



**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.



- 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.



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.



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.



**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.

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: \_\_\_\_\_

(Chair signature)

Date: Dec 19, 12

Recommended by DSCC: \_\_\_\_\_

(Chair signature)

Date: 1/17/2013

Approved by Curricula Committee: \_\_\_\_\_

(Chair signature)

Date: \_\_\_\_\_

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

(Chair signature)

Date: \_\_\_\_\_

Revised November 2012

Effective Year: 2013

Effective Term: Summer ☐ Fall X Spring ☐

(Creating or modifying a degree program must be effective for a Fall term)

DC # 0444-2013-ARCH-

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:**

Bachelor of Science in Architectural Engineering

**Department:** Civil, Architectural & Environmental Engineering

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

Revise the Technical Electives in the Undergraduate Degree Program to reflect the following (see attached document – Appendix A)

Recommended by Department: \_\_\_\_\_

(Chair signature)

Date: \_\_\_\_\_

Recommended by: \_\_\_\_\_

Discipline Specific Curricula Committee

(Chair signature)

Date: \_\_\_\_\_

Approved by Curricula Committee: \_\_\_\_\_

(Chair signature)

Date: \_\_\_\_\_

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

(Chair signature)

Date: \_\_\_\_\_

## Appendix A

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

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



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, emphasis 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 Innovation (3 credits).**

**(BUS 396 will be planned for the second semester of the Senior Year; this will be illustrated on a separate DC Form with Catalog Changes - to be submitted.)**

Recommended by Department:



(Chair signature)

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: \_\_\_\_\_

DC # 0446-2013-BUS-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 Business and Management Systems**

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 Innovation (3 credits).**

**(BUS 396 will be planned for the second semester of the Senior Year; this will be illustrated on a separate DC Form with Catalog Changes - to be submitted.)**

Recommended by Department: \_\_\_\_\_

(Chair signature)

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: \_\_\_\_\_

Revised November 2012

Effective Year: 2013

Effective Term: Summer ☐ Fall ☒ Spring ☐

(Creating or modifying a degree program must be effective for a Fall term)

DC # 0447-2013-ELON-  
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: Greg Gilles  
(Chair signature)

Date: 1/4/13

Recommended by: Chris Haddock  
Discipline Specific Curricula Committee (Chair signature)

Date: 1/18/13

Approved by Curricula Committee: \_\_\_\_\_  
(Chair signature)


Date: \_\_\_\_\_

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

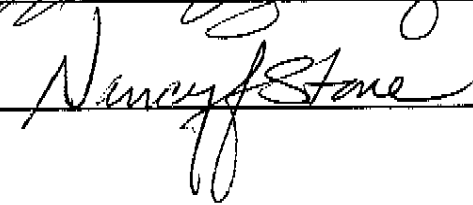
Date: \_\_\_\_\_

Recommended by Department:   
(Civil Engineering)

Date: 1/14/13

Recommended by Department:   
(History)

Date: 1-10-13

Recommended by Department:   
(Psychology)

Date: 1/14/13

DC # 0448-2013-BUS-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:  
**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: <u>1/15/2013</u>
(Chair signature)	
Recommended by DSCC: _____	Date: <u>1/16/2013</u>
(Chair signature)	
Approved by Curricula Committee: _____	Date: _____
(Chair signature)	
Approved by Faculty Senate: _____	Date: _____
(Chair signature)	

0449-2013-IST-000-00  
DC #

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:

  
(Chair signature)

Date: 12/24/12

Recommended by DSCC:

  
(Chair signature)

Date: 1/8/13

Approved by Curricula Committee:

(Chair signature)

Date: \_\_\_\_\_

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

CC File # 8314 - 2012 - Comp Sci - 128-3d

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 128** Proposed:3. Course Title: Present: **Discrete Mathematics For Computer Science**

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 rigorous treatment of topics from discrete mathematics which are essential to computer science. Principal topics include: formal logic (propositional & predicate), proof techniques, mathematical induction, program correctness, sets, combinatorics, probability, relations, functions, matrices, graph theory and graph algorithms.**

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 53 or at least sophomore standing**Proposed: **A C or higher for Comp Sci 53 or at least sophomore standing**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: 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: \_\_\_\_\_

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.)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 206** Proposed: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**

Proposed: Lecture Lab Total

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**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: *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: \_\_\_\_\_



CC File # *8316-2012-Comp Sci-220-32*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 220** Proposed:3. Course Title: Present: **Theory of Computer Science**

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 will cover the theoretical underpinnings of computer science. In particular, this course will cover the following topics: basic computability and formal language concepts, regular languages, context free languages, recursively-enumerable languages, and classes P, NP, and NP-completeness.**

Proposed:

5. If course requires field trip check box: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0** Total **3.0**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **Comp Sci 128 and Comp Sci 153**Proposed: **A C or higher in <sup>BOTH</sup> Comp Sci 128 and Comp Sci 153**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: *Dec 31, 12*

Recommended by DSCC

(Chair signature)

Date: *1/17/2013*

Approved by Curricula Committee:

(Chair signature)

Date: \_\_\_\_\_

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

CC File # *8317-2012 - Comp Sci - 228-32*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 228** Proposed:3. Course Title: Present: **Introduction To Numerical Methods**

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: **Finite difference interpolation, numerical differentiation and integration, linear systems of equations, solution of nonlinear equations, numerical solution of ordinary differential equations, computational techniques and the programming of a large number of problems on digital computers.**

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: **Calculus II and programming competency**Proposed: **A C or higher in Calculus II and programming competency**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: *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: \_\_\_\_\_

CC File # *8318-2012-CompSci-238-32*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 238** Proposed:3. Course Title: Present: **File Structures And Introduction To 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: **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, algebra and SQL.**

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 153**Proposed: **A C or higher for Comp Sci 153**8. Required for Majors: ☒ Elective for Majors: ☐9. Justification: **To ensure sufficient mastery of the prerequisite course content and fix typos in the catalog description.**

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: *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: \_\_\_\_\_

CC File # **8319-2012-Comp Sci-253-32**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 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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0.0** Total **3.0**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **Comp Sci 128, Comp Sci 153, preceded or accompanied by Calculus I.**Proposed: **C or higher in both CS128 and CS153; preceded by C or higher in Calc I or accompanied by Calc I.**8. Required for Majors: ☒ Elective 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)  
2) 4) 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:

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 256** Proposed:3. Course Title: Present: **Programming Languages And Translators**

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 knowledge of computer and network forensics has become essential in securing today's network-centric computing environment. This course will give the students both the fundamental knowledge and hands-on practice in computer and network forensics including data collection, data preservation and analysis and legal issues.**

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 220**Proposed: **A C or higher for Comp 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 below.

1) 3) 5)  
2) 4) 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:

CC File # 8321-2012-Comp Sci - 263-32

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 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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0** Total **3**

Proposed: Lecture Lab Total

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.

1)

3)

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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:

CC File # *8322-2012-Comp Sci-265-32*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 265** Proposed:3. Course Title: Present: **Computer Network Concepts And Technology**

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 will introduce computer network concepts and will survey the current and evolving technology for the construction, operation, and management of those networks. Both hardware and software issues will be addressed with a focus on local area networks.**

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 284**Proposed: **A C or higher for 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, 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: *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:

CC File # **8323-2012-CompSci-272-32**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 272** Proposed:3. Course Title: Present: **Java and Object Oriented Design**

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 will cover Basic Java, Applets, Application, Classes, interfaces, Strings, Arrays, Generics, inheritance, Polymorphism, Algorithm and Object Oriented Design, Software Testing, Exception Handling, File I/O. The use of Graphical User Interfaces in program design and introduction to Software Life Cycle. Project included.**

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 53**Proposed: **A C or higher for Comp Sci 53**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: **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: \_\_\_\_\_



CC File # *832Y-2012-Comp Sci-284-22*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 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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0.0** Total **3.0**

Proposed: Lecture Lab Total


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) 4) 6)

Recommended by Department  Date: Dec 21, 12

(Chair signature)

Recommended by DSCC  Date: 1/17/2013

(Chair signature)

Approved by Curricula Committee: \_\_\_\_\_ Date: \_\_\_\_\_

(Chair signature)

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

(Chair signature)

CC File # 8325-2012-Comp Sci-302-32Effective 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 302** Proposed:3. Course Title: Present: **Agile Software Development**

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: **Understand principles of agile software development and contrast them with prescriptive processes.****Specifically: eliciting, organizing and prioritizing requirements; design, implementation, test processes; understand how a particular process promotes quality; estimate costs and measure project progress and productivity.**

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 206**Proposed: **A C or higher for Comp 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: 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: \_\_\_\_\_

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 307** Proposed:3. Course Title: Present: **Software Testing And Quality Assurance**

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 covers unit testing, subsystem testing, system testing, object-oriented testing, testing specification, test case management, software quality requirement analysis and specification, software process improvement, and software total quality management.**

Proposed:

5. If course requires field trip check box: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0** Total **3**

Proposed: Lecture Lab Total


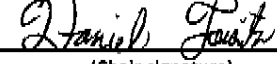
7. Prerequisites:

Present: **Comp Sci 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) 4) 6)

Recommended by Department  Date: Dec 21, 12Recommended by DSCC  Date: 1/17/2013Approved by Curricula Committee: \_\_\_\_\_ Date: \_\_\_\_\_  
(Chair signature)Approved by Faculty Senate: \_\_\_\_\_ Date: \_\_\_\_\_  
(Chair signature)

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

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 308** Proposed:3. Course Title: Present: **Object-Oriented Analysis And Design**

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 will explore principles, mechanisms, and methodologies in object-oriented analysis and design. An object-oriented programming language will be used as the vehicle for the exploration.**

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 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)

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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: \_\_\_\_\_

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 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 algorithms. The focus of the presentation is on the practical application of these techniques to such as sorting, backtracking, and graph algorithms.**

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:

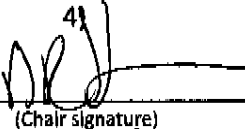
Present: **Cmp Sc 253**Proposed: **A C or higher for Comp Sci 253**8. Required for Majors: ☐ Elective for Majors: ☒9. Justification: **To ensure sufficient mastery of the prerequisite course content.**

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) 4) 6)

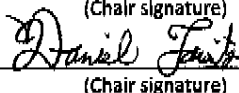
Recommended by Department



(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: \_\_\_\_\_

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 328** Proposed:3. Course Title: Present: **Object-Oriented Numerical Modeling 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: **A study of object-oriented modeling of the scientific domain. Techniques and methodologies will be developed enabling the student to build a class library of reusable software appropriate for scientific application. Applications will be drawn from mechanics, finance, and engineering.**

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 228 and Comp Sci 153 and one of Math 208, 203, 229**Proposed: **A C or higher for both Comp Sci 228 and Comp Sci 153; a C or higher in one of Math 208, 203, or 229**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: 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: \_\_\_\_\_

CC File # *8330-2012-Comp Sci-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 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 modelling of the scientific domain. Advanced applications include models posed as balance laws, integral equations, and stochastic simulations.**

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 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):

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: *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:

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 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 functional dependencies, transaction models, concurrency and locking, timestamping, serializability, recovery techniques, and query planning 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):

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: **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: \_\_\_\_\_



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 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**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **Comp Sci 253 or equivalent**Proposed: **A C or higher for Comp Sci 253 or equivalent**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: **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: \_\_\_\_\_

CC File # *8333-2012-Comp Sci-347-32*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 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 AI, 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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0** Total **3**

Proposed: Lecture Lab Total

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.

1) 3) 5)  
2) 4) 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: \_\_\_\_\_

CC File # *8334-2012-Comp Sci-348-32*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 348** Proposed:3. Course Title: Present: **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: **Introduces evolutionary algorithms, a class of stochastic, population-based algorithms inspired by natural evolution theory (e.g., genetic algorithms), capable of solving complex problems for which other techniques fail. Students will implement course concepts, tackling science, engineering and/or business 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: **Comp Sci 253 and a statistics course**Proposed: **A C or higher in both Comp Sci 253 and in a statistics course**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: *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: \_\_\_\_\_

(Revised October 2012)

CC File # *8335-2012-CompSci-353-32*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 353** Proposed: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 components of Multimedia Information systems. Topics include: Introduction to Multimedia Data, Multimedia Data Compression, Techniques and Standards, Indexing and Retrieval, Data Storage Organization, Communication and Synchronization, Applications-Media-OnDemand Systems, Video Conferencing, Digital Libraries.**

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 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 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: *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: \_\_\_\_\_

CC File # *8336-2012-Comp Sci-356-32*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 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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0.0** Total **3.0**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **Comp Sci 256 and Comp Sci 253**Proposed: **A C or higher in both Comp Sci 256 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)

2)

4)

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: \_\_\_\_\_

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 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**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **Comp Sci 228 and Comp Sci 253**Proposed: **A C or higher in both Comp Sci 228 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)  
2) 4) 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:

CC File # 8338-2012-CompSci-362-32

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 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**

Proposed: Lecture Lab Total

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.**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: 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: \_\_\_\_\_

CC File # 8339-2012-Comp Sci-365-32

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 365** Proposed:3. Course Title: Present: **Computer Communications and Networks**

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: **Network architecture and model including physical protocols for data transmission and error detection/correction, data link concepts, LAN protocols, inter-networking, reliable end to end service, security, and application services. Students will implement course concepts on an actual computer network.**

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**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, 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: 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: \_\_\_\_\_



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

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 381** Proposed:3. Course Title: Present: **The Structure of 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 hardware and software requirements for operating systems for uniprogramming, multiprogramming, multiprocessing, time sharing, real time, and virtual systems. The concepts of supervisors interrupt handlers, input/output control systems, and memory mapping are discussed in detail.**

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**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, 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: 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: \_\_\_\_\_

CC File # 8341-2012-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)  
2) 4) 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: \_\_\_\_\_

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 387** Proposed:3. Course Title: Present: **Introduction to Parallel Programming and 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: **Parallel and pipelined algorithms, architectures, network topologies, message passing, process scheduling and synchronization. Parallel programming on clusters. Cost, speedup and efficiency analysis.**

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)  
2) 4) 6)

Recommended by Department  Date: Dec 21, 12

(Chair signature)

Recommended by DSCC  Date: 1/17/2013

(Chair signature)

Approved by Curricula Committee: \_\_\_\_\_ Date: \_\_\_\_\_

(Chair signature)

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

(Chair signature)

CC File # *8343-2012-CompSci-388-32*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 388** Proposed:3. Course Title: Present: **Introduction to High Performance Computer Architecture**

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: **Overviews high performance architecture of computing systems and covers various architectural/hardware and software/algorithmic means that enhance performance. Uniprocessor and concurrent systems are investigated. Various computational models are studied and linked to commercial systems.**

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 Eng 213 and Comp Sci 253**Proposed: **A C or higher in both Comp Eng 213 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)  
2) 4) 6)

Recommended by Department 

(Chair signature)

Date: Dec 21, 12Recommended by DSCC 

(Chair signature)

Date: 1/17/2013

Approved by Curricula Committee:

(Chair signature)

Date: \_\_\_\_\_

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

CC File # *8344-2012-CompSci-397-32*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 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) 5)  
2) 4) 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:

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

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 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 project management should take this course since participants become officers or group leaders in the class "corporation." This course is especially important for those going straight into industry upon graduation. Students with coop experience may find this course redundant.**

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 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: Dec 21, 12

(Chair signature)

Recommended by DSCC  Date: 1/17/2013

(Chair signature)

Approved by Curricula Committee: \_\_\_\_\_ Date: \_\_\_\_\_

(Chair signature)

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

(Chair signature)

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 406** Proposed:3. Course Title: Present: **Software Engineering 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 quantitative approach to measuring cost/productivity in software projects. The material covered will be software metrics used in the life cycle and the student will present topical material.**

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 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  Date: Dec 31, 12

(Chair signature)

Recommended by DSCC  Date: 1/17/2013

(Chair signature)

Approved by Curricula Committee: \_\_\_\_\_ Date: \_\_\_\_\_

(Chair signature)

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

(Chair signature)

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 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 discovering, analyzing, specifying and managing software requirements for a software system from multiple perspectives. Students will study how to elicit, analyze, specify, validate, and manage software requirements using advanced software requirements engineering methods.**

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 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: 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: \_\_\_\_\_



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 ☐

**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 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 algorithms, such as sophisticated data structures, amortized complexity, advanced graph theory, and network flow techniques.**

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: *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: \_\_\_\_\_

CC File # 8349-2012-CompSci-426-32

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 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 unsolvability results. Machines with restricted memory access and limited computing time. Recursive functions, computable functional, and the classification of 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 below.

1) 3) 5)  
2) 4) 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: \_\_\_\_\_

CC File # 835D-2012-Comp Sci-437-32Effective 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 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, ARANEUS, WHOWEDA, XSchema, XQL, RDF.**

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 338**Proposed: **A C or higher for Cmp Sci 338**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: Dec 21, 12

(Chair signature)

Recommended by DSCC  Date: 1/17/2013

(Chair signature)

Approved by Curricula Committee: \_\_\_\_\_ Date: \_\_\_\_\_

(Chair signature)

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

(Chair signature)

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 438** Proposed:3. Course Title: Present: **Heterogeneous and Mobile Databases**

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 extensively discusses multidatabase systems (MDBS) and mobile data access systems (MDAS), moreover it will study traditional distributed database issues within the framework of MDBSs and MDASs.**

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 338**Proposed: **A C or higher for Cmp Sci 338**8. Required for Majors: ☐ Elective for Majors: ☒9. Justification: **To ensure sufficient mastery of the prerequisite course content.**

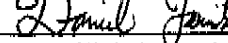
10. Semesters previously offered as an experimental course (101, 201, 301, 401):

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

1)	3)	5)
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Recommended by Department  Date: Dec 21, 12

(Chair signature)

Recommended by DSCC  Date: 1/17/2013

(Chair signature)

Approved by Curricula Committee: \_\_\_\_\_ Date: \_\_\_\_\_

(Chair signature)

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

(Chair signature)

CC File # *8352-2012-CompSci-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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0.0** Total **3.0**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **Cmp Sci 308**Proposed: **A C or higher for Cmp Sci 308**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: *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:

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 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 444** Proposed:3. Course Title: Present: **Advanced Topics in Data Mining**

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 of current interest in the field of data mining. This course involves reading seminal and state-of-the-art papers as well as conducting topical research projects including design, implementation, experimentation, analysis, and written and oral reporting components.**

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 301 Introduction to Data Mining**Proposed: **A C or higher for Cmp Sci 301 Introduction to Data Mining**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: *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: \_\_\_\_\_

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 447** Proposed:3. Course Title: Present: **Advanced Topics In 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: **Advanced topics of current interest in the field of artificial intelligence. This course involves reading seminal and state-of-the-art papers as well as conducting topical research projects including design, implementation, experimentation, analysis, and written and oral reporting components.**

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 347 or Comp Sci 348 or CpE 358**Proposed: **A C or higher for one of Cmp Sci 347, Comp Sci 348 or CpE 358**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)

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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: \_\_\_\_\_

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 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: ☐ 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: 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: \_\_\_\_\_



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** (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 456** Proposed:3. Course Title: Present: **Theory Of Compiling**

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: **Properties of formal grammars and their languages, language-preserving transformations of grammars, syntax-directed parsing, classes of parsing methods, and properties of the grammars for which they are suited, control flow analysis of programs, and the theoretical framework of local and global program optimization methods.**

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 356**Proposed: **A C or higher for Cmp Sci 356**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: **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: \_\_\_\_\_

CC File # **8357-2012-CompSci-458-32**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 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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0.0** Total **3.0**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **Cmp Sci 358**Proposed: **A C or higher for Cmp Sci 358**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: **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: \_\_\_\_\_

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

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 461** Proposed:3. Course Title: Present: **Privacy Preserving Data Integration and Analysis**

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 covers basic tools, in statistics and cryptography, commonly used to design privacy-preserving and secure protocols in a distributed environment as well as recent advances in the field of privacy-preserving data analysis, data sanitization and information retrieval. Students are expected to complete a course project on a relevant topic of their c**

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 338 and Comp Sci 262**Proposed: **A C or higher for both Cmp Sci 338 and Comp Sci 262**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: 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: \_\_\_\_\_

(Revised October 2012)

CC File # 8359-2012-Comp Sci-465-32

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 465** Proposed:3. Course Title: Present: **Advanced Topics in Wireless Networks**

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: **Introduces the fundamentals and recent advances in wireless networking. Coverage includes cellular networks, wireless and mobile ad hoc networks, wireless mesh networks, sensor networks and wireless LANs with a focus on network operation. Special topics selected for the literature on wireless network security will also be addressed.**

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 365 or equivalent**Proposed: **A C or higher for Cmp Sci 365 or equivalent**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: 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: \_\_\_\_\_

CC File # *8360-2012-CompSci-463-32*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 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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0.0** Total **3.0**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **Comp Sci 265 and Comp Sci 325**Proposed: **A C or higher for both Comp Sci 263 and Comp 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)

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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:

CC File # *8361-2012-Comp Sci-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.)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 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: ☐6. Credit Hours: Present: Lecture **3.0** Lab **0.0** Total **3.0**

Proposed: Lecture Lab Total

7. Prerequisites:

Present: **CpE 349 or Comp Sci 365**Proposed: **A C or higher for either CpE 349 or Comp Sci 365**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: *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: \_\_\_\_\_

CC File # *8362-2012-CompSci-484-32*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 484** Proposed:3. Course Title: Present: **Distributed Systems Theory And Analysis**

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: **Analysis of the problems of state maintenance and correctness in concurrent computing systems using formal methods such as Hoare Logic, Temporal Logic, and Symbolic Model Checking**

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 384**Proposed: **A C or higher for Comp Sci 384**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: *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: \_\_\_\_\_

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 487** Proposed:3. Course Title: Present: **New Trends In Massively Parallel 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: **Introduction of parallel and distributed computing fundamentals and advanced research topics. Students present research papers selected from the current literature and P&D computing paradigms. A term paper and oral presentation are required.**

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 387 or equivalent background**Proposed: **A C or higher for Comp Sci 387 or equivalent background**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: 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: \_\_\_\_\_



CC File # *8364-2012-Comp Sci-431-10*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: Proposed: **Comp Sci 431**

3. Course Title: Present:

Proposed: **Pervasive Computing**

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

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

Present:

Proposed: **Pervasive computing aims to seamlessly integrate computing with our everyday activities, so that people do not need to be aware of computing artifacts. This course will introduce various techniques needed to realize pervasive computing, such as position tracking and ad-hoc networking.**5. If course requires field trip check box: ☐

6. Credit Hours: Present: Lecture Lab Total

Proposed: Lecture **3.0** Lab **0.0** Total **3.0**

7. Prerequisites:

Present:

Proposed: **A C or higher in either Comp Sci 365 or Comp Eng 319**8. Required for Majors: ☐ Elective for Majors: ☒9. Justification: **This course is aligned with the departmental strategic plan. It received positive comments from students.**10. Semesters previously offered as an experimental course (101, 201, 301, 401): **FS2011,FS2012**

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: *04/28/12*

Recommended by DSCC

(Chair signature)

Date: *1/17/2013*

Approved by Curricula Committee:

(Chair signature)

Date: \_\_\_\_\_

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

EC # 2449-SS 2013-math-401Effective 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: **Mathematics & Statistics**

Discipline and Course Number: **Math 401**

Course Title: **Mathematical Dynamical Systems**

Abbreviated Title (24 spaces or less): **Math Dynamical Systems**

Instructor(s): **Robert Roe**

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

Prerequisites: **Math 311 or equivalent**

Semester(s) previously taught: **Never**

Brief Course Description (360 character spaces or less): **An introduction to mathematical ideas used in the study of dynamical systems. Topics include, functional iteration, contraction mappings, symbolic dynamics, subshifts of finite type, topological conjugacy, omega limit sets, transitivity and topological entropy.**

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

1)	3)	5)
2)	4)	6)

Recommended by Department: *Leon M Hall*  
(Chair signature)

Date: 12/10/2012

Recommended by DSCC: *Daniel Jacob*  
(Chair signature)

Date: 1/7/2013

Approved by Curricula Committee: \_\_\_\_\_  
(Chair signature)

Date: \_\_\_\_\_

Effective Year: 2013

Effective Term: Summer ☒ Fall ☐ Spring ☐

EC File # 2453-SS 2013-GE0E-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.*

Department: Geological Science and Engineering

Discipline and Course Number: GE 301

Course Title: Soil Mechanics for GeoProfessionals

Abbreviated Title (24 spaces or less): Geo Soil Mech

Instructor(s): Ronaldo Luna

Credit Hours: Lecture: 3 Lab: 0 Total:

Prerequisites: A course in Statics and Mechanics of Materials or consent of instructor

Semester(s) previously taught: SS 2012 as a GE300 Special Topics class

### Brief Course Description: (40 words or less)


The basic principles of soil mechanics necessary for professionals to practice in the field of geoconstruction. Topics related to the practical aspects of engineering include: soil classification, index properties, water flow through soils, compaction, compressibility, and shear strength. These basic principles will be applied to real world geoconstruction problems.

This course is for distance ed./ Fort Leonard Wood graduate students only.

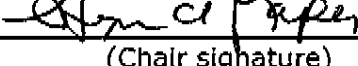
List all co-listed courses: Include initials of Dept. Chair, If signature is not already included below.

1) 2) 3)

4) 5) 6)

Department Chair: 

(Chair Signature)

Date: Dec 7/12Discipline Specific Curricula Committee: 

(Chair signature)

Date: Jan-17-13

Curricula Committee: \_\_\_\_\_

(Chair Signature)

Date: \_\_\_\_\_



EC # *2455-FS2013-Comp 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-listed courses: Include initials of Department Chair, if signature is not already included below.

1) 3) 5)

2) 4) 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: \_\_\_\_\_

EC # 2456 - FS 2013 - Comp 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: **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: **FS 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 predicion, and multi-objective software management.**

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

1) 3) 5)

2) 4) 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: \_\_\_\_\_

EC # 2457-FS2013-Hist-201Effective 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**Credit Hours: **Lecture 3      Lab      Total**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.

1)                      3)                      5)

2)                      4)                      6)

Recommended by Department: \_\_\_\_\_

(Chair signature)

Date: 1-7-13

Recommended by DSCC: \_\_\_\_\_

(Chair signature)

Date: 1-14-13

Approved by Curricula Committee: \_\_\_\_\_

(Chair signature)

Date: \_\_\_\_\_

EC # *2458-SS 2013- French-301*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: *FRENCH* **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 20<sup>th</sup>-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.

1)                      3)                      5)  
2)                      4)                      6)

Recommended by Department: \_\_\_\_\_

(Chair signature)

Date: *12/11/2012*

Recommended by DSCC: \_\_\_\_\_

(Chair signature)

Date: *01/14/13*

Approved by Curricula Committee: \_\_\_\_\_

(Chair signature)

Date: \_\_\_\_\_



Effective Year: 2013

Effective Term: Summer ☐ Fall ☒ Spring ☐

(Creating or modifying a degree program must be effective for a Fall term)

DC # 0440-2012-Min Eng  
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:**

Master of Engineering (ME) in Mining Engineering

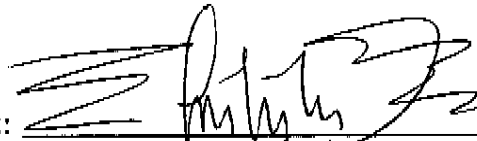
**Department:** Mining and Nuclear Engineering

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

Additional policies for the ME program distance education in Mining Engineering:

- 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.
- 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

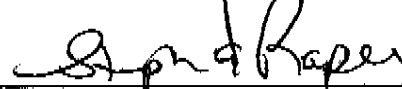
Recommended by Department:

  
(Chair signature)

Date: 11/28/12

Recommended by:

Discipline Specific Curricula Committee

  
(Chair signature)

Date: 12-11-12

Approved by Curricula Committee:

(Chair signature)

Date: \_\_\_\_\_

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

Effective Year: 2013

Term: Summer ☐ Fall ☒ Spring ☐CC File # 8307-2012-ExpEng-  
411-10**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** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)1. **Department:** Mining and Nuclear Engineering2. **Discipline and Course Number:** Present :

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, dissertation composition, concepts of originality and intellectual property.

5. **If course requires field trip check box:** ☐6. **Credit Hours:**

Present:

Lecture:

Lab:

Total:

Proposed:

Lecture: 3

Lab: 0

Total: 3

7. **Prerequisites:**

Present:

Proposed: Graduate Standing

8. **Required for Majors:** ☐**Elective for Majors:** ☒

9. **Justification:** We would like to co-list with Mining 411 research methods. It has become apparent 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 *sf* 2)

3)

4)

5)

6)

Recommended by Department

(Chair signature)

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Approved by Curricula Committee:

(Chair signature)

Approved by Faculty Senate:

(Chair signature)

Date:

10/22/12

Date:

10/29/12

Date:

Date:

Effective Year: 2013

Term: Summer ☐ Fall ☒ Spring ☐CC File # 8425-2012-Min Eng  
376-10**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** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)1. **Department:** Mining and Nuclear Engineering2. **Discipline and Course Number:** Present :

Proposed: Mi Eng 476

3. **Course Title:** Present:

Proposed: Sustainability in Mining

**Abbreviated Course Title:** Sustainability 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:** ☐

6. <b>Credit Hours:</b>	<b>Present:</b>	<b>Lecture:</b>	<b>Lab:</b>	<b>Total:</b>
	<b>Proposed:</b>	<b>Lecture: 3</b>	<b>Lab: 0</b>	<b>Total: 3</b>

7. **Prerequisites:**

Present:

**Proposed:** Mi Eng 376 or instructor consent8. **Required for Majors:** ☒ **Elective for Majors:** ☐9. **Justification:** This course is a core requirement of the Master of Engineering degree program in 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)

4) 5) 6)

Recommended by Department

Recommended by Discipline Specific Curricula Committee

Approved by Curricula Committee:

Approved by Faculty Senate:

(Chair signature)

(Chair signature)

(Chair signature)

(Chair signature)

Date: 11-14-12

Date: 12-19-12

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Effective Year: 2013

Term: Summer ☐ Fall ☒ Spring ☐CC File # 8426-2012-Min Eng  
424-10**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** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)1. **Department:** Mining and Nuclear Engineering2. **Discipline and Course Number:** Present :

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:** ☐6. **Credit Hours:**

Present:

Lecture:

Lab:

Total:

Proposed:

Lecture: 3

Lab: 0

Total: 3

7. **Prerequisites:**

Present:

Proposed: Mi Eng 324 or Equivalent

8. **Required for Majors:** ☒**Elective for Majors:** ☐

9. **Justification:** This course is a core requirement of the Master of Engineering degree program in 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)

4) 5)

Recommended by Department

(Chair signature)

Date: 11-14-12

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Date: 12-19-12

Approved by Curricula Committee:

(Chair signature)

Date: \_\_\_\_\_

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_

(Revised 1/29/09)

Effective Year: 2013

Term: Summer ☐ Fall ☒ Spring ☐CC File # 8427-2012-Min Eng  
426-10**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** (1-9 Must Be Completed. Leave "Proposed" items blank if no change is being made.)1. **Department:** Mining and Nuclear Engineering2. **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:** ☐6. **Credit Hours:**

Present:

Lecture:

Lab:

Total:

Proposed:

Lecture: 3

Lab: 0

Total: 3

7. **Prerequisites:**

Present:

Proposed: Mi Eng 326 or Equivalent

8. **Required for Majors:** ☒ **Elective for Majors:** ☐9. **Justification:** This course is a core requirement of the Master of Engineering degree program in 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)

4) 5) 6)

Recommended by Department

(Chair signature)

Date: 11-14-12

Recommended by Discipline Specific Curricula Committee

(Chair signature)

Date: 12-18-12

Approved by Curricula Committee:

(Chair signature)

Date: \_\_\_\_\_

Approved by Faculty Senate:

(Chair signature)

Date: \_\_\_\_\_