

Missouri University of Science and Technology

Formerly University of Missouri-Rolla

Agenda Campus Curricula Committee Meeting March 2, 2011 11 a.m. Room 117 Fulton Hall

DC 0377, Engineering Management, Bachelor of Science, effective Fall 2011. A proposal to remove the FE Assessment requirement and replace it with the Associate Engineering Manager Certification.

DC 0378, Psychology, Bachelor of Arts, Secondary Education Emphasis, effective Fall 2011. Psychology 10 is being added as a required course for the BA in Psychology Secondary Education Emphasis Area.

DC 0379, Psychology, Bachelor of Science, Secondary Education Emphasis, effective Fall 2011. Psychology 10 is being added as a required course for the BS in Psychology Secondary Education Emphasis Area.

DC 0380, Computer Science, Bachelor of Science, effective Fall 2011. A proposal to modify the current requirements that count toward the humanities elective.

CC 8099, Computer Engineering 439, Electrical Engineering 439, Computer Science 439, Statistics 439, Systems Engineering 439, Clustering Algorithms, effective Spring 2012.

CC 8102, Mining Engineering 408, Research Methods, effective Fall 2011.

CC 8103, Chemical Engineering 345, Introduction to Molecular Modeling and Simulation, effective Fall 2011.

CC 8105, Electrical Engineering 409, Advanced Electric-Drive Vehicles, effective Fall 2011.

CC 8106, Geological Engineering 484, Geophysics 484, Advanced Engineering and Environmental Geophysics, effective Fall 2011.

CC 8107, Biological Sciences 335, Cancer Cell Biology, effective Fall 2011.

CC 8108, Biological Sciences 435, Advanced Cancer Cell Biology, effective Fall 2011.

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CC 8109, Geology 325, Advanced Physical Geology, effective Fall 2011.

CC 8110, Systems Engineering 435, Model Based Systems Engineering, effective Spring 2012.

CC 8112, Computer Science 388, Introduction to High performance Computer Architecture, effective Fall 2011.

CC 8113, ERP 348, Strategic Enterprise Management Systems, effective Fall 2011.

CC 8114, ERP 345, Use of Business Intelligence, effective Fall 2011.

CC 8115, ERP 448, Enterprise Performance Management System Prototyping, effective Fall 2011.

CC 8116, ERP 347, Supply Chain Management Systems, effective Fall 2011.

CC 8117, Business 426, Integration Using Enterprise Resource Planning, effective Fall 2011.

CC 8118, IST 443, Information Retrieval and Analysis, effective Fall 2011.

CC 8119, Business 315, Introduction to Teambuilding and Leadership, effective Fall 2011.

CC 8120, Business 415, Teambuilding and Leadership in Business Settings, effective Fall 2011.

EC 2310, Mining Engineering 401, Simulation of Mining systems, effective Spring 2011

EC 2317, Electrical Engineering 401, Principle & Applications of Nanophotonics, effective Fall 2011.

EC 2319, Chemistry 401, Synthesis and Bioapplications of Organofluorine Chemistry, effective Fall 2011.

EC 2320, Statistics 301, Statistical Data Analysis Using SAS, effective Summer 2011.

EC 2323, Biological Sciences 201, Introduction to Synthetic Biology, effective Summer 2011.

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EC 2324, Computer Science 401, Pervasive Computing, effective Fall 2011.

EC 2325, Computer Science 301, Introduction to Data Mining, effective Fall 2011.

EC 2326, Business 301, Development and management of new Products, effective Fall 2011.

EC 2327, Marketing 301, Promotions Management, effective Fall 2011.

EC 2328, Business 401, Innovation Management, effective Spring 2012.

EC 2329, IST 301, Advanced Digital Media, effective Fall 2011.

EC 2330, History 301, France and the Second World War, effective Fall 2011.

CC 8072, MSE 418, Principles for Advanced Microstructural Design, effective Spring 2011. Tabled

CC 8074, Explosives Engineering 491, Internship, effective Summer 2011. Tabled

CC 8075, Explosives Engineering 499, Practicum, effective Summer 2011, Tabled

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From: 573 341 4362 Page: 4/28 Date: 2/9/2011 11:51:19 AM

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Effective Year: 2011 Effective Term; Summer Fall Spring (Creating or modifying a degree program must be effective for a Fall term)	1010-Emgt- <i>0</i> 00-00
Degree Change Form (DC)	
This form is to be used for creating or modifying degree programs, emphasis areas	, and minors.
Title of degree program, emphasis area, or minor: Engineering Management	
Department: EMSE):
Briefly describe action requested (Attach documentation as appropriate To remove the Fundamentals of Engineering assessment requirement and replace To remove the Fundamentals of Engineering assessment requirement and replace Associate Engineering Manager Certification. Associate Engineering Manager Certification Management students must take the Associate Engineering Manager Certification Management students must take the Associate Engineering Manager to earn a B.S. graduation. A passing grade on this examination is not required to earn a B.S. requirement is part of the Missouri S&T assessment process as described in Associate Requirements found elsewhere in this catalog. Students must sign a release for Requirements found elsewhere in this catalog. Manager Certification score. University access to their Associate Engineering Manager Certification score.	n exam prior to degree. This ressment
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Recommended by Department:(Chair signature)	Date: 4/17/10
Recommended by: Steve Tolskins Discipline Specific Curricula Committee (Chair signature)	Date: <u>1/4/11</u>
	Date:
Approved by Curricula Committee:(Chair signature)	
Approved by Faculty Senate: (Chair signature)	Date:
Approved by Faculty Senate: (Chair signature)	

From: 573 341 4362 Page: 5/28 Date: 2/9/2011 11:51:19 AM

	DC #0378-2011- 1sych-000-00
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Degree Change Form (DC)

This form is to be used for creating or modifying degree programs, emphasis areas, and minors.

Title of degree program, emphasis area, or minor: Bachelor of Arts Psychology (Secondary Education Emphasis)

Department: Psychological Science

Briefly describe action requested (Attach documentation as appropriate):

Psych 10 Introduction to Psychology is a required course for our Bachelor of Arts Psychology majors and it should also be a required course for our Bachelor of Arts Psychology majors in the Teacher Education Program. We wish to add this one-credit course to this degree program, as a Psychology Degree Requirement. This would increase the Psychology Degree Requirement hours from 16 to 17 semester hours. The course description is below.

Introduction to Psychology (LEC 1.0) An introduction to the study of psychology at Missouri S&T. Students will learn about personal and professional opportunities associated with the different areas of psychology and become acquainted with the psychology faculty and campus facilities.

Recommended by Department: Nancy	(Chair signature)	Date: 1/14/11
Recommended by: Discipline Specific Curricula Committee	(Chair signature)	Date: 1/27/11
Approved by Curricula Committee:	(Chair signature)	Date:
Approved by Faculty Senate:	(Chair signature)	Date:

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Effective Year: 2011 DC # 0379-20	11-Psych-000.
Effective Year: 2011 Effective Term: Summer Fall Spring (Creating or modifying a degree program must be effective for a Fall term)	
Degree Change Form (DC)	
This form is to be used for creating or modifying degree programs, emphasis areas,	and minors.
Title of degree program, emphasis area, or minor: Bachelor of Science Psychology (Secondary Education Emphasis)	
Department: Psychological Science	
Briefly describe action requested (Attach documentation as appropriate): Psych 10 Introduction to Psychology is a required course for our Bachelor of Science majors and it should also be a required course for our Bachelor of Science Psycho Teacher Education Program. We wish to add this one-credit course to this degree Psychology Degree Requirement. This would increase the Psychology Degree Receiption 16 to 17 semester hours. The course description is below.	logy majors in the program, as a puirement hours
Introduction to Psychology (LEC 1.0) An Introduction to the study of psychology a Students will learn about personal and professional opportunities associated with areas of psychology and become acquainted with the psychology faculty and cam	
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Recommended by Department: Nancy Stano (Chair signature)	Date: <u>1/14/11</u>
Recommended by:	Date: 1/27/1/
Approved by Curricula Committee:(Chair signature)	Date:

(Chair signature)

Approved by Faculty Senate:

Date: _____

From: 573 341 4362 Page: 7/28 Date: 2/9/2011 11:51:20 AM

From: 573 341 4362

Page: 1/4 Date: 1/21/2011 3:10:47 PM

Effective Year: 2011 Effective Term: Summer Fall Spring (Creating or modifying a degree program must be effective for a Fall term)	VI-C5-000-00
Degree Change Form (DC)	
This form is to be used for creating or modifying degree programs, emphasis areas, a	nd minors.
Title of degree program, emphasis area, or minor: B.S. in Computer Science	-
Briefly describe action requested (Attach documentation as appropriate): Change the courses permitted to count towards the humanitles elective as follows: Change the courses permitted to count towards the humanitles elective as follows: (1) Alow French 1 or any course for which French 1 is listed as a prerequisite, actual or implied, except French 360* (2) Allow German 1 or any course for which Spanish 1 is listed as a prerequisite, actual or implied, except Spanish 160* (3) Allow Spanish 1 or any course for which Russian 1 is listed as a prerequisite, (4) Allow Russian 1 or any course for which Russian 1 is listed as a prerequisite, (5) Disallow Art 80 [*French 360, Spanish 160, and Russian-360 are excluded because they are instory classes that would be more applicable to social science credit] Clarify the B.S. in Computer Science program as listed in the undergraduate cata Footnote 5 to: "One approved literature course and one approved humanities course page)"	too by changing
Recommended by Department: (Chair signature)	Date: <u>560 19,2011</u>
Recommended by: Janus (Chair signature) Discipline Specific Curricula Committee (Chair signature)	Date: 2//20//
Approved by Curricula Committee:(Chair signature)	Date:
	Date:

(Revised 1/31/2008)

(Chair signature)

Approved by Faculty Senate: _____

From: 573 341 4362 Page: 8/28 Date: 2/9/2011 11:51:20 AM

cc File #8099. 2010 - GE-439-10 Effective Year: 2012 Spring 🛭 Fall 🔲 Term: Summer 🗌 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Prerequisites 🗌 Credit Hours Course Deletion 🗌 Co-listing 🗆 New Course 🛛 Course Number 🗌 Catalog Description \square Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Electrical & Computer Engr Proposed: CpE 439 2. Discipline and Course Number: Present: CDE 401 Present: Clustering Algorithms 3. Course Title: **Proposed: Clustering Algorithms** Abbreviated Course Title: Clustering Algorithms (24 Spaces or Less. Only needed for New Courses or Title Changes.) 4. Catalog Description (300 Character Spaces or Less.) An introduction to the cluster analysis and clustering algorithms rooted in computational intelligence, computer science and statistics. Clustering in sequential data, massive data and Present: high dimensional data. Proposed: An introduction to cluster analysis & clustering algorithms rooted in computational intelligence, computer science & statistics. Clustering in sequential data, massive data & high dimensional data. Students will be evaluated by individual or group research projects & research presentations. 5. If course requires field trip check box: \Box Total: 3 Lab: 0 Lecture: 3 Present: Total: 3 6. Credit Hours: Lab: 0 Lecture: 3 Proposed: Graduate standing plus at least one graduate course in either statistics, data mining, 7. Prerequisites: present: neural networks or permission of the instructor. At least one graduate course in statistrics, data mining, algorithms, computational intelligence, or neural networks, consistent with student's degree program. Elective for Majors: $oxed{f eta}$ Clustering is a very important topic in computational intelligence. It's the preferred 8. Required for Majors: \Box method of dealing with massive datasets. Clustering has become a necessary tool for 9. Justification: data analysis & as a major research topic. S&T has a strong, multidisciplinary reputation in computational intelligence & this course is necessary to continue that strength. previously offered as an experimental course (101, 201, 301, 401): SP 2008 & SP 2010 11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below. 3) Stat 439 MT 2) CS 439/3//\ 1) EE 439 X 52 4) SysEng 43945 Recommended by Department Recommended by Discipline Specific Curricula Committee Start Valley Date: _ Approved by Curricula Committee: _ (Chair signature) Date: ____ Approved by Faculty Senate: __ (Chair signature)

From: 573 341 4362 Page: 9/28 Date: 2/9/2011 11:51:20 AM

Clustering (4XX)

Room: TBD Class Hours: TBD Section A: Fall 2011

Instructor: Dr. Donald Wunsch

131 EECH Office:

Office Hours:

TBD

dwunsch@mst.edu E-mail: (573) 341-4521 Phone:

At least one graduate course in statistics, data mining, algorithms, computational Prerequisites:

intelligence, or neural networks, consistent with the student's degree program.

Rui Xu and Donald Wunsch, Clustering, IEEE Press / Wiley, 2008. Text:

Description: An introduction to cluster analysis and clustering algorithms rooted in computational intelligence, computer science and statistics. Clustering in sequential data, massive data

and high dimensional data.

Your grade will be based on the following: Grading: 5%

Homework 10% Presentations 10% Project 1

75% Design Project

Homework will be problems from the book, split up among you as agreed by yourselves. The presentations will use the book as a starting point, and combine it with other papers if

desired,

to create a research seminar which will be presented in class. The grade will depend just

as much

on delivery as on content. Project 1 will be a simple implementation of one of the algorithms from the book. The design project will be a use of clustering in your own

research.

Although all homework and projects are individual efforts, collaboration is permitted and Policies:

encouraged. You will have great latitude over research papers and seminars, so go ahead

and

begin exploring.

Welcome to the class!

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Effective Term: FS 2011

cc File #8/05-20/0-EE-409-33

Course Change Form (CC)

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From: 573 341 4362 Page: 13/28 Date: 2/9/2011 11:51:22 AM

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From: 573 341 4362 Page: 1/7 Date: 1/7/2011 10:43:21 AM

cc File #8107-2010-BioSai-335-10

Effective Year: 2011 Fate Summer: Fate Summ				CC	File #810	1-2010	Divou	ما ما
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From: 573 341 4362 Page: 16/28 Date: 2/9/2011 11:51:23 AM

Date: 1/21/2011 3:10:48 PM Page: 2/4 From: 573 341 4362 CC File #8109-2011-Ge0-425-34 Effective Year: 2011 Spring 🛄 Fait 🖾 Term: Summer 🗌 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Prerequisites 🗀 Credit Hours 🗀 Course Deletion 🗌 New Course 🗀 Ca-listing 🗆 Course Number 🖾 Catalog Description 🗵 Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.) 1. Department: GeoSci & Eng Proposed: Geo 425 2. Olscipline and Course Number: Present : Geo 325 3. Course Title: Present: Advanced Physical Geology Proposed: Abbreviated Course Title: (24 Spaces or Less. Only needed for New Courses or Title Changes.) 4. Catalog Description (300 Character Spaces or Less.) History and materials of the Earth's crust, structures, and geological features of the surface. Study of common minerals and rocks, topographic and geologic maps, depositional systems, Present: sedimentary classification systems. Proposed: Examination of topics concerned with the physical properties of earth materials, processes affecting change of the surface and interior of the earth, and the driving forces causing these changes. Weekly critical assessment of literature, and an oral presentation & term paper required. 5. If course requires field trip check box: 🗌 Total: 3 Lecture: 3 Lab: Present: 6, Credit Hours: Total: Lab: Lectures Proposed: 7, Prerequisites: Consent of Instructor Present: Proposed: -Consent of Instructors-Elective for Majors: 🛛 8. Required for Majors: 🗆 The level at which we want to cover this material in support of our graduate programs is more appropriate for a 400 level course. We would like to leave the prerequisites 9. Justification: the same - target audience is graduate students almost all of which will have a sufficient background level in geology and geophysics to participate in this course. 10. Semesters previously offered as an experimental course (101, 201, 301, 401): 11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below. 3) 2) 1) 5) 4) Recommended by Department Recommended by Discipline Specific Curricula Committee (Chair signature) Date: Approved by Curricula Committee: (Chair signature) Date: Approved by Faculty Sanate: ___ (Chair signature)

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7. Prerequis Presen	ites: t: sys EN(3 433 or coursew	ork in UML.			
Propos	ed: SYS EN	G 433 or instruct	or's consent.			
8. Required 9. Justificat	for Majors: [ion: Cours	Elective fo e has been taugh	r Majors: 🗌 t twice as an expe	imental co	urse.	
			imantal cours	e (101, 20	L, 301, 401): S	p'10 & Sp'11
10. Semes	ters previous	ly offered as an o	experimental cours Dept. Chair, if sign	ature does	not appear be	low.
11. List all	co-listed cou	rses, initialed by	3)			
1)	2)		-7			
4)	5)	/	245 L			Date: <u>01/13/2011</u>
Recommer	ided by Depa	rtment	(Chair signature)	St.	Wathin	Date: 2/4/11_
Recommer	nded by Disci	pline Specific Cui	ricula Committee _ (Chair signature)	ZYUNU.	INT TANK	
	by Curricula		(Chair signature)			Date:
						Date:
Approved	by raculty 5	enate:	(Chair signature)			

From: 573 341 4362 Page: 18/28 Date: 2/9/2011 11:51:23 AM

	_	573 341 4362	Page: 3/4 Date:	1/21/2011 3:10:48	PM	
	From:	5/3 341 4502	·	CC File # 2	7/12-2011	-05-388-10
Effective Year Term: Summer	il Patulo⊒	Spring 🗆	_	<i>E</i>	~ . ~ .	1-CS-388-10
	(ourse C	hange F	orm (C	C) 7.	war all all and
	This	form is for crea	iting or modifyin	g permanent co		
Course Chan	iges (Check a	ll changes-)	Credit Ho		prerequisite:	
Maria Course XI	Course	Deletion ⊢		·	Co-listing 🗆	
Course Title 🗀	Catalog	Description	Course N eted. Leave "Propo	ısed" items blanl	k if no change is	a being made-1
Course Info	rmation (1-)	A MICHE OF MANNEY	- ,		0-0	100
1. Departmen	Mit club ac	mmbert Pres	ent:	Propo	sed: Cmp Sc 3) 60
2. Discipline :	and conta¤ : : Present:			*	rekitesture	•
字. Course Title	roposed;	Introduction T	o High Performa	ice Computer :	€[.FIH+toetm. —	
Ahhrevia t e	d Course Tit	le: High Perf. C	comp. Arch. needed for New or Less.)	Courses or Titl	e Changes.)	
7	(24 Space) (300 centerine)	s or Less. Omy Character Spaces	Or Less.)			
4. Catalog Per Present:	etihitan (nas					
- Proporter						
	Uniprocessor	and concurrent inked to comm		computing syst mic means tha restigated. Var	ems and cove it enhance per lous computat	ers various Formance Jonal models are
5. If course r	equires field t	rip check box:	ilecture:	<u>L</u> ab:	Totali	
6. Credit Hou	rs:	Present: Proposed:	Lecture: 3	Lab: 0	Total: 3	
7. Prerequisi Present	ţes:			·		
Propose		and Cmp Sc 25			,	•
8. Required to 9. Justificati	for Majors: 🗆 on: Offered comput		or Majors: 🛛 s experimental c is based on this	ourse. PhD qua course.	lifying subject	t examination on
·		•				22010
		offered as an	experimental cou Dept. Chair, if si	ırse (101, 201,	. 301, 401): Fi	NW.
10. Semest	ors president	es, initialed by		gnature does r	itir abbeen, ne.	W-10-7
1)	2)	-	3)			
·	5)	4	C 61			NOT 2 DAIL
4)	<u>-</u>		(//		7) .	Date:
Recommend	ded by Depart	men	Chair signatur	e) 22) sails	tark_	pate: 8///2011
Recomman	ded by Discipi	ine Specific Cu	ricula Committe (Chair signatur	e)		Date:
Approved b	y Curricula Co	mmittee:	(Chair signatu		·	Date:
	y Faculty Sen		(Chair signatu	re)	T	

From: 573 341 4362 Page: 19/28 Date: 2/9/2011 11:51:24 AM

			ć	C File # 8	113-2011-ERP-3	48-32
Effective Year:	; 2011 ☐ Fall 🛛	Spring 🗀	•			
Term: Summer	Li Pan 🖂		ange FOI	m (Cl	C)	
		Course Cr	nange Fol ng or modifying pe	rmanent co	ourses.	
Course Chan	This	form is for creat.			Prerequisites 2	
, 	Course	Deletion 🗀	Credit Hours		Corlisting 🗖	
New Course ☐ Course Title 🛭	Catalog	Description 🗆	Course Num	per 📖 ''' Stems blan'	k if no change is b	eing made.)
Course Info	rmation (1-9) Must Be Complete	Course Num d. Leave "Proposed echn	i iferito bian	•	
	_a. Dicinace A	IUA IIIIOIIIIAMAN	_ ' '	Propo	sed:	
2. Discipline	and Course N	lumber: Prese	nt : ERP 340			
3. Course Title	; Present:	Entern	rise Management :	Systems		
	Proposed:	Strategic Enterp	Mgt Sys	T iti	La Changes.)	
Abbreviate	(24 Share	/ NAMA() EL DUVERS S	r Less.)		·	: including
	This course V	vill study different	<i>r Less.)</i> : strategic perform kolt, scorecards, a	iance mana and strategy	gement system. I maps in an org	anization. SAP's
Present:	dashboards,	management coc erprise Managem ince student educ	ent (SEM), Busine	essObjects)	Kcelsius, or simil	ar tools will be
Proposed:	,					
•						
		 	•			
5. If course	requires field	trip check box: 🗀	Lecture: 3.0	Lab:	Total: 3.0	
6. Credit Ho	urs:	Present: Proposed:	Lecture:	Lab:	Total:	
7. Prerequis Presen			p346 (maybe take		ntly)	
Propos	ed: ERP 246	or ERP346 (may	be taken concurre	ently).		
8. Required 9. Justificat	for Majors: C	Elective for the changing for	F11 and will no lo	nger cover	the prerequisite	material needed.
	Abbre	vlated course title	changed to make	; it more de	scriptive (full cit	le remains tile
	same)		xperimental cours Sept. Chair, if sign	e (101, 201	L, 301, 401):	
10. Semes	ters previous	rege initialed by I	xperimental cours Dept. Chair, if sign 3)	ature does	not appear belo	W.
	2)		3)			
1)			6) ,			c 1
4)	5)	1	1. 1.		<u> </u>	Date: 2/3/11
Recomme	nded by Depa	rtment <u>(AU</u>	(Chair signature)	P. 1	Tarlebert	Date: 2/8/2011
Recomme	nded by Disci	pline Specific Curi	ricula Committee (Chair signature)	Mary Mr		Date:
Approved	by Curricula	Committee:	(Chair signature)			Date:
	by Faculty Se		(Chair signature)			

From: 573 341 4362 Page: 20/28 Date: 2/9/2011 11:51:24 AM

						_
				CC File # 8	114-2011-ERP-34	4 5-32
Effective Year: F	S2011	Spring 🗆				
Term: Summer 🗆] Fall ⊠	ahima ⇔	Ec	em (Cl	C)	
	C	ourse Ch	lange Fo	nermanent co	ourses.	
	This	form is for cream	d or woalland	perm		7
<u>Course Change</u>	es (Check al	(changes.)	Credit Hou		bletednizires 5	7
New Course	Course l	peletion 🗆			Co-listing 🗆	aing made.)
Course Title	Catalog	pescription □	a Leave "Propos	ed" items blan	k if no change is b	Citting treatments
New Course Course Title Course Inform	<u>nation (1-9</u>	Must Be Complete	u. Lagra			
1. Department	: Business &	Info Tech	FRP 345	Propo	sed:	
 Department Discipline ar 	nd Course N	lumber: Prese	ntelligence			
3. Course Title:	hlezenr		#112011P			
3, 02 -	proposed:	puciness Inte	elligence	o or Til	rie Changes.)	
Abbreviated	d Course Til	tle: Business Inte s or Less. Only D Character Spaces (eeded for New	Courses of Th		
	このもこのれ / ゴリリー	Chich mone.		aa for busine	22 Hireman	ropics include
4. Catalog Boss present: 7	This course !!	ntroduces data-o	rlented techniqu ture. Business A	nalytics, and	ss intelligence. Enterprise Repoi ilar tools will be t	used to access and
F163011 1	Business Inte	elligence architec	use, BusinessOt	jects, or sim	ss intelligence. I Enterprise Repoi ilar tools will be u	rting. SAN used to access and
	Business Inic present data	, generate report	.			
	hi cacita and					
Proposed:						
	. eald	trin check box: [3		Total: 3.0	
5. If course re	equires field	trip check box: [present:		Lab: Lab:	Total:	
6. Credit Hou	rs:		Lecture:	-	ш. А	
7. Prerequisi	tes:	or BUS426 or El	2P346 (ERP 346	may be take	n concurrently).	
Present:	: ERP 246	or BUS426 of E	N. C.		,,,,	
	4	5 or ERP346 (ERF	346 may be ta	ken concurre	UEIA):	
Propose	ed: ERP 240					
_		= Elective fo	or Majors: 🛛	ıworanilis	ire material.	
8, Required	for Majors: 1 :: RUS 4	Elective for 126 is being chan	ged to remove t	The breiedars	100	
9. Justificati	ion:					•
					201 401) :	
	- -	sly offered as an	experimental co	ourse (101, 2)	01, 301, 40-7. 01, annear bel	.wa
10, Semesi	ters previous	rses, initialed by	Dept. Chair, if	signature dot	es not appear bel	
11. List all	2)	\ \	3)			
1)	-,	•	6)	/ .		2/2/4
4)	5)	1.1. 1	. Ann	 .	Date: 2/3//
	nded by Dep	artment	(Chair signat	ure)	The Sout -	Date: 2/8/2011
Kecomme	i de la Color	cipline Specific Cu	irricula Commit	tee Mary (44) rure)	TO REPORT -	Date:
Recomme	nded by Disc	Manus at a	(Chair signa			_
Approved	by Curricula	Committee:	(Chair signa	ture) 	<u> </u>	Date:
a ween lad	by Faculty :	Senate:	(Chair signa	iture)		
Abbiosed	, ,		. -			

From: 573 341 4362 Page: 21/28 Date: 2/9/2011 11:51:24 AM

			,	c tile # 8	115-2011-ERP-4	48-32
Effective Year:	2011	Spring 🗀		,C FILE # U		
Term: Summer	ıı Fanı⊘ı		-ngo Fot	m (Cl	c)	
		Course Ch	ange of modifying pe	rmanent co	ourses.	
Course Chan	This	s form is for creatily the standard form is for creatily all changes.)			Prerequisites (⊲
		Deletion 🗆	Credit Hours	니ㅡ	Co-listing	-
New Course	Catalo	g Description 🛭	Course Num	ber L.! Kitome blad	k if no change is b	eing made.)
Course Title M	rmation (1	g Description 🛭 .9 Must Be Complete	d. Leave "Proposed	ifettis man	,	
_	.I. Durindee	X) ITHU 15CH		Propo	sed:	
2. Discipline	and Course	Number: Presel	nt:EKP 440			
3. Course Title	: Present:	Number: Presei Enterprise Perfoi I: Enterprise Perfoi	mance Managem mance Dashboard	Prototypii	ng	
	Proposed	l: Enterprise Perior Dachboard Pr	ototyping	~ ~ ~	in Changes)	
Abbreviate	ed Course T (24 Spac	itle: Dashboard Pries or Less. Only no	eded for New Col	irses or in	le Cliangesi)	
4. Catalog Des						arformance
Present:	This course	Character Spaces of Charac	systems with a foc	us on dash	boards, balanced	Business Object
	managemer	management. SA	P's Strategic Enter	prise Mana	igement (a	
	- 1/laine Of	CHILITAL LOOKS TITE	-		#	nanancincii
proposed:	Study of im	similar tools will be plementation and the focus on dashi	design practices in boards, balanced s	corecard,	and value-based	management. e used for project
•	systems Wi	plementation and o th a focus on dashi nessObjects Ecelsiu	s, Crystal Reports	, BW, or si	Wilat roots with p	• • • • • • • • • • • • • • • • • • • •
	Implement	#finita:				
5. If course l	requires field	l trip check box: 🗀	Lecture: 3.0	Lab:	Total: 3.0	
6. Credit Ho		Presenti	Lecture:	Lab:	Total:	
		proposed:	2004-			
7. Prerequis Presen	ites: t: ERP444	or IST444				
Propos	_	6, (ERP444 or IST4				
o namirad	for Majors:	Elective for ct error in prerequ	Majors: 🛛	- oreredul	isite since ERP 3	45 was removed.
8. Kequireu 9. Justifical	tion: Corre	ct error in prerequ	isites. ERP 346 IS	a presequi		
	Provi	de more descriptiv	e course title and	catalog des	scubrions.	
	_	sly offered as an e	xperimental cours	e (101, 20	1, 301, 401):	
10. Semes	ters previous	sly offered as an e urses, initialed by I	Dept. Chair, if sign	ature does	not appear pelo	W.
	co-jisted col 2))	3)			
1)			6) .			1_111
4)	5	la.	1. 1.	<i>(!</i> (Date: 2/3///
Recomme	nded by Dep	artment	(Chair signature)	R. D	holdst.	Date: 2/8/2011
Recomme	nded by Disc	ipline Specific Curi	ricula Committee (Chair signature)	ypage acre	The second second	Date:
Approved	by Curricula	Committee:	(Chair signature)			Date:
Approved	by Faculty S	Senate:	(Chair signature)			
• -k- h						

From: 573 341 4362 Page: 22/28 Date: 2/9/2011 11:51:25 AM

		•			
,		C	C File # 811	16-2011-ERP-347	7-32
Effective Year: 20 Term: Summer 🗌	11 Fall $oxtimes$ Spring \Box	. F asi	m (CC	3	
(0)	Course (Change For	manent COL	irses.	
	This form is for cre	change ronating or modifying per			
	(Check all changes.)			Prerequisites 🛭	
<u>Course Change</u>	S (Check all changes.) Course Deletion	Credit Hours	-	Vertina 🔀	
New Course	Course Description	Course Numb	jer ∟i . : blank	if no change is bei	ing made.)
Course Title \square	Catalog Peschipe Comp	leted. Leave "Proposed"	items blank	,	
Course Inform	Course Deletion La Catalog Description S atjon (1-9 Must Be Comp Business and Information	n Techn		¥-	
1 Department:	Business and Information	cent : ERP 347	Propos	:ea:	
a Discipline and	Business and Information d Course Number: Pro	Sent :			
3. Course Title:	Present:	Management Systems	5		
	present: proposed: Supply Chain	Mat SVS		- changes.)	
ssbraviated	Course Title: Sup Chan	had for New Col	itees of men	6 Chanacan	
дристи	(24 Spaces of Less. Offi	es or Less.)	u med	the challenges	of managing
4. Catalog Descr	(24 Spaces or Less. Offi iption (300 Character Space iption (300 Character Space	d for supply chain inte	egration and	roach to the plan	ining, analysis,
present: Th	(24 Spaces or Less. Online (24 Spaces or Less. Online) (200 Character Spaces) (200 Character Spaces) (200 Character Spaces) (200 Character) (2	ourse focuses on the s	ysterns app hain. The C	ourse discusses a	activities that load
r c	TRIBLEX HILLION	avaluation of Supply ?	95 1 44 V		
ď	esign, development		cupply chal	n integration wit	h focus on ule
	esign, development, and of integration of informat the course studies the neplanning, analysis, design	ed and challenges for	valuation of	supply chain in	an EKr used for project
proposed: T	The course studies the ne blanning, analysis, design environment. SAP Supply	, development, and ex	SCM) or a s	imilar system is i	1260 tot 52
	SAVIENTI LETTE OF THE TENT	Chain Management			
	A AIGMEILGUVIII				
e 14 course fet	quires field trip check bo	Lecture: 3.0	Lab:	Total: 3.0	
6. Credit Hours	p _{resent:}		Lab:	Total:	
6. Clear year		Lecture:		ы. А	
7. Prerequisite Present:	EKh 740 of pa-	or ERP 346 (may be ta	iken concur	rently)	
	d: ERP 246 or ERP346 (may be taken concurr	ently).		
Propose(d: ERP 246 or ERP346 (may be same			
· -		- r Majors: 🛛			material needed.
8. Required f	or Majors: 🔲 🛮 Electiv	e for Majoros Ex	onger cover	the prerequisite	(Haccina)
9. Justification	n: BUS426 is changing	e for Majors: g for F11 and will no location was shortened to er co-listed with ERP in the catalog, so it probably	fit.	shown in Sp0)9, but isn't in the
ä. Tustiteen.	The course descript	er co-listed with ERP	347. (This v	st anvway.)	
	BUS 366 IS NO 1619	er co-listed with ERP atalog, so it probably	GOGZII r cvi	. 201 401):	
	current Graduate C ers previously offered as	an experimental cour	se (101, 20	1, 301, 401).	·w.
10. Semeste	ers previously offered as o-listed courses, initialed	hy Dept. Chair, if sig	nature does	not appear our	-
11, List all C	o-listed codisc-/	3)			
1)	2)	-,			
7,	E \	6)	,		Date: 2/8/11
4)	5)	And to Take		- 2 - 1 - 1	Date: 045///
മ ഹരന്ത് ലി	ded by Department	(Chair signature	TR Z		Date: 2/8/2017
Kecommen	out	Curricula Committee	April (124	00 LO EN-Y-	Date:
Recommen	ded by Department	(Chair signature	., /		70
Approved I	by Curricula Committee:	(Chair signatur	=) 	<u> </u>	Date:
Annroved	by Faculty Senate:	(Chair signatur	e)		
White	-				

From: 573 341 4362 Page: 23/28 Date: 2/9/2011 11:51:25 AM

				C	C File # 8	117-2011-BUS	3-426-32
Effective Year: Term: Summer		g Spring 🗆				=	
Term: summer	_		hand	e Fot	·m (C	C)	
		Course L is form is for crea	ting or mod	lifying pe	ermanent c	ourses.	
<u>Course Chan</u>	n) Check) aes	all changes.)				Prerequisites	s 🖾
	Cours	e Deletion 🗀		dit Hours	[Co-listing 🚨	
New Course	Catal	og Description 🛛	Cou	rse Num	per ⊆ Pitems bla∩	k if no change is	s being made.)
Course Info	r <u>mation</u> (og Description 1-9 Must Be Comple	eted. Leave	"btohosed	(COMO		
- nenartmei	nt: Business	Saud Implitudes.	•		Prope	sed:	
2. Discipline	and Course	Number: Pre	ent : BUS 4	tzu ice Resol			
3. Course Title		Number: Pres Integration Used: Integration of	Rusiness Al	reas			
	Bronose	ed: Integration of	usiness Are	as	Til	la Changes.)	
Abbreviate	e d Course (24 Spa	Title: Integrate B ices or Less. Only	needed for	New Co	urses or in	Je Change	
4. Catalog De							a business more
Present:	Students W	ill learn to use cr	An the hus	iness use	of ERP an	d the integrati	on of the business
	effectively	Elibuasis viii	this powerf	ul softwa	are.		
						Integrate the b	ousiness functions to will be covered
proposed:	Students \	vill work on proje performance effic	cts and sno lency and e	effectiven	ess. The o	onsulting field:	MIII DE COVELCO
	maximize	performance entrojects and readir	ıgs.				
5. If course	requires fie	d trip check box:	Lecture	3.0	Lab:	Total:	
6. Credit Ho		present:	Lecture		Lab:	Total:	
7. Prerequis	itac.	Proposed:					
Presen	t: Preced	led or accompanie	ed by BUS 4	<u> </u>			,
		nt must have com	mlated at le	ast 12 h	ours towar	ds the MBA de	gree.
Propos	ed: Stude	nt must have con	thices are				
	Wallawa	াতা Elective 1	or Majors: i			nhoeic 276	ea offered to majors.
8. Required 9. Justificat	l for Majors. Hon: The		- course col	nflicted V	vith the EK roal of inter	p emphasis arc gration using c	ea offered to majors. other methods, objectives will help
9. Justifica	This	new describuon	oulations at	nd consu	iting projec	ts when availa	ible. This will help
	•			LAI ASIEC	e (101, 20	1, 301, 40±); 	alow.
10. Semes	co-listed C	usly offered as an ourses, initialed b	y Dept. Cha	ir, if sign	iature doe:	Hor appear	
11. List an 1)	2	2)	3)				
"	1	5)	6)	ø	Л		ələlu
4)		<i>"</i>	whi	Test	<u></u>	= = 1	Date: 043///
Recomme	nded by De	partment	(Chair	signature)	Rom H.	debut-	Date: 2/8/2011
Recomme	nded by Dis	scipline Specific C	urricula Cof Chair)	signature)	KICHAY - 1-00	▼ -* F	Date:
Antroved	by Curricul	a Committee:		signature)			Date:
		Senate:	•	signature)	_	<u> </u>	-
Approved	Dy Faculty		(Chair	siyttature,	,	•	

From: 573 341 4362 Page: 24/28 Date: 2/9/2011 11:51:25 AM

				rc Eile # 8	118-2011-IST	-443-32
Effective Year: 201: Term: Summer []	L Fa‼⊠ S	Spring 🗆	•	76 Life # o		
Term: Summer □		co Ch	ange For	m (C	C)	
	This for	m is for creatin	g or modifying pe	ermanent c	ourses.	
Pi Abbreviated Co (2 4. Catalog Descripti	(Check all check	etion et	Credit Hours Course Num Leave "Proposed t: IST 443 eval and Analysis eded for New Cou- Less.)	ber ritems blan Propo irses or Titems of organ	Prerequisites Co-listing k if no change is sed: le Changes.)	lyzing information of
enali	nes, text mi echniques v	Ալևը, տաբետ	tive filtering, reco	mmender	Systems, Star	ents will also learn
Proposed:						
		shook boy:				
5. If course requir	es field trip	sent:	Lecture: 3.0	Lab:	Total:	
6. Credit Hours:	-	posed:	Lecture:	Lab:	Total:	
7. Prerequisites: Present: <u>I</u>	ST 223 or e	quivalent relat	ional database ex	perience		
Proposed: E	RP 345 or 9	Statistics Know	ledge			
8. Required for Magnetic Strates 9. Justification:	ajors: Statistics of taught.	Elective for l or Business Int	Majors: 🛭 elligence needed,	rather tha	n DBMS, as co	urse will now be
			vi ontal confsf	(101, 201	, 301, 401):	
10. Semesters p	reviously of	fered as an ext by De اجامات	ept. Chair, if signa	iture does	not appear bel	ow.
	ed courses, 2)	Hilliance of -	3)			
1)	-		6)			
4)	5)	Buch	1. L.S.	. ور ر	<u> </u>	Date: <u>2/3/11</u>
Recommended b	y Departme	ent <u>. <i>Uddi</i> U</u>	(Chair signature)	Bus L	bolish -	- Date: 2/8/2011
Recommended b	y Discipline	Specific Currle	ula Committee _ (Chair signature)	12 1 21		, Date:
Approved by Cu			(Chair signature)			Date:
Approved by Fac			(Chair signature)			

From: 573 341 4362 Page: 25/28 Date: 2/9/2011 11:51:26 AM

				CC File # 81	_{l19} -2011-BUS-31	5-10
Effective Year: 2 Term: Summer [:011] Fall ⊠	Spring \square			••	
Term: Sammer -	•	ourse C	nange F	orm (CC	<i>-</i>)	
)	COUTSE CI	ng or modifying	permanent co	ourses.	•
<u>Course Chang</u>	es (Check a	changes.)	Credit Ho		Prerequisites L.	
New Course 🗵	Course	Deletion 🗆	Course N	umber 🗆	Co-listing []	ing made.) -
Course Title 🗌	Catalog	Description L1	ed. Leave "Propo	sed" items blan	k if no change is be	HT = TT
<u>Course Infort</u>	nation (1-	Information]	echn		BUS 315	
	. Diciness c	114 +111		brobo	sed: BUS 315	
2. Discipline a	nd Course I	Affiliation				
3. Course Title:	present:	Tatroduction to	Teambuilding a	nd Leadersnip		
Abbreviated 4. Catalog Descent:	d Course Ti	tle: Intro Teamb es or Less. Only Character Spaces	needed for New	Courses or Tit	le Changes.)	
• -						
	Introduced,	with opportuniti	es to blactice or	ship styles, pri Ial examinatio Id develop bot	nciples, models, in Key componer hieadership and Total: 3.0	ssues, and its of teams are teambuilding
5. If course r	equires field	trip check box:	 Lecture: 3.0	Lab:	Total: 5.0	,
6. Credit Hou		present: Proposed:	Lecture:	Lab:	(Ota).	
7. Prerequisi Present	tes: :	Plobosen				
Propose						
8, Required 9, Justificat	Certi	icate III Sustaini			, part of the new	Graduate
			experimental C	ourse (101, 20)1, 301, 401):	saf .
10. Semes	ters previou	sly offered as an	v Dept. Chair, if	signature doe	s not appear belo	TT 1
11. List all	co-listed co	11262\ Hittimis	3)			
1)	2)	43	_		11.
4)) (6) 0, 1 = fee	k		Date: 2/3///
Recomme	nded by Der	artment	(Chair signa	ture) R. Z	hold beelt	Date: 2/8/201
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Approved	by Curricula	Committee:	(Chair sign			Date:
Approved	by Faculty	Senate:	(Chair sign	ature)		

From: 573 341 4362 Page: 26/28 Date: 2/9/2011 11:51:26 AM

				CC File # 81	120-2011-BUS-4	15-10
Effective Year:	2011	Spring 🗆		_		
Term: Summer	Fall 🖾	3pr.11.9 ==	u-maa E	orm (C((2)	
		Course C	hange Fo	permanent co	ourses.	
	This	form is for crea	fillig or modifying	, ,		7
<u>Course Chang</u>	es (Check a	changes.)	Credit Ho	urs 🎞 _	Prerequisites	_1
	# TIME	HPIKUUK LA	Course N	umber 🗆	Co-listing	eing made.)
Course Title 🗌	catalog	Must Be Comple	Course No Sted. Leave "Propo Techn	sed" items blani	K It Un change is a	.
Course Infor	<u>mation</u> (*-	and Information	Techn		4. BUS 415	
1. Department 2. Discipline a	f: Buziness d	dumber: Pre	sent:	Propo	sed: BUS 415	
2. Discipline a	nd Course : present:	***************************************		nocinass Seti	tinas	
3. Course Title:	proposed	: Teambuilding	and Leadership it	l Bfizitiess ser		
Abbreviate 4. Catalog Deservices	d Course Ti	tle: Teambuildi es or Less. Only Character Space	needed for New	Courses or Tit	le Changes.)	
	opportunitie	s to practice ar	ip styles, principl xamination. Key id develop both le	es, models, iss components o eadership and		ations through oduced, with Ils.
5. If course r	equires field	trip check box:	Lecture: 3.0	Lab:	Total: 3. 0	
6. Credit Hou		blesenr:	Lecture:	Lab:	Total:	
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Propose	יי ווג סו	· 🕒 • P • 🕳 🗗 • • • • • • • • • • • • • • • • • •				icate program or
8. Required 9. Justificat	for Majors: [ion: This c	Elective ourse is require	for Majors: 🗌 d for the new Gra	aduate Certific	ate in Sustainab	le Business.
•			n experimental co ov Dept. Chair, if s	urse (101, 20	1, 301, 401):	
10. Semesi	ters previous	ly offered as al	experimental co y Dept. Chair, if : 3)	signature does	not appear belo	w.
11. List all	co-listed cou	L262\ IIIICIGIAA .	3)			
1)	2)	1	-7.			
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Recommer	nded by Disc	ipline Specific C	(Chair Signati Curricula Committ) (Chair Signat	ure)		Date:
Approved	by Curricula	Committee:	(Chair signat			Date:
Approved	by Faculty S	enate:	(Chair signa	ture)		

From: 573 341 4362 Page: 27/28 Date: 2/9/2011 11:51:26 AM

Effective Year: 2011 Effective Term: Summer [Fali 🗀	spring 🛛	EC File # 2310-5p2011-MiGg-42
Effective Term: Summer L	1 411	,	- *

Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Mini	ng Engineering							
Discipline and Course Number: Mi Eng 401								
Course Title: Simulation of Mining Systems								
Abbreviated Titl	Abbreviated Title (24 spaces or less): Sim of Mining Systems							
Instructor(s): K	wame Awuah-Offei		Total: 3					
Credit Hours:	Lecture: 3	Lab: 0	Otal: 3					
Prerequisites:	Graduate standing	or Stats 213						

Semester(s) previously taught:

Brief Course Description: (40 words or less) Overview of stochastic simulation. Model formulation using general purpose process simulation

Overview of stochastic simulation. Model formulation using general purpose properties of stochastic simulation. Simulation experimentation. software. Model verification and validation. Simulation experimentation.	
List all co-listed courses: Include initials of Dept. Chair, if signature is not already 3)	, included below.
4) 5) 6)	Date: 11/23/10
Discipline Specific Curricula Committee: (Chair Signature) (Chair Signature)	Date: <u>2/4///</u>
Curricula Committee: (Chair Signature)	Date:
This fax was received by GFI FAXmaker fax server. For more information, visit: http://www.gfi.c	(Revised 10/12/201

From: 573 341 4362 Page: 28/28 Date: 2/9/2011 11:51:27 AM

			EC File #2317 - PS2011-EE-40 1
Effective Year: 2011	Fall 🛚	Spring 🗌	

Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms An EC form must be submitted before an experimental course is to be offered. Lo forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be s

pproved SP2009 (hree year period. submitted to requ	or later allow the c After an experime est a permanent co	ntal course has burse number.	been offered twice, a	duate certificate may
n new course that	is required as par	t of a degree pro	ourse number	duate certificate may e primary discipline.
Co-listed offering:	s should be submit	ted on one rorm	, 0,19	e primary discipline.
Department: Elect	trical & Computer En	gr		
Discipline and Co	urse Number: EE 4	01		•
Course Title: Prince	ciple & Applications o	of Nanophotonics		
Abbreviated Title	(24 spaces or les	s): Prin & Appl Na	nophotonic	
Instructor(s): Dr				
Credit Hours:	Lecture: 3	Lab: 0	Total: 3	
Prerequisites:	EE 255 & EE 256			
Semester(s) pre	eviously taught: FS	2007		
<u> </u>	tions (40 WOT)	is or less)	and applications of na conic crystals, optical n	nophotonic devices nicrocavities and optical
			are if clonature is not	aiready included below.
List all co-liste 1)	d courses: Include i 2)	nitials of Dept. Of 3)	any ii 212	already included below.
4)	5)	6)		
	208	2		Date: 16 Dec 2010
Department Cha	,	1+	air Signature)	Date: 2/4/1.1
Discipline Speci	fic Curricula Commit	tee:(Ch	air signature)	Date:
Curricula Comn	nittee:	(Ch	air Signature)	Date:
				(Revised 10/12/20

From: 573 341 4362 Page: 1/16 Date: 2/9/2011 11:57:21 AM

From: 573 341 4362

Page: 3/7

Date: 1/7/2011 10:43:22 AM

EC FILE #2319 - F32011-Chem-401

Effective Year: 2011 Effective Term: Summer 🗆

Fall 🔯

Spring 🗆

Experimental Course Form (EC)

This form must be filed with the Secretary to the Campus Curricula Committee, after the department chair's notation, by the appropriate deadline. Filing deadlines for inclusion in the initial release of the Schedule of Classes are as follows:

Summer and Fall Semester Offerings - January 1 Spring Semester Offerings - August 1

An EC form must be submitted each semester it is to be offered, not to exceed two offerings. An experimental course that is required should be submitted on a CC form. Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Chemistry

Discipline and Course Number: Chem 401

Course Title: Synthesis and Bioapplications of Organofluorine Chemistry

Apbreviated Title (24 spaces or less): Organofluorine Chemistry

Instructor(s): V. Prakash Reddy

Credit Hours:

Lecture: 3

Lab:

Total: 3

Prerequisites: Chem 321 or equivalent.

Semester(s) previously taught:

Brief Course Description: (40 words or less) Physicochemical characteristics; biological activity; general mechanistic aspects; synthetic methodologies; fluorinated organic compounds as mechanism based enzyme inhibitors; fluorinated amino acids; fluorinated carbohydrates; fluorinated peptide isosteres; fluorinated pharmaceuticals and anesthetics; organofluro compounds in neurological disorders and anticancer agents.

List all co-listed cours	es: Include initials of 2)	Dept. Chair, if s	ignature is not a 3)	already [*]	included below-
1)			6)		
4)	2 a. 5		· 		Date: Nalvo
Department Chair:	1DC years	Chair Sign	ature)		Date: 1/21/2611_
Discipline Specific Curri	cula Committee:	(Chair signi			
Curricula Committee:	-	(Chair Sign	ature)		Date:

(Revised 1/31/2008)

From: 573 341 4362 Page: 2/16 Date: 2/9/2011 11:57:22 AM

Date: 1/7/2011 10:43:22 AM

EC File # 2320-552011-54A4-301 Page: 4/7 From: 573 341 4362 Spring 🗀

Effective Year: 2011 Effective Term: Summer

Fall 🗆

Experimental Course Form (EC)

This form must be filed with the Secretary to the Campus Curricula Committee, after the department chair's notation, by the appropriate deadline. Filing deadlines for inclusion in the initial release of the Schedule of Classes are as follows:

Summer and Fall Semester Offerings – January 1 Spring Semester Offerings - August 1

An EC form must be submitted each semester it is to be offered, not to exceed two offerings. An experimental course that is required should be submitted on a CC form. Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Mathematics & Statistics

Discipline and Course Number: STAT 301

Course Title: Statistical Data Analysis Using SAS

Abbreviated Title (24 spaces or less): Stat Data Analysis SAS

Instructor(s): V.A. Samaranayake

Credit Hours:

Total: 3

Prerequisites:

One of Stat 213, 215, 217, 343 and one of Stat 346, 353, 443, 444, 445

Semester(s) previously taught: Please see attachement

This course will introduce the student to selected data analystic tools implemented in the Statistical Analysis System (SAS) and approriate and effective use of these tools. Focus would be on both the use of SAS data analytic tools and the theoretical and methodological rationale that form the basis of such analyses.

use of SAS data dimit		Dept. Chair, if signature is not al 3)	_	ded below-
		ature is signature is not al	(ready	IUCINOS NAME
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	5)			
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				Date:
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Department Chair.	7	TO TOTAL STATE		1/21/2011
•	<u>C</u>	1 1 / Cloude _		Date:
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chacific Cutfi	cria Committee:	(Chair signature)		
Discipline Specific Curri	•	(- <i>U</i> -		Date:
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Curricula Committee:		(Chair Signature)		
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(Revised 1/31/2008)

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Date: 1/7/2011 10:43:22 AM Page: 5/7 From: 573 341 4362

Stat 301: Data Analysis using SAS

Previous Offerings and Course Rationale

This course was offered as Stat 401 in summer 2004 and then as a special topics summer course (Stat 400) in 2007, 2009, and 2010. We have decided to offer it in summer 2011 as a 301 course instead of a 400 level course. The course syllabus and prerequisites are changed somewhat from previous offerings to make it accessible to a wider a variety of students from both within and outside our department. This decision was based on the broad interest this course has received from graduate students from other departments.

The rationale for the course and course content is given below:

Rationale: Statistical Analysis System (SAS) is one of the most versatile statistical software tools that is currently available to data analysts. It is widely used in academia, government, and industry, not only by statisticians, but also by scientists in many disciplines. It is considered to be one of the very few statistical software tools that consistently provide accurate and statistically valid analyses and results. Its versatility and flexibility comes at the expense of simplicity. SAS is a complex software tool whose full potential and features are reachable only by those with a good understanding of its workings and underlying statistical methodology.

Course Content: This course will introduce the student to selected data analystic tools Implemented in the Statistical Analysis System (SAS) and approriate and effective use of these tools. Focus would be on both the use of SAS data analytic tools and the theoretical and methodological rationale that form the basis of such analyses.

More details on the topics are: creating SAS data sets, data handling/preprocessing, creating simple summary statistics, procedures for creating standard experimental design structures and analyzing data from such experiments, linear and non-linear regression, introduction to time series analysis tools, multivariate methods, statistical techniques for classification and clustering, nonparametric statistical analysis, and statistical graphics. The basic statistical concepts behind each SAS procedure will be an integral part of the course.

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Date: 1/31/2011 2:19:30 PM

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		_	EC File # 2323-002011
Effective Year: 2011 Effective Term: Summer ⊠	Fall 🗆	Spring 🗆	rame (FC)

Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline,

Co-listed offerings s	hotild be storuc			
Department: Biology Discipline and Course Course Title: Introdu Abbreviated Title (Instructor(s): Dave Credit Hours: Prerequisites: B	Bio Sci 38:0 Se Number: 201 uction to Synthetic 24 spaces or less Westenberg Lecture: 1 ioSc 110/111 and	Sc Biology s): Synthetic Biolo Lab: 2 Chem 3	gy Total: 3	
Semester(s) prev	iously taught: N	ew Course	•	
Semester (5) From	cription: (40 wo	rds or less)	ild devices or systems.	iti Ce

Synthetic biology is the use of standardized parts to build devices or systems. Students will design parts (basic biological functions encoded as genetic material) and assemble devices (combinations of one or more parts encoding human-defined functions) resulting in systems (combinations of devices encoding human-defined functions). Students will participate in independent research projects.

one or more parts offined function	ons). Students will person	and included below-
	- the of next, Chair, if sig	nature is not already increase.
List all co-listed courses: Inc	(E shittians of source	nature is not already included below.
1)	6)	()
4)	1	Date:
Department Chair:	her Monten (Chair Signa	ture) Date: 2/7/2011
•	CO) . l. Ofwit	
Discipline Specific Curricula Co	ommittee:(Chair signa	ture)
D. Friday L.	•	Date:
Curricula Committee:	(Chair Signa	iture)
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From: 573 341 4362

Page: 2/3

Date: 1/31/2011 2:19:30 PM

nA11	ve Year: 2011 Fall 🖂 Spring 🗀		EC File #2324-F52011-C5-401
Effective Term: Summer Effective Term: Summer	Fail 🛚	क्रीसाम्ब 🗪	(EC)

Experimental Course Form (EC)

This form must be filed with the Secretary to the Campus Curricula Committee, after the department chair's notation, by the appropriate deadline. Filing deadlines for inclusion in the initial release of the Schedule of Classes are as follows:

Summer and Fall Semester Offerings – January 1 Spring Semester Offerings - August 1

An EC form must be submitted each semester it is to be offered, not to exceed two offerings. An experimental course that is required should be submitted on a CC form. Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Computer Science

Discipline and Course Number: Cmp Sc 401

Course Title: Pervasive Computing

Abbreviated Title (24 spaces or less): Pervasive Computing

Instructor(s): Dan Lin

Total: 3 Lab: 0 Lecture: 3 Credit Hours:

Prerequisites: Cmp Sc 365 or CpE 319 or equivalent

Semester(s) previously taught: None

Brief Course Description: (40 words or less)

Pervasive computing aims to seamlessly integrate computing into our everyday activities, so that people do not need to care about computing artifacts. This course will introduce various techniques needed to realize pervasive computing, such as position tracking and ad-hoc networking.

List all co-listed courses: Include initials of C 2)	pept. Chair, if signature is not already 3)	included below.
1)	6)	
4)		Date: Jan 26, 1
Department Chair:	(Chair Signature)	Date: $\frac{2/\frac{9}{7}/2611}{2}$
Discipline Specific Curricula Committee:	(Chair signature)	
Curricula Committee:	(Chair Signature)	Date:

From: 573 341 4362 Page: 6/16 Date: 2/9/2011 11:57:23 AM

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Date: 1/31/2011 2:19:31 PM

Effective Year: 2011

Effective Term: Summer

Fall 🖾

Spring \square

EC File # 2325 - F32011 - CS-301

Experimental Course Form (EC)

An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.

A new course that is required as part of a degree program, minor, or graduate certificate may be submitted on a CC form to receive a permanent course number

Co-listed offerings should be submitted on one form, originating from the primary discipline.

Department: Computer Science

Discipline and Course Number: Cmp Sc 301

Course Title: Introduction to Data Mining

Abbreviated Title (24 spaces or less): Intro Data Mining

Instructor(s): Jennifer Leopoid and Chris Mertz

Lecture: 3 Credit Hours:

Lab: 0

Total: 3

Prerequisites: Cmp Sc 238, one of Stat 213/215/217/343

Semester(s) previously taught: None

Brief Course Description: (40 words or less)

This course provides an introduction to classical data mining methods which can be used to predict unknown or future values of variables, or to find human-interpretable patterns that describe data. Topics will include classification, clustering, association rule discovery, sequential pattern discovery, regression, and deviation/anomaly detection.

• — ,			on and choir, if signatur	re is not already	included below.
List all co-listed (1)	courses: In 2)	lude initials of 3	f Dept. Chair, if signatu)		
4)	5)	, \·)	•	Date: Jan 28, 11
Department Chair			(Chair Signature)		Date: 2/17/2011
Discipline Specific	Curricula Co	mmittee:	(Chair signature)		Date:
Curricula Commit	tee;		(Chair Signature)		Pere:

From: 573 341 4362 Page: 7/16 Date: 2/9/2011 11:57:23 AM

Effective Year: 2011 Effective Term: Sumn	ner∐ Fan ⊠ SP	ring 🗀	EC File # 2326-F52011-BU	S-301
	Experimen	tal Cours	e Form (EC)	
approved SP2009 of three year period.	After an experiment	al course has be rse number.	course is to be offered. EC fo d twice at any time during the en offered twice, a CC form	•••• • · · · · · · · · · · · · · · · ·
			ram, minor, or graduate cert rse number	
Co-listed offerings	should be submitte	d on one form, o	orlginating from the primary	discipline.
Department: Busin	ess & Info Technology			
Discipline and Cou	r se Number: BUS 30	1		
Course Title: Deve	lopment and Manageп	nent of New Produ	cts	
Abbreviated Title	(24 spaces or less):	Devel+Mgmt New	v Prodycts	
Instructor(s): Bon	nle Bachman and Ral	oh Hanke		
Credit Hours:	Lecture: 3	Lab:	Total: 3	
Prerequisites:				
Semester(s) prev			1	•
Provides framework	cription: (40 words of the colors, techniques, a course encompasses to the compasses to the	he new product d	be effective in developing and evelopment process from the id	managing entification
List all co-listed	courses: Include initi 2)	als of Dept. Chair, 3)	. If signature is not already incli	ıded below.
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Department Chair		(Chair S	Signature)	e: <u>2/3/11</u> 2/a/2011
Discipline Specific	Curricula Committee:	My Sac (Chair s	Date (Signature)	e: <u>40//</u>
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From: 573 341 4362 Page: 8/16 Date: 2/9/2011 11:57:24 AM

			EC File # 2327-F	S2011-MKT-301
Effective Year: 2011	ner∏ Fall⊠ S	pring 🗆	EC File # 2327	
Effective Term: Summ	iei 🗀 🗼		= /E/	~1
	Experimer	ital Coui	se Form (EC	-)
An EC form must be approved SP2009 o three year period. A submitted to reque	submitted before or later allow the co After an experimen est a permanent co is required as part	an experiment ourse to be off ntal course has urse number. of a degree pr	tal course is to be offered twice at any time been offered twice, a couram, minor, or gra	ered, EC forms e during the following a CC form may be duate certificate may
Department: Busin	ess & Into Technolog	3Y 504		
Discipline and Cou				
Course Title: Prom	otions Management		.	
Abbreviated Title	(24 spaces or less): Promotions M	anagement	
Instructor(s): Sar				
Credit Hours:	Lecture: 3	Lab:	Total: 3	
Prerequisites:				
Semester(s) pre	viously taught:			
A managerial examesales promotion. Constant tools, and develop assignments, and	oing advertisements. workshops.	setting advertis Instructional n	nd how they affect decis sing objectives and the t nethods may include a to	
.:_* =U co-listed	courses: Include it	itials of Dept. C	hair, if signature is not	already included below.
1)	2)			
4)	5)	6) // 1		26/11
Department Chai		Jan.	nair Signature)	Date: 2/8/2011
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From: 573 341 4362 Page: 9/16 Date: 2/9/2011 11:57:24 AM

Effective Year: 20 Effective Term: Sur	nmer 🗀 📑 Fa		ipring 🛭		-SP2012-BUS-401
	Exper	rimer	ntal Co	urse Form (E	C)
approved SP2009 three year period	. After an ex	xperimer anent co	ntal course urse numb	er.	, a CC form may be
				e program, minor, or gr int course number	
Co-listed offering	js should be	submitt	ed on one f	form, originating from t	he primary discipline.
Department: Bus	iness & Info 7	Technolog	ıy		
Discipline and Co	ourse Numb	er: BUS 4	101		
Course Title: Inn	ovation Mana	gement			
Abbreviated Titl	e <i>(24 space</i> :	s or less): Innovation	n Management	
Instructor(s): B					
Credit Hours:	Lecture:	3	Lab:	Total: 3	
Prerequisites:	BUS 301 De	vel+Mgm	t New Produ	cts, Admittance to a gradi	late program
Semester(s) pr	eviously tau	ight:			
Brief Course De Examines the Inn Constructs, meth the context of va	ovation proce	esses use	a by leading	companies to launch new ics for managing innovation gh the use of examples ar	products and services. In are explored within and cases.
List all co-liste	d courses: I 2)	nclude ini	itials of Dept 3)	. Chair, if slgnature is not	already included below.
4)	5)		6)		. 4
Department Cha	ir: <i>Cau</i>	oline	Toli-	Chair, Signature)	
Discipline Speci	ic Curricula C	Committee	e: Drug	Chair signature)	Date: 777
Curricula Comm	littee:		(Chair Signature)	Date:

From: 573 341 4362 Page: 10/16 Date: 2/9/2011 11:57:24 AM

Effective Year: 20 Effective Term: Su)11 mmer □ Fail ⊠	Spring 🗌	EC File # 2329-F	S2011-IST-301				
	Experimental Course Form (EC)							
An EC form must be submitted before an experimental course is to be offered. EC forms approved SP2009 or later allow the course to be offered twice at any time during the following three year period. After an experimental course has been offered twice, a CC form may be submitted to request a permanent course number.								
be submitted on	a CC form to receive	ve a permanem						
Co-listed offering	gs should be subm	itted on one for	rm, originating from the	primary discipline.				
Department : Bus	iness & Info Tech							
Discipline and Co	ourse Number: IST	301						
Course Title: Adv	vanced Digital Media							
Abbreviated Title	e (24 spaces or les	s): Advanced Di	gital Media					
Instructor(s): Ri								
Credit Hours:	Lecture: 3	Lab:	Total: 3					
Prerequisites:	IST 286							
Semester(s) pre	viously taught:							
Brief Course Des This is a project-b audio, and video t	scription: (40 word based course that cov technologies.	is or less) Vers advanced di	gital media skills, including	web, graphic,				
List all co-listed	l courses: Include îi 2)	nitials of Dept. Cl 3)	nair, If signature is not aire	ady included below.				
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From: 573 341 4362 F

Page: 11/16

Date: 2/9/2011 11:57:25 AM

Effective Year: 201 Effective Term: Sum	L1 nmer	Spring 🛚	EC File # $\hat{\mathcal{L}}$	330-F32011-Hist-3c
	Experime	ntal Cou	rse Form	(EC)
approved SP2009 three year period. submitted to requ	After an experiment co	ntal course ha urse number.	s been offered tw	ice, a CC form may be
be submitted on a	CC form to receive	а реглинени	CONISS HAMBO	graduate certificate may
Co-listed offerings	s should be submitt	ed on one for	m, originating fro	n the primary discipline.
Department: Histo	ory and Political Science	ce		
Discipline and Co	u rse Number: Hist 3	01		
Course Title: Franc	ce and the Second Wo	orld War	*.*	
Abbreviated Title	(24 spaces or less)): France and W	WII	
Instructor(s): Sha	annon Fogg			
Credit Hours:	Lecture: 3	Lab:	Total:	
Prerequisites:	History 112 or Hist 17	7 6		
Semester(s) prev	viously taught: none	•		
This seminar-style	cription: (40 words course examines Frai ration, the Holocaust s lingering effects on	nce during the : in France, and	Civilians anny mer i	nd covers topics such as Ve will examine political
List all co-listed	courses: Include init 2)	tials of Dept. Ch 3)	air, if signature is n	ot already included below.
4)	5) / ,	6)		/ /
Department Chair	:_J.J.	(Cha	ir Signature)	Date: // 3) / 1
Discipline Specific	Curricula Committee	:(Cha	ir signature)	Date:

(Chair Signature)

Curricula Committee: __

Date: ___

From: 573 341 4362 Page: 12/16 Date: 2/9/2011 11:57:25 AM

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Date: 2/9/2011 11:57:26 AM

From: 573 341 4362 Page: 6/11 Date: 9/24/2010 3:25:31 PM

Explosives Engineering

Proposed courses:

491 Internship (IND 0.0-6.0) Students apply critical thinking skills and discipline specific knowledge in a work setting based on a project designed by the advisor and employer. Activities will vary depending on the student's background and the setting. Requires major report and formal presentation to sponsoring organization. 12hrs of ExpEng courses including ExpEng307.

499 Practicum (IND 0.0-6.0) This course is similar to the ExpEng 491 Internship course. The difference is that this course is intended for students who are already employed by an organization for whom they wish to continue working. Prerequisite: Prerequisite: 12hrs of ExpEng courses including ExpEng307.

Justification.

On 22 April 2010 the Coordinating Board of Higher Education (CBHE) approved (at state level) the new Master of Science in Explosives Engineering at the Missouri University of Science and Technology. The degree has been put in place and is listed in the new 2010-2012 graduate catalog with the first 11 classes/courses listed with the new ExpEng designation. We are very proud of this accomplishment.

The approved proposal package includes a 491 internship which is intended for students to gain practical experience in the explosives industry. The internship is modeled on the S&T Business program graduate internship. It is our intent to require the MS student in Explosives Engineering to acquire practical experience related to explosives in industry or government before graduating. We feel this is very important.

For persons already employed in industry or government the graduate "practicum" as offered by the S&T Business program, Business 499, makes sense over the 491 designation. The difference is the practicum is for students already employed. For the explosives engineering program it will be in explosives related employment. In addition we have currently submitted a Master of Science of Explosives Engineering non thesis degree option to cater for nontraditional students, such as those who are unable to stay on campus for 6 months to do a research project due to work, military commitments, or financial considerations due to loss of salary and having to support a family. For these persons whom the explosives engineering masters is a means of job advancement in their field we are opting for the practicum over the internship. The MS in explosives engineering without thesis will be reserved for those who are not able to complete a full research project and will be reserved for those in an explosives related industry or government position.

The above is explains the background of our submission of a request for approval of ExpEng 491 internship and ExpEng 499 practicum. We are still in the process of applying for new courses as we try to get everything up and running with the new program and we hope to have everything fully in place by fall 2011. Enrollment is already 13 MS students, 2 of which have already completed their thesis defense and will be graduating at Christmas. We also have 13 in the graduate certificate 6 of which have voiced the intent to Join the masters when they have completed their certificates and a host of other applications anticipated to be processed before Christmas.

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From: 573 341 4362

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Date: 2/9/2011 11:57:26 AM

From: 573 341 4362 Page: 8/11 Date: 9/24/2010 3:25:32 PM

Explosives Engineering

Proposed courses:

491 Internahip (IND 0.0-6.0) Students apply critical thinking skills and discipline specific knowledge in a work setting based on a project designed by the advisor and employer. Activities will vary depending on the student's background and the setting. Requires major report and formal presentation to sponsoring organization. 12hrs of Expeng courses including Expeng307.

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