

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

Formerly University of Missouri-Rolla

#### Minutes of the Campus Curricula Committee Meeting February 6, 2019 9:00am, Bertelsmeyer 110H (For Faculty Senate Meeting of February 21, 2019)

Attendees: Steve Raper, Petra Dewitt, Thomas Schuman, Barry Flachsbart, Kyle Perry, Kristy Giacomelli, and Brittany Parnell

The following curriculum forms were discussed and approved:

#### **Course Change Forms:**

•	
File: 786.1	BIO SCI 3353: Comparative Vertebrate Chordate Anatomy
File: 975.1	BIO SCI 4433: Genomics
File: 1637.1	BIO SCI 4533: Neurobiology
File: 1488.3	BIO SCI 4563: Global Ecology
File: 4593	BIO SCI 6433: Advanced Genomics
File: 4594	BIO SCI 6533: Advanced Neurobiology
File: 4592	BIO SCI 6563: Advanced Global Ecology
File: 4291.6	CHEM ENG 5161: Intermediate Molecular Engineering
File: 1747.1	ECON 4540: Energy Economics
File: 2214.11	ELEC ENG 4096: Electrical Engineering Senior Project I
File: 1388.2	ELEC ENG 4097: Electrical Engineering Senior Project II
File: 691.1	ELEC ENG 6830: Clustering Algorithms
File: 1748.1	ENGLISH 3218: The British Novel
File: 254.1	MS&E 5210: Tissue Engineering
File: 2334.1	MS&E 6210: Advanced Tissue Engineering
File: 1260.1	PET ENG 4210: Drilling and Well Design

#### **Experimental Course Forms:**

File: 4588	BIO SCI 4001.004: Animal Behavior
File: 4589	EXP ENG 6001.005: Construction Blasting

The Course Curricula Committee (CCC) unanimously did not approve *ENGLISH 3219: The Lives and Works* of J.R.R. Tolkien and C.S. Lewis, due to significant changes in content and course title; the committee recommended an experimental course and course deactivation to be submitted.



Formerly University of Missouri-Rolla

The CCC discussed the issue/concern with regard to implementing a policy for prior admission into a discipline or department as an appropriate course prerequisite. The committee understands that this policy is not intended to be broadly applied for use in most classes or departments, but would be useful to departments as a means to control enrollments under special circumstances. The CCC unanimously approved this as an appropriate prerequisite. The Registrar's office indicated that CourseLeaf can verify this as a prerequisite.

The CCC discussed the implications of establishing a grade of "B" as a satisfactory course prerequisite. The CCC unanimously did not approve this as a legitimate prerequisite for a course. Current regulations for grade replacement do not allow replacement of a "C" grade. Consequently, a student could earn a "C" grade in a specified prerequisite course which would prohibit later enrollment in the same course, effectively stopping progress toward a degree and graduation. The committee heard a suggestion that, in lieu of changing the current prerequisite of 'minimum of a C grade' to a B grade, the department should instead change the passing requirements of the prerequisite course, which is taught by the same department. This change would make the prerequisite course to be at an appropriate level to attain the prerequisite skills needed in the following course as a C grade.

The tentative March 6, 2019 CCC meeting was canceled.

The meeting adjourned at 9:42am.

Steph a. Rapen

Stephen A. Raper, Chair Missouri S&T Campus Curricula Committee

Date Submitted: 12,	/13/18 2:24 pm	
Viewing: <b>BIO S</b>	CI 3353 4343 : Comparative Vertebrate Chordate	In Workflow
Anatomy		1. RBIOLSCI Chair 2. CCC Secretary
-		3. Sciences DSCC
File: 786.1	0.11.40.000	Chair
Last edit: 02/06/1 Changes proposed b		4. Pending CCC
		Agenda post
Requested Effective Change	Fall 2019 <del>08/01/2014</del>	5. CCC Meeting Agenda
Date		6. Campus Curricula
Department	Biological Sciences	Committee Chair
Discipline	Biological Sciences (BIO SCI)	7. FS Meeting Agenda
Course Number	3353 4 <del>343</del>	8. Faculty Senate
Title	Comparative Vertebrate Chordate Anatomy	Chair
		9. Registrar
Abbreviated	Comp Vert <del>Chordate</del>	10. CAT entry
Course Title	Anatomy	11. Peoplesoft
with emphasis or	emparative study of <b>vertebrate</b> <del>chordate</del> structures and systems, in evolution, development and function. Includes examination of and histology of selected forms. Sci 1229.	<ul> <li>Approval Path</li> <li>1. 12/13/18 2:26 pr David Duvernell (duvernelld):</li> <li>Approved for RBIOLSCI Chair</li> <li>2. 12/13/18 3:07 pr Brittany Parnell (ershenb):</li> </ul>
Credit Hours	LEC: 2 LAB: 2 IND: 0 RSD: 0 Total: 4	Approved for CCC Secretary
Required for Majors	No	3. 01/09/19 10:19 am
Elective for Majors	Yes <del>No</del>	Katie Shannon (shannonk): Approved for
"chordate" to "ve familiar to a broa	the number and name for this class. The name change switches ertebrate" as that is what the course covers and the name is more der audience. The number change is because the class will be mediate (3000-level) rather than an advanced (4000-level).	Sciences DSCC Chair 4. 01/15/19 9:52 ar Brittany Parnell (ershenb): Approved for

Semesters previously offered as an experimental course	Pending CCC Agenda post 5. 02/06/19 11:49 am Brittany Parnell (archaph):
Co-Listed Courses:	(ershenb): Approved for CCC Meeting Agenda 6. 02/06/19 11:53
Course Reviewer Comments ershenb (02/06/19 11:49 am): checked "Yes" Elective for Majors	am Stephen Raper (sraper): Approved for Campus Curricula Committee Chair

Date Submitted: 01/09/19 10:49 am

Viewing: BIO SCI 4433 5333 -: Genomics	In Workflow
File: 975.1	1. RBIOLSCI Chair
Last edit: 01/10/19 10:01 am	2. CCC Secretary 3. Sciences DSCC
Changes proposed by: shannonk	Chair
Requested Fall 2019 08/14/2018	4. Pending CCC
Effective Change	Agenda post
Date	5. CCC Meeting
Department Biological Sciences	Agenda
Discipline Biological Sciences (BIO SCI)	6. Campus Curricula
	Committee Chair 7. FS Meeting
Course Number 4433 5333	Agenda
Title Genomics	8. Faculty Senate
Abbreviated Genomics	Chair
Course Title	9. Registrar
Catalan This service offers a convert even investigation of the field of converting Taxing service d	10. CAT entry
Description include genome sequencing and annotation, transcriptomics, proteomics,	11. Peoplesoft
metabolomics, genomic variation, and an overview of human, and several animal,	Augusta Dath
plant, and microbial genome projects.	Approval Path
Prerequisites Bio Sci <del>BIO SCI 4</del> 323.	1. 01/09/19 10:51 am
Field Trip	David Duvernell
Statement	(duvernelld):
Credit Hours LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	Approved for
	RBIOLSCI Chair
Required for No Majors	2. 01/10/19 10:02
	am Brittany Parnell
Elective for Yes No Majors	(ershenb):
	Approved for CCC
Justification for Splitting 5000 level course into 4000 and 6000 level to give graduate students more	Secretary
change: options at 6000 level	3. 01/11/19 2:17 pm
Semesters	Katie Shannon
previously	(shannonk): Approved for
offered as an	Sciences DSCC
experimental course	Chair
Co-Listed	4. 01/15/19 9:54 am
Co-Listed Courses:	Brittany Parnell
	(ershenb):
Course Reviewer	Approved for Pending CCC
Comments	Agenda post
Key: 975	5. 02/06/19 11:50
	am
	Brittany Parnell
	(ershenb):
	Approved for CCC
	Meeting Agenda

6. 02/06/19 11:53

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

Date Submitted: 01/09/19 11:34 am

Date Submitted: 01/	/09/19 11:34 am	
_	CI 4533 <del>5433 -</del> : Neurobiology	In Workflow 1. RBIOLSCI Chair
File: 1637.1		2. CCC Secretary
Last edit: 01/09/1	9 11:34 am	3. Sciences DSCC
Changes proposed b	by: shannonk	Chair
Requested	Fall 2019 <del>08/14/2018</del>	4. Pending CCC
Effective Change		Agenda post
Date		5. CCC Meeting
Department	Biological Sciences	Agenda
Discipline	Biological Sciences (BIO SCI)	6. Campus Curricula Committee Chair
Course Number	4533 <del>5433</del>	7. FS Meeting
Title	Neurobiology	Agenda
Abbreviated	Neurobiology	8. Faculty Senate Chair
Course Title	neuropiology	9. Registrar
course ritie		10. CAT entry
Catalog	An intermediate course in cellular neurobiology. Emphasis will be placed on the	11. Peoplesoft
Description	unique properties of neurons and other excitable cells. Topics covered include the	II. Peoplesoit
	structure and biophysical properties of neurons, synaptic transmission,	
	neurochemistry, signal transduction, neuropharmacology and neurodevelopment.	Approval Path
Prerequisites	Bio Sci 2213.	1. 01/09/19 12:58
		pm
Field Trip		David Duvernell
Statement		(duvernelld):
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	Approved for
Required for	No	RBIOLSCI Chair 2. 01/10/19 10:02
Majors		am
Elective for	Yes <del>No</del>	Brittany Parnell
Majors		(ershenb):
Majors		Approved for CCC
Justification for	Splitting 5000 level into 4000 and 6000 to offer more 6000 level courses for	Secretary
change:	graduate students	3. 01/11/19 2:17 pm
Semesters		Katie Shannon
previously		(shannonk):
offered as an		Approved for
experimental		Sciences DSCC
course		Chair
Co-Listed		4. 01/15/19 9:54 am
Courses:		Brittany Parnell
		(ershenb):
Course Reviewer		Approved for
Comments		Pending CCC
	Key:	Agenda post 5. 02/06/19 11:50
		am Brittany Parnell
		(ershenb):
		Approved for CCC
		Meeting Agenda

6. 02/06/19 11:53

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

Date Submitted: 01/09/19 10:42 am

Date Submitted: 01/	09/19 10:42 am	
Viewing: <b>BIO SC</b>	CI 4563 <del>5463</del> : Global Ecology	In Workflow
File: 1488.3		1. RBIOLSCI Chair
Last approved: 06	/29/15 3·51 am	2. CCC Secretary
Last edit: 01/09/19		3. Sciences DSCC
Changes proposed b		Chair 4. Pending CCC
		Agenda post
Requested Effective Change	Fall 2019 <del>01/12/2016</del>	5. CCC Meeting
Date		Agenda
		6. Campus Curricula
Department	Biological Sciences	Committee Chair
Discipline	Biological Sciences (BIO SCI)	7. FS Meeting
Course Number	4563 <del>5463</del>	Agenda
Title	Global Ecology	<ol> <li>Faculty Senate Chair</li> </ol>
Abbreviated	Global Ecology	9. Registrar
Course Title		10. CAT entry
		11. Peoplesoft
Catalog	This class covers ecological topics at large scales, emphasizing global scales. Topics	
Description	include global energy balance, biogeochemical cycles of water, carbon, nitrogen,	Approval Path
	and other biologically important elements, and global biodiversity. Students will	1. 01/09/19 10:51
	focus on primary literature related to global ecology.	am
Prerequisites	Bio Sci 2263.	David Duvernell
Field Trip		(duvernelld):
Statement		Approved for
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	RBIOLSCI Chair
Required for	Νο	2. 01/10/19 10:03
Majors		am Brittany Parnell
Elective for	Yes	(ershenb):
Majors		Approved for CCC
indjere		Secretary
Justification for	Splitting the 5000 level course into a 4000 and 6000 level to give graduate students	3. 01/11/19 2:17 pm
change:	more 6000 level courses	Katie Shannon
Semesters		(shannonk):
previously		Approved for
offered as an		Sciences DSCC
experimental		Chair 4. 01/15/19 9:54 am
course		Brittany Parnell
Co-Listed		(ershenb):
Courses:		Approved for
Course Reviewer		Pending CCC
Comments		Agenda post
	Key: 1488	5. 02/06/19 11:50
	ney. 1900	am
		Brittany Parnell
		(ershenb):
		Approved for CCC
		Meeting Agenda

#### 6. 02/06/19 11:53

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

#### History

1. Jun 29, 2015 by niyogid (1488.1)

Data Culor State de Off	New Course Proposal	In Workflow
Date Submitted: 01/		1. RBIOLSCI Chair
/iewing: <b>BIO SC</b>	CI 6433 : Advanced Genomics	2. CCC Secretary
-ile: 4593		3. Sciences DSCC
Last edit: 01/15/19	∂ 10:24 am	Chair
Changes proposed b	y: shannonk	4. Pending CCC Agenda post
Requested	Fall 2019	5. CCC Meeting
Effective Change		Agenda
Date		6. Campus Curricula
Department	Biological Sciences	Committee Chair
Discipline	Biological Sciences (BIO SCI)	7. FS Meeting
Course Number	6433	Agenda 8. Faculty Senate
Title	Advanced Genomics	Chair
Abbreviated	Advanced Genomics	9. Registrar
Course Title		10. CAT entry
		11. Peoplesoft
Catalog	An overview of the field of genomics. Topics covered include genome sequencing	
Description	and annotation, transcriptomics, proteomics, metabolomics, genomic variation, and human, and several animal, plant, and microbial genome projects. Students will	Approval Path
	complete an independent genomics project that incorporates concepts and	1. 01/09/19 12:58
	bioinformatics tools learned.	pm David Duvernell
Prerequisites	Students may not receive credit for both Bio Sci 4433 and Bio Sci 6433.	(duvernelld):
Field Trip		Approved for
Statement		RBIOLSCI Chair
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	2. 01/10/19 10:04
		am Brittany Parnell
Required for Majors	No	(ershenb):
-	Vec	Approved for CC
Elective for Majors	Yes	Secretary
		3. 01/11/19 2:18 pr
Justification for	Splitting 5000 level course into 4000 and 6000 level to give graduate students more	Katie Shannon (shannonk):
new course:	options at 6000 level	Approved for
Semesters	Previously offered as Genomics 5333	Sciences DSCC
previously offered as an		Chair
experimental		4. 01/15/19 9:55 ar
course		Brittany Parnell (ershenb):
Co-Listed		Approved for
Courses:		Pending CCC
Course Doutour		Agenda post
Course Reviewer Comments		5. 02/06/19 11:50
comments	Key: 4593	am Brittany Parnell
	сеен ,үэл	(ershenb):
		Approved for CCC
		Meeting Agenda

6. 02/06/19 11:53

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

	New Course Proposal	In Workflow
Date Submitted: 01,	/09/19 11:37 am	1. RBIOLSCI Chair
Viewing: <b>BIO S</b>	CI 6533 : Advanced Neurobiology	2. CCC Secretary
File: 4594		3. Sciences DSCC
Last edit: 01/15/1	9 9:55 am	Chair
Changes proposed b	ay: shannonk	4. Pending CCC
Requested	Fall 2019	Agenda post
Effective Change Date		5. CCC Meeting Agenda 6. Campus Curricula
Department	Biological Sciences	Committee Chair
Discipline	Biological Sciences (BIO SCI)	7. FS Meeting
		Agenda
Course Number	6533	8. Faculty Senate
Title	Advanced Neurobiology	Chair
Abbreviated	Advanced Neurobiology	<ol> <li>9. Registrar</li> <li>10. CAT entry</li> </ol>
Course Title		11. Peoplesoft
Catalog	A course in cellular neurobiology. Emphasis will be placed on the unique properties	
Description	of neurons and other excitable cells. Topics include the structure and biophysical	Approval Path
	properties of neurons, synaptic transmission, neurochemistry, signal transduction,	1. 01/09/19 12:58
	neuropharmacology and neurodevelopment. Students will give a 30 min class	pm
	presentation on a relevant subject.	David Duvernell
Prerequisites	Students may not receive credit for both Bio Sci 4533 and Bio Sci 6533.	(duvernelld):
Field Trip		Approved for
Statement		RBIOLSCI Chair
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	2. 01/10/19 10:06
Required for	No	am Brittany Parnell
Majors		(ershenb):
-		Approved for CCC
Elective for Majors	Yes	Secretary
iviajor3		3. 01/11/19 2:19 pm
Justification for	Splitting 5000 level course into 4000 and 6000 level to provide more 6000 level	Katie Shannon
new course:	courses for graduate students	(shannonk): Approved for
Semesters	Previously offered as 5433	Sciences DSCC
previously		Chair
offered as an		4. 01/15/19 9:56 an
experimental		Brittany Parnell
course		(ershenb):
Co-Listed		Approved for
Courses:		Pending CCC Agenda post
Course Reviewer		5. 02/06/19 11:51
Comments		am
	Key: 4594	Brittany Parnell
		(ershenb):
		Approved for CCC
		Meeting Agenda

6. 02/06/19 11:53

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

	New Course Proposal	In Workflow
Date Submitted: 01/	(09/19 10:45 am	1. RBIOLSCI Chair
Viewing: <b>BIO S</b>	CI 6563 : Advanced Global Ecology	2. CCC Secretary
File: 4592		3. Sciences DSCC
Last edit: 01/15/1	9 9:56 am	Chair
Changes proposed b	y: shannonk	4. Pending CCC
Requested	Fall 2019	Agenda post
Effective Change Date		5. CCC Meeting Agenda
Department	Biological Sciences	6. Campus Curricula Committee Chair
Discipline	Biological Sciences (BIO SCI)	7. FS Meeting
		Agenda
Course Number	6563	8. Faculty Senate
Title	Advanced Global Ecology	Chair
Abbreviated	Advanced Global Ecology	9. Registrar
Course Title		10. CAT entry 11. Peoplesoft
Catalog	This class covers ecological topics at large scales, emphasizing global scales. Topics	11. Peopleson
Description	include global energy balance, biogeochemical cycles of water, carbon, nitrogen,	Approval Path
	and other biologically important elements, and global biodiversity. Students will	1. 01/09/19 10:51
	focus on primary literature related to global ecology. Research proposal and	am
	additional readings required.	David Duvernell
Prerequisites	Students may not receive credit for both Bio Sci 4563 and Bio Sci 6563.	(duvernelld):
Field Trip		Approved for
Statement		RBIOLSCI Chair
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	2. 01/10/19 10:11
Required for	Νο	am Brittany Parnell
Majors		(ershenb):
Elective for	Ver	Approved for CCC
Elective for Majors	Yes	Secretary
iviajor5		3. 01/11/19 2:19 pn
Justification for	Splitting the 5000 level course into a 4000 and 6000 level to give graduate students	Katie Shannon
new course:	more 6000 level courses	(shannonk): Approved for
Semesters		Sciences DSCC
previously		Chair
offered as an		4. 01/15/19 9:56 an
experimental course		Brittany Parnell
		(ershenb):
Co-Listed Courses:		Approved for Pending CCC
Courses.		Agenda post
Course Reviewer		5. 02/06/19 11:51
Comments		am
	Key: 4592	Brittany Parnell
		(ershenb):
		Approved for CCC Meeting Agenda

6. 02/06/19 11:52

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

Date Submitted: 12/	ENG 5161 : Intermediate Molecular Engineering	In Workflow
File: 4291.6	Live Jioi . Intermediate Molecular Engineering	1. RCHEMENG Chai
.ast approved: 05,	/24/16 4·57 am	2. CCC Secretary
ast edit: 12/10/18		3. Engineering DSC
Changes proposed b		Chair 4. Pending CCC
		Agenda post
Requested Effective Change	Fall 2019 <del>08/14/2018</del>	5. CCC Meeting
Date		Agenda
Department	Chemical and Biochemical Engineering	6. Campus Curricula
		Committee Chair
Discipline	Chemical Engineering (CHEM ENG)	7. FS Meeting Agenda
Course Number	5161	8. Faculty Senate
Title	Intermediate Molecular Engineering	Chair
Abbreviated	Molecular Engineering	9. Registrar
Course Title		10. CAT entry
		11. Peoplesoft
Catalog	Molecular aspects of chemical thermodynamics, transport processes, reaction	1
Description	dynamics, and statistical and quantum mechanics, and their treatments in molecular-based modeling and simulation approaches. mechanics.	Approval Path
		1. 12/11/18 6:04 pr
Prerequisites	Chem Eng 3120 or graduate standing.	Muthanna Al-
Field Trip		Dahhan
Statement		(aldahhanm):
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	Approved for
Required for	Νο	RCHEMENG Chai 2. 12/12/18 9:52 ar
Majors		Brittany Parnell
Elective for	Yes	(ershenb):
Majors		Approved for CC
-		Secretary
Justification for	The extension of the course description is to add one more important topic that	3. 12/17/18 12:15
change:	reflects current progresses and bridges the gap between fundamental science and	pm Staalaa Daaaa
	engineering applications.	Stephen Raper (sraper):
Semesters		Approved for
previously		Engineering DSC
offered as an experimental		Chair
course		4. 12/17/18 1:18 p
		Brittany Parnell
Co-Listed Courses:		(ershenb):
courses.		Approved for
Course Reviewer		Pending CCC Agenda post
Comments		5. 02/06/19 11:53
	Key: 4291	am
		Brittany Parnell
		(ershenb):
		Approved for CC
		Meeting Agenda

#### 6. 02/06/19 11:53

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

#### History

 May 24, 2016 by Daniel Forciniti (forcinit)

Date Submitted: 11/14/18 10:28 am

Date Submitted: 11/	14/10 10.20 dill	
/iewing: ECON	4540 : Energy Economics	In Workflow
ile: 1747.1		1. RECONOMI Chair
ast edit: 11/14/1	8 10·28 am	2. RCHEMENG Chair
Changes proposed b		3. MINEXP ENG
		Chair
Requested	Fall 2019 <del>08/14/2018</del>	4. CCC Secretary 5. Social Sciences
Effective Change		DSCC Chair
Date		6. Engineering DSCC
Department	Economics	Chair
Discipline	Economics (ECON)	7. Pending CCC
Course Number	4540	Agenda post
		8. CCC Meeting
Title	Energy Economics	Agenda
Abbreviated	Energy Economics	9. Campus Curricula
Course Title		Committee Chair
Catalaa		10. FS Meeting
Catalog	Market structure.World resource development.For students interested in both	Agenda
Description	economic Supply and engineering issues of <del>demand analysis on</del> energy policy. production and consumption within domestic and global settings. Provides an	11. Faculty Senate
	assessment of economics and technology issues related to traditional and	Chair
	renewable energy resources. Presented in a framework that allows for analysis of	12. Registrar
	the economic trade-offs between energy sources and the technologies associated	13. CAT entry
	with their use and extraction.	14. Peoplesoft
Drananuisitaa	Free 2400	
Prerequisites	Econ 2100.	Approval Path
Field Trip		1. 11/14/18 1:18 pm
Statement		Gregory Gelles
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	(gelles):
Required for	Νο	Approved for
Majors		RECONOMI Chair
-		2. 11/15/18 4:38 am Muthanna Al-
Elective for	No	Dahhan
Majors		(aldahhanm):
Justification for	This form is being submitted to correct previous form submissions for co-listing	Approved for
change:	CHEM ENG 4540 and MIN ENG 4524 to ECON 4540 which negated the	RCHEMENG Chair
	primary/secondary relationship; This form will correctly identify ECON as the	3. 12/05/18 8:18 am
	primary department.	Kwame Awuah-
Semesters		Offei (kwamea):
previously		Approved for
offered as an		MINEXP ENG
experimental		Chair
course		4. 12/05/18 8:23 am
Co-Listed	CHEM ENG 4540 - Energy Economics	Brittany Parnell
Courses:	MIN ENG 4524 - Energy Economics	(ershenb):
	5,	Approved for CCC
Course Reviewer		Secretary
Comments		5. 12/05/18 9:57 am Barry Flachsbart
	Key: 1747	Dairy i Iduiisudil

Approved for Social Sciences DSCC Chair

- 6. 12/17/18 12:15 pm
  Stephen Raper (sraper):
  Approved for
  Engineering DSCC Chair
- 7. 12/17/18 1:18 pm Brittany Parnell (ershenb): Approved for Pending CCC Agenda post
- 8. 02/06/19 11:59

  am
  Brittany Parnell
  (ershenb):

  Approved for CCC
  Meeting Agenda
- 9. 02/06/19 12:57
  pm
  Stephen Raper
  (sraper):
  Approved for
  Campus Curricula
  Committee Chair

iewing: ELEC	ENG 4096 : Electrical Engineering Senior Project I	In Workflow 1. RELECENG Chair		
File: 2214.11				
Last approved: 06/29/18 3:39 am				
ast edit: 12/17/1	8 8:50 am	3. Engineering DSCC Chair		
hanges proposed I	oy: ferdowsi	4. Pending CCC		
Due energy	CP ENG-BS: Computer Engineering BS	Agenda post		
Programs referencing this course	EL ENG-BS: Electrical Engineering BS	5. CCC Meeting Agenda 6. Campus Curricula		
	In The Prerequisites:	Committee Chair		
Other Courses	ELEC ENG 4097 : Electrical Engineering Senior Project II	7. FS Meeting		
referencing this		Agenda		
course		8. Faculty Senate		
		Chair 9. Registrar		
Requested	Fall Spring-2019	10. CAT entry		
Effective Change Date		11. Peoplesoft		
Department	Electrical and Computer Engineering	Approval Path		
Discipline	Electrical Engineering (ELEC ENG)	1. 12/16/18 6:28 pm		
Course Number	4096	Daryl Beetner		
Title	Electrical Engineering Senior Project I	(daryl): Approved		
Abbreviated	EE Senior Project I	for RELECENG		
Course Title		Chair 2. 12/17/18 8:51 am		
		Brittany Parnell		
Catalog	A complete design cycle. Working in small teams, students will design, document,	(ershenb):		
Description	analyze, implement and test a product. Topics include: Iteration in design, prototyping, group dynamics, design reviews, making effective presentations,	Approved for CCC		
	concurrent design, designing for test, ethics and standards, testing and evaluation.	Secretary		
Prerequisites	Comp Eng 2210, Econ 1100 or Econ 1200, English 3560 or English 1160, and at least	3. 01/21/19 11:17 am		
recequisites	three of the following: Elec Eng 3500 or Elec Eng 3540; Elec Eng 3320, Elec Eng 3430,	Stephen Raper		
	Elec Eng 3600 or Elec Eng 3100.	(sraper):		
Field Trip		Approved for		
Statement		Engineering DSCC		
Credit Hours	LEC: 0 LAB: .5 IND: 0 RSD: .5 Total: 1	Chair 4. 01/22/19 7:47 am		
Required for	Yes	Brittany Parnell		
Majors		(ershenb):		
Elective for	No	Approved for		
Majors		Pending CCC		
Justification for	This change has already been made to the EE curriculum. It has not be reflected	Agenda post 5. 02/06/19 12:00		
change:	here yet.	pm		
Semesters		Brittany Parnell		
previously		(ershenb):		
offered as an		Approved for CCC		

#### ELEC ENG 4096: Electrical Engineering Senior Project I

experimental	6. 02/06/19 12:57
course	pm
Co-Listed	Stephen Raper
Courses:	(sraper):
Courses.	Approved for
Course Reviewer	Campus Curricula
Comments	Committee Chair
	Key: 2214
	History

 Apr 28, 2014 by lahne (2214.1)
 Oct 20, 2014 by lahne (2214.2)

3. Jun 29, 2018 by sweetk (2214.3)

/iewing: ELEC F	ENG 4097 : Electrical Engineering Senior Project II	In Workflow 1. RELECENG Chair
ile: 1388.2	2. CCC Secretary	
ast approved: 04,	/28/14 4:00 am	3. Engineering DSCO
ast edit: 01/14/1		Chair
Changes proposed b	ıy: ferdowsi	4. Pending CCC
Due energy	CP ENG-BS: Computer Engineering BS	
Programs referencing this	EL ENG-BS: Electrical Engineering BS	5. CCC Meeting Agenda
course	~	6. Campus Curricula Committee Chair
Requested	Fall 2019 <del>01/13/2015</del>	7. FS Meeting
Effective Change		Agenda
Date		8. Faculty Senate
Department	Electrical and Computer Engineering	Chair 9. Registrar
		10. CAT entry
Discipline	Electrical Engineering (ELEC ENG)	11. Peoplesoft
Course Number	4097	
Title	Electrical Engineering Senior Project II	Approval Path
Abbreviated	EE Senior Project II	1. 12/16/18 6:28 pm
Course Title		Daryl Beetner
Catalog Description	A continuation of El Eng 4096.	(daryl): Approved for RELECENG
		Chair
Prerequisites	Elec Eng 4096 with a grade of "C" or <b>better; <del>better,</del> S</b> tat <b>3117 or Stat 3115 or Stat</b> <b>5643; <del>3117,</del> Sp&amp;M S 1185.</b>	2. 12/17/18 9:12 am Brittany Parnell
Field Trip Statement		(ershenb): Approved for CCC
Credit Hours	LEC: 0 LAB: 3 IND: 0 RSD: 0 Total: 3	Secretary 3. 01/21/19 11:17
Required for	Yes <del>No</del>	am
Majors		Stephen Raper
Elective for	Νο	(sraper):
Majors		Approved for
-		Engineering DSCC
Justification for change:	This change has already been made to the EE curriculum. It has not be reflected here yet.	Chair 4. 01/22/19 7:47 an
Semesters		Brittany Parnell
previously		(ershenb):
offered as an		Approved for Pending CCC
experimental		Agenda post
course		5. 02/06/19 12:12
Co-Listed		pm
Courses:		Brittany Parnell
		(ershenb):
Course Reviewer Comments	sraper (01/14/19 3:33 pm): changed to required for majors.	Approved for CCC
	Key: 138	Meeting Agenda

#### 6. 02/06/19 12:57

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

#### History

1. Apr 28, 2014 by lahne (1388.1)

Date Submitted: 11/	/29/18 11:20 am	
Viewing: ELEC	ENG 6830 <del>6340</del> : Clustering Algorithms	In Workflow
File: 691.1	0 0	1. RELECENG Chair
Last edit: 11/29/1	8 11:20 am	2. RENGMNGT
Changes proposed b		Chair
changes proposed c	y. Kle	3. RCOMPSCI Chair
Requested	Fall 2019 <del>08/01/2014</del>	4. RMATHEMA
Effective Change		Chair
Date		5. CCC Secretary
Department	Electrical and Computer Engineering	6. Engineering DSCC Chair
Discipline	Electrical Engineering (ELEC ENG)	7. Pending CCC
·		Agenda post
Course Number	6830 <del>6340</del>	8. CCC Meeting
Title	Clustering Algorithms	Agenda
Abbreviated	Clustering Algorithms	9. Campus Curricula
Course Title		Committee Chair
		10. FS Meeting
Catalog	An introduction to cluster analysis and clustering algorithms rooted in	Agenda
Description	computational intelligence, computer science and statistics. Clustering in sequential	11. Faculty Senate
	data, massive data and high dimensional data. Students will be evaluated by	Chair
	individual or group research projects and research presentations.	12. Registrar
Prerequisites	At least one graduate course in statistics, data mining, algorithms, computational	13. CAT entry
	intelligence, or neural networks, consistent with student's degree program.	14. Peoplesoft
Field Trip		
Statement		Approval Path
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	1. 11/29/18 12:12
		pm
Required for	No	Daryl Beetner
Majors		(daryl): Approved
Elective for	Yes <del>No</del>	for RELECENG
Majors		Chair
luctification for	In FCF, the second digit in a source represents on area. A digit of "2" should be a	2. 12/12/18 11:32
Justification for change:	In ECE, the second digit in a course represents an area. A digit of "3" should be a control systems course and this is not a controls course. The second digit changed to	am
change.	"8" which is the correct one for areas outside of EE. Changed the 3rd digit to more	Suzanna Long
	closely align the number with the CpE 6330 primary course.	(longsuz): Approved for
		RENGMNGT Chair
	Also corrected STAT co-listed course	3. 01/09/19 3:44 pm
Comostors		Bruce McMillin
Semesters previously		(ff): Approved for
offered as an		RCOMPSCI Chair
experimental		4. 01/09/19 5:06 pm
course		sclark: Approved
	COMPENIC 6220 Clustering Algorithms	for RMATHEMA
Co-Listed	COMP ENG 6330 - Clustering Algorithms	Chair
Courses:	SYS ENG 6214 - Clustering Algorithms	5. 01/10/19 10:12
	COMP SCI 6405 - Clustering Algorithms AND STAT 6239 - <del>Course Not Found</del>	am
	STAT 6239 - Clustering Algorithms	Brittany Parnell
		(ershenb):

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/691/index.html&s... 2/8/2019

Course	Reviewe
Comme	ents

		Approved for CCC
		Secretary
Key: 691	6.	01/21/19 11:18
		am
		Stephen Raper
		(sraper):
		Approved for
		Engineering DSCC
		Chair
	7.	01/22/19 7:47 am
		Brittany Parnell
		(ershenb):
		Approved for
		Pending CCC
		Agenda post
	8.	02/06/19 12:16
		pm
		Brittany Parnell
		(ershenb):
		Approved for CCC
		Meeting Agenda
	9.	02/06/19 12:57
		pm
		Stephen Raper
		(sraper):
		Approved for
		Campus Curricula
		Committee Chair

Date Submitted: 01	/07/19 3:05 pm						
Viewing: ENGL	ISH 3218 :	: The Brit	ish Novel	4			Workflow
File: 1748.1					RENGLISH Chair		
Last edit: 02/07/19 10:50 am				2. CCC Secretary 3. Arts &			
Changes proposed by: kswenson						Humanities DSCC	
Requested	Fall 2019 <mark>08/(</mark>	01/2014					Chair
Effective Change						4.	Pending CCC
Date							Agenda post
Department	English and Te	echnical Comm	unication			5.	CCC Meeting Agenda
Discipline	English (ENGL	.ISH)				6.	Campus Curricula
Course Number	3218						Committee Chair
Title	The British No					7.	FS Meeting
							Agenda
Abbreviated Course Title	The British No	ovel <del>I</del>				8.	Faculty Senate Chair
course ritie						9.	Registrar
Catalog							CAT entry
Description					11.	Peoplesoft	
-							
The history, deve	-			ovel from the lat	e	[ 	
The history, deve seventeenth <b>cen</b>	-			ovel from the lat	e		oproval Path
The history, deve seventeenth <b>cen</b> Prerequisites	ntury to the pres	ent. <del>early nine</del>	teenth century.	ovel from the lat	e	A	
The history, deve seventeenth <b>cen</b> Prerequisites English 1120 and	ntury to the pres	ent. <del>early nine</del>	teenth century.	ovel from the lat	e	A	oproval Path 01/07/19 3:11 pm Kristine Swenson
The history, deve seventeenth <b>cen</b> Prerequisites English 1120 and Field Trip	ntury to the pres	ent. <del>early nine</del>	teenth century.	ovel from the lat	e	A	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson):
The history, deve seventeenth <b>cen</b> Prerequisites English 1120 and	ntury to the pres	ent. <del>early nine</del>	teenth century.	ovel from the lat	e	A	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for
The history, deve seventeenth <b>cen</b> Prerequisites English 1120 and Field Trip Statement	ntury to the pres	<b>ent. <del>early nine</del> college literatur</b>	<del>teenth century.</del> re.			Aj 1.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair
The history, deve seventeenth <b>cen</b> Prerequisites English 1120 and Field Trip Statement Credit Hours	ntury to the pres	ent. <del>early nine</del>	teenth century.	ovel from the lat RSD: 0	e Total: 3	Aj 1.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for
The history, deve seventeenth <b>cen</b> Prerequisites English 1120 and Field Trip Statement Credit Hours Required for	ntury to the pres	<b>ent. <del>early nine</del> college literatur</b>	<del>teenth century.</del> re.			Aj 1.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am
The history, deve seventeenth <b>cen</b> Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors	tury to the pres d a semester of c LEC: 3 No	<b>ent. <del>early nine</del> college literatur</b>	<del>teenth century.</del> re.			Aj 1.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC
The history, development seventeenth cent Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors Elective for	a semester of c	<b>ent. <del>early nine</del> college literatur</b>	<del>teenth century.</del> re.			Aı 1. 2.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC Secretary
The history, deve seventeenth <b>cen</b> Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors	tury to the pres d a semester of c LEC: 3 No	<b>ent. <del>early nine</del> college literatur</b>	<del>teenth century.</del> re.			Aı 1. 2.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC Secretary 01/09/19 10:10
The history, development seventeenth cent Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors Elective for	tury to the pres d a semester of c LEC: 3 No	<b>ent. <del>early nine</del> college literatur</b>	<del>teenth century.</del> re.			Aı 1. 2.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC Secretary
The history, development seventeenth cent Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors Elective for Majors Justification for change:	tury to the presented a semester of c LEC: 3 No Yes <del>No</del>	ent. early nine college literatur	teenth century. re. IND: 0	RSD: 0		Aı 1. 2.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC Secretary 01/09/19 10:10 am
The history, development seventeenth cent Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors Elective for Majors Justification for	tury to the presented a semester of c LEC: 3 No Yes <del>No</del>	ent. early nine college literatur	teenth century. re. IND: 0	RSD: 0		Aı 1. 2.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC Secretary 01/09/19 10:10 am Petra Dewitt (dewittp): Approved for Arts
The history, development seventeenth cent Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors Elective for Majors Justification for change:	tury to the presented a semester of c LEC: 3 No Yes <del>No</del>	ent. early nine college literatur	teenth century. re. IND: 0	RSD: 0		Aı 1. 2.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC Secretary 01/09/19 10:10 am Petra Dewitt (dewittp): Approved for Arts & Humanities
The history, development seventeenth cent Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors Elective for Majors Justification for change of title and Semesters previously	tury to the presented a semester of c LEC: 3 No Yes <del>No</del>	ent. early nine college literatur	teenth century. re. IND: 0	RSD: 0		Aı 1. 2. 3.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC Secretary 01/09/19 10:10 am Petra Dewitt (dewittp): Approved for Arts & Humanities DSCC Chair
The history, development seventeenth cent Prerequisites English 1120 and Field Trip Statement Credit Hours Required for Majors Elective for Majors Justification for change: Change of title and Semesters	tury to the presented a semester of c LEC: 3 No Yes <del>No</del>	ent. early nine college literatur	teenth century. re. IND: 0	RSD: 0		Aı 1. 2. 3.	oproval Path 01/07/19 3:11 pm Kristine Swenson (kswenson): Approved for RENGLISH Chair 01/08/19 8:54 am Brittany Parnell (ershenb): Approved for CCC Secretary 01/09/19 10:10 am Petra Dewitt (dewittp): Approved for Arts & Humanities

Co-Listed Courses:

Comments

Course Reviewer

ershenb (02/07/19 10:50 am): Added "century" to description; Checked 'Yes' Elective for Majors.

Key: 1748Approved for<br/>Pending CCC<br/>Agenda post5. 02/07/19 1:45 pm6. 02/07/19 1:45 pm8 Brittany Parnell<br/>(ershenb):<br/>Approved for CCC<br/>Meeting Agenda6. 02/08/19 9:18 am<br/>Stephen Raper<br/>(sraper):<br/>Approved for<br/>Campus Curricula<br/>Committee Chair

Date Submitted: 11,	13/18 3:51 pm	
/iewing: MS&E	5210 : Tissue Engineering I	In Workflow
ile: 254.1		1. RMATSENG Chair
last edit: 01/14/1	0.2-24 nm	2. RBIOLSCI Chair
Changes proposed b		3. CCC Secretary
Linanges proposed t	y. smiller	4. Engineering DSCC
Other Courses	In The Catalog Description:	∧ Chair
referencing this	BIO SCI 5240 : Tissue Engineering I	5. Sciences DSCC
course		Chair
		6. Pending CCC Agenda post
		7. CCC Meeting
Requested	Fall 2019 <del>08/14/2018</del>	Agenda
Effective Change		8. Campus Curricula
Date		Committee Chair
Department	Materials Science & Engineering	9. FS Meeting
Discipline	Materials Science & Eng (MS&E)	Agenda
Course Number	5210	10. Faculty Senate
Course Number		Chair
Title	Tissue Engineering	11. Registrar
Abbreviated	Tissue Engineering 4	12. CAT entry
Course Title		13. Peoplesoft
Catalog	The course will use problem-based case studies introduce senior undergraduate	Approval Path
Description	students to introduce junior and senior undergraduate students to the principles	1. 11/14/18 9:47 am
	and and clinical applications of tissue engineering. engineering including the use of	Greg Hilmas
	biomaterials scaffolds, living cells and signaling factors to develop implantable parts	(ghilmas):
	for the restoration, maintenance, or replacement of biological tissues and organs.	Approved for
	Topics include the use of biomaterials, scaffolds, cells, and external factors to	RMATSENG Chair
	develop implantable parts for the restoration, maintenance, or replacement of tissues and organs.	2. 12/13/18 2:28 pm
	ussues and organs.	David Duvernell
Prerequisites	Junior or Senior standing.	(duvernelld):
Field Trip		Approved for
Statement		RBIOLSCI Chair
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	3. 12/13/18 3:38 pn
Required for	Νο	Brittany Parnell (ershenb):
Majors		Approved for CCC
-		Secretary
Elective for	Yes <del>No</del>	4. 01/21/19 11:15
Majors		am
Justification for	Name and description change to more accurately describe what is currently	Stephen Raper
change:	discussed in the course.	(sraper):
Semesters		Approved for Engineering DSCC
previously		Chair
offered as an		5. 01/22/19 9:19 an
experimental		Katie Shannon
course		(shannonk):
Co-Listed	BIO SCI 5240 - Tissue Engineering I	Approved for

Course Reviewer sraper (01/14/19 3:34 pm): changed to elective for majors Comments

		Sciences DSCC
		Chair
	6.	01/22/19 9:33 am
Key: 254		Brittany Parnell
		(ershenb):
		Approved for
		Pending CCC
		Agenda post
	7.	02/07/19 2:57 pm
		Brittany Parnell
		(ershenb):
		Approved for CCC
		Meeting Agenda
	8.	02/08/19 9:18 am
		Stephen Raper
		(sraper):
		Approved for
		Campus Curricula
		Committee Chair

/iewing: <b>MS&amp;E</b> File: 2334.1 .ast edit: 01/14/1	9 3:35 pm	In Workflow 1. RMATSENG Chair 2. RBIOLSCI Chair 3. CCC Secretary
Changes proposed b		4. Engineering DSC
Other Courses referencing this course	In The Catalog Description: BIO SCI 6240 : Tissue Engineering II	Chair 5. Sciences DSCC Chair 6. Pending CCC
Requested Effective Change Date	Fall 2019 <del>08/01/2014</del>	Agenda post 7. CCC Meeting Agenda 8. Campus Curricula Committee Chair
Department	Materials Science & Engineering	9. FS Meeting
Discipline	Materials Science & Eng (MS&E)	Agenda
Course Number	6210	10. Faculty Senate
Title	Advanced Tissue Engineering H	Chair 11. Registrar
Abbreviated Course Title	Adv Tissue Engineering H	12. CAT entry 13. Peoplesoft
Catalog Description	The course will introduce graduate students to the principles and clinical applications of tissue engineering including the use <del>of</del> biomaterials, scaffolds, <b>cells</b> , living cells-and external signaling factors to develop implantable parts for the restoration, maintenance, or replacement of biological-tissues and organs. A related topic term paper and oral presentation are expected.	Approval Path 1. 11/14/18 9:47 ar Greg Hilmas (ghilmas): Approved for
Prerequisites	Graduate standing.	RMATSENG Chai
Field Trip Statement		2. 12/13/18 2:28 pr David Duvernell
Credit Hours	LEC: 3 LAB: 0 IND: 0 RSD: 0 Total: 3	(duvernelld): Approved for
Required for Majors	Νο	RBIOLSCI Chair 3. 12/13/18 3:39 pr
Elective for Majors	Yes <del>No</del>	Brittany Parnell (ershenb): Approved for CCC
Justification for change:	Name and description change to more accurately describe what is currently discussed in the course.	Secretary 4. 01/21/19 11:16 am
Semesters previously offered as an experimental course		Stephen Raper (sraper): Approved for Engineering DSCO Chair
Co-Listed Courses:	BIO SCI 6240 - Tissue Engineering II	5. 01/22/19 9:19 an Katie Shannon
Course Reviewer Comments		(shannonk): Approved for

https://nextcatalog.mst.edu/courseleaf/courseleaf.cgi?page=/courseadmin/2334/index.html&... 2/8/2019

sraper (12/17/18 12:19 pm): Science DSCC suggest striking "the use" in catalog description. sraper (01/14/19 3:35 pm): changed to elective for majors.	Sciences DSCC Chair 6. 01/22/19 9:32 am
Kry: 233	<ul> <li>Brittany Parnell (ershenb): Approved for Pending CCC Agenda post</li> <li>7. 02/07/19 2:57 pm Brittany Parnell (ershenb): Approved for CCC Meeting Agenda</li> <li>8. 02/08/19 9:18 am Stephen Raper (sraper): Approved for Campus Curricula Committee Chair</li> </ul>

Date Submitted: 12/03/18 11:07 am

## Viewing: PET ENG 4210 : Drilling and Well Design

File: 1260.1 Last edit: 02/08/19 11:17 am Changes proposed by: hendrixrl

Other Courses	In The Prerequisites:
referencing this	PET ENG 4211 : Advanced Drilling Technology
course	PET ENG 6211 : Advanced Directional Drilling and MWD
000.00	PET ENG 6231 : Drilling Optimization
	PET ENG 6811 : Advanced Offshore Petroleum Technology

Requested Effective Change Date	Fall 2019 <del>08/14/2018</del>
Department	Geosciences and Geological and Petroleum Engineering
Discipline	Petroleum Engineering (PET ENG)
Course Number	4210
Title	Drilling and Well Design
Abbreviated Course Title	Drilling and Well Design
Catalog Description	s drilling fluids, including mixing and analysis of rhoological

This course covers drilling fluids, including mixing and analysis of rheological properties; pressure loss calculations; casing design; well cementing; pore pressure and geomechanical considerations in drilling; completion equipment; and completion design.

# Prerequisites Preceded or accompanied by Civ Eng 2200. 3330. Field Trip Statement Credit Hours LEC: 2 LAB: 1 IND: 0 RSD: 0 Total: 3 Required for Yes No Majors

No

- 1. RGEOSENG Chair
- 2. CCC Secretary
- 3. Engineering DSCC Chair
- 4. Pending CCC Agenda post

~

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

#### Approval Path

1. 11/01/18 2:30 pm David Borrok (borrokd): Approved for **RGEOSENG** Chair 2. 11/01/18 3:00 pm Brittany Parnell (ershenb): Approved for CCC Secretary 3. 11/15/18 9:28 am **Brittany Parnell** (ershenb): Rollback to Initiator 4. 12/03/18 12:44 pm David Borrok (borrokd): Approved for

**RGEOSENG** Chair

Elective for Majors	5. 12/04/18 10:49 am
Justification for change: The requested change is to eliminate the prerequisite / corequisite requirement of Civ Eng 3330 Civil Engineering Fluids. The justification is that the fundamentals of hydraulics are already covered in Pet Eng 4210 before moving on to advanced treatment of hydraulics, therefore Civ Eng 3330 is not required for the student to perform well in the class. However, Civ Eng 3330 is an important foundation course and it shall remain a required class for earning a bachelor's degree in petroleum engineering. This change approved by the Petroleum Engineering faculty in a recent faculty meeting will result in the student having additional flexibility for the timing of when to take both Civ Eng 3330 and Pet Eng 4210. The faculty believe this will have a moderate positive impact on helping students graduate in 4 years, which is a stated goal for this campus and the UM system.	Brittany Parnell (ershenb): Approved for CCC Secretary 6. 12/17/18 12:16 pm Stephen Raper (sraper): Approved for Engineering DSCC Chair 7. 12/17/18 1:18 pm Brittany Parnell (ershenb):
Semesters previously offered as an	Approved for Pending CCC Agenda post
experimental course	8. 02/08/19 11:18 am Brittany Parnell
Co-Listed Courses:	(ershenb): Approved for CCC Meeting Agenda
Course Reviewer	9. 02/08/19 12:14
Comments sraper (11/09/18 1:45 pm): Checked Required for majors. ershenb (11/15/18 9:28 am): Rollback: Rollback per the request of Dr. Flori's email. ershenb (02/08/19 11:17 am): Removed the co-list Geology 4001 special topics, per the request of Dr. Flori/Dr. Raper.	pm Stephen Raper (sraper): Approved for Campus Curricula
the request of Dr. Fiori/Dr. Raper.	Committee Chair

New	Experimental Course Proposal		
Date Submitted: 12/		In Work	
Viewing: BIO SCI 4001.004 : Animal Behavior			
File: 4588 Last edit: 01/23/19 Changes proposed b	2. CCC S 3. Scien Chair 4. Pendi		
Requested Effective Change Date	Fall 2019	Agen 5. CCC N Agen 6. Camp	
Department	Biological Sciences	Comr	
Discipline	Biological Sciences (BIO SCI)	7. CAT e	
Course Number	4001	8. Regis	
Topic ID	004	Approva	
Experimental Title Animal Behavior		1. 12/06 David (duve	
Experimental Abbreviated Course Title	Animal Behavior	Appro RBIOI 2. 12/07	
Instructors	Robin Verble	am Britta	
Experimental Catalog Description		(ersho Appro Secre 3. 01/09 am Katie (shan	

- **OLSCI Chair**
- **Secretary**
- nces DSCC ir
- ding CCC nda post
- Meeting nda
- pus Curricula mittee Chair
- entry
- strar

## val Path

- 06/18 2:00 pm id Duvernell /ernelld): roved for **DLSCI** Chair
- 07/18 11:30

tany Parnell henb): roved for CCC

etary

09/19 10:20

e Shannon nnonk):

Approved for Sciences DSCC Chair

- 4. 01/15/19 9:54 am
  Brittany Parnell
  (ershenb):
  Approved for
  Pending CCC
  Agenda post
- 5. 02/07/19 2:58 pm Brittany Parnell (ershenb):

Approved for CCC Meeting Agenda

6. 02/08/19 9:18 am Stephen Raper (sraper):

> Approved for Campus Curricula Committee Chair

7. 02/08/19 10:04
am
Marita Tibbetts
(tibbettsmg):
Approved for CAT
entry

An introduction to key concepts in Animal Behavior. Topics include communication, foraging, spatial behavior, parental care, social behaviors, the effects of environment on behavior, phenotypic plasticity, behavioral ecology, and anthropomorphism. The course will consist of lectures and laboratory exercises.

#### Prerequisites

Bio Sci 1113 or Bio Sci 1213.

Field Trip Statement The laboratory portion of this course will require three local field trips that will be<br/>arranged prior to the beginning of the course.Credit HoursLEC: 2LAB: 1IND: 0RSD: 0

Total: 3

Justification for

new course:

1--This course will increase laboratory courses offered in the Department of Biological Sciences.

2-- This course will increase the number of organismal courses offered in the Department of Biological Sciences.

3-- This course will fill a gap in current BIO SCI curriculum.

Semester(s)

previously taught

None at Missouri S&T

Co-Listed

Courses:

Course Reviewer Comments ershenb (01/23/19 11:39 am): Per the request of Dr. Shannon, changed course number from 4000 to 4001 since it is a special topics course.

Key: 4588

<u>Preview Bridge</u>

## **New Experimental Course Proposal**

Date Submitted: 12/17/18 4:04 pm

# Viewing: EXP ENG 6001.005 : Construction

# Blasting

File: 4589		C
Last edit: 01/22/2	4. Pe	
Changes proposed	by: pworsey	A
Requested	Fall 2019	5. C
Effective Change		A
Date		6. Ca
Dependencent	Mining 9 Nuclear Engineering	C
Department	Mining & Nuclear Engineering	7. C
Discipline	Explosives Engineering (EXP ENG)	8. R
Course Number	6001	9. Pe
Topic ID	005	
	005	Арр
Experimental		1. 12
Title		K
Construction Bla	isting	0
Experimental	Construction Blasting	A
Abbreviated		N
Course Title		CI
Instructors	Calvin Konya	2. 12
		Bi
Experimental		(e
Catalog		A
Description		Se
		3. 03
		aı

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

## Approval Path

- L. 12/17/18 4:11 pm Kwame Awuah-Offei (kwamea): Approved for MINEXP ENG Chair
- . 12/17/18 4:21 pm Brittany Parnell (ershenb): Approved for CCC Secretary . 01/21/19 11:17 am

- Stephen Raper (sraper): Approved for
- Engineering DSCC Chair
- 4. 01/22/19 7:50 am
  Brittany Parnell
  (ershenb):
  Approved for
  Pending CCC
  Agenda post
- 5. 02/07/19 2:58 pm Brittany Parnell (ershenb):

Approved for CCC Meeting Agenda

6. 02/08/19 9:18 am Stephen Raper (sraper):

Approved for

Campus Curricula Committee Chair

7. 02/08/19 10:05 am Marita Tibbetts (tibbettsmg):

Approved for CAT entry

Students will learn how to blast and design blasts specifically in the construction industry and navigate within government specifications. The course will cover current USACE and DOT specifications and how contractors can go about costing and performing under these. The final project will be preparation of a master blasting plan for a real world project.

Prerequisites

Graduate standing.

2/8/2019			EXP ENG 6001.0	EXP ENG 6001.005: Construction Blasting			
	Field Trip						
	Statement						
	None required.						
	Credit Hours Total: 3	LEC: 3	LAB: 0	IND: 0	RSD: 0		

Justification for

new course:

The course will expand the course offerings in the Explosives Engineering distance program but will also be applicable to both civil and mining engineers, as well as project/construction management under the engineering management degree programs.

Semester(s)

previously taught

N/A

Co-Listed

Courses:

Course Reviewer	
Comments	
sraper (01/21/19 11:17 am): changed wording	

Key: 4589