

Formerly University of Missouri-Rolla

Agenda
Campus Curricula Committee Meeting
February 6, 2013
10 am, Room 117 Fulton Hall

### **Review of submitted DC forms:**

DC #0442, Computer Science, Bachelor of Science in Computer Science, effective Fall 2013.

- DC #0444, Civil, Architectural and Environmental Engineering, Bachelor of Science in Architectural Engineering, effective Fall 2013.
- DC #0445, Business and Information Technology, Bachelor of Science in Information Science and Technology, effective Fall 2013.
- DC #0446, Business and Information Technology, Bachelor of Science in Business and Management Systems, effective Fall 2013.
- DC #0447, Economics, Minor in Global Sustainable Economics, effective Fall 2013.
- DC #0448, Business and Information Technology, Minor in Sustainable Business, effective Fall 2013.
- DC #0449, Business and Information Technology, Minor in Enterprise Resource Planning (ERP), effective Fall 2013.

### **Review of submitted CC forms:**

CC #8314, Computer Science 128, Discrete Mathematics For Computer Science, effective Fall 2013.

- CC #8315, Computer Science 206, Software Engineering, effective Fall 2013.
- CC #8316, Computer Science 220, Theory of Computer Science, effective Fall 2013.
- CC #8317, Computer Science 228, Introduction To Numerical Methods, effective Fall 2013.
- CC #8318, Computer Science 238, File Structures And Introduction To Database Systems, effective Fall 2013.



Formerly University of Missouri-Rolla

CC #8319, Computer Science 253, Algorithms, effective Fall 2013.

CC #8320, Computer Science 256, Programming Languages And Translators, effective Fall 2013.

CC #8321, Computer Science 263, Introduction to Computer Security, effective Fall 2013.

CC #8322, Computer Science 265, Computer Network Concepts And Technology, effective Fall 2013.

CC #8323, Computer Science 272, Java and Object Oriented Design, effective Fall 2013.

CC #8324, Computer Science 284, Introduction To Operating Systems, effective Fall 2013.

CC #8325, Computer Science 302, Agile Software Development, effective Fall 2013.

CC #8326, Computer Science 307, Software Testing And Quality Assurance, effective Fall 2013.

CC #8327, Computer Science 308, Object-Oriented Analysis And Design, effective Fall 2013.

CC #8328, Computer Science 325, Analysis of Algorithms, effective Fall 2013.

CC #8329, Computer Science 328, Object-Oriented Numerical Modeling I, effective Fall 2013.

CC #8330, Computer Science 329, Object-Oriented Numerical Modeling II, effective Fall 2013.

CC #8331, Computer Science 338, Database Systems, effective Fall 2013.

CC #8332, Computer Science 342, Java Gui & Visualization, effective Fall 2013.

CC #8333, Computer Science 347, Introduction To Artificial Intelligence, effective Fall 2013.

CC #8334, Computer Science 348, Evolutionary Computing, effective Fall 2013.

CC #8335, Computer Science 353, Multimedia Systems, effective Fall 2013.

CC #8336, Computer Science 356, The Structure Of A Compiler, effective Fall 2013.

CC #8337, Computer Science 358, Interactive Computer Graphics, effective Fall 2013.



Formerly University of Missouri-Rolla

CC #8338, Computer Science 362, Security Operations & Program Management, effective Fall 2013.

CC #8339, Computer Science 365, Computer Communications and Networks, effective Fall 2013.

CC #8340, Computer Science 381, The Structure of Operating Systems, effective Fall 2013.

CC #8341, Computer Science 384, Distributed Operating Systems, effective Fall 2013.

CC #8342, Computer Science 387, Introduction to Parallel Programming and Algorithms, effective Fall 2013.

CC #8343, Computer Science 388, Introduction to High Performance Computer Architecture, effective Fall 2013.

CC #8344, Computer Science 397, Software Systems Development I, effective Fall 2013.

CC #8345, Computer Science 398, Software Systems Development II, effective Fall 2013.

CC #8346, Computer Science 406, Software Engineering II, effective Fall 2013.

CC #8347, Computer Science 409, Software Requirements Engineering, effective Fall 2013.

CC #8348, Computer Science 425, Algorithmics II, effective Fall 2013.

CC #8349, Computer Science 426, Theory of Computation, effective Fall 2013.

CC #8350, Computer Science 437, Web Data Management and XML, effective Fall 2013.

CC #8351, Computer Science 438, Heterogeneous and Mobile Databases, effective Fall 2013.

CC #8352, Computer Science 439, Object-Oriented Database Systems, effective Fall 2013.

CC #8353, Computer Science 444, Advanced Topics in Data Mining, effective Fall 2013.

CC #8354, Computer Science 447, Advanced Topics In Artificial Intelligence, effective Fall 2013.

CC #8355, Computer Science 448, Advanced Evolutionary Computing, effective Fall 2013.



Formerly University of Missouri-Rolla

- CC #8356, Computer Science 456, Theory Of Compiling, effective Fall 2013.
- CC #8357, Computer Science 458, Computer Graphics And Realistic Modeling, effective Fall 2013.
- CC #8358, Computer Science 461, Privacy Preserving Data Integration and Analysis, effective Fall 2013.
- CC #8359, Computer Science 465, Advanced Topics in Wireless Networks, effective Fall 2013.
- CC #8360, Computer Science 463, Computer Security, effective Fall 2013.
- CC #8361, Computer Science 468, Advanced Network Security, effective Fall 2013.
- CC #8362, Computer Science 484, Distributed Systems Theory And Analysis, effective Fall 2013.
- CC #8363, Computer Science 487, New Trends In Massively Parallel Computing, effective Fall 2013.
- CC #8364, Computer Science 431, Pervasive Computing, effective Fall 2013.

#### **Review of submitted EC forms:**

- EC #2449, Mathematics 401, Mathematical Dynamical Systems, effective Summer 2013.
- EC #2453, Geological Engineering 301, Soil Mechanics for GeoProfessionals, effective Summer 2013.
- EC #2454, Geological Engineering 301, Fundamentals of Groundwater Hydrology, effective Fall 2013.
- EC #2455, Computer Science 401, Network Information Analysis, effective Fall 2013.
- EC #2456, Computer Science 401, Search-Based Software Engineering, effective Fall 2013.
- EC #2457, History 201, History of Christianity, effective Fall 2013.
- EC #2458, French 301, Representations of Violence in 20<sup>th</sup>-Century French Culture, effective Summer 2013.



Formerly University of Missouri-Rolla

### **Tabled Items:**

DC #0440, Mining Engineering, Master of Engineering in Mining Engineering.

CC #8307, Explosives Engineering 411, Research Methods.

CC #8425, Mining Engineering 476, Sustainability In Mining.

CC #8426, Mining Engineering 424, Underground Mine Design.

CC #8427, Mining Engineering 426, Surface Mine Design.

From: 573 341 4362 Page: 1/21 Date: 1/18/2013 4:17:26 PM

DC# 0442-2012-CompSci-000-00 Effective Year: 2013 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: **B.S. in Computer Science** Department: Computer Science Briefly describe action requested (attach documentation as appropriate): Require a C or higher in all Comp Sci courses counting towards graduation as well as a C or higher in Comp Eng 111, Comp Eng 213, and the required ethics elective. To accomplish this, modify the catalog by replacing the following three paragraphs: All computer science majors must earn a "C" or better grade in each of the following courses: Cmp Sc 53, Cmp Sc 54, Cmp Sc 153, Cmp Sc 128, and Cmp Sc 253. All computer science majors must earn a minimum cumulative grade point average of 2.00 for all computer science courses presented to satisfy the required and elective computer science requirements. All computer science majors must earn a minimum cumulative grade point average of 2.00 for all computer science courses taken at Missouri S&T which are presented to satisfy the required and elective graduation requirements. with the following single paragraph: All computer science majors must earn at least two grade points per credit hour in all Comp Sci courses counting towards their B.S. in Computer Science degree, as well as in Comp Eng 111, Comp Eng 213, and the required ethics elective. Recommended by Department: Recommended by DSCC: Approved by Curricula Committee: \_ (Chair signature)

Revised November 2012

(Chair signature)

Approved by Faculty Senate: \_\_\_

From: 573 341 4362 Page: 2/21 Date: 1/18/2013 4:17:26 PM

Effective Year: 2013 Effective Term: Summer  Fall X Spring Careating or modifying a degree program must be effective.	DC # クソソソーコ ] ective for a Fall term)	013-A162- 000-00
Degree Char	nge Form (DC)	
This form is to be used for creating or modifyi	ng degree programs, emphasis areas,	and minors.
Title of degree program, emphasis area, or Bachelor of Science in Architectural Engi		
Department: Civil, Architectural & Environ	nmental Engineering	
Briefly describe action requested (Attach d	ocumentation as appropriate):	
Revise the Technical Electives in the Uno following (see attached document – App	dergraduate Degree Program sendix A)	n to reflect the
	,	
	A.	
	•	
1// /		
Recommended by Department:	chair (gnature)	Date: 1126/12
Recommended by: 24 6 6  Discipline Specific Curricula Committee (C	Chair signature)	Date: 0//17/13
Sissiphile openio curricula deliminato	<b></b>	·
Approved by Curricula Committee:(C	Chair signature)	Date:
Approved by Faculty Senate:(C	Chair signature)	Date:

(Revised 9/12/2011)

From: 573 341 4362

### Appendix A

# Emphasis Areas and Course Listings by Area for Architectural Engineering Students

Current	Revised
Area I, Structural Engineering	Area I, Structural Engineering
ArchE 301 Structural Dynamics	ArchE 301 Structural Masonry Design
ArchE 319 Applied Mechanics in Structural Engr	ArchE 319 Applied Mechanics in Structural Engr.
ArchE 320 Structural Analysis II	ArchE 320 Structural Analysis II
ArchE 322 Analysis and Design of Wood Structures	ArchE 322 Analysis and Design of Wood Structures
ArchE 323 Classical and Matrix Meth Strucl Analy	ArchE 323 Computer Methods of Structural Analysis
ArchE 326 Advanced Steel Structures Design	ArchE 326 Advanced Steel Structures Design
ArchE 327 Advanced Concrete Structures Design	ArchE 327 Advanced Concrete Structures Design
ArchE 328 Prestressed Concrete Design	ArchE 328 Prestressed Concrete Design
ArchE 329 Foundation Engineering II	ArchE 329 Foundation Engineering II
ArchE 3XX Masonry Engineering	ArchE 374 Infrast. Strengthening with Composites
ArchE 374 Infrast. Strengthening with Composites	ArchE 375 Low-Rise Bldg. Analysis and Design
Alone 374 tittiasi. Buong	ArchE 384 Structural Dynamics
Area II, Construction Engineering and Project	Area II, Construction Engineering and Project
Management	Management
ArchE 345 Construction Methods	ArchE 342Const. Planning and Scheduling Strategies
ArchE 346 Management of Construction Costs	ArchE 345 Construction Methods
ArchE 349 Eng and Construc Contract Specs	ArchE 346 Management of Construction Costs
Eng Mg 211 Managing Engineering and Technology	ArchE 348 Green Engr: Analysis of Const. Facilities
Eng Mg 252 Financial Management	ArchE 349 Engineering and Construct Contract Specs
Eng Mg 313 Human Relations in Technical	Eng Mg 252 Financial Management 147 Engineering
	Eng Mg 313 Human Relations in Tech. Management
Management	Eng Mg 364 Value Analysis
Eng Mg 364 Value Analysis	Eng Mg 375 Total Quality Management
Eng Mg 375 Total Quality Management	Area III, Environmental Systems for Buildings
Area III, Environmental Systems for Buildings	ArchE 301 Bldg. Performance and Syst.s Optimization
Mechanical Emphasis Courses	ArchE 301 Passive Solar Engineering
ArchE 3XX Building Performance and Systems	ArchE 365 Sustain., Popul., Energy, Water and Matl.s
Optimization  Ma Fine 200 Engineering Acqueties I	ArchE 366 Indoor Air Pollution
Mc Eng 309 Engineering Acoustics I	ArchE 372 Residential Renewable Energy Systems
Mc Eng 375 Mech Systems for Environ Control	Eng Mg 345 Energy and Sustain. Mngmt. Engr.
Electrical Emphasis Courses	Mechanical Emphasis Courses
El Eng 235 Controllers for Factory Automation	Mc Eng 309 Engineering Acoustics I
El Eng 282 Electronic Circuits and Machines	Mc Eng 366 Solar Energy Technology
El Eng 283 Electronics for Instrumentation	Mc Eng 375 Mech Systems for Environ Control
Cp Eng 111/112 Intro to Computer Eng	Electrical Emphasis Courses
	El Eng 235 Controllers for Factory Automation
	Et Eng 352 Photovoltaic Systems Engineering
	Cp Eng 111/112 Intro to Computer Eng
A TX/ Construction M-4	Area IV, Construction Materials
Area IV, Construction Materials	ArchE 319 Applied Mechanics in Structural Engr.
ArchE 319 Applied Mechanics in Structural Eng.	Cv Eng 313 Composition & Properties of Concrete
Cv Eng 313 Composition & Properties of Concrete	Cv Eng 318 Smart materials and Sensors
Cy Eng 317 Pavement Design	Cv Eng 316 Smart materials and Sensors Cv Eng 356 Concrete Pavement Design
Arch E 3XX Special Concretes	
Ch Eng 381 Corrosion and Its Prevention	Cr Eng 377 Principles of Engineering Materials

From: 573 341 4362 Page: 4/21 Date: 1/18/2013 4:17:27 PM

DC # 0445 - 2013- IST-000-00

Effective Year: 2013 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, emph	nasis areas, and minors.
Title of degree program, emphasis area, or minor:  B.S. in Information Science and Technology	
Department: Business and Information Technology	
Briefly describe action requested (attach documentation as appropriate): The required courses BUS 397 (1 credit) and BUS 398 (2 credits) will be replaced with BUS 396 - Business Models for Entrepreneurship and	l Innovation (3 credits).
(BUS 396 will be planned for the second semester of the Senior Year; this separate DC Form with Catalog Changes - to be submitted.)	will be illustrated on a
Recommended by Department:	Date: 1/14/2013
Recommended by DSCC: (Chair signature)	Date: 1/18/13
Approved by Curricula Committee: (Chair signature)	Date:
Approved by Faculty Senate: (Chair signature)	Date:

From: 573 341 4362 Page: 5/21 Date: 1/18/2013 4:17:27 PM

DC # 0446-2013-BUS-000-00

	rm: Summer Fall Spring ram must be effective for a Fall term.)	
	egree Change Form (DC) reating or modifying degree programs, empha	asis areas, and minors.
Title of degree program, emphasis B.S. in Business and Management		
Department: Business and Inform	nation Technology	
The required courses BUS 397 (1	(attach documentation as appropriate): credit) and BUS 398 (2 credits) usiness Models for Entrepreneurship and	Innovation (3 credits).
(BUS 396 will be planned for the separate DC Form with Catalog Cl	second semester of the Senior Year; this v hanges - to be submitted.)	will be illustrated on a
Recommended by Department:	(ChaipSignature)	Date: <u>1/14/</u> 24/3 Date: <u>1/18/1</u> 3
Recommended by DSCC:	(Choir signature)	Date: <u>1/18/1</u> 3
Approved by Curricula Committee:	(Chair signature)	Date:
Approved by Faculty Senate:	(Chair signature)	Date:

From: 573 341 4362 Page: 6/21 Date: 1/18/2013 4:17:28 PM

Effective Year: 2013	_		DC # 0447-2013-Econ-
Effective Term: Summer (Creating or modifying a degree		Spring   st be effective for a F	Fall term) 000-00

# 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:

Minor: Global Sustainable Economics

**Department:** Economics

### Briefly describe action requested (Attach documentation as appropriate):

A new Minor in Global Sustainable Economics is proposed replacing the deleted Minor in Sustainable Business (Department of Business and Information Technology).

Required courses:

Econ 121 and 221-Principles of Microeconomics and Intermediate Microeconomics Theory or Econ 122 and 222-Principles of Macroeconomics and Intermediate Macroeconomics Theory

and

Econ 342-Foundations of Sustainability

and 6 hours from the following:

Econ/Min Eng 270-Mining Industry Economics

Econ 340-Environmental and Natural Resources Economics

Econ 344-Introduction to Global Eco- and Social-preneurship and Innovation

Econ 351-Economic Development

Econ 355-Energy Economics

EnvE 360-Environmental Law and Regulation

EnvE 365-Sustainability, Population, Energy, Water, and Materials

Hist 361-American Environmental History

Psych 315-Environmental Psychology

Recommended by Department: (Chair signature)	_ Date: <u> </u>
Recommended by:  Discipline Specific Curricula Committee (Chair signature)	Date: <u>//18/13</u>
Approved by Curricula Committee:(Chair signature)	Date:
Approved by Faculty Senate:(Chair signature)	Date:

(Revised 1/31/2008)

From: 573 341 4362 Page: 7/21 Date: 1/18/2013 4:17:28 PM

Recommended by Department: Date: 14

Recommended by Department: Date:  $\frac{1-10-1}{2}$ 

From: 573 341 4362 Page: 8/21 Date: 1/18/2013 4:17:28 PM

#### DC # 0448-2013-BUS-000-00

Effective Year: 2013	Effective Term:	Summer	Fall 🔀	Spring	
(Creating or modifying					

## **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:

**Business and Management Systems, Minor in Sustainable Business** 

Department: Business and Information Technology, Business & Mgt Systems

Briefly describe action requested (attach documentation as appropriate):

This Minor will be phased out and no new students will be allowed to apply for it after the Summer 2013 semester. The Economics Department will probably establish a new Minor in the Sustainability area and they will control applications to their Minor.

Students previously enrolled in the Minor will be allowed to finish, but some course substitutions may be necessary, since several of the courses involved in the Minor have been dropped from BUS and equivalent courses established in Economics.

Recommended by Department:		Date: 1/15/2013
Recommended by DSCC:	(Chairsignature) (Chairsignature)	Date: 1/16 /2013
Approved by Curricula Committee:	•	Date:
Approved by Faculty Senate:	(Chair signature)	Date:
.,	(Chair signature)	

From: 573 341 4362 Page: 9/21 Date: 1/18/2013 4:17:29 PM

0449-2013-15T-000-00

Effective Year: 2013 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:

Minor in Enterprise Resource Planning (ERP)

Department: Business and Information Technology, IST Program

Briefly describe action requested (attach documentation as appropriate):

We continue to expand the elective courses appropriate for the ERP Minor. The revised Minor will require:

- BUS 120-Financial Accounting
- ERP 246-Introduction to ERP
- ERP 346-ERP Systems Design and Implementation

And 6 hours of electives from any other ERP-designated courses at the 300-level.

The existing Minor specifies four specific courses for the elective 6 hours.

Recommended by Department:		Date: 12/27/12
Recommended by DSCC:	(Chair signature)	Date: 1/18/13
Approved by Curricula Committee: _	(Chair signature) (Chair signature)	Date:
Approved by Faculty Senate:	(Chair signature)	Date:

From: 573 341 4362 Page: 10/21 Date: 1/18/2013 4:17:29 PM

cc File# 8314 - 2012 - Comp Sci - 128-32

Effective Year: 2013 Effective T	Term: Summer 🔲 F	all 🗵 Spring 🗌		,
		Change Form (CC	=	
	e Deletion 🔲	Credit Hours  Course Number	Prerequisites ⊠ Co-listing ☐	
Course Information (Sections 1-9 m	nust be completed. Leav	ve "Proposed" items blank if no	change is being made.)	
1. Department: Computer Scien	ce			
2. Discipline and Course Number	: Present: Comp Sci	128 Proposed:		
3. Course Title: Present: Discret	e Mathematics For C	omputer Science		
Proposed:				
Abbreviated Course Title (24	Spaces or Less. Only ne	eded for New Courses or Title (	Changes.):	
4. Catalog Description (360 charac Present: A rigorous treatm topics include: formal logic ( correctness, sets, combinate Proposed:	ent of topics from dis foropositional & pred	licate), proof techniques, m	athematical induction,	program
5. If course requires field trip cho	eck box: 🗌			
6. Credit Hours: Present: L Proposed: L	ecture <b>3.0</b> Lab <b>0</b> To ecture Lab	otal 3 Total		
7. Prerequisites: Present: Comp Sci 53 or at l				
Proposed: A C or higher for		_		
8. Required for Majors: 🛚	Elective for Major			
9. Justification: To ensure sufficion				
10. Semesters previously offere				
11. List all co-listed courses, init 1)	ialed by Dept. Chair, i 3)	if signature does not appear 5)	below.	
Recommended by Department	00/	6)		Date: Dec 21, 12
Recommended by DSCC	anil Frent			Date: 1/17/2013
	(Chair signature)			Date:
Approved by Curricula Committee:_	(Chair signature)			
Approved by Faculty Senate:				Date:
	(Chair signature)			

---

From: 573 341 4362 Page: 11/21 Date: 1/18/2013 4:17:29 PM

CC File # 8315-2012-Comp Sci-206-32 Effective Year: 2013 Effective Term: Summer Fall Spring 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 Co-listing Course Number Course Title Catalog Description Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science Proposed: 2. Discipline and Course Number: Present: Comp Sci 206 3. Course Title: Present: Software Engineering Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Development of methodologies useful in the software engineering classical life cycle. This includes: requirements, design, implementation, and testing phases. These methodologies are reinforced through utilization of a CASE tool and a group project. Proposed: 5. If course requires field trip check box: 6. Credit Hours: Present: Lecture 3.0 Lab 0 Total 3.0 Total Proposed: Lecture Lab 7. Prerequisites: Present: Comp Sci 253 AND AT LEAST JUNIOR STANDING Proposed: A C or higher in Comp Sci 253 and at least junior standing Elective for Majors: 8. Required for Majors: 🔀 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 1) 2) Recommended by Department Recommended by DSCC Approved by Curricula Committee:

Date:\_

Approved by Faculty Senate:

(Chair signature)

(Chair signature)

From: 573 341 4362

Page: 12/21

Date: 1/18/2013 4:17:30 PM

		CC File # 23	16-2012-60mg	Sci-220-22
Effective Year: 2013 Effec	ctive Term: Summer 🗌	Fall 🔯 Spring 🗌	,	220 33
	Course	Change Form (CC	2)	
	This form is for crea	ating or modifying permaner	nt courses.	
	Course Deletion	Credit Hours 🗌	Prerequisites 🖂	
	Catalog Description	Course Number 🔲	Co-listing 🔲	
		ave "Proposed" items blank if no	o change is being made.)	
1. Department: Computer	Science			
2. Discipline and Course Nu	imber: Present: Comp Sc	i 220 Proposed:		
3. Course Title: Present: Ti Proposed:	heory of Computer Science	ce		
Abbreviated Course Titl	ie (24 Spaces or Less. Only n	eeded for New Courses or Title	Changes.):	
the following topics: ba	fill cover the theoretical u asic computability and for	nderpinnings of computer so rmal language concepts, regi P, NP, and NP-completeness	ular languages, context	
5. If course requires field tr	ip check box: 🔲			
6. Credit Hours: Present:	: Lecture 3.0 Lab 0 T	otal <b>3.0</b>		
Propose	ed: Lecture Lab	Total		
7. Prerequisites: Present: Comp Sci 128	and Comp Sci 153			
Proposed: A C or highe	er in Comp Sci 128 and Co	mp Scî 153		
8. Required for Majors: 🔀	Elective for Major	rs: 🔲		
9. Justification: To ensure s	ufficient mastery of the pre	requisite course content.		
10. Semesters previously o	ffered as an experimental	course (101, 201, 301, 401):		
11. List all co-listed courses 1)	s, initialed by Dept. Chair, 3)	if signature does not appear 5)	below.	
2)	4)( )	6)		
Recommended by Department	(Chair signature)			Date: 1/17/2013
Recommended by DSCC	Daniel Jacobs (Chair signature)			Date: 1/17/2013
Approved by Curricula Commit	itee:(Chair signature)			Date:
Approved by Faculty Senate:		and the second s		Date:
	·			

From: 573 341 4362 Page: 13/21 Date: 1/18/2013 4:17:30 PM

CC File # 8317-2012 - Comp Sci - 228-32

Effective Year: 2013	Effective Term: Summer	Fall 🔀 Spring 🗔		
		Change Form (		
Course Changes (Chec New Course	Course Deletion 🔲	Credit Hours 🗌	Prerequisites 🔀	
Course Title 🔲	Catalog Description 🛄	Course Number	Co-listing 🗌	
Course Information (Se	ections 1-9 must be completed. Le	ave "Proposed" Items blank i	f no change is being made.)	
1. Department: Com	puter Science			
2. Discipline and Cour	rse Number: Present: Comp Sc	i 228 Proposed:		
3. Course Title: Prese	ent: Introduction To Numerical	Methods		
Prop				
Abbreviated Cour	se Title (24 Spaces or Less. Only n	eeded for New Courses or Ti	tle Changes.):	
Present: Finite d solution of nonlin	n (360 character spaces or less.) lifference interpolation, numer near equations, numerical solu g of a large number of problem	tion of ordinary differenti	tegration, linear systems of all equations, computation	of equations, nal techniques and
5. If course requires t	field trip check box: 🔲			
6. Credit Hours: Pr	esent: Lecture 3.0 Lab 0.0 1	otal <b>3.0</b>		
Pr	oposed: Lecture Lab	Total		
7. Prerequisites: Present: <b>Calculu</b> :	s II and programming compete	ncy		
Proposed: A C or	higher in Calculus II and progr	amming competency		
8. Required for Majo	rs: 🛛 Elective for Majo	ors: 🔲		
9. Justification: To er	nsure sufficient mastery of the pre	erequisite course content.		
10. Semesters previo	ously offered as an experimenta	l course (101, 201, 301, 40	01):	
11. List all co-listed c 1)	ourses, initialed by Dept. Chair, 3)	if signature does not appe 5)	ear below.	
2)	^4) <u></u> \	6)		
Recommended by Depa	rtment (Chair signature)			Date: Dar 21, 12
Recommended by DSCC	(Chair signature)			Date: 1/17/2013
Approved by Curricula (	Committee:(Chair signature)			Date:
Approved by Faculty Se	nate:(Chair signature)			Date:

Page: 14/21 Date: 1/18/2013 4:17:30 PM From: 573 341 4362 cc file # 8318-2012 - Comp Sci - 238-32 Effective Term: Summer Fall Spring Effective Year: 2013 **Course Change Form (CC)** This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Credit Hours Prerequisites 🔀 New Course Course Deletion \_\_\_\_ Catalog Description Course Number Co-listing Course Title Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 238 Proposed:

Present: Course covers major topics in file structures and database systems including techniques for disk access and organization, record and file structures, index structures, sequential file, dense/sparse and secondary indexes, B-trees, range queries, insertion/deletion, hash tables, fundamentals of database systems, the ER model, relational model,

Total

5)

6)

9. Justification: To ensure sufficient mastery of the prerequisite course content and fix typos in the catalog description.

3. Course Title: Present: File Structures And Introduction To Database Systems

Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):

Lecture 3.0 Lab 0.0 Total 3.0

Elective for Majors:

10. Semesters previously offered as an experimental course (101, 201, 301, 401):

3)

(Chair signature)

(Chair signature)

(Chair signature)

(Chair signature)

11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.

Lab

Proposed:

5. If course requires field trip check box:

Present:

Proposed: A C or higher for Comp Sci 153

Proposed: Lecture

algebra and SQL.

Proposed:

6. Credit Hours:

7. Prerequisites:

1)

2)

Recommended by DSCC

Recommended by Department

Approved by Curricula Committee:

Approved by Faculty Senate:

Present: Comp Sci 153

8. Required for Majors: 🔀

4. Catalog Description (360 character spaces or less.)

Date:

Date:

Page: 15/21

Date: 1/18/2013 4:17:31 PM From: 573 341 4362 cc File # 8319-2012-Comp Si-253-32 Effective Term: Summer Fall Spring Effective Year: 2013 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Prerequisites 🖂 Course Deletion Credit Hours New Course Catalog Description Course Number Co-listing Course Title Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 253 Proposed: 3. Course Title: Present: Algorithms Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Students will solve recurrence relations, analyze algorithms for correctness and time/space complexity, apply these analysis techniques to fundamental dynamic programming, greedy, shortest-path, minimal spanning trees, and maximum flow algorithms, and validate these analyses through programming. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0.0 Total 3.0 Present: 6. Credit Hours: **Total** Lab Proposed: Lecture 7. Prerequisites: Present: Comp Sci 128, Comp Sci 153, preceded or accompanied by Calculus 1. Proposed: C or higher in both CS128 and CS153; preceded by C or higher in Calc I or accompanied by Calc I. Elective for Majors: 8. Required for Majors: 🖂 9. Justification: 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. 1) 3) 5) 6) 2) Recommended by Department

Date:

Date:\_

Recommended by DSCC

Approved by Curricula Committee:

Approved by Faculty Senate:\_

(Chair signature)

(Chair signature)

(Chair signature)

From: 573 341 4362 Page: 16/21

CC File # 8320-2012 - Comp Su - 256-22 Date: 1/18/2013 4:17:31 PM

ctive Term: Summer [	Fall 🔼 Spring 🗀		
		-	
anges.) Course Deletion 🗌	Credit Hours	Prerequisites 🔀	
Catalog Description 🗌	Course Number	Co-listing 🔲	
1-9 must be completed. Lea	ve "Proposed" items blank if	no change is being made.)	
Science			
mber: Present: Comp Sci	256 Proposed:		
rogramming Languages Ar	nd Translators		
e (24 Spaces or Less. Only ne	eeded for New Courses or Titl	e Changes.):	
nt. This course will give th	e students both the funda	amental knowledge and h	ands-on practice in
ip check box: 🗌			
: Lecture <b>3.0</b> Lab <b>0</b> To	otal 3		
d: Lecture Lab	Total		
er for Comp Sci 220			
Elective for Major	rs: 🔲		
ufficient mastery of the prer	equisite course content.		
ffered as an experimental	course (101, 201, 301, 401	1):	
s, initialed by Dept. Chair, i 3)	if signature does not appea 5)	ar below.	
2 <del>4</del> )\	6)		
(Chair signature)			Date: Dec 31, 12
(Chair signature)			Date: <u>///3/20/3</u>
tee:(Chair signature)			Date:
(Chair signature)			Date:
	Course This form is for creatanges.) Course Deletion  Catalog Description  Comp Sci  Catalog Description  Comp Sci  Catalog Description  Catalog Description	Course Change Form (Course form is for creating or modifying permananges.)  Course Deletion	Course Change Form (CC)  This form is for creating or modifying permanent courses.  anges.)  Course Deletion

From: 573 341 4362 Page: 17/21 Date: 1/18/2013 4:17:31 PM cc File # 8321-2012-Conp Sci -263-32 Effective Term: Summer Fall Spring Effective Year: 2013 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Prerequisites 🖂 Course Deletion Credit Hours New Course Co-listing Catalog Description Course Number Course Title Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 263 Proposed: 3. Course Title: Present: Introduction to Computer Security Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: This course encompasses threats and vulnerabilities, trust and security policies, and enforcement. Specific topics include access control, risk management, systems and applications life cycle, physical security, key management, transmission security, and cryptography. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0 Total 3 6. Credit Hours: Present: Total Lab Proposed: Lecture 7. Prerequisites: Present: Comp Sci 253 Proposed: A C or higher for Comp Sci 253 Elective for Majors: 8. Required for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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.

6) 2) Recommended by Department

3)

Recommended by DSCC (Chair signature) Date: Approved by Curricula Committee:

5)

(Chair signature)

Date: Approved by Faculty Senate:\_ (Chair signature)

1)

From: 573 341 4362 Page: 18/21 Date: 1/18/2013 4:17:32 PM

cc File # 8322-2012 - Corry Sci -265-32

Effective Year: 2013	Effective Term: Summer	Fall 🔀 Spring 🗌	•	
		Change Form (6 sting or modifying perman	•	
Course Changes (Check New Course Course Course Title Course Title Course Title Course Changes		Credit Hours  Course Number	Prerequisites 🔀	
<del></del>	ctions 1-9 must be completed. Lea		f no change is being made.)	
1. Department: Comp		·····	-	
•	se Number: Present: Comp Sci	265 Proposed:		
•	nt: Computer Network Concer			
Propo	•			
Abbreviated Cours	e Title (24 Spaces or Less. Only n	eeded for New Courses or Tit	tle Changes.):	
Present: This cou the construction,	(360 character spaces or less.) rse will introduce computer no operation, and management o focus on local area networks.	etwork concepts and will : f those networks. Both h	survey the current and evolving technolog ardware and software issues will be	gy for
5. If course requires fi	eld trip check box: 🗌			
6. Credit Hours: Pre	esent: Lecture 3.0 Lab 0 T	otal 3		
Pro	pposed: Lecture Lab	Total		
7. Prerequisites: Present: Comp Sc	î 284			
Proposed: A C or	higher for Comp Sci 284			
8. Required for Major:	s: Elective for Majo	rs: 🖂		
9. Justification: <b>To ens</b>	sure sufficient mastery of the pre	requisite course content.		
10. Semesters previou	ısly offered as an experimental	course (101, 201, 301, 40	1):	
11. List all co-listed co 1)	urses, initialed by Dept. Chair, 3)	if signature does not appe 5)	ear below.	
2)	\(\frac{4}{0}\)\\	6)	Data: De( 21, )	2
Recommended by Depart	Danil Fait		Date: De( 21, )  Date: 1/17/22	<u></u> >/3
Approved by Curricula Co			Date:	<del></del>
	(Chair signature)			

Approved by Faculty Senate:\_\_\_\_

(Chair signature)

From: 573 341 4362 Page: 19/21 Date: 1/18/2013 4:17:32 PM

cc File # 8323 - 2012 - Comp Sci - 272 - 32

Effective Year: 2013 Effective Term: Summe	r 🔛 Fall 🔀 Spring 🗌	
	Irse Change Form ( or creating or modifying perma	•
Course Changes (Check all changes.)	_	
New Course Course Deletion	Credit Hours	Prerequisites 🔀
Course Title Catalog Description		Co-listing
Course Information (Sections 1-9 must be complete	ed. Leave "Proposed" items blank	If no change is being made.)
1. Department: Computer Science		
2. Discipline and Course Number: Present: Cor	np Sci 272 Proposed:	
3. Course Title: Present: Java and Object Ories	nted Design	
Proposed:		
Abbreviated Course Title (24 Spaces or Less. C	Only needed for New Courses or T	itle Changes.):
4. Catalog Description (360 character spaces or les Present: This course will cover Basic Java, a inheritance, Polymorphism, Algorithm and use of Graphical User Interfaces in program Proposed:	Applets, Application, Classes, i Object Oriented Design, Soft	ware Testing, Exception Handling, File I/O. The
5. If course requires field trip check box:	•	
6. Credit Hours: Present: Lecture 3.0 Lab	<b>0.0</b> Total <b>3.0</b>	
Proposed: Lecture	Lab Total	
7. Prerequisites: Present: Comp Sci 53		
Proposed: A C or higher for Comp Sci 53		
8. Required for Majors: Elective for	Majors: 🗵	
9. Justification: To ensure sufficient mastery of th	e prerequisite course content.	
10. Semesters previously offered as an experim	ental course (101, 201, 301, 40	01):
11. List all co-listed courses, initialed by Dept. C 1) 3)	hair, if signature does not appo 5)	ear below.
2)	6)	
Recommended by Department (Chair signature)	<del></del>	Date: 081_21, 12
Recommended by DSCC <u>Janul</u> Fauk (Chair signature)		Date: 1/17/2013
Approved by Curricula Committee:	· .	Date:
(Chair signature)		<del></del>
Approved by Faculty Senate:(Chair signature)		Date:
(Cum abusine)		

From: 573 341 4362 Pa

Effective Term: Summer Fall Spring

Effective Year: 2013

Page: 20/21

Date: 1/18/2013 4:17:32 PM

cc File # 8324-2012-Comp Sui-284-32

Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Credit Hours Prerequisites 🔀 Course Deletion Co-listing Course Title Catalog Description Course Number Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 284 Proposed: 3. Course Title: Present: Introduction To Operating Systems Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: This course teaches the concepts, structure, and mechanisms of Operating Systems. Topics include process management, concurrency, synchronization, deadlock, multithreading, memory management, scheduling, and internet working. Special emphasis is given to Unix and its modern-day derivatives. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0.0 Total 3.0 6. Credit Hours: Present: Total Proposed: Lecture Lab 7. Prerequisites: Present: Cmp Sci 153 and Cmp Sci 128 and Cp Eng 213 Proposed: A C or higher in all of Comp Sci 153, Comp Sci 128, and Comp Eng 213 8. Required for Majors: 🔀 Elective for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 1) 3) 5) 2) 6) Date: Def 21, 12 Recommended by Department Recommended by DSCC (Chair signature) Date:\_ Approved by Curricula Committee: (Chair signature) Date:\_ Approved by Faculty Senate:\_ (Chair signature)

From: 573 341 4362 Page: 21/21 Date: 1/18/2013 4:17:33 PM

cc file # 8325-2012-Comp Sui-302-32

Effective Year: 2013	Effective term: Summer	Fall 🔼 Spring 🔲		
Course Change Form (CC)  This form is for creating or modifying permanent courses.				
Course Changes (Check New Course	<u> </u>	Credit Hours 🔲	Prerequisites 🔀	
Course Title 🔲	Catalog Description	Course Number [	Co-listing	
Course Information (Sec	tions 1-9 must be completed. Le	ave "Proposed" items blank i	f no change is being made.)	
1. Department: Compo	uter Science			
2. Discipline and Course	e Number: Present: <b>Comp S</b> o	i <b>302</b> Proposed:		
3. Course Title: Presen	t: Agile Software Developme	ent		
Propos	sed:			
Abbreviated Course	e Title (24 Spaces or Less. Only n	eeded for New Courses or Tit	ile Changes.):	
Present: Understar Specifically: elicting	• •	requirements: design, imp	est them with prescriptive processes. Diementation, test processes; understan t progress and productivity.	d how
5. If course requires fie	ld trip check box: 🗌			
6. Credit Hours: Pres	sent: Lecture 3.0 Lab 0 T	otal 3		
Proj	posed: Lecture Lab	Total		
7. Prerequisites: Present: Comp Sci	206			
Proposed: A C or h	igher for Comp Sci 206			
8. Required for Majors:	: Elective for Majo	rs: 🔀		
9. Justification: To ensu	ure sufficient mastery of the pre	requisite course content.		
10. Semesters previous	sly offered as an experimenta	l course (101, 201, 301, 40	1):	
11. List all co-listed cou 1)	ırses, initialed by Dept. Chair, 3)	if signature does not appe 5)	ar below.	
2)	4) 17	6)		
Recommended by Departr	ment (Chair signature)		Date: Der 21	<u>)                                    </u>
Recommended by DSCC	Danil, Journ (Chair signature)		Date: 1/17/2-	<u>9/3</u>
Approved by Curricula Con			Date:	
	(Chair signature)		Data	
Approved by Faculty Senate: Date: Date:				

From: 573 341 4362 Page: 1/27 Da

Date: 1/18/2013 4:25:30 PM

CC File # 8.326-2012-Comp Sci - 307-32

Effective Year: 2013 &	ffective Term: Summer 🗌	Fall 🔀 Spring 🗌	
		Change Form (Conting or modifying permane	
Course Changes (Check at	l changes.)		
New Course	Course Deletion	Credit Hours	Prerequisites 🔀
Course Title	Catalog Description 🗌	Course Number	Co-listing
1. Department: Comput	ons 1-9 must be completed. Lea	ve "Proposed" items blank if n	o change is being made.)
•		207	
	Number: Present: Comp Sci	•	
3. Course Title: Present: Proposed	Software Testing And Quali	ty Assurance	
•	u. Fitle (24 Spaces or Less. Only ne	eded for New Courses or Title	Changes \.
	50 character spaces or less.)	eded for Idem Codises of 11de	changes.).
		em testing, system testing, o	object-oriented testing, testing
specification, test cas	se management, software qu	uality requirement analysis	and specification, software process
Improvement, and so Proposed:	oftware total quality manage	ement.	
5. If course requires field	trin check hov:		
6. Credit Hours: Preser	· —	tal 2	
	sed: Lecture Lab	Total	
7. Prerequisites:		, 244,	
Present: Comp Sci 25	3		
Proposed: A C or high	her for Comp Sci 253		
8. Required for Majors:	Elective for Majors	:⊠	
9. Justification: To ensure	sufficient mastery of the prere	quisite course content.	
10. Semesters previously	offered as an experimental o	ourse (101, 201, 301, 401):	
	es, initialed by Dept. Chair, if	_	below.
1)	3)	5)	
2)	4)	6)	
Recommended by Department	nt (Chair signature)		Date: Del 21,12
Recommended by DSCC	Daniel Fourt		Date: 1/17/2013
	(Chair signature)		J
Approved by Curricula Comm	ittee:(Chair signature)	·	Date:
Approved by Faculty Senate:	'		Date:
A STATE OF THE STA	(Chair signature)		

From: 573 341 4362 Page: 2/27 Date: 1/18/2013 4:25:30 PM

cc File # 8327-2012 - Comp Sci - 308-32

Ellective reas: 2013 Em	ective term: Summer	Fall 🔀 Spring 🔝		
		Change Form (Cating or modifying perman		
Course Changes (Check all c	hanges.)			
New Course	Course Deletion 🔲	Credit Hours 🔲	Prerequisites 🔀	
Course Title 🗌	Catalog Description	Course Number 🗌	Co-listing	
Course Information (Section	ns 1-9 must be completed. Lea	ave "Proposed" items blank if	no change is being made.)	
1. Department: Computer	· Science			
2. Discipline and Course No	umber: Present: <b>Comp Sci</b>	308 Proposed:		
3. Course Title: Present: C	Object-Oriented Analysis A	nd Design	•	
Proposed:				
Abbreviated Course Tit	le (24 Spaces or Less. Only ne	eeded for New Courses or Titl	e Changes.):	
	·		ies in object-oriented analysi exploration.	s and design. An
5. If course requires field to	rip check box: 🗌			
6. Credit Hours: Present	:: Lecture <b>3.0</b> Lab <b>0</b> To	otal 3		
Propose	ed: Lecture Lab	Total		
7. Prerequisites: Present: Comp Sci 253	1			
Proposed: A C or highe	er for Comp Sci 253			
8. Required for Majors: 🗌	Elective for Major:	s: 🔀		
9. Justification: <b>To ensure s</b>	ufficient mastery of the prer	equisite course content.		
10. Semesters previously o	ffered as an experimental	course (101, 201, 301, 401	):	
11. List all co-listed course: 1)	s, initialed by Dept. Chair, i 3)	f signature does not appea 5)	r below.	
2)	4)	6)		
Recommended by Department	(Chair signature)		Date	1/12/12
Recommended by DSCC	Danil Fuit (Chair signature)	· · · · · · · · · · · · · · · · · · ·	Date	: 1/17/2013
Approved by Curricula Commit			Date	<u>:</u>
American designation for the forest	(Chair signature)		Pata	
Approved by Faculty Senate:	(Chair signature)		Date	·

From: 573 341 4362 Page: 3/27 Date: 1/18/2013 4:25:31 PM

CC File # 8328 - 2012 - Comp Sci - 325-32

Effective Year: 2013 Effective Term: Summer 🗌 Fall 🔀 Spring 🦳	•			
Course Change Form (CC)  This form is for creating or modifying permanent courses.				
Course Changes (Check all changes.)       Course Deletion ☐       Credit Hours ☐       Prerequ         Course Title ☐       Catalog Description ☐       Course Number ☐       Co-listing				
Course Title Catalog Description Course Number Co-listing  Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is 1	<del></del>			
1. Department: Computer Science				
2. Discipline and Course Number: Present: Comp Sci 325 Proposed:				
3. Course Title: Present: Analysis of Algorithms				
Proposed:				
Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):				
4. Catalog Description (360 character spaces or less.) Present: The purpose of this course is to teach the techniques needed to analyze algor presentation is on the practical application of these techniques to such as sorting, back Proposed:				
5. If course requires field trip check box:				
6. Credit Hours: Present: Lecture 3.0 Lab 0 Total 3				
Proposed: Lecture Lab Total				
7. Prerequisites: Present: Cmp Sc 253				
Proposed: A C or higher for Comp Sci 253				
8. Required for Majors: Elective for Majors: 🖂				
9. Justification: To ensure sufficient mastery of the prerequisite course content.				
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.  1) 3) 5)				
2) 41 6)				
Recommended by Department (Chair signature)	Date: De£-21,12			
Recommended by DSCC Hankl Janks (Chair signature)	Date: ///7/2013			
Approved by Curricula Committee: (Chair signature)				
Approved by Faculty Senate:(Chair signature)	Date:			

From: 573 341 4362 Page: 4/27 Date: 1/18/2013 4:25:31 PM

CC File # 8329-2012-CompSci-328-32

Effective Year: 2013 Effect	ive Term: Summer 🔲 🛭	Fall 🔀 Spring 🗌	1	<i>/</i> ·
		Change Form (CC ting or modifying permanen	•	
Course Changes (Check all char New Course C		Credit Hours	Prerequisites 🔀	
Course Title Ca	atalog Description 🔲	Course Number 🔲	Co-listing	
<u>Course Information</u> (Sections 1	l-9 must be completed. Leav	ve "Proposed" items blank if no	change is being made.)	
1. Department: Computer Sc	cience			
2. Discipline and Course Num	ber: Present: <b>Comp Sci</b>	328 Proposed:		
3. Course Title: Present: Obj	ject-Oriented Numerical	Modeling I		
Proposed:				
Abbreviated Course Title	(24 Spaces or Less. Only ned	eded for New Courses or Title C	Changes.):	
· · · · · · · · · · · · · · · · · · ·	ect-oriented modeling of student to build a class li	the scientific domain. Techr brary of reusable software a ice, and engineering.		
5. If course requires field trip	check box:			
6. Credit Hours: Present:	Lecture 3.0 Lab 0 To	tal <b>3</b>		
Proposed:	: Lecture Lab	Total		
7. Prerequisites: Present: Comp Sci 228 ar	nd Comp Sci 153 and one	e of Math 208, 203, 229		
Proposed: A C or higher	for both Comp Sci 228 a	nd Comp Sci 153; a C or high	er in one of Math 200	8, 203, or 229
8. Required for Majors: 🗌	Elective for Majors	:: 🖾		
9. Justification: To ensure suff	ficient mastery of the prere	equisite course content.		
10. Semesters previously offe	ered as an experimental o	course (101, 201, 301, 401):		
11. List all co-listed courses, i 1)	initialed by Dept. Chair, if 3)	signature does not appear b 5)	pelow.	
2)	4)	6)		
Recommended by Department	(Chair signature)		*** ·	Date: Dec 21, 12
Recommended by DSCC	(Chair signature)			Date: 1/17/2013
Approved by Curricula Committe	· · · · · ·		<u></u>	Date:
Approved by Faculty Senate:	(Chair signature)			Date:

From: 573 341 4362 Page:

Page: 5/27 Date: 1/18/2013 4:25:31 PM

CC File # 8330-2012-Comp Su-329-32

Effective Year: 2013 Effective Term: Summer Fall Spring	,
Course Change Form (CC)  This form is for creating or modifying permanent courses.	•
Course Changes       (Check all changes.)         New Course       Course Deletion       Credit Hours       Prerequisites         Course Title       Catalog Description       Course Number       Co-listing	
Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being it	made.)
1. Department: Computer Science	
2. Discipline and Course Number: Present: Comp Sci 329 Proposed:	
3. Course Title: Present: Object-Oriented Numerical Modeling II  Proposed:	
Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):	
4. Catalog Description (360 character spaces or less.) Present: A continued study of object-oriented modeling of the scientific domain. Advanced models posed as balance laws, integral equations, and stochastic simulations. Proposed:	applications include
5. If course requires field trip check box:	
6. Credit Hours: Present: Lecture 3.0 Lab 0 Total 3	
Proposed: Lecture Lab Total	
7. Prerequisites: Present: Comp Sci 328	
Proposed: A C or higher for Comp Sci 328	
8. Required for Majors: Elective for Majors: 🔀	
9. Justification: To ensure sufficient mastery of the prerequisite course content.	
10. Semesters previously offered as an experimental course (101, 201, 301, 401):	
<ul><li>11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.</li><li>1)</li><li>3)</li><li>5)</li></ul>	
2) 4) ( ) 6)	
Recommended by Department (Chair signature)	Date: DoC_21, 12
Recommended by DSCC (Chair signature)	Date: <u>///7/24/3</u>
Approved by Curricula Committee:(Chair signature)	Date:
Approved by Faculty Senate:	Date:

(Chair signature)

From: 573 341 4362 Page: 6/27 Date: 1/18/2013 4:25:32 PM

cc File # 8331-2012 - Comp Sci-338-32

Effective Year: 2013 Effective Term: Summer Fall Spring	
Course Change Form (CC)  This form is for creating or modifying permanent courses.	
Course Changes (Check all changes.)  New Course Course Deletion Credit Hours Prerequisite	·
Course Title Catalog Description Course Number Co-listing	
Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being	g made.)
1. Department: Computer Science	
2. Discipline and Course Number: Present: Comp Sci 338 Proposed:	
3. Course Title: Present: Database Systems	
Proposed:	
Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):	
4. Catalog Description (360 character spaces or less.) Present: This course introduces the advanced database concepts of normalization and fun transaction models, concurrency and locking, timestamping, serializability, recovery techn and optimization. Students will participate in programming projects. Proposed:	
5. If course requires field trip check box:	
6. Credit Hours: Present: Lecture 3.0 Lab 0 Total 3	
Proposed: Lecture Lab Total	
7. Prerequisites: Present: Comp Sci 128 and Comp Sci 238	
Proposed: A C or higher for both Comp Sci 128 and Comp Sci 238	
8. Required for Majors: Elective for Majors: 🖂	
9. Justification: To ensure sufficient mastery of the prerequisite course content.	
10. Semesters previously offered as an experimental course (101, 201, 301, 401):	
<ul> <li>11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.</li> <li>1) 3) 5)</li> </ul>	
2) 4) (7 6)	
Recommended by Department (Chair signature)	Date: DFC 21, 12
Recommended by DSCC Transl Jack (Chair signature)	Date: <u>///7/26/3</u>
Approved by Curricula Committee:	Date:
(Chair signature)  Approved by Faculty Senate:	Date:
(Chair signature)	

Page: 7/27 Date: 1/18/2013 4:25:32 PM From: 573 341 4362

CC File # 8332 -2012 - Conyo Sci -342-32

Effective Year: 2013 Effective Term: Summer | Fall | Spring | Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🖂 Course Number Course Title Catalog Description Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 342 Proposed: 3. Course Title: Present: Java Gui & Visualization Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Fundamentals of Java Swing Foundation Classes, Java System Language Specifics, Graphical User Interfaces, Images, Audio, Animation, Networking, and Threading. Visualization of Algorithms. GUI Elements include Event Driven Programming, Interaction with Mouse and Keyboard, Window Managers, Frames, Panels, Dialog Boxes, Borders. Proposed: 5. If course requires field trip check box: 6. Credit Hours: Present: Lecture 3.0 Lab 0 Total 3 Lab Total Proposed: Lecture 7. Prerequisites: Present: Comp Sci 253 or equivalent Proposed: A C or higher for Comp Sci 253 or equivalent Elective for Majors: 🖂 8. Required for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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) 5) 1) 6) 2) Recommended by Department Recommended by DSCC (Chair signature) Date: Approved by Curricula Committee: (Chair signature)

Approved by Faculty Senate:\_

(Chair signature)

Date: 1/18/2013 4:25:32 PM From: 573 341 4362 Page: 8/27 cc File # 8333-2012 - Comp Sci-347-32 Effective Term: Summer Fall Spring Effective Year: 2013 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🔀 Course Title Catalog Description Course Number Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 347 Proposed: 3. Course Title: Present: Introduction To Artificial Intelligence Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: A modern introduction to Al, covering important topics of current interest such as search algorithms, heuristics, game trees, knowledge representation, reasoning, computational intelligence, and machine learning. Students will implement course concepts covering selected AI topics. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0 Total 3 6. Credit Hours: Present: Total Lab Proposed: Lecture 7. Prerequisites: Present: Comp Sci 253 Proposed: A C or higher for Comp Sci 253 8. Required for Majors: Elective for Majors: 🔀 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 5) 3)

Date:

Date:\_

6)

1) 2)

Recommended by Department

Approved by Curricula Committee:

Approved by Faculty Senate:...

(Chair signature)

(Chair signature)

(Chair signature)

Recommended by DSCC

From: 573 341 4362 Page: 9/27 Date: 1/18/2013 4:25:33 PM

CC File # 8334-2012 ~ Comp Sui ~ 348-32

Effective Year: 2013 Effective Term: Summer Fall Spring

Effective Year: 2013 Effective Fe	rm: Summer 🔛 🖼	all 🖂 Spring 🖂		
Tř		Change Form (Co	■	
Course Changes (Check all changes.)  New Course Course I	Deletion 🗌	Credit Hours	Prerequisites 🔀	
Course Title 🗌 Catalog	Description 🗌	Course Number	Co-listing	
Course Information (Sections 1-9 mus	st be completed. Leav	e "Proposed" items blank if n	o change is being made.)	
1. Department: Computer Science				
2. Discipline and Course Number: I	Present: <b>Comp Sci</b> 3	Proposed:		
3. Course Title: Present: Evolution	ary Computing	,		
Proposed:				
Abbreviated Course Title (24 Sp.	aces or Less. Only nee	ded for New Courses or Title	Changes.):	
4. Catalog Description (360 characte Present: Introduces evolutions evolution theory (e.g., genetic Students will implement cours Proposed:	ary algorithms, a cla algorithms), capabl	le of solving complex prob	lems for which other to	chniques fail.
5. If course requires field trip check	c box: 🗌			
6. Credit Hours: Present: Lect	ture <b>3.0</b> Lab <b>0.0</b> Tot	tal 3.0		
Proposed: Lect	ture Lab	Total		
7. Prerequisites: Present: Comp Sci 253 and a s	tatistics course			
Proposed: A C or higher in bot	h Comp Sci 253 and	l in a statistics course		
8. Required for Majors:	Elective for Majors	:⊠		
9. Justification: To ensure sufficient	mastery of the prere	quisite course content.		
10. Semesters previously offered a	s an experimental c	ourse (101, 201, 301, 401)	:	
11. List all co-listed courses, initials	ed by Dept. Chair, if 3)	signature does not appear 5)	below.	
2)	4) ]	6)		
Recommended by Department (Cha	ir signature)			Date: Det 21, 12
Recommended by DSCC(Cha	Jacob ir signature)		<u>.</u>	Date: <u>[//7/20/3</u>
Approved by Curricula Committee: Date:				
Approved by Faculty Senate:(Cha	nir signaturė)			Date:

From: 573 341 4362 Page: 10/27 Date: 1/18/2013 4:25:33 PM

cc File # 8335-2012-CompSci-353-32

Effective Year: 2013 Effective Term: Summer  Fall Spr	ing 🔲
Course Change This form is for creating or mod	
Course Changes (Check all changes.)  New Course Course Deletion Credit Hou	ırs 🗌 Prerequisites 🖂
Course Title Catalog Description Course Nu	mber Co-listing
<u>Course Information</u> (Sections 1-9 must be completed. Leave "Proposed	" Items blank if no change is being made.)
1. Department: Computer Science	
2. Discipline and Course Number: Present: Comp Sci 353 Pr	oposed:
3. Course Title: Present: Multimedia Systems	
Proposed:	
Abbreviated Course Title (24 Spaces or Less. Only needed for New	Courses or Title Changes.):
4. Catalog Description (360 character spaces or less.) Present: This course introduces the concepts and componen Introduction to Multimedia Data, Multimedia Date Compress Data Storage Organization, Communication and Synchronization Conferencing, Digital Libraries. Proposed:	sion, Techniques and Standards, Indexing and Retrieval,
5. If course requires field trip check box:	
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0	
Proposed: Lecture Lab Total	
7. Prerequisites: Present: Comp Sci 153	
Proposed: A C or higher in Comp Sci 153	
8. Required for Majors: 🔲 Elective for Majors: 🔀	
9. Justification: To ensure sufficient mastery of the prerequisite cours	se content.
10. Semesters previously offered as an experimental course (101,	201, 301, 401):
11. List all co-listed courses, initialed by Dept. Chair, if signature d  1) 3) 5)	oes not appear below.
2) 4) (6)	
Recommended by Department (Chair signature)	Date: Dec 21, 12
Recommended by DSCC Danul Faurice (Chair signature)	Date: (//7/20/3
Approved by Curricula Committee:	Date:
(Chair signature) Approved by Faculty Senate:	Date:
(Chair signature)	

Date: 1/18/2013 4:25:33 PM From: 573 341 4362 Page: 11/27 cc File # 8336-2012-Comp Sci-356-32 Effective Term: Summer | Fall | Spring | Effective Year: 2013 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🔀 Course Title Catalog Description Course Number Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 356 Proposed: 3. Course Title: Present: The Structure Of A Compiler Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Review of Backus normal form language descriptors and basic parsing concepts. Polish and matrix notation as intermediate forms, and target code representation. Introduction to the basic building blocks of a compiler: syntax scanning, expression translation, symbol table manipulation, code generation, local optimization, and storage allocation. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0.0 Total 3.0 6. Credit Hours: Present: Lab Total Proposed: Lecture 7. Prerequisites: Present: Comp Sci 256 and Comp Sci 253 Proposed: A C or higher in both Comp Sci 256 and Comp Sci 253 Elective for Majors: 🔀 8. Required for Majors: \_\_\_\_ 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 5) 3) 1)

(Revised October 2012)

Date:

Date:

6)

2)

Recommended by DSCC

Recommended by Department

Approved by Curricula Committee:

Approved by Faculty Senate:\_

(Chair signature)

(Chair signature)

Effective Year: 2013

Page: 12/27

Date: 1/18/2013 4:25:34 PM

cc File # 8337-2012-Comp Sci-358-32

Effective Term: Summer Fall Spring **Course Change Form (CC)** This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🔀 Course Title Catalog Description Course Number Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 358 Proposed: 3. Course Title: Present: Interactive Computer Graphics Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Applications and functional capabilities of current computer graphics systems. Interactive graphics programming including windowing, clipping, segmentation, mathematical modeling, two and three dimensional transformations, data structures, perspective views, antialiasing, and software design. Proposed: 5. If course requires field trip check box: 6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Lab Total Proposed: Lecture 7. Prerequisites: Present: Comp Sci 228 and Comp Sci 253 Proposed: A C or higher in both Comp Sci 228 and Comp Sci 253 Elective for Majors: 8. Required for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 5) 3) 1) 2) 6) Recommended by Department Recommended by DSCC (Chair signature) Date: Approved by Curricula Committee: (Chair signature) Date: Approved by Faculty Senate:\_ (Chair signature)

Effective Year: 2013

Page: 13/27

Date: 1/18/2013 4:25:34 PM

CC File # 833 8-2012 - CompoSu - 362 - 32

Effective Term: Summer Fall Spring Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🖂 Course Title Co-listing Catalog Description Course Number Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 362 Proposed: 3. Course Title: Present: Security Operations & Program Management Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: An overview of information security operations, access control, risk management, systems and application life cycle management, physical security, business continuity planning, telecommunications security, disaster recovery, software piracy, investigations, ethics and more. There will be extensive reporting, planning and policy writing. Proposed: 5. If course requires field trip check box: 6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Lab Total Proposed: Lecture 7. Prerequisites: Present: Writing emphasized course AND Operating System course AND Computer Networking course. Proposed: A C or higher in all of: operating systems, computer networking, and a writing emphasized course. Elective for Majors: 8. Required for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 5) 1) 3) 2) Recommended by Department Recommended by DSCC Date: Approved by Curricula Committee: (Chair signature) Date:\_ Approved by Faculty Senate:\_ (Chair signature)

From: 573 341 4362 Page: 14/27 Date: 1/18/2

age: 14/27 Date: 1/18/2013 4:25:34 PM

CC File # 8339 - 2012 - Comp Su - 345 - 32

Effective Year: 2013 Effective	e Term: Summer 🔲 🛭 F	all 🛛 Spring 🗌		,
		Change Form (CC	•	
Course Changes (Check all change New Course Cour	·	Credit Hours	Prerequisites 🔀	
Course Title Cata	log Description 🗌	Course Number 🔲	Co-listing 🔲	
Course Information (Sections 1-9	must be completed. Leav	e "Proposed" items blank if no	change is being made.)	
1. Department: Computer Scien	nce			
2. Discipline and Course Numbe	r: Present: <b>Comp Sci</b> 3	365 Proposed:		
3. Course Title: Present: Comp	uter Communications	and Networks		
Proposed:				
Abbreviated Course Title (24	Spaces or Less. Only nee	eded for New Courses or Title C	hanges.):	
<ol> <li>Catalog Description (360 charal Present: Network architect detection/correction, data l application services. Studen Proposed:</li> </ol>	ure and model includio	tocols, inter-networking, re	liable end to end serv	
5. If course requires field trip ch	eck box: 🗌			
6. Credit Hours: Present: L	Lecture <b>3.0</b> Lab <b>0.0</b> Tot	al <b>3.0</b>		
Proposed: l	Lecture Lab	Total		
7. Prerequisites: Present: Comp Sci 284				
Proposed: A C or higher in (	Comp Sci 284			
8. Required for Majors: 🗌	Elective for Majors:	: 🖾		
9. Justification: To ensure suffici	ent mastery of the prere	quisite course content.		
10. Semesters previously offere	d as an experimental co	ourse (101, 201, 301, 401):		
11. List all co-listed courses, init 1)	ialed by Dept. Chair, if	signature does not appear b 5)	elow.	
2)	4) 1 7	6)		
Recommended by Department	(Chair signature)			Date: DEC 21, 12
Recommended by DSCC	(Chair signature)			Date: 1/17/2013
Approved by Curricula Committee:_ (	(Chair signature)			Date:
Approved by Faculty Senate:(	(Chair signature)			Date:

From: 573 341 4362 Page: 15/27 Date: 1/18/2013 4:25:35 PM

cc File # 8340-2012-Comp Sci-381-32

Effective Year: 2013 Effective Term: Summer 🗌 Fall 🔀 Sprin	в 🗆
Course Change This form is for creating or modify	
Course Changes       (Check all changes.)         New Course ☐       Course Deletion ☐       Credit Hours         Course Title ☐       Catalog Description ☐       Course Num	Prerequisites 🔀
Course Information (Sections 1-9 must be completed. Leave "Proposed" i	tems blank if no change is being made.)
1. Department: Computer Science	
2. Discipline and Course Number: Present: Comp Sci 381 Prop	osed:
3. Course Title: Present: The Structure of Operating Systems	
Proposed:	
Abbreviated Course Title (24 Spaces or Less. Only needed for New C	ourses or Title Changes.):
4. Catalog Description (360 character spaces or less.) Present: The hardware and software requirements for operation multiprocessing, time sharing, real time, and virtual systems. Tinput/output control systems, and memory mapping are discusted proposed:	he concepts of supervisors interrupt handlers,
5. If course requires field trip check box:	
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0	
Proposed: Lecture Lab Total	
7. Prerequisites: Present: Comp Sci 284	
Proposed: A C or higher in Comp Sci 284	
8. Required for Majors: Elective for Majors: 🖂	
9. Justification: To ensure sufficient mastery of the prerequisite course	content.
10. Semesters previously offered as an experimental course (101, 20	1, 301, 401):
11. List all co-listed courses, initialed by Dept. Chair, if signature doe 1) 3) 5)	s not appear below.
2) 4) (7 6)	
Recommended by Department (Chair signature)	Date: Pel 21, )2
Recommended by DSCC	Date: 1/17/2013
Approved by Curricula Committee:(Chair signature)	Date:
Approved by Faculty Senate: (Chair signature)	Date:

Date: 1/18/2013 4:25:35 PM From: 573 341 4362 Page: 16/27 CC File # 834/-2012 - Comp Sci-384-32 Effective Year: 2013 Effective Term: Summer Fall Spring Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🔀 Course Title Catalog Description Course Number Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 384 Proposed: 3. Course Title: Present: Distributed Operating Systems Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: The study of modern operating systems, particularly distributed operating systems. Topics include a review of network systems and inter-process communication, causality, distributed stat maintenance, failure detection, reconfiguration and recovery, load balancing, distributed file systems, distributed mutual exclusion, and stable property detection, includin Proposed: 5. If course requires field trip check box: 6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Proposed: Lecture Lab Total 7. Prerequisites: Present: Comp Sci 284 and Comp Sci 253 Proposed: A C or higher in both Comp Sci 284 and Comp Sci 253 8. Required for Majors: Elective for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 1) 3) 5) 6) 2) Recommended by Department

Date:

Date:

Recommended by DSCC

Approved by Curricula Committee:

Approved by Faculty Senate:\_

(Chair signature)

From: 573 341 4362 Page: 17/27 Date: 1/18/2013 4:25:35 PM cc file # 8342-2012-Camp Sci-387-32 Effective Term: Summer Fall Spring Effective Year: 2013 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🔀 Course Title Catalog Description Course Number Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science

Proposed:

Present: Parallel and pipelined algorithms, architectures, network topologies, message passing, process scheduling and

Total

6)

2. Discipline and Course Number: Present: Comp Sci 387

Proposed:

5. If course requires field trip check box:

Present:

Present: Comp Sci 284 and Comp Sci 253

Proposed: Lecture

Proposed: A C or higher in both Comp Sci 284 and Comp Sci 253

9. Justification: To ensure sufficient mastery of the prerequisite course content.

(Chair signature)

(Chair signature)

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.

Proposed:

6. Credit Hours:

7. Prerequisites:

1)

2)

Recommended by DSCC

Recommended by Department

Approved by Curricula Committee:

Approved by Faculty Senate:\_

8. Required for Majors:

4. Catalog Description (360 character spaces or less.)

3. Course Title: Present: Introduction to Parallel Programming and Algorithms

Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):

synchronization. Parallel programming on clusters. Cost, speedup and efficiency analysis.

Lab

Lecture 3.0 Lab 0.0 Total 3.0

Elective for Majors: 🔀

(Revised October 2012)

Date:

From: 573 341 4362 Page: 18/27 Date: 1/18/2013 4:25:36 PM

cc File # 8343-2012-CompSu -388-32

Effective Year: 2013	Effective Term: Summer [	🗌 Fall 🛛 Spring 🗌	,	
		se Change Form ( creating or modifying perma	•	
Course Changes (Chec				
New Course	Course Deletion 🔙	Credit Hours 🗌	Prerequisites 🔀	
Course Title 🗌	Catalog Description	Course Number	Co-listing 🔲	
Course Information (S	ections 1-9 must be completed	. Leave "Proposed" items blank	if no change is being made.)	
1. Department: Com	puter Science			
2. Discipline and Cour	rse Number: Present: <b>Comp</b>	Sci 388 Proposed:		
3. Course Title: Prese	ent: Introduction to High Pe	rformance Computer Archite	ecture	
Prope	osed:			
Abbreviated Cour	rse Title (24 Spaces or Less. Onl	ly needed for New Courses or Ti	tle Changes.):	
Present: Overvie and software/alg		ecture of computing systems ce performance. Uniprocess	s and covers various architectural, or and concurrent systems are inv ems.	
5. If course requires f	ield trip check box: 🔲			
6. Credit Hours: Pr	esent: Lecture 3.0 Lab 0.0	0 Total 3.0		
Pr	oposed: Lecture La	b Total		
7. Prerequisites: Present: Comp E	ng 213 and Comp Sci 253			
Proposed: A C or	higher in both Comp Eng 21	3 and Comp Sci 253		
8. Required for Major	rs: Elective for Ma	ajors: 🗵		
9. Justification: To en	sure sufficient mastery of the p	prerequisite course content.		
10. Semesters previou	usly offered as an experimen	ital course (101, 201, 301, 40	1):	
11. List all co-listed co	ourses, initialed by Dept. Cha	ir, if signature does not appe	ear below.	
1)	3)	5)		
2)	4)	6)		
Recommended by Depar	tment ()()	<del></del>	Date: $\mathcal{D}_{\ell}$	(2), 12
Recommended by DSCC	(Chair signature)  (Chair signature)		Date:	1/17/2013
Approved by Curricula Co			Date:	
Assumption by Casaline Cas			Date:	
Approved by Faculty Sen	(Chair signature)			

Effective Year: 2013

Effective Term: Summer Fall Spring

Page: 19/27

Date: 1/18/2013 4:25:36 PM

CC File # 8344-2012 - CompoSci - 397-32

Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🔀 Course Title Catalog Description Course Number Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 397 Proposed: 3. Course Title: Present: Software Systems Development I Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Class members will work in small teams to develop a complete software system beginning with end-user interviews and concluding with end-user training. Proposed: 5. If course requires field trip check box: 6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Proposed: Lecture Lab Total 7. Prerequisites: Present: Comp Sci 206 and 100 credit hours completed Proposed: A C or higher in Comp Sci 206 and 100 credit hours completed 8. Required for Majors: 🔀 Elective for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 1) 3) 2) 6) Recommended by Department Recommended by DSCC (Chair signature) Date: Approved by Curricula Committee: (Chair signature) Date: Approved by Faculty Senate:\_ (Chair signature)

From: 573 341 4362 Page: 20/27 Date: 1/18/2013 4:25:36 PM

cc File # 8345-2012-CompSci-398-32

Effective Year: 2013 Effective Term: Summer Fall Spring	- conjunction
Course Change Form (CC)  This form is for creating or modifying permanent course	es.
Course Changes (Check all changes.)  New Course Course Deletion Credit Hours Prerection	
Course Title Catalog Description Course Number Co-list	<del>-</del> —
<u>Course Information</u> (Sections 1-9 must be completed. Leave "Proposed" items blank if no change in the complete of the complet	s being made.)
1. Department: Computer Science	
2. Discipline and Course Number: Present: Comp Sci 398 Proposed:	
3. Course Title: Present: Software Systems Development II	
Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.)	
4. Catalog Description (360 character spaces or less.)	•
Present: This course is an optional continuation of Cmp Sci 397. Those interested in this course since participants become officers or group leaders in the class "corporati important for those going straight into industry upon graduation. Students with coop redundant.  Proposed:	on." This course is especially
5. If course requires field trip check box:	
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0	
Proposed: Lecture Lab Total	
7. Prerequisites: Present: Comp Sci 397	
Proposed: A C or higher in Comp Sci 397	
8. Required for Majors: Elective for Majors: 🖂	
9. Justification: To ensure sufficient mastery of the prerequisite course content.	
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.  1) 3) 5)	
2) 4) () 6)	
Recommended by Department	Date: P(C2), 12
Recommended by DSCC Chair signature)  (Chair signature)	Date: 1/17/2013
Approved by Curricula Committee:	Date:
(Chair signature)	Data
Approved by Faculty Senate: (Chair signature)	Date:

From: 573 341 4362 Page: 21/27 Date: 1/18/2013 4:25:37 PM

cc File # 8346-2012-Comp Sui- 406-32

Effective Year: 2013 E	ffective Term: Summer 🔲	Fall 🛛 Spring 🗌		- ,,
		e Change Form (		
Course Changes (Check at		_	_	
New Course 🔲	Course Deletion 🗌		Prerequisites 🔀	
Course Title 🔃	Catalog Description	Course Number	Co-listing 🛄	
	ons 1-9 must be completed. Le	ave "Proposed" items blank i	f no change is being made.)	
1. Department: Comput	er Science			
2. Discipline and Course	Number: Present: Comp So	i 406 Proposed:		
3. Course Title: Present:	Software Engineering II			
Propose	d:			
Abbreviated Course	Title (24 Spaces or Less. Only n	eeded for New Courses or Tit	tle Changes.):	
Present: A quantitat	60 character spaces or less.) tive approach to measuring ed in the life cycle and the s		vare projects. The material cove Il material.	red will be
5. If course requires field	d trip check box: 🔲			
6. Credit Hours: Prese	ent: Lecture 3.0 Lab 0.0 1	otal <b>3.0</b>		
Propo	osed: Lecture Lab	Total		
7. Prerequisites: Present: <b>Cmp Sci 20</b>	6			
Proposed: A C or hig	gher for Cmp Sci 206			
8. Required for Majors: [	Elective for Majo	rs: 🖂		
9. Justification: To ensur	e sufficient mastery of the pre	requisite course content.		
10. Semesters previously	y offered as an experimenta	l course (101, 201, 301, 40	1):	
11. List all co-listed cour	ses, initialed by Dept. Chair,	if signature does not appe		
1)	3)	5)		
2)	~~~\	6)		0.4/ 2\ 15
Recommended by Departm	ent (Chair signature)		Date:_	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Recommended by DSCC	(Chair signature)		Date:_	1/17/2013
Approved by Curricula Com	· – ·		Date:_	
A shell man and a series and a series	(Chair signature)			
Approved by Faculty Senate	e:(Chair signature)	<u> </u>	Date:	
	(ritoti alBustriie)			

From: 573 341 4362 Page: 22/27 Date: 1/18/2013 4:25:37 PM

cc File # 8347-2012-Comp 501- 409-32

Effective Year: 2013 Effective Term: Summer Fall Spring	,
Course Change Form (CC)  This form is for creating or modifying permanent courses.	
Course Changes       (Check all changes.)         New Course ☐       Course Deletion ☐       Credit Hours ☐       Prerequi         Course Title ☐       Catalog Description ☐       Course Number ☐       Co-listing	
Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is I	<del></del>
1. Department: Computer Science	acting thate.
2. Discipline and Course Number: Present: Comp Sci 409 Proposed:	
3. Course Title: Present: Software Requirements Engineering	
Proposed:	
Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):	
4. Catalog Description (360 character spaces or less.) Present: Software Requirements Engineering (SRE) covers all the activities involved in and managing software requirements for a software system from multiple perspective elicit, analyze, specify, validate, and manage software requirements using advanced so engineering methods. Proposed:	s. Students will study how to
5. If course requires field trip check box:	
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0	
Proposed: Lecture Lab Total	
7. Prerequisites: Present: Cmp Sci 206	
Proposed: A C or higher for Cmp Sci 206	
8. Required for Majors: Elective for Majors: 🔀	
9. Justification: To ensure sufficient mastery of the prerequisite course content.	
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.  1) 3) 5)	
2) 4) () 6)	
Recommended by Department (Chair signature)	Date: DU 21, 12
Recommended by DSCC	Date: 1/17/2013
Approved by Curricula Committee:	Date:
(Chair signature)	Date
Approved by Faculty Senate:	Date:

From: 573 341 4362 Page: 23/27 Date: 1/18/2013 4:25:37 PM

cc File # 8348-2012 - CompSci - 425-32

Effective Year: 2013 Effective Term: Summer 🔲 Fall 🔀 Spring 🔲	, , , , , ,
Course Change Form (CC)  This form is for creating or modifying permanent courses.	
Course Changes       (Check all changes.)         New Course       Course Deletion       Credit Hours       Prerequisites	
Course Title Catalog Description Course Number Co-listing	
<u>Course Information</u> (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.)	!
1. Department: Computer Science	
2. Discipline and Course Number: Present: Comp Sci 425 Proposed:	
3. Course Title: Present: Algorithmics II	
Proposed:	
Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):	
4. Catalog Description (360 character spaces or less.) Present: Covers selected classical and recent developments in the design and analysis of algorithm sophisticated data structures, amortized complexity, advanced graph theory, and network flow te Proposed:	
5. If course requires field trip check box:	
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0	
Proposed: Lecture Lab Total	
7. Prerequisites: Present: Cmp Sci 325	
Proposed: A C or higher for Cmp Sci 325	
8. Required for Majors: Elective for Majors: 🖂	
9. Justification: To ensure sufficient mastery of the prerequisite course content.	
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.  1) 3) 5)	
2) 4) ( ) 6)	
Recommended by Department (Chair signature)	Date: Pel 21, 12
Recommended by DSCC Daniel Stuff (Chair signature)	Date: 1/17/2013
Approved by Curricula Committee:(Chair signature)	_ Date:
Approved by Faculty Senate:(Chair signature)	Date:

From: 573 341 4362 Page: 24/27 Date: 1/18/2013 4:25:38 PM

cc File # 8349-2012 - Comp Sui - 426-32

Effective Year: 2013 Effective Term: Summer 🔲 Fall 🔀 Spring 🗌	,			
Course Change Form (Course	•			
Course Changes (Check all changes.)  New Course Course Deletion Credit Hours Course Changes Credit Hours Course Changes Credit Hours Course Changes Ch	Prerequisites 🖂			
Course Title Catalog Description Course Number	Co-listing			
Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if n	no change is being made.)			
1. Department: Computer Science				
2. Discipline and Course Number: Present: Comp Sci 426 Proposed:				
3. Course Title: Present: Theory of Computation				
Proposed:				
Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title	changes.):			
4. Catalog Description (360 character spaces or less.) Present: Turing machines and other machines. Godel numbering and insolved memory access and limited computing time. Recursive functions, computations unsolvable problems. Proposed:				
5. If course requires field trip check box:				
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0				
Proposed: Lecture Lab Total				
7. Prerequisites: Present: Cmp Sci 220				
Proposed: A C or higher for Cmp Sci 220				
8. Required for Majors: Elective for Majors: 🖂				
9. Justification: To ensure sufficient mastery of the prerequisite course content.				
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  1) 3) 5)	r below.			
2) 4) \ \ \ \ 6)				
Recommended by Department	Date: DK 21, )L			
Recommended by DSCC (Chair signature) (Chair signature)	Date: 1/17/2013			
Approved by Curricula Committee:	Date:			
Approved by Curricula Committee. (Chair signature)				
Approved by Faculty Senate: Date:				

Page: 25/27

Date: 1/18/2013 4:25:38 PM

cc File# 8350-2012-CompSci-437-32

Effective Term: Summer Fall Spring Effective Year: 2013 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🖂 Course Title 🔲 Catalog Description Course Number Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 437 Proposed: 3. Course Title: Present: Web Data Management And Xml Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: This course deals with the management of semi-structured data, query languages to manipulate web data, web views on XML and maintaining and securing data represented in XML. Course involves discussion on systems such as LORE, Web SQL, Web OQL, XML-QL, ARANEOUS, WHOWEDA, XSchema, XQL, RDF. Proposed: If course requires field trip check box: Lecture 3.0 Lab 0.0 Total 3.0 Present: 6. Credit Hours: Lab Total Proposed: Lecture 7. Prerequisites: Present: Cmp Sci 338 Proposed: A C or higher for Cmp Sci 338 Elective for Majors: 🔀 8. Required for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 5) 3) 1) 6) 2) Recommended by Department Recommended by DSCC (Chair signature) Date: Approved by Curricula Committee: (Chair signature) Date: Approved by Faculty Senate:\_ (Chair signature)

From: 573 341 4362 Page: 26/27 Date: 1/18/2013 4:25:

7 Date: 1/18/2013 4:25:38 PM CC File # 835/-20/2 - CompSci - 438-32

Effective Year: 2013 Ef	fective Term: Summer	Fall 🔀 Spring 📙				
Course Change Form (CC)  This form is for creating or modifying permanent courses.						
Course Changes (Check all	changes.)					
New Course 🗌	Course Deletion 🗌	Credit Hours 🔲	Prerequisites 🔀			
Course Title 🔙	Catalog Description	Course Number 🗌	Co-listing 🔲			
Course Information (Section	ns 1-9 must be completed. Lea	ve "Proposed" items blank if i	no change is being made.)			
1. Department: Compute	er Science					
2. Discipline and Course N	lumber: Present: <b>Comp Sci</b>	438 Proposed:				
3. Course Title: Present:	Heterogeneous and Mobile	Databases				
Proposed	<b>:</b>					
Abbreviated Course T	itle (24 Spaces or Less. Only ne	eded for New Courses or Title	changes.):			
	extensively discusses multic	, , ,	and mobile data access systems (MDAS), mework of MDBSs and MDASs.			
5. If course requires field	trip check box: 🔲					
6. Credit Hours: Preser	nt: Lecture <b>3.0</b> Lab <b>0.0</b> To	tal 3.0				
Propos	sed: Lecture Lab	Total				
7. Prerequisites: Present: Cmp Sci 338						
Proposed: A C or high	ner for Cmp Sci 338		,			
8. Required for Majors:	Elective for Majors	s: 🔀				
9. Justification: To ensure	sufficient mastery of the prer	equisite course content.				
10. Semesters previously	offered as an experimental o	course (101, 201, 301, 401)	:			
11. List all co-listed course	es, initialed by Dept. Chair, if	f signature does not appear	below.			
1)	3)	5)				
2)	4)	6)				
Recommended by Departmen			Date: Del 21, 12			
Recommended by DSCC	(Chair signature)  (Chair signature)		Date: 1/17/2013			
Approved by Curricula Comm	ittee:(Chair signature)		Date:			
Approved by Faculty Senate:	(Chair signature)		Date:			

Page: 27/27 Date: 1/18/2013 4:25:39 PM From: 573 341 4362 CC File # 8352-2012 - CampSci - 439-32 Effective Year: 2013 Effective Term: Summer | Fall | Spring | Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course Course Deletion Credit Hours Prerequisites 🖂 Course Title Catalog Description Course Number Co-listing Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 439 Proposed: 3. Course Title: Present: Object-Oriented Database Systems Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Increasing complexity of systems and the need to reuse software components have resulted in the development of the object-oriented approach to systems design and implementation. This course is designed to meet the need for students to be able to use and extend the new area of Computer Science. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0.0 Total 3.0 6. Credit Hours: Present: Lab Proposed: Lecture Total 7. Prerequisites: Present: Cmp Sci 308 Proposed: A C or higher for Cmp Sci 308 Elective for Majors: 8. Required for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 1) 3) 6) 2)

Date:

Recommended by Department

Approved by Curricula Committee:

Approved by Faculty Senate:\_

Recommended by DSCC

(Chair signature

(Chair signature)

(Chair signature)

Page: 1/24

Date: 1/18/2013 4:32:59 PM cc File # 8353-2012 - Comp Sci - 444-32

Effective Year: 2013 Effective Term:	Summer 🔲 🛚	Fall 🔀 Spring 🔲				
Course Change Form (CC)  This form is for creating or modifying permanent courses.						
Course Changes (Check all changes.)  New Course Course Course Dele	tion 🗌	Credit Hours 🗌	Prerequisites 🛚			
Course Title Catalog Des	cription 🗌	Course Number 🗌	Co-listing 🗌			
Course Information (Sections 1-9 must be	completed. Lea	ve "Proposed" items blank	if no change is being made.)			
1. Department: Computer Science						
2. Discipline and Course Number: Preso	ent: Comp Sci	444 Proposed:				
3. Course Title: Present: Advanced To	pics in Data M	ining				
Proposed:						
Abbreviated Course Title (24 Spaces	or Less. Only ne	eded for New Courses or	Title Changes.):			
4. Catalog Description (360 character spa Present: Advanced topics of current of-the-art papers as well as conduct analysis, and written and oral repo Proposed:	nt interest in t cting topical re	esearch projects includi	This course involves reading design, implementation	ing seminal and state- n, experimentation,		
5. If course requires field trip check box	c: 🔲					
6. Credit Hours: Present: Lecture	3.0 Lab 0.0 To	otal <b>3.0</b>				
Proposed: Lecture	Lab	Total				
7. Prerequisites: Present: Cmp Sci 301 Introduction	to Data Minir	ng				
Proposed: A C or higher for Cmp S	Sci 301 Introdu	iction to Data Mining				
8. Required for Majors: Elec	ctive for Major	rs: 🖂				
9. Justification: To ensure sufficient mas	tery of the prer	equisite course content.				
10. Semesters previously offered as an	experimental	course (101, 201, 301, 4	101):			
11. List all co-listed courses, initialed by 1) 3)	y Dept. Chair, i	if signature does not app 5)	pear below.			
2) 4)	. ( )	6)				
Recommended by Department(Chair sign	iatule)			Date: Dtl 21,12		
Recommended by DSCC (Chair sign	ature)			_ Date: 1//7/2013		
Approved by Curricula Committee:(Chair sign						
Approved by Faculty Senate:	ideal of			Date:		
(Chair sign	nature)			<del></del>		

Page: 2/24

Date: 1/18/2013 4:33:00 PM

cc File # 8354-2012 - CompSci-447-32 Effective Year: 2013 Effective Term: Summer T Fall Spring T

## **Course Change Form (CC)**

This form is for creating or modifying permanent courses.

		,	· •			
Course Changes (C	_	es.) rse Deletion 🔲	Credit Ho	ours 🗌	Prerequisites 🗵	
Course Title	<del>-</del>	alog Description	_	Number 🗌	Co-listing	
	<del>-</del>		_		if no change is being made	<u>.</u> 1
			1. teave rippos	su iteliis blairk	If the change is being man	
1. Department: C				n		
2. Discipline and C			•	Proposed:		
3. Course Title: P	resent: Adva	nced Topics In Ar	tificial Intellige	nce		
	roposed:					
Abbreviated C	ourse Title (2	4 Spaces or Less. O	nly needed for N	ew Courses or T	itle Changes.):	
and state-of-t	anced topics :he-art paper	of current interes	t in the field of acting topical re	esearch projec	lligence. This course inv its including design, imp	olves reading seminal elementation,
5. If course requir	es field trip c	heck box: 🔲				
6. Credit Hours:	Present:	Lecture 3.0 Lab 0	0.0 Total 3.0			
	Proposed:	Lecture t	.ab Tota	al		
		omp Sci 348 or Cp				
Proposed: A	C or higher f	or one of Cmp Sci	347, Comp Sci	348 or CpE 35	<b>58</b>	
8. Required for M	iajors: 🗌	Elective for N	∕Iajors: 🏻			
9. Justification: T	o ensure suffic	cient mastery of th	e prerequisite co	urse content.		
10. Semesters pro	eviously offer	ed as an experim	ental course (10	)1, 201, 301, 4	:01):	
11. List all co-liste	ed courses, in	itialed by Dept. C	hair, if signature	e does not app	pear below.	
		3)		5)		
2)		4) <sub>(</sub> )		6)		•
Recommended by D	epartment	Chair signature)				
Recommended by D	scc	Chair signature)		U 11		Date: 1/17/2013_
Approved by Curric	ula Committee					Date:
,,		(Chair signature)				Data.
Approved by Facult	y Senate:	(Chair signature)				Date:
		/				

From: 573 341 4362 Page: 3/24 Date: 1/18/2013 4:33:00 PM

cc File # 8355-2012 - Comp Sci - 448-32

This form is for creating or modifying permanent courses.    Course Changes   Check all changes.	Effective Year: 2013 Effective	re Term: Summer 💹 🛚 F	Fall 🔀 Spring 🔲			
New Course   Course Deletion   Credit Hours   Prerequisites   Course Title   Catalog Description   Course Number   Co-listing    Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.)  1. Department: Computer Science  2. Discipline and Course Number: Present: Comp Sci 448   Proposed:  3. Course Title: Present: Advanced Evolutionary Computing   Proposed:  Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):  4. Catalog Description (360 character spaces or less.)   Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing.   Proposed:  5. If course requires field trip check box:						
Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.)  1. Department: Computer Science  2. Discipline and Course Number: Present: Comp Sci 448  Proposed:  3. Course Title: Present: Advanced Evolutionary Computing Proposed:  Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):  4. Catalog Description (360 character spaces or less.)  Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing.  Proposed:  5. If course requires field trip check box:   6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0  Proposed: Lecture Lab Total  7. Prerequisites:  Present: Cmp Sci 348  Proposed: A C or higher for Cmp Sci 348  Required for Majors:   9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3 5	New Course Cou	urse Deletion 🔲	<del></del> _	, <u> </u>		
1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 448 Proposed: 3. Course Title: Present: Advanced Evolutionary Computing Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing. Proposed: 5. If course requires field trip check box:  6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Proposed: Lecture Lab Total 7. Prerequisites: Present: Cmp Sci 348 Proposed: A C or higher for Cmp Sci 348 8. Required for Majors:  9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 1) 3) 5)  Chair signature Date:	_	<del>-</del>	<del></del>	-		
2. Discipline and Course Number: Present: Comp Sci 448 3. Course Title: Present: Advanced Evolutionary Computing Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):  4. Catalog Description (360 character spaces or less.) Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing. Proposed:  5. If course requires field trip check box:  6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Proposed: Lecture Lab Total  7. Prerequisites: Present: Cmp Sci 348 Proposed: A C or higher for Cmp Scl 348  8. Required for Majors:  9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3) 5)  2) 4) 6)  Recommended by Department Date: Chair signature Chair signature Chair signature Date: Date: Lity 2.013  Chair signature Chair signature Date: Date: Lity 2.013  Date: Lity 2.013  Date: Lity 2.013			ve "Proposed" items blank if	no change is being made.)		
3. Course Title: Present: Advanced Evolutionary Computing Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):  4. Catalog Description (360 character spaces or less.) Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing. Proposed:  5. If course requires field trip check box: 6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Proposed: Lecture Lab Total  7. Prerequisites: Present: Cmp Sci 348 Proposed: A C or higher for Cmp Sci 348  8. Required for Majors:  Elective for Majors:  Elective for Majors:  9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 2) 4) 6)  Recommended by Department Chair signature Chair signature Date:      1/2/2013						
Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):  4. Catalog Description (360 character spaces or less.)  Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing.  Proposed:  5. If course requires field trip check box: □  6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0  Proposed: Lecture Lab Total  7. Prerequisites:  Present: Cmp 5ci 348  Proposed: A C or higher for Cmp 5cl 348  8. Required for Majors: □ Elective for Majors: ▷  9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3) 5)  Chair signature  Chair signature  Chair signature  Date: □ 1/2/2013  Approved by Curricula Committee: □ Date: □ 1/2/2013			•			
Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.):  4. Catalog Description (360 character spaces or less.) Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing. Proposed:  5. If course requires field trip check box: Present: Lecture 3.0 Lab 0.0 Total 3.0 Proposed: Lecture Lab Total  7. Prerequisites: Present: Cmp Sci 348 Proposed: A C or higher for Cmp Sci 348 8. Required for Majors: Elective for Majors:  Semesters previously offered as an experimental course (101, 201, 301, 401):  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.  1) 3) 5) Chair signature Chair signature Chair signature Chair signature Chair signature Chair signature Date: 1/17/20/3  Date: 1/17/20/3  Date: 1/17/20/3  Date: 1/17/20/3  Date: 1/17/20/3		anced Evolutionary Con	nputing			
4. Catalog Description (360 character spaces or less.) Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing. Proposed:  5. If course requires field trip check box:  6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Proposed: Lecture Lab Total  7. Prerequisites: Present: Cmp Sci 348 Proposed: A C or higher for Cmp Scl 348  8. Required for Majors:  9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1)  2)  4)  Chair signature)  Date: 1/14/20/3  Chair signature)  Date: 1/14/20/3  Date: 1/14/20/3  Date: 1/14/20/3  Date: 1/14/20/3	'	Da Cunana ar Loce, Only ne	anded for New Courses or Tit	le Changes.):		
Present: Advanced topics in evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory, capable of solving complex problems for which other techniques fail. Students will conduct challenging research projects involving advanced concept implementation, empirical studies, statistical analysis and paper writing.  Proposed:  5. If course requires field trip check box: □  6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0  Proposed: Lecture Lab Total  7. Prerequisites: Present: Cmp Sci 348  Proposed: A C or higher for Cmp Sci 348  8. Required for Majors: □ Elective for Majors: ▷  9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3) 5)  Pate: □ Chair signature  Chair signature  Date: □ Chair signature  Date: □ Da			eded for New Courses of The			
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 Total 3.0 Proposed: Lecture Lab Total  7. Prerequisites: Present: Cmp Sci 348 Proposed: A C or higher for Cmp Sci 348  8. Required for Majors: Elective for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3) 5)  2) 4) 6)  Recommended by Department Chair signature Chair sig	Present: Advanced topics natural evolution theory, challenging research proje paper writing.	in evolutionary algorit capable of solving com	plex problems for which o	other techniques fail. Stude	ents will conduct	
Proposed: Lecture Lab Total  7. Prerequisites: Present: Cmp Sci 348 Proposed: A C or higher for Cmp Scl 348  8. Required for Majors: Elective for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3) 5) 2) 4) 6)  Recommended by Department Chair signature Ch	5. If course requires field trip	check box: 🗌				
7. Prerequisites: Present: Cmp Sci 348  Proposed: A C or higher for Cmp Scl 348  8. Required for Majors: Elective for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3) 5) 2) 4) 6)  Recommended by Department Chair signature (Chair signature)	6. Credit Hours: Present:	Lecture 3.0 Lab 0.0 To	otal <b>3.0</b>			
Present: Cmp Sci 348 Proposed: A C or higher for Cmp Sci 348  8. Required for Majors: Elective for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3) 5)  2) 4) 6)  Recommended by Department Chair signature Chair signature (101, 201, 301, 401):  11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.  1) 3) 5)  2) 4) 6)  Recommended by Department Date: Detection Date: Detect	Proposed:	Lecture Lab	Total		•	
8. Required for Majors:    9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1) 3) 5)  2) 4) 6)  Recommended by Department    Chair signature)    Chair signature)    Approved by Curricula Committee:    Date:    Date	•					
9. Justification: To ensure sufficient mastery of the prerequisite course content.  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.  1)  3)  5)  2)  Recommended by Department  Chair signature  Chair signature  Chair signature  Chair signature  Date: 1/7/20/3  Approved by Curricula Committee:  Date:	Proposed: A C or higher					
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.  1) 3) 5)  2) 4) 6)  Recommended by Department Chair signature Date: Dete: 1/17/2013  Approved by Curricula Committee: Date:	8. Required for Majors: 🗌	Elective for Major	rs: 🔀			
11. List all co-listed courses, initialed by Dept. Chair, if signature does not appear below.  1) 3) 5)  Recommended by Department  Chair signature  Chair signature  Chair signature  Chair signature  Date: 1/17/2013  Approved by Curricula Committee:  Date:	9. Justification: To ensure suff	icient mastery of the prer	requisite course content.			
1) 3) 5)  2) 4) 6)  Recommended by Department Chair signature)  Recommended by DSCC Date: Detect 1/14/2013  Chair signature)  Approved by Curricula Committee: Date: Dat	10. Semesters previously offe	red as an experimental	course (101, 201, 301, 40	1):		
Recommended by Department  Chair signature)  Recommended by DSCC  Chair signature)  (Chair signature)  Approved by Curricula Committee:  Date: 1/17/20/3				ar below.		
Recommended by DSCC	2)	4)	6)			
(Chair signature)  Approved by Curricula Committee:	Recommended by Department	Chair signature)		D	late: Dep 21, 12	
Approved by Curricula Continuities.	Recommended by DSCC	(Chair signature)			hate: 1/17/2013	
(Citat agracule)	Approved by Curricula Committee	e:(Chair signature)	<u> </u>	F	)ate:	
Approved by Faculty Senate:	Approved by Faculty Senate:	(Chair signature)			Pate:	

From: 573 341 4362 Page: 4/24 Date: 1/18/2013 4:33:00 PM

cc File # 8356-2012-CompSci-456-32

Effective Year: 2013	Effective Term: Summer	Fall 🔀 Spring 🔛				
Course Change Form (CC)  This form is for creating or modifying permanent courses.						
Course Changes (Chec		<b>6</b> 10 0 0 0 0 □	0			
New Course	Course Deletion	Credit Hours	Prerequisites 🔀			
Course Title	Catalog Description	Course Number 🛄	Co-listing			
	ections 1-9 must be completed. Les	ave "Proposed" items blank i	f no change is being made.)			
1. Department: Com						
2. Discipline and Cou	rse Number: Present: Comp Sc	i <b>456</b> Proposed:				
3. Course Title: Pres	ent: Theory Of Compiling					
•	osed:		.,			
	rse Title (24 Spaces or Less. Only n	eeded for New Courses or Tit	tle Changes.):			
Present: Propert syntax-directed	parsing, classes of parsing meth	ods, and properties of the	reserving transformations of gramme grammars for which they are suit abal program optimization method	ed, control		
5. If course requires	field trip check box: 🗌					
6. Credit Hours: P	resent: Lecture 3.0 Lab 0.0 T	otal <b>3.0</b>				
Р	roposed: Lecture Lab	Total				
7. Prerequisites: Present: <b>Cmp Sc</b>	i 356					
Proposed: A C o	r higher for Cmp Sci 356					
8. Required for Majo	ors: Elective for Majo	rs: 🔯				
9. Justification: <b>To e</b>	nsure sufficient mastery of the pre	requisite course content.				
10. Semesters previo	ously offered as an experimenta	l course (101, 201, 301, 40	1):			
11. List all co-listed o	ourses, initialed by Dept. Chair, 3)	if signature does not appe 5)	ear below.			
2)	4) 1	6)				
Recommended by Depa	artment (Chair signatute)		Date: Da	2/1/2		
Recommended by DSCO	2) and Fail		Date:	14/2013		
	(Chair signature)		Date:			
Approved by Curricula	Committee:(Chair signature)	<u> </u>		a a		
Approved by Faculty Se	nate:		Date:			
	(Chair signature)					

From: 573 341 4362 Page: 5/24 D

Date: 1/18/2013 4:33:01 PM

CC File # 8357 -2012 - CompSci - 458-32

Effective Term: Summer 🔲 Fall 🔀 Spring 🗌 Effective Year: 2013 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Prerequisites 🖂 Course Deletion 🔲 Credit Hours New Course Co-listing Course Number Catalog Description Course Title Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 458 Proposed: 3. Course Title: Present: Computer Graphics And Realistic Modeling Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Algorithms, data structures, software design, and strategies used to achieve realism in computer graphics of three-dimensional objects. Application of color, shading, texturing, antialiasing, solid modeling, hidden surface removal, and image processing techniques. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0.0 Total 3.0 6. Credit Hours: Present: Total Lab Proposed: Lecture 7. Prerequisites: Present: Cmp Sci 358 Proposed: A C or higher for Cmp Sci 358 Elective for Majors: 🖂 8. Required for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 5) 1) 3) 2) Recommended by Department (Chair signatur) Recommended by DSCC (Chair signature) Date: Approved by Curricula Committee: (Chair signature) Date:\_ Approved by Faculty Senate:\_ (Chair signature)

From: 573 341 4362 F

Page: 6/24

CC File # 8358-2012 - Comp Sci- 461-32

Effective Year: 2013	Effective Term: Summer	🔲 Fall 🔯 Spring 🗀	·	
		rse Change Form ( creating or modifying perma	<del>,</del>	
Course Changes (Chec New Course Course Course Title Cours	Course Deletion 🗌	Credit Hours  Course Number	Prerequisites ⊠ Co-listing □	
·	,	— d. Leave "Proposed" items blank i	f no change is being made.)	
1. Department: Com				
2. Discipline and Cou	ırse Number: Present: Com	ip Sci 461 Proposed:		
3. Course Title: Pres	ent: Privacy Preserving Dat	ta Integration and Analysis		
	oosed:			
Abbreviated Cou	ırse Title (24 Spaces or Less. O	nly needed for New Courses or Ti	tle Changes.):	
Present: This co	s in a distributed environme	tatistics and cryptography, co ent as well as recent advances	mmonly used to design privacy-preserving a in the field of privacy-preserving data analy nplete a course project on a relevant topic o	ysis,
5. If course requires	field trip check box: 🔲			
	Present: Lecture 3.0 Lab (Proposed: Lecture	0.0 Total 3.0 Lab Total		
	ci 338 and Comp Sci 262 or higher for both Cmp Sci 3	338 and Comp Sci 262		
8. Required for Majo				
•	<b>,</b>	e prerequisite course content.		
		ental course (101, 201, 301, 4	01):	
		hair, if signature does not app 5)		
2)	4)	6)		
Recommended by Dep	partment (Chair signature)		Date: Dec_21, 12	. <u> </u>
Recommended by DSC	C <u>Lawel</u> Kinds (Chair signature)	,	Date:	<u></u>
Approved by Curricula	Committee:		Date:	—
Approved by Faculty S	(Chair signature)		Date:	_
White see my inequal o	enate:(Chair signature)			

From: 573 341 4362		I/18/2013 4:33:01 PM	
	CC File #	8359-2012-Comp Sci-46	<u> چې</u>
Effective Year: 2013 Effective Term: Summer	Fall 🔯 Spring 🗌		
Course	Change Form	(CC)	
This form is for crea	ating or modifying pern	nanent courses.	
Course Changes (Check all changes.)  New Course Course Deletion	Credit Hours 🔲	Prerequisites 🔀	
Course Title Catalog Description	Course Number 🔲	Co-listing [	
Course Information (Sections 1-9 must be completed. Lea	ave "Proposed" items blan	k if no change is being made.)	
1. Department: Computer Science			
2. Discipline and Course Number: Present: Comp Sci	i 465 Proposed:		
3. Course Title: Present: Advanced Topics in Wireles	ss Networks		
Proposed:			
Abbreviated Course Title (24 Spaces or Less. Only no	eeded for New Courses or	Title Changes.):	
4. Catalog Description (360 character spaces or less.) Present: Introduces the fundamentals and recent networks, wireless and mobile ad hoc networks, focus on network operation. Special topics select addressed. Proposed:	, wireless mesh networ	ks, sensor networks and wireless LANs witi	ha
5. If course requires field trip check box:			
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 To	otal <b>3.0</b>		
Proposed: Lecture Lab	Total		
7. Prerequisites: Present: Cmp Sci 365 or equivalent			
Proposed: A C or higher for Cmp Sci 365 or equi	ivalent		
8. Required for Majors: Elective for Major	rs: 🖂		
9. Justification: To ensure sufficient mastery of the pre-	requisite course content.		
10. Semesters previously offered as an experimental	course (101, 201, 301,	401):	
11. List all co-listed courses, initialed by Dept. Chair, 1) 3)	if signature does not ap 5)	pear below.	
2) 4) (	6)		
Recommended by Department	<del></del> ,	pate: Det 21, 1	2_
Recommended by DSCC (Chair signature)			<i>813</i>
Approved by Curricula Committee:		Date:	
(Chair signature)			_
Approved by Faculty Senate:(Chair signature)	<u> </u>	Date:	<del>_</del>
(chair signature)			

Date: 1/18/2013 4:33:02 PM From: 573 341 4362 Page: 8/24 cc File # 8360-2012 - CompSc1-463-32 Effective Term: Summer 🗍 Fall 🔀 Spring 🦳 Effective Year: 2013 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 Co-listing Course Number Catalog Description Course Title Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 463 Proposed: 3. Course Title: Present: Computer Security Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: The course presents various vulnerabilities and threats to information in cyberspace and the principles and techniques for preventing and detecting threats, and recovering from attacks. The course deals with various aspects and layers of security: datalevel, network-level, system-level, and application-level security. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0.0 Total 3.0 Present: 6. Credit Hours: Total Lab Proposed: Lecture 7. Prerequisites: Present: Cmp Sci 265 and Comp Sci 325 Proposed: A C or higher for both Cmp Sci 263 and Comp Sci 325 Elective for Majors: 🖂 8. Required for Majors: 🗌 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 5) 3) 1) 2)

(Revised October 2012)

Date:

Date:

Recommended by Department

Approved by Curricula Committee:

Approved by Faculty Senate:\_

(Chair signature)

(Chair signature)

(Chair signature)

Recommended by DSCC

Date: 1/18/2013 4:33:02 PM From: 573 341 4362 Page: 9/24 cc File # 8361-2012-Comp Sti- 468-32 Effective Year: 2013 Effective Term: Summer Fall Spring 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 Co-listing Catalog Description Course Number Course Title Course Information (Sections 1-9 must be completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Computer Science 2. Discipline and Course Number: Present: Comp Sci 468 Proposed: 3. Course Title: Present: Advanced Network Security Proposed: Abbreviated Course Title (24 Spaces or Less. Only needed for New Courses or Title Changes.): 4. Catalog Description (360 character spaces or less.) Present: Topics covered include network security issues such as authentication, anonymity, traceback, denial of service, confidentiality, forensics, etc. in wired and wireless networks. Students will have a clear, in-depth understanding of state of the art network security attacks and defenses. Proposed: 5. If course requires field trip check box: Lecture 3.0 Lab 0.0 Total 3.0 6. Credit Hours: Present: Lab Total Proposed: Lecture 7. Prerequisites: Present: CpE 349 or Comp Sci 365 Proposed: A C or higher for either CpE 349 or Comp Sci 365 Elective for Majors: 🔀 8. Required for Majors: 9. Justification: To ensure sufficient mastery of the prerequisite course content. 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. 5) 1) 3) 2) Recommended by Department Recommended by DSCC

Date:\_\_\_

44/5/5017

Approved by Curricula Committee:

Approved by Faculty Senate:\_

(Chair signature)

			CC File #	8362-2012 -A	omp5ci-484~3
ffective Year: 2013	Effective Term: Sum	mer 🔲 🛭 Fall 🗵			•
	C	ourse Cha	nge Form	(CC)	
			r modifying perr	-	
ourse Changes (Chec New Course	k all changes.)  Course Deletion	Cred	dit Hours 🔲	Prerequisites 🖂	
Course Title	Catalog Descripti		rse Number 🔲	Co-listing	
Course Information (S	ections 1-9 must be comp	oleted. Leave "Pro	oposed" items bla	nk if no change is being mad	e.)
1. Department: Com					
2. Discipline and Cou	rse Number: Present:	Comp Sci 484	Proposed:		
3. Course Title: Prese	ent: Distributed Syster	ns Theory And	Analysis		
Prop	osed:				
Abbreviated Cou	rse Title (24 Spaces or Le	ss. Only needed t	for New Courses o	r Title Changes.):	
Present: Analysi	n (360 character spaces of steep of the problems of steep Hoare Logic, Tempora	ate maintenand	ce and correctne nbolic Model Ch	ss in concurrent computi ecking	ng systems using formal
5. If course requires	field trip check box: 🗌				
6. Credit Hours: P	resent: Lecture 3.0	Lab <b>0.0</b> Total <b>3.</b>	0		
P	roposed: Lecture	Lab	Total		
7. Prerequisites: Present: Comp 9	ici 384				
Proposed: A C o	r higher for Comp Sci 3	384			
8. Required for Majo	rs: Elective	for Majors: 🔀			
9. Justification: To e	nsure sufficient mastery	of the prerequisi	te course content	•	
10. Semesters previo	ously offered as an expe	erimental cours	e (101, 201, 301,	, 401):	
	courses, initialed by De	ot. Chair, if sign	ature does not a	ppear below.	
1)	3) 4)   )		5) 6)		
2)	NO 1	····	٠,		- De621 15
Recommended by Depa	artment (Chair signature				Date: Def 21, 12
Recommended by DSCC	(Chair signature	wife			Date: 1/17/2013
Approved by Curricula	Committee: (Chair signature	)			Date:
Approved by Faculty Se	nate:(Chair signature		<u> </u>	<u></u>	Date:

Page: 10/24

Date: 1/18/2013 4:33:02 PM

From: 573 341 4362

From: 5/3 341 4362	Page: 11/24 Date: 1	718/2013 4:33:03 PM ? <b>363 - 2013 - Con</b>	no.Scj-487-32
Effective Year: 2013 Effective Term: Summer	Fall Spring		Pos
Course	Change Form	(CC)	
	ating or modifying perm		
Course Changes (Check all changes.)  New Course Course Deletion	Credit Hours 🗌	Prerequisites 🛚	
Course Title Catalog Description	Course Number 🗌	Co-listing	
Course Information (Sections 1-9 must be completed. Le	ave "Proposed" items blank	if no change is being made.)	
1. Department: Computer Science			
2. Discipline and Course Number: Present: Comp Sc	i <b>487</b> Proposed:		
3. Course Title: Present: New Trends In Massively F	arallel Computing		
Proposed:			
Abbreviated Course Title (24 Spaces or Less. Only n	eeded for New Courses or	Title Changes.):	
4. Catalog Description (360 character spaces or less.) Present: Introduction of parallel and distributed present research papers selected from the curre presentation are required.	d computing fundament ent literature and P&D co	als and advanced research omputing paradigms. A ter	topics. Students m paper and oral
Proposed:			
5. If course requires field trip check box:			
6. Credit Hours: Present: Lecture 3.0 Lab 0.0 7	Total		
Proposed: Lecture Lab 7. Prerequisites: Present: Comp Sci 387 or equivalent backgroun			
Proposed: A C or higher for Comp Sci 387 or eq	uivalent background		
8. Required for Majors: Elective for Majo	rs: 🔀		
9. Justification: To ensure sufficient mastery of the pre	requisite course content.		
10. Semesters previously offered as an experimenta	l course (101, 201, 301, 4	01):	
<ul><li>11. List all co-listed courses, initialed by Dept. Chair,</li><li>1)</li><li>3)</li></ul>	if signature does not app 5)	pear below.	
2) 4) ( )	6)		
Recommended by Department (Chail signalure)	· · · · · · · · · · · · · · · · · · ·		Date: Del 21, 12
Recommended by DSCC			Date: 1/17/2013
Approved by Curricula Committee:(Chair signature)			Date:
Approved by Faculty Senate:	<u> </u>		Date:
(Chair signature)			

From: 573 341 4362 Page: 11/24 Date: 1/18/2013 4:33:03 PM

From: 573 341 4362 Pa

Page: 12/24

Date: 1/18/2013 4:33:03 PM

CC File # 8364-2012-Comp Sui -431-10

ffective Year: 2013	Effectiv	e Term: <b>Summ</b> e	er 🗌 Fa	ll 🗵 Spring 🗌			•	
				hange Form		ourses.		
Course Changes (Che	ck all chang	ges.)	ı	- ··· · · · · · · · · · · · · · · · · ·	_	<b>.</b>	<u> </u>	
New Course 🖂				Credit Hours 🗌			Ш	
				Course Number 🗌				
<u>Course Information</u> (			ted. Leave	"Proposed" items blar	nk if no ch	nange is being i	madė.)	
1. Department: Con	nputer Sci	ence						
2. Discipline and Cou	urse Numb	er: Present:		Proposed: Comp Sci	i 431			
3. Course Title: Pres	sent:						·	
Proj	posed: <b>Pe</b>	rvasive Computi	ing					
Abbreviated Cou	urse Title (2	24 Spaces or Less.	Only need	led for New Courses or	r Title Cha	inges.):		
4. Catalog Description Present:	on (360 cha	racter spaces or le	ess.)					
Proposed: Perva not need to be a computing, such	aware of c	omputing artifac	cts. This c	ourse will introduce	ng with o e various	ur everyday techniques r	activities, so that people needed to realize pervas	≥ do :ive
5. If course requires	field trip o	:heck box: 🗌						
6. Credit Hours: P	resent:	Lecture	Lab	Total				
P	Proposed:	Lecture 3.0 Lab	<b>0.0</b> Tota	al <b>3.0</b>				
7. Prerequisites: Present:								
Proposed: A C o	or higher ir	n either Comp Sc	i 365 or (	Comp Eng 319				
8. Required for Majo	ors: 🔲	Elective for	Majors:	$\boxtimes$				
9. Justification: This	course is a	ligned with the de	epartmen	tal strategic plan. It re	eceived po	sitive comme	nts from students.	
10. Semesters previ	ously offer	ed as an experin	nental co	urse (101, 201, 301,	. 401): FS	2011,FS2012	!	
11. List all co-listed (	courses, in	itialed by Dept. (	Chair, if s	ignature does not ap 5)	ppear bel	low.		
2)		4) (		6)				
Recommended by Dep	artment	10	<u> </u>				Date: DU 28,12	<u>2</u>
Recommended by DSC	c <u></u>	(Chair signature)  (Chair signature)	<del></del>				Date: 1/17/20	<u>/3</u>
Approved by Curricula	Committee	(Chair signature)				100	Date:	<del></del>
Approved by Faculty Se	enate:	(Chair signature)	ua.			***	Date:	_

From: 573 341 4362 Page: 13/24 Date: 1/18/2013 4:33:04 PM

				EC# ⊋ \$∕	49 <del>-</del> 55	' २०१३	-ma4-4
Effective Year: 2013	Effective Term:	Summer 🔀	Fall 🔲	Spring 🗌			
	Experi	mental C	ours	e Form	(EC)		,
An EC form must be so or later allow the cou experimental course number.	irse to be offered t	wice at any tim	e during	the followi	ng three ye	ar period.	After an
A new course that is a CC form to receive a	•		am, min	or, or gradu	ate certific	ate may be	submitted on
Co-listed offerings sh	ould be submitted	on one form, o	riginatin	ig from the	prim <b>a</b> ry dis	cipline.	
Department: Mathe	matics & Statistics						
Discipline and Course	Number: Math 4	01					
Course Title: Mather	natical Dynamical	Systems					ı
Abbreviated Title (24	spaces or less): M	ath Dynamical	Systems	5			
Instructor(s): Robert	Roe						
Credit Hours: Lecture	e 3 Lab 0	Total 3					•
Prerequisites: Math	311 or equivalent						
Semester(s) previous	ly taught: Never						
Brief Course Descript	ion (360 character	spaces or less):	An intr	roduction to	mathema	tical ideas	used in the
study of dynamical s	ystems. Topics inc	lude, fun <i>c</i> tiona	ıl iterati	on, contrac	tion mappi	ings, symb	olic dynamics,
subshifts of finite typ	e, topological con	ugacy, omega	limit se	ts, transitiv	ity and top	ological er	tropy.
List all co-listed cours	es: Include initials 3)	of Department 5)	Chair, if	signature is	not alread	y includ <b>ed</b>	below.
2)	4)	6)					

(Revised October 2012)

Date:

Recommended by Department:

Approved by Curricula Committee:

From: 573 341 4362 Page: 14/24 Date: 1/18/2013 4:33:04 PM EC File # 2453-552013-6008-Effective Year: 2013 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. <i>Co-listed offerings</i> should be submitted on one form, originating from the primary discipline.							
Department: Geo	ological Science and Eng	ineering	J				
Discipline and C	ourse Number: GE 301						
Course Title: Soi	l Mechanics for GeoProfe	ssionals	3				
Abbreviated Title	e (24 spaces or less):	Geo Soi	il Mech				
Instructor(s): Ro	onaldo Luna						
Credit Hours:	Lecture: 3	Lab:	0	Total:			
Prerequisites:	A course in Statics and	Mechani	ics of M	laterials or cons	ent of instr	uctor	
Semester(s) pre	viously taught: SS 201	2 as a (	GE300	Special Topics	class		
The basic principle geoconstruction. T index properties, v	scription: (40 words of s of soil mechanics neces opics related to the prace water flow through soils, Il be applied to real work	ssary fo tical as compac	pects o	f engineering in ompressibility, a	iclude: soil c	lassificat	
This course is for o	distance ed./ Fort Leonai	d Wood	gradu	ate students on	ly.		
List all co-listed 1)	courses: Include initial 2)	s of Dep	ot. Chai	r, If signature is 3)	not already	/ include	d below.
4)	5)			6)			
Department Chair	glube	May		Sal M 10 Signature	<u> </u>		Decy   12-
Discipline Specific	Curricula Committee:	-44-7	Chair s	signature)		Date:	712-17-13
Curricula Committ	ee:	(1	Chair S	ignature)	<del></del>	Date: _	
12/04/12						(R	evised 1/31/2008)

From: 573 341 4362 Page: 15/24 Date: 1/18/2013 4:33:04 PM

Effective Year: 2013 Effective Term: Summer 🔲

Fall 🖾

Spring 🔲

EC File # 2454- F5 2013 ~ Geo E-301

## **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.

<b>Department</b> : Geo	ological Sciences and Eng	gineering		
Discipline and Co	ourse Number: GE 301	٠,		
Course Title: Fun	damentals of Groundwa	ter Hydrology		
Abbreviated Title	e (24 spaces or less):	Groundwater Hyd	trology	
<b>Instructor(s):</b> Ca	awlfield			
Credit Hours:	Lecture: 3	Lab: 0	Total: 3	
Prerequisites:	Permission of instructor	•		
Semester(s) pre	viously taught: Previou	usly taught in FS	2012	
emphasis on pract professionals. Top ntercconnection, l contaminant trans professionals from will be at a basic le	us on fundamental analytical geo-environmental aics will include general hoasic groundwater flow aport. This class is intenda wide variety of acade evel and the focus is on courses: Include initial	and subsurface hy lydrology, surface and well test anal- led to be taught a mic backgrounds a general undersi	ydrology issues of inte e and subsurface hydro ysis, and a brief introd is a distance class to v ; therefore, the mathe tanding of groundwate	erest to working ologic duction to working ematical complexity er hydrology.
4)	5)		6)	
Department Chair:	- Nuk	1 My/	gnature) My	Date: 1/12 2013
Discipline Specific	Curricula Committee:	Shair sig	nature)	Date: JANIT 2013
Curricula Committ	ee:	(Chair Sig	nature)	_ Date:
12/04/12				(Revised 1/31/2008)

Page: 16/24

Date: 1/18/2013 4:33:05 PM

		EC# 2455 - FS2013-Conyp Sci-401	,
Effective Year: 2013	Effective Term:	Summer  Fall  Spring	

## **Experimental Course Form (EC)**

An EC form must be submitted before an experimental course is to be offered. EC forms approved Spring 2009 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: Comp Sci 401

Course Title: Network Information Analysis

Abbreviated Title (24 spaces or less): Network Info Analysis

Instructor(s): Maggie Cheng

Credit Hours: Lecture 3.0 Lab 0.0 Total 3.0

Prerequisites: A C or higher for both Comp Sci 325 and Comp Sci 365

Semester(s) previously taught: SP 2013

Brief Course Description (360 character spaces or less): This course covers modeling techniques and analytical methods to study the interaction of information and networks. The two foci are (1) models and properties of network structures; (2) diffusion of information over networks. The expected outcomes are systematic inference of information encoded in network structures and effective methods to disseminate it.

List all co-liste	d courses: Include	initials of Department Chair, if sign	ature is not already included below.
1)	3)	5)	
2)	4)	<b>(4)</b>	
Recommended	by Department:	(Chair signature)	Date: DU 21, 12
Recommended	by DSCC:		Date: <u>i / 17/2013</u>
Approved by Co	urricula Committee:		Date:
		(Chair signature)	

Page: 17/24

Date: 1/18/2013 4:33:05 PM

EC#2456-182013-COMPSi-401 Summer Fall Spring Effective Year: 2013 Effective Term: **Experimental Course Form (EC)** An EC form must be submitted before an experimental course is to be offered. EC forms approved Spring 2009 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: Comp Sci 401 Course Title: Search-Based Software Engineering Abbreviated Title (24 spaces or less): Search-Based Softwre Eng Instructor(s): Marouane Kessentini Credit Hours: Lecture 3.0 Lab 0.0 Total 3.0 Prerequisites: A C or higher for either Comp Sci 347 or Comp Sci 348; a C or higher for Comp Sci 206 Semester(s) previously taught: F\$ 2012 Brief Course Description (360 character spaces or less): This course will introduce students to reformulating software engineering problems from the life-cycle, requirements engineering to testing and evolution, as search problems by adapting different meta-heuristic search algorithms. Topics covered during this course include evolutionary testing, cost/effort prediction, and multi-objective software management. List all co-listed courses: Include initials of Department Chair, if signature is not already included below. 5) 1) 3) 2) 4) Recommended by Department: Date: Approved by Curricula Committee: (Chair signature)

From: 573 341 4362 Page: 18/24 Date: 1/18/2013 4:33:05 PM

EC# 2457-F52013-Hist -201 Effective Year: 2013 Effective Term: Summer Fall Spring **Experimental Course Form (EC)** An EC form must be submitted before an experimental course is to be offered. EC forms approved Spring 2009 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: History & Political Science Discipline and Course Number: Hist 201 Course Title: History of Christianity Abbreviated Title (24 spaces or less): History of Christianity Instructor(s): Michael Bruening Total Credit Hours: Lecture 3 Lab Prerequisites: none Semester(s) previously taught: n/a Brief Course Description (360 character spaces or less): This course will examine the history of dominant faith of the West, from its origins in first century Palestine to the present day. It will explore the debates and events that have shaped Christianity, as well as the faith's impact on Western society and culture. List all co-listed courses: Include initials of Department Chair, if signature is not already included below. 5) 3) 1) 6) 4) 2)

Date: \_

(Revised October 2012)

Recommended by Department:

Approved by Curricula Committee:

Recommended by DSCC:

(Chair signature)

(Chair signature)

Date: 1/18/2013 4:33:06 PM Page: 19/24

EC# 2458-55 2013- Frenc

Effective Year: 2013 Effective Term: Summer Fall Spring

## **Experimental Course Form (EC)**

An EC form must be submitted before an experimental course is to be offered. EC forms approved Spring 2009 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:	ALP
-------------	-----

Discipline and Course Number: 301

Course Title: Representations of Violence in 20th-Century French Culture

Abbreviated Title (24 spaces or less): Violence in Fren Culture

Instructor(s): Audra Merfeld-Langston

Credit Hours: Lecture 3 Lab Total

Prerequisites: English 20

Semester(s) previously taught:

Brief Course Description (360 character spaces or less): This study abroad course explores representations of war and violence in 20th-century French literature, film, art, and music. Lectures, films, readings, and other course documents are supplemented with field trips to war sites in Paris and Normandy. Pre-departure activities required.

List all co-listed courses: Include initials of Department Chair, if signature is not already included below.

_	)	

3)

5)

2)

4)

Recommended by Department:

Recommended by DSCC:

Approved by Curricula Committee:

(Chair signature)

Date:

From: 573 341 4362 Page: 20/24 Date: 1/18/2013 4:33:06 PM

Effective Year: 2013 DC # クリソロー 2017 Effective Term: Summer □ Fall 図 Spring □ (Creating or modifying a degree program must be effective for a Fall term)	2-Min Eng 000-			
Degree Change Form (DC)				
This form is to be used for creating or modifying degree programs, emphasis areas, and n	ninors.			
Title of degree program, emphasis area, or minor: Master of Engineering (ME) in Mining Engineering				
Department: Mining and Nuclear Engineering				
Briefly describe action requested (Attach documentation as appropriate):				
Additional policies for the ME program distance education in Mining Engineering:				
<ul> <li>Applicants for the Master of Engineering (ME) in Mining Engineering program shall be exempt from providing GRE scores if he or she has at least 5 years of experience in the mining industry or any related field.</li> </ul>				
<ul> <li>Reduce the number of credit hours from 33 credits (11 courses) to 30 credits (10 courses) distributed as follows: 5 core courses, 4 technical electives and 1 design project</li> </ul>				
Recommended by Department: (Chair signature)	11/28/12			
Recommended by: Date: Discipline Specific Curricula Committee (Chair signature)	12-14-12			
Approved by Curricula Committee: Date: (Chair signature)				
Approved by Faculty Senate: Date: (Chair signature)	AND THE COURT OF T			

From: 573 341 4362 Page: 21/24 Date: 1/18/2013 4:33:06 PM 1/10/2010 ... CC File # 8307-2012 - Expens - 411-10 Effective Year: 2013 Spring 🔲 Term: Summer 🗌 Fall 🖂 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) New Course 🖂 Course Deletion Credit Hours Prerequisites 🔲 Course Title 🗌 Course Number 🔲 Co-listing 🛛 Catalog Description 🔲 Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Mining and Nuclear Engineering 2. Discipline and Course Number: Proposed: Exp Eng 411 3. Course Title: Present: Proposed: Research Methods Abbreviated Course Title: (24 Spaces or Less. Only needed for New Courses or Title Changes.) 4. Catalog Description (300 Character Spaces or Less.) Present: Mining 411 **Proposed:** Foundations, dimensions, and methods for designing and investigating research problems. Focus on fundamental and applied research, research methods, literature review, experimental design and experimentation, disertation composition, concepts of originality and interlectual property. 5. If course requires field trip check box: 6. Credit Hours: Present: Lecture: Lab: Total: Total: 3 Proposed: Lecture: 3 Lab: 0 7. Prerequisites: Present: **Proposed:** Graduate Standing 8. Required for Majors: 🔲 Elective for Majors: 🛛 We would like to co-list with Mining 411 research methods. It has become apparent 9. Justification: that the masters of explosives engineering by research students need to take the class and we will be also including this for our PhD in explosives engineering in application as a required class. Dr. Baird (mining and explosives) has currently reworked min 411 and will teach onsite and distance. 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. 1) Mining 411 54 4) 5) Recommended by Department (Chair signature) Recommended by Discipline Specific Curricula Committee (Chair signature) Date: \_\_ Approved by Curricula Committee: \_ (Chair signature) Date: \_\_\_\_ Approved by Faculty Senate: \_ (Chair signature)

Date: 1/18/2013 4:33:07 PM 1/18/2010 - ..... CC File # 8425 - 2012 - Min Eng 476 - 10 From: 573 341 4362 Page: 22/24 Effective Year: 2013 Spring 🗌 Fall 🖾 Term: Summer 🗌 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Prerequisites  $\square$ Credit Hours New Course 🖾 Course Deletion Catalog Description Course Number Co-listing 🔲 Course Title 🗌 Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Mining and Nuclear Engineering Proposed: Mi Eng 476 2. Discipline and Course Number: 3. Course Title: Present: Proposed: Sustainability in Mining Abbreviated Course Title: Sus In Mining (24 Spaces or Less. Only needed for New Courses or Title Changes.) 4. Catalog Description (300 Character Spaces or Less.) Present: Proposed: Sustainability defined: social, economic & environmental impacts. Mining as sustainable development interventions. Mine planning for sustainability, sustainability assessment & reporting, sustainable mine closure & post-mining land use. Case studies. 5. If course requires field trip check box:  $\Box$ Lab: Total: Lecture: Present: 6. Credit Hours: Proposed: Lecture: 3 Lab: 0 Total: 3 7. Prerequisites: Present: Proposed: Mi Eng 376 or instructor consent Elective for Majors: 8. Required for Majors: 🛛 This course is a core requirement of the Master of Engineering degree program in 9. Justification: Mining Engineering. 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. 1) 2) 3) 5) 4) Date: \_11-14 -17\_ Recommended by Department . (Chair signature) Date: /2-/9-/~ Recommended by Discipline Specific Curricula Committee (Chair signature) Date: \_\_\_\_\_ Approved by Curricula Committee: \_ (Chair signature) Date: \_\_\_\_

(Chair signature)

Approved by Faculty Senate: \_\_\_

Date: 1/18/2013 4:33:07 PM 1/18/2010 4.00...
CC File # 8426-2012 - Min Eng
424-10 From: 573 341 4362 Page: 23/24 Effective Year: 2013 Fall 🖾 Spring 🗌 Term: Summer 🗌 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Credit Hours Prerequisites Course Deletion New Course 🛛 Co-listing Catalog Description Course Number Course Title 🗍 Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Mining and Nuclear Engineering 2. Discipline and Course Number: Proposed: Mi Eng 424 3. Course Title: Present: Proposed: Underground Mine Design Abbreviated Course Title: Und Mine Des (24 Spaces or Less. Only needed for New Courses or Title Changes.) 4. Catalog Description (300 Character Spaces or Less.) Present: Proposed: This course will focus on the determinants of underground mine design, geomechanical mine design for underground mining; mine optimization; mine environmental systems; and underground mine design and optimization. 5. If course requires field trip check box:  $\square$ Lab: Total: Lecture: Present: 6. Credit Hours: Total: 3 Proposed: Lecture: 3 Lab: 0 7. Prerequisites: Present: Proposed: Mi Eng 324 or Equivalent 8. Required for Majors: 🖾 Elective for Majors: This course is a core requirement of the Master of Engineering degree program in 9. Justification: Mining Engineering. 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. 2) 3) 1) 4) 5) Date: <u>14-14-12</u> Recommended by Department (Chair signature) Date: 12-19-12 Recommended by Discipline Specific Curricula Committee (Chair signature) Date: \_\_\_\_\_ Approved by Curricula Committee: \_ (Chair signature) Date: \_\_\_

(Chair signature)

Approved by Faculty Senate: \_\_\_\_

CC File # 8427-2012 - Min leng 426-10 Effective Year: 2013 Fall 🖾 Spring 🗀 Term: Summer 🗌 Course Change Form (CC) This form is for creating or modifying permanent courses. Course Changes (Check all changes.) Prerequisites 🗌 Course Deletion  $\square$ Credit Hours New Course 🛛 Catalog Description 🗌 Course Number Co-listing Course Title Course Information (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.) 1. Department: Mining and Nuclear Engineering 2. Discipline and Course Number: Present: Proposed: Mi Eng 426 3. Course Title: Present: Proposed: Surface Mine Design Abbreviated Course Title: Surf Mine Des (24 Spaces or Less. Only needed for New Courses or Title Changes.) 4. Catalog Description (300 Character Spaces or Less.) Present: Proposed: This course will focus on the determinants of surface mine design, geomechanical and geometrical mine design for open pit and strip mining; mine layouts optimization; mine environmental systems; and research directions in surface mine design and optimization. 5. If course requires field trip check box:  $\Box$ Total: Lab: Present: Lecture: 6. Credit Hours: Total: 3 Lab: 0 Proposed: Lecture: 3 7. Prerequisites: Present: Proposed: Mi Eng 326 or Equivalent 8. Required for Majors: 🛛 Elective for Majors: 🔲 This course is a core requirement of the Master of Engineering degree program in 9. Justification: Mining Engineering. 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. 2) 1) 5) 4) Date: 11-14-12 Recommended by Department— (Chair signature) Date: <u>/ユィ</u>タ- , Z Recommended by Discipline Specific Curficula Committee (Chair signature) Date: \_\_\_\_\_ Approved by Curricula Committee: \_ (Chair signature) Date: \_\_\_\_\_ Approved by Faculty Senate: \_ (Chair signature)

Page: 24/24

From: 573 341 4362

Date: 1/18/2013 4:33:07 PM