

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

PROGRAM MODIFICATION

DATE: 11.8.06

PROGRAM AREA: COMPUTER SCIENCE

SEMESTER /YEAR FIRST EFFECTED: FALL 2007

Please use the following format to modify any existing program. Any deletions from an existing program need to be underlined (left hand column), and any additions/changes to the program need to be in CAPS (right hand column).

EXISTING PROGRAM	PROPOSED PROGRAM
<p>Name of Degree Program Computer Science</p>	<p>Name of Degree Program Computer Science</p>
<p>Catalog Description of the Program The Computer Science degree offers the latest cutting edge education for various industrial and applied fields. Students will be given a strong background in computer hardware and software, as well as a substantial amount of hands-on experience. The program will stress interdisciplinary applications in other sciences and business and prepare students for graduate studies.</p>	<p>Catalog Description of the Program The Computer Science degree offers the latest cutting edge education for various industrial and applied fields. Students will be given a strong background in computer hardware and software, as well as a substantial amount of hands-on experience. The program will stress interdisciplinary applications in other sciences and business and prepare students for graduate studies.</p>
<p>Requirements for the Degree Program (122 UNITS) Lower Division Required Major Courses (42) <u>Upper Division Required Major Courses (28)</u> <u>Upper Division Elective Major Courses (12)</u> Elective Courses (6) General Education and American Institutions Requirement (34) Note: General Education Included in Major Requirements (18)</p>	<p>Requirements for the Degree Program (122 UNITS) Lower Division Required Major Courses (42) UPPER DIVISION REQUIRED MAJOR COURSES (31) UPPER DIVISION ELECTIVE MAJOR COURSES (9) Elective Courses (6) General Education and American Institutions Requirement (34) Note: General Education Included in Major Requirements (18)</p>
<p>Lower Division Requirements COMP 150 Object-Oriented Programming, GE-B4 (4) COMP 151 Data Structures and Program Design (4) COMP 162 Computer Architecture and Assembly Language (3)</p>	<p>Lower Division Requirements COMP 150 Object-Oriented Programming, GE-B4 (4) COMP 151 Data Structures and Program Design (4) COMP 162 Computer Architecture and Assembly Language (3)</p>

<p>COMP 232 Programming Languages (3) COMP 262 Computer Organization and Architecture (3) MATH 150 Calculus I, GE-B3 (4) MATH 151 Calculus II (4) MATH 240 Linear Algebra (3) MATH 230 Logic, GE-A3, B3 (3) Science: A 2 semester science sequence and an additional science course (one lab section required) in Physics, Biology, or Chemistry (11-12, G.E. B1 and B2)</p> <p>Upper Division Requirements COMP 350 Introduction to Software Engineering (3) COMP 362 Operating Systems (3) COMP 447 Societal Issues in Computing, GE-B4, D, UDID (3) COMP 454 Automata, Languages and Computation (3)</p> <p><u>COMP 499 Senior Colloquium (1)</u></p> <p>MATH 300 Discrete Mathematics (3) MATH 352 Probability and Statistics (3) MATH 354 Analysis of Algorithms (3) MATH 448 Scientific Computing, GE-B3, B4, UDID (3) Choose 3 units from the following: COMP 420 Database Theory and Design (3) COMP 464 Computer Graphics I (3)</p> <p><u>Choose 12 Elective units from:</u></p> <p>COMP 337 Perspectives in Computer Gaming (3, GE B, UD) COMP/ 345 Digital Image Processing (3) PHYS COMP 421 Unix for Programmers (3) COMP 422 Design of Compilers (3) COMP 424 Computer System Security (3) COMP 425 Computer Game Programming (3) COMP 429 Computer Networks (3) COMP 437 Foundations of Computer Game Development (3, GE B, UD)</p>	<p>COMP 232 Programming Languages (3) COMP 262 Computer Organization and Architecture (3) MATH 150 Calculus I, GE-B3 (4) MATH 151 Calculus II (4) MATH 240 Linear Algebra (3) MATH 230 Logic, GE-A3, B3 (3) Science: A 2 semester science sequence and an additional science course (one lab section required) in Physics, Biology, or Chemistry (11-12, G.E. B1 and B2)</p> <p>Upper Division Requirements COMP 350 Introduction to Software Engineering (3) COMP 362 Operating Systems (3) COMP 447 Societal Issues in Computing, GE-B4, D, UDID (3) COMP 454 Automata, Languages and Computation (3)</p> <p>COMP 491 CAPSTONE PREPARATION (1) COMP 499 CAPSTONE PROJECT (3)</p> <p>MATH 300 Discrete Mathematics (3) MATH 352 Probability and Statistics (3) MATH 354 Analysis of Algorithms (3) MATH 448 Scientific Computing, GE-B3, B4, UDID (3) Choose 3 units from the following: COMP 420 Database Theory and Design (3) COMP 464 Computer Graphics I (3)</p> <p><u>CHOOSE 9 ELECTIVE UNITS FROM:</u></p> <p>COMP 337 Perspectives in Computer Gaming (3, GE B, UD) COMP/ 345 Digital Image Processing (3) PHYS COMP 421 Unix for Programmers (3) COMP 422 Design of Compilers (3) COMP 424 Computer System Security (3) COMP 425 Computer Game Programming (3) COMP 429 Computer Networks (3) COMP 437 Foundations of Computer Game Development (3, GE B, UD)</p>
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<p>COMP/ 445 Image Analysis & Pattern Recognition, MATH/PHYS GE-B1, B4, UDID (3) COMP/ 449 Human Computer Interaction, GE-B4, PSY E, UDID (3) COMP/ 452 Computational Bioinformatics (4) MATH COMP 462 Advanced Object Oriented Programming (3) COMP 464 Computer Graphics I (3) COMP 466 Computer Graphics II (3) COMP 469 Artificial Intelligence/Neural Nets (3) COMP 490 Topics in Computer Science (3) COMP 492 Internship (1-3) COMP 494 Independent Research(1-3) COMP 497 Directed Study (3) COMP 499 Senior Colloquium (1) ENGL 482 Technical Writing (3) MATH 429 Operations Research (3)</p> <p>Upper Division Interdisciplinary Courses</p> <p>Required Supporting and other GE Courses</p> <p>Emphasis or Option Requirements</p> <p>Additional Courses</p>	<p>COMP/ 445 Image Analysis & Pattern Recognition, MATH/PHYS GE-B1, B4, UDID (3) COMP/ 449 Human Computer Interaction, GE-B4, PSY E, UDID (3) COMP/ 452 Computational Bioinformatics (4) MATH COMP 462 Advanced Object Oriented Programming (3) COMP 464 Computer Graphics I (3) COMP 466 Computer Graphics II (3) COMP 469 Artificial Intelligence/Neural Nets (3) COMP 490 Topics in Computer Science (3) COMP 492 Internship (1-3) COMP 494 Independent Research(1-3) COMP 497 Directed Study (3) ENGL 482 Technical Writing (3) MATH 429 Operations Research (3)</p> <p>Upper Division Interdisciplinary Courses</p> <p>Required Supporting and other GE Courses</p> <p>Emphasis or Option Requirements</p> <p>Additional Courses</p>
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SUMMARY OF CHANGES

We are introducing a culminating experience for majors in the form of a two-semester sequence of courses: Capstone Preparation(1 unit) and Capstone Project (3 units). The Capstone Project replaces the Colloquium(1 unit) in the major. We are changing the number of electives required so that the size of the major is unchanged.

JUSTIFICATION

Many programs have a culminating experience that enables students to draw on ideas from the entire degree program. In many majors this takes the form of a capstone project. We currently do not have such an experience and wish to modify the major to include one.

William J. Wolfe

10/20/06

Proposer of Program Modification

Date

**California State University Channel Islands
Program Modification Consultation Sheet**

1. Course Title: _____

2. Program Area: _____

Recommend Approval

Program Area/Unit	Program/Unit Chair	YES	NO (attach objections)	Date
Art				
Biology				
Business & Economics				
Education				
English				
History				
Liberal Studies				
Mathematics & CS				
Multiple Programs				
Psychology				
Library				
Information Technology				