	rent Enrollment"		
Last Term taught: 201405	•				
Effective Term: 01/2015	Change Number to:				
Change Catalog Title:					
 	om: Intro to Mat Science				
to: to		end Cundite (`		
Change of Credit Variable C	ed Credit: 3 (3,0) To: Fix				
Add cross-listing with th			-),(-)		
Delete cross-listing with					
Reverse Parent/Child re		urse(s).			
Change Method	Change Course Mod	ifier Cha	nge General Edi	ication Designation	
of Instruction	change course riou	inei Ciia	nge deneral Edt	ication besignation	
from: to:	from:	to: from:		to:	
X A-Lecture Only	Pass/Fail Only		tive Inquiry		
(, , , , , , , , , , , , , , , , , , ,	X Graded		•	••	
	Variable Title	3		••	
	Creative Inquiry			••	
	Repeatable maximum credits	. Natu	ral Science		
	from:	1 -	ral Science	••	
	to:	w/La		**	
L-Lab (no/fee)		3			
N/B-		l l		••	
Lecture/Lab(w/fee) N/L-Lecture/Lab(no			(Non-Literature) al Science	••	
fee)		CCA		••	
		STS			
Change Catalog Descript	ion:	,			
from:					
to:					
X Change Prerequisite(s):	WILL 4000				
from: Preq: CH 1010 and MA to: Preq: CH 1010 Rreq or cor		TU 1000			
Learning Objectives:	icurrent enronment: MA	IH 1080.			
Topical Outline:					
Evaluation:	1/40 (1 - 1 - 1/4				
Form Originator: LGARY, Lic	-with Corbelle	r Guantad.	0/40/2044		
Form Last Updated by: LGA				72014	
Form Number: 7507	inti, Lickincia, Gary C Dat	e i Oilli Las	ot opuateu. 9/13	72014	
Approval					
0/1/1-		1 ()			1 .
		9/18/2014	/ Mice!	W. Mulose	שומבלכלמו
Chair, Department Curriculum	Committee				דיעש וכן ען
Chair, Department Curriculum	. Committee	Date /	Chair, Undergrad	uate Curriculum Committee	Date'
V CHILLING		9/17/14			
Department Chair	,	Date	Chair Graduate (Curriculum Committee	Dato
) _		1.1.	In	Jamediani Committee	Date ,
V MI		9//9//4	Robert	Wynes	11/5/20
Chair, College Curriculum Con	nmittee	Date /	Provost		Date
A			3		Pacc
John		1/23/19			
College Dean		Date	President		Date

Date

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

X Change a Course - Abbrev & Number: MSE- 3280

Corresponding Lab Course: -Corresponding Honors course: --

.. Add Honors course: --

Corresponding Graduate course: -.. Add Graduate course: -Course Title: Phase Diagrams

Brief Statement of Change:

Change Prerequisite

Last Term taught: 201401 .. Change Abbrev to:
Effective Term: 01/2015 .. Change Number to:
.. Change Catalog Title:
from:
from: Phase Diagrams
to:
to:

.. From: Fixed Credit: 3 (3,0) To: Fixed Credit: (,)

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

.. Change Catalog Description:

from: to:

X Change Prerequisite(s):

from: Preq: MSE 3260 to: Preq: MSE 3260 or CH 3310 Learning Objectives: Topical Outline:

Evaluation:

Form Originator: LGARY, Lickfield, Gary C Date Form Created: 8/8/2014

Form Last Updated by: LGARY, Lickfield, Gary C Date Form Last Updated: 8/8/2014

Form Number: 7496

		Pasice W. Murlose	10/3/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
PIBRO	8/27		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
ABoy Li	9/8/	4 Robert & Vones	11/5/2014
Chair, College Curriculum Committee	Date /	Provost	Date
274	9/19/1	14	
College Dean	Date	President	Date
Dright Son	9/2/14		
Director, Calhoun Honors College	Date		

CLEMSON					•	6% -
UNIVERSITY Curi	icu	lum and Course C	hange	System - Print Chan	ige/Delete Course Form	UNA
X Change a Course -			_	-	- 1	
Corresponding Lab Cor						
Corresponding Honors						
Add Honors course						
Corresponding Gradua						
Add Graduate cou						
Course Title: Honors						
Brief Statement of C	har	nge:				
Change prerequisite -	rem	nove one course.				
Last Term taught: 201	401	Change Abbrev	to:			
Effective Term: 08/20:	14	Change Numbe	r to:			
Change Catalog Ti	tle:	Change Transci	ript Tit	le:		
from:		from: Honors Rese	-			
to:		to:				
From	m: I	· Fixed Credit: 3 (0,0)	To: Fi	ked Credit: (.)		
Change of Credit Var						
Add cross-listing v			•			
Delete cross-listin						
Reverse Parent/Ch				<u> </u>		
Change Method	mu	1		or Change Coneral	Education Designation	
of Instruction		Change Course	Mount	ein. Change General	Education Designation	
from:	to	from:	to:	from:	to:	
A-Lecture Only		Pass/Fail Only		Creative Inquiry		
B-Lab (w/fee)		X Graded		English	••	
D-Seminar	••	Variable Title		Composition		
E-Independent	••	Creative Inquiry		Oral	••	
X Study		Repeatable		Communication		
F-Tutorial (w/fee)		maximum credits		Mathematics		
G-Studio		from:		Natural Science		
H-Field course		to:		w/Lab		
I-Study Abroad				Natural Science		
L-Lab (no/fee)				w/Lab	••	
N/B-Lecture				Math or Science	••	
/Lab(w/fee)				A&H (Literature)	••	
N/L-Lecture/Lab(no				A&H		
fee)				(Non-Literature)	••	
				Social Science	**	
				CCA	••	
				STS	••	
Change Catalog De	scr	iption:				
from:						
to:						
X Change Prerequisit	te(s	s):				
from: Preq or concurre	ent e	enrollment: MSE 32	70 and	MSE 3280.		
to: Preq or concurrent	enr	ollment: MSE 3270.				

Learning Objectives: Topical Outline:

Form Originator: LGARY, Lickfield, Gary C Date Form Created: 6/3/2014
Form Last Updated by: LGARY, Lickfield, Gary C Date Form Last Updated: 6/3/2014

Form Number: 7436

Approvai		,	. 11 /
		/ arica W. Murlose	10/3/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
PIBE	8/27		
Depar,tment, Chajr	Dațe _f	Chair, Graduate Curriculum Committee	Date
Albuli	9 [8]11	Robert & Dones	11/5/2019
Chair, College Curriculum Committee	Date /	Provost	Date
272	7/19/1	y	
College Dean	Date	President	Date
Jun Bin 96	9/24		

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

000177

X Change a	Course -	Abbrev	&	Number:	MSE-	4020
------------	----------	--------	---	---------	------	------

Corresponding Lab Course: --Corresponding Honors course: --

.. Add Honors course: --

Corresponding Graduate course: MSE--6020

.. Add Graduate course: --

Course Title: Solid State Material

Briet	Statement of	Change:

Change prerequisites

Last Term taught: 201308 .. Change Abbrev to: Effective Term: 08/2014 .. Change Number to: .. Change Catalog Title: .. Change Transcript Title: from: Solid State Material from: to:

to:

From: Fixed Credit: 3 (3,0) To: Fixed Credit: (,)

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

.. Change Catalog Description:

from:

to:

X Change Prerequisite(s):

from: Preq: MSE 3260 and MATH 2080 and PHYS 2210.

to: Preq: MSE 3260 or CH 3310, and MATH 2080 and PHYS 2210.

Learning Objectives:

Topical Outline:

Form Originator: LGARY, Lickfield, Gary C Date Form Created: 6/3/2014

Form Last Updated by: LGARY, Lickfield, Gary C Date Form Last Updated: 6/3/2014

Form Number: 7437

Annuoval

Approval	1	Parice W. Herbose	1 . 1 . 1
		Comment, marie	10/3/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
PIRC	8/27		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date ,
flow.	9 /8/11	Robert & Someo	11/5/2019
Chair, College Curriculum Committee	Dațe	Provost	Date
274	7/19/19		
College Dean	Date	President	Date
Ala dara	9/23		

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

X Change a Course - Abbrev & Number: MSE- 4070

Corresponding Lab Course: MSE--4071 Corresponding Honors course: --

.. Add Honors course: --

Corresponding Graduate course: --

.. Add Graduate course: --

Course Title: Senior Capstone Design

Brief Statement of Change:

Change prerequisites

Last Term taught: 201401.. Change Abbrev to: Effective Term: 08/2014 .. Change Number to: .. Change Catalog Title: .. Change Transcript Title: from: Senior Capstone Design from:

to: to:

.. From: Fixed Credit: 3 (1,6) To: Fixed Credit: (,)

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

.. Change Catalog Description:

from:

to:

X Change Prerequisite(s):

from: Preq: IE 3840.Preq or concurrent enrollment: MSE 4410.Coreq: MSE 4071. to: Preq: IE 3840.Coreq: MSE 4071.

Learning Objectives:

Topical Outline:

Evaluation:

Form Originator: LGARY, Lickfield, Gary C Date Form Created: 6/3/2014

Form Last Updated by: LGARY, Lickfield, Gary C Date Form Last Updated: 6/3/2014

Form Number: 7438

Арргочи	<u>;</u>	(asice W. morrose	10/3/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
PIBZ	8127		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date ,
flbul.	9/8/16	Robertano	115/201
Chair, College Curriculum Committee	Date	Provost	Date
2767	9/19/10	1	
College Dean	Date	President	Date
10 m Alm	6/21/6		

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

000179

X Change a Course - Abbrev & Number: MSE- 4150

Corresponding Lab Course: --

Corresponding Honors course: MSE--4150

.. Add Honors course: --

Corresponding Graduate course: MSE--6150

.. Add Graduate course: --Course Title: Polymer Sc Engr

Brief Statement of Change:

Change Prerequisites

Last Term taught: 201308 ... Change Abbrev to:
... Change Number to:
... Change Catalog Title:
from: Polymer Sc Engr

to:

from: Polymer Sc Engr

); |t

to:

..

From: Fixed Credit: 3 (3,0) To: Fixed Credit: (,)

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

.. Change Catalog Description:

from:

to:

X Change Prerequisite(s):

from: Preq: CH 2240; or both CH 2010 or CH 3300.

to: Preq: CH 2240 or CH 2010

Learning Objectives:

Topical Outline:

Evaluation:

Form Originator: LGARY, Lickfield, Gary C Date Form Created: 6/3/2014

Form Last Updated by: LGARY, Lickfield, Gary C Date Form Last Updated: 6/3/2014

Form Number: 7439

		Parice W. Merhose	1013/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
PJG	812	7	
Department Chair	Date	Chair, Graduate Curriculum Committee	Date,
fleber L'	9/8/1	4 Robert Works	11/5/201
Chair, College Curriculum Committee	Date,	Provost	Date
224	9/19/1	/4	
College Dean	Date /	President	Date
$\Lambda \cap \Lambda$	4.00	0	

CLEMSON Curricu	ilum and Course Cha	nae Si	vstom - Print Chan	ge/Delete Course Form			
				ge/ Delete Course Form	000180		
_	X Change a Course - Abbrev & Number: MSE- 4450 Corresponding Lab Course:						
Corresponding Honors co							
Add Honors course: -							
Corresponding Graduate							
Add Graduate course							
Course Title: Practice of							
Brief Statement of Cha	nge:						
Change Prerequisite	_						
Last Term taught: 20140:	1 Change Abbrev to	o:					
Effective Term: 08/2014	Change Number t						
Change Catalog Title:	Change Transcrip	t Title	- :				
from:	from: Practice of Mat						
to:	to:	J					
From:	Fixed Credit: 1 (1,0) To	o: Fixed	d Credit: (,)				
Change of Credit Variabl	le Credit: - (-), (-) V	ariable	Credit: - (-),(-)				
. Add cross-listing with							
Delete cross-listing w							
Reverse Parent/Child			(-/-				
Change Method	1	odifier	Change General	Education Designation			
of Instruction				aaaaaaa Beerginaaaa			
from: to:	from:	to:	from:	to:			
	X Pass/Fail Only		Creative Inquiry				
B-Lab (w/fee)	Graded		English				
X D-Seminar	Variable Title		Composition				
E-Independent	Creative Inquiry		Oral				
Study	Repeatable		Communication	••			
F-Tutorial (w/fee)	maximum credits		Mathematics	••			
G-Studio	from:		Natural Science				
H-Field course	to:		w/Lab				
I-Study Abroad			Natural Science				
L-Lab (no/fee)			w/Lab				
N/B-Lecture			Math or Science	••			
/Lab(w/fee)		1	A&H (Literature)	••			
N/L-Lecture/Lab(no			A&H				
fee)			(Non-Literature)				
		Ī	Social Science	••			
			CCA STS	••			
Change Catalog Descr	 intion:	i	313	••			
from:	iption:						
to:							
X Change Prerequisite(s							
from: Preq: MSE 4320.	·/·						
to: Preq: Senior Standing.							
Learning Objectives:							
Topical Outline:							
Evaluation:							
	Lightfield Come C B===	Ea	Cuantada (12/2014				
Form Originator: LGARY, Form Last Updated by: I				4. 6/2/2014			
Form Number: 7440	LOAKT, LICKHEIU, Gdfy (_ vale	Toriii Last Opuate	a: 0/3/2014			

Approvat			
		/ Grice W. Morrose	10/3/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
PIBE	8127		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date,
HIB-A.	9/8/11	1 Rodal Tellones	11/5/7014
Chair, College Curriculum Committee	Date	Provost	Date
227	7/19/1	4	
College Dean	Date	President	Date
of any	9/2)(14	V	

$\overline{s+1}$ Curriculum and Course Change System - Print Change/Delete Course Form

000181

Χ	Change a	Course -	Abbrev	&	Number:	MSE-	4900
C	orrespondir	ng Lab Cou	irse:				

Corresponding Honors course: --

.. Add Honors course: --

Corresponding Graduate course: MSE--6900

.. Add Graduate course: --Course Title: Sel Topics in Ms&E

Brief	Statem	ent of	Change
-------	--------	--------	--------

Remove prerequisite of "Consent of Instructor"

Last Term taught: 201401 ... Change Abbrev to:
Effective Term: 08/2014 ... Change Number to:
... Change Catalog Title:
from: Change Transcript Title:
from: Sel Topics in Ms&E

to: to:

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

Change of Credit Variable Credit: 1-6 (-), (-) 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	4odifier	Change General E	ducation Designatio
X A-Lecture Only B-Lab (w/fee) D-Seminar E-Independent Study F-Tutorial (w/fee) G-Studio H-Field course	:from: Pass/Fail Only X Graded Variable Title Creative Inquiry X Repeatable maximum credits from: to:		from: Creative Inquiry English Composition Oral Communication Mathematics Natural Science w/Lab Natural Science w/Lab Math or Science A&H (Literature) A&H (Non-Literature Social Science CCA	· · · · · · · · · · · · · · · · · · ·

.. Change Catalog Description:

from:

X Change Prerequisite(s):

from: Preq: Consent of Instructor

to: none

Learning Objectives:

Topical Outline:

Evaluation:

Form Originator: LGARY, Lickfield, Gary C Date Form Created: 6/25/2014

Form Last Updated by: LGARY, Lickfield, Gary C Date Form Last Updated: 6/25/2014

Form Number: 7455

Approvai			
		Cavice W. Mirhose	1013/2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
PISa	8127		
Department Chair	Date _f	Chair, Graduate Curriculum Committee	Date
_ Khali	9/8/11	Robert Women	11/5/2014
Chair, College Curriculum Committee	Date /	Provost	Date
2747	1/19/10	1	
College Dean	Date	President	Date
July	9/23/19		Dute
Director, Calhoun Honors College	Date		



College Dean

UNIVERSITY Curi	riculum and Course Cha	nge System	- Print Change/Delete Course Form	
X Change a Course - Ab			5. ,	
Corresponding Lab Course			A 3.	100 CD
Corresponding Honors cou			U	58100
Add Honors course:				
Corresponding Graduate c				
Add Graduate course:				
Course Title: Introducto	ory Physics			
Brief Statement of Char Clarification about which do not approve, but student's	lepartment could approve degree granting program		Physics department will	
Last Term taught: 201401 Effective Term: 01/2015	Change Abbrev to: Change Number to:			
Change Catalog Title:	The same of the sa	tle:		
	from: Introductory Physic			
_	to:			
From: F	Fixed Credit: 4 (3,2) To: Fi	xed Credit: (,)	
Change of Credit Variable	e Credit: - (-), (-)	ble Credit: - ((-),(-)	
Add cross-listing with	the following child cou	rse(s):		
Delete cross-listing w	ith the following child o	course(s):		
Reverse Parent/Child	relationship with:			
Change Method of Instruction	Change Course M	odifier C	hange General Education Designation	
from:	to: from:	to: from	n: to:	
A-Lecture Only	Pass/Fail Only		roativo Inquiry	
B-Lab (w/fee)	X Graded		nglish Composition	
D-Seminar	Variable Title		ral Communication	
E-Independent Study	Creative Inquiry		lathematics	
F-Tutorial (w/fee)	Repeatable	N	atural Science w/Lab	
G-Studio	maximum credits	N	atural Science w/Lab	
H-Field course	from:	M	ath or Science	
I-Study Abroad	to:	A	&H (Literature)	
L-Lab (no/fee)	(A	&H (Non-Literature)	
X N/B-Lecture/Lab(w/fee)			ocial Science	
N/L-Lecture/Lab(no fee)		C		
	!	s	TS	
X Change Catalog Descri			. I.C. Burgerson	
Physics and Astronomy	ted for PHYS 1220, but m	ay be substiti	ited for PHYS 2070, only with the approval of the De \mid	partment of
Physics and Astronomy.	for BUVC 1220, but may	ha aubatituta.	ರ್ಗಲ್ರಗಾಗು I for PHYS 2070 with dep artmental approval. <i>ी</i>	+ A
Change Prerequisite(s		be substituted	1	- U
from:	;);		The v	
to:			Students major depo	adrnesit.
Learning Objectives: no	change	***************************************		V. 11 1 1 1
Topical Outline: no change				
	Je			
Evaluation: no change Form Originator: GLEHM.	AC, Lehmacher,Gerald A E	ate Form Cı	reated: 9/8/2014	
Form Last Updated by: (Form Number: 7559	GLEHMAC, Lehmacher,Ger	ald A Date F o	orm Last Updated: 9/9/2014	
Approval				
P. Gelins	en.	ala Inc	4	1.11.
		17/7/14	(Casice W. Murkoser	10/3/201
Chair, Department Curricula	um Committee	Date	Chair, Undergraduate Curriculum Committee	Date
Machi		9 Swlo4	1	
Department Chair		Date	Chair, Graduate Curriculum Committee	Date
200		9/19/10	bear	1112/00
Chair, College Curriculum C	Committee	Date .	Provost 45000	Date
,go carriparant C		10000 1	1.0.000	pate

Date

President

Date

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

000185

v	Change	Cource -	Abbrox 9	. Nicima havi	DUVC 46EA	
Л	unange a	course -	ADDIEV &	k Number:	PHYS- 4650	

Corresponding Lab Course: --

Corresponding Honors course: PHYS--4650

.. Add Honors course: --

Corresponding Graduate course: PHYS--6650

.. Add Graduate course: --

Course Title: Thermo and Stat Mech

Brief Statement of Change:

Clearer definition of prerequisites

Last Term taught: 201401 .. Change Abbrev to:
.. Change Number to:
.. Change Catalog Title:
from:
from: Thermo and Stat Mech

to:

to:

.. From: Fixed Credit: 3 (3,0) To: Fixed Credit: (,)

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	Change Course Modifier	Cha				

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

.. Change Catalog Description:

from:

to:

X Change Prerequisite(s):

from: Preq: six hours of physics beyond PHYS 2220.
to: Preq: PHYS 3210.
Learning Objectives:

Topical Outline: Evaluation:

Form Originator: GLEHMAC, Lehmacher, Gerald A Date Form Created: 9/8/2014

Form Last Updated by: GLEHMAC, Lehmacher, Gerald A Date Form Last Updated: 9/9/2014

Form Number: 7560

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Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
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Department Chair	Date	Chair, Graduate Curriculum Committee	Datę
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Chair, College Carriculum Committee	Date	Provost	Date
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College Dean	Date	President	Date
Director, Calhoun Honors College	Date		