



SACRAMENTO
STATE

Program Proposal Form B



Academic Group (<i>College</i>): College of Engineering and Computer Science	Date of Submission to College Dean: April 22, 2008
Academic Organization (<i>Department</i>): Computer Science	Requested Effective: Fall <u>X</u> , Spring __, 2008 __.
Department Chair: Du Zhang	Contact if not Department Chair:
Title of the Program: MS in Computer Science	

Type of Program Proposal:

Modification in Existing Program:

- Substantive Change
- Non-Substantive Change
- Deletion of Existing Program

New Programs

- Initiation (Projection) of New Program on to Master Plan
- New Degree Programs
 - Regular Process
 - Fast Track Process
 - Pilot Process
- New Minor, Concentration, Option, Specialization, Emphasis
- New Certificate Program

PLEASE NOTE: Form B is to be used only as a Cover Form. Additional information is requested for each of the above as noted in the corresponding procedure in the Policies and Procedures for Initiation, Modification, Review and Approval of Courses and Academic Programs found at <http://www.csus.edu/acaf/univmanual/index.htm>

Briefly describe the program proposal (new or change) and provide a justification.

Add existing course CSC 245, Performance Modeling and Evaluation, to the System Software area of the Breadth Requirement. This course is not currently listed in any area of the Breadth Requirement, and little coverage of its topics occurs elsewhere in the MS program.

Approvals:

Department Chair: **Date:** 4/22/2008

College Dean: **Date:** 4/25/08

University Committee: _____ **Date:** _____

Associate Vice President and Dean for Academic Affairs: _____ **Date:** _____

**ANALYSIS OF PROGRAM CHANGE PROPOSAL
FOR THE MS IN COMPUTER SCIENCE
April 22, 2008**

1. Form B: Attached.

2. Programmatic or Fiscal Impact on Other Academic Units' Programs.

N/A

3. Fiscal Analysis of Proposed Changes.

a. How will the proposed changes be accommodated within department/college existing fiscal resources?

No additional resources are needed.

b. If the proposed changes will require additional resources, describe the level and nature of additional funding the college will seek.

N/A

c. What additional space, equipment, operating expenses, library, computer, or media resources, clerical/technical support, or other resources will be needed? Estimate the cost and indicate how these resource needs will be accommodated.

N/A

4. New/Old Program Requirements

Proposed Changes:

Add CSC 245, Performance Modeling and Evaluation, to the System Software area of the Breadth Requirement.

NEW PROGRAM REQUIREMENTS**B. Breadth Requirement (9 units)**

Select one course from three of the following areas:

Computer Architecture/Computer Engineering

- CSC 237 Microprocessor Systems Architecture (CSC 205)
- CSC 242 Computer-Aided Design Methodology for Computer Systems (CSC 205)
- CSC 273 Hierarchical Digital Design Methodology (CSC 205, CPE 064 or equivalent)
- CSC 280 Advanced Computer Architecture (CSC 205 and fully classified graduate status in Computer Science or Software Engineering)

Database Management Systems

- CSC 244 Database System Design (CSC 174 or CSC 204)
- CSC 212 Bioinformatics: Data Integration and Algorithms (CSC 130, STAT 50, and graduate standing. BIO 10 recommended.)

Intelligent Systems

- CSC 214 Knowledge-Based Systems (Fully classified graduate status in Computer Science or Software Engineering)
- CSC 215 Artificial Intelligence (Fully classified graduate status in Computer Science or Software Engineering)
- CSC 219 Machine Learning (Fully classified graduate status in Computer Science or Software Engineering)

Information Assurance and Security

- CSC 250 Computer Security (Fully classified graduate standing in Computer Science, Software Engineering, or Computer Engineering)
- CSC 252 Cryptography Theory and Practice (Fully classified graduate standing in Computer Science, Software Engineering, or Computer Engineering)

OLD PROGRAM REQUIREMENTS**B. Breadth Requirement (9 units)**

Select one course from three of the following areas:

Computer Architecture/Computer Engineering

- CSC 237 Microprocessor Systems Architecture (CSC 205)
- CSC 242 Computer-Aided Design Methodology for Computer Systems (CSC 205)
- CSC 273 Hierarchical Digital Design Methodology (CSC 205, CPE 064 or equivalent)
- CSC 280 Advanced Computer Architecture (CSC 205 and fully classified graduate status in Computer Science or Software Engineering)

Database Management Systems

- CSC 244 Database System Design (CSC 174 or CSC 204)
- CSC 212 Bioinformatics: Data Integration and Algorithms (CSC 130, STAT 50, and graduate standing. BIO 10 recommended.)

Intelligent Systems

- CSC 214 Knowledge-Based Systems (Fully classified graduate status in Computer Science or Software Engineering)
- CSC 215 Artificial Intelligence (Fully classified graduate status in Computer Science or Software Engineering)
- CSC 219 Machine Learning (Fully classified graduate status in Computer Science or Software Engineering)

Information Assurance and Security

- CSC 250 Computer Security (Fully classified graduate standing in Computer Science, Software Engineering, or Computer Engineering)
- CSC 252 Cryptography Theory and Practice (Fully classified graduate standing in Computer Science, Software Engineering, or Computer Engineering)

CSC 253	Computer Forensics (Fully classified graduate standing in Computer Science, Software Engineering, or Computer Engineering)	CSC 253	Computer Forensics (Fully classified graduate standing in Computer Science, Software Engineering, or Computer Engineering)
CSC 254	Network Security (Fully classified graduate standing in Computer Science, Software Engineering, or Computer Engineering)	CSC 254	Network Security (Fully classified graduate standing in Computer Science, Software Engineering, or Computer Engineering)
Networks and Communications		Networks and Communications	
CSC 255	Computer Networks (CSC 138 or CPE 138)	CSC 255	Computer Networks (CSC 138 or CPE 138)
CSC 258	Distributed Systems (CSC 204 and fully classified graduate status in Computer Science or Software Engineering)	CSC 258	Distributed Systems (CSC 204 and fully classified graduate status in Computer Science or Software Engineering)
CSC 275	Advanced Data Communication Systems (CSC 138 or CPE 138 or CSC 205)	CSC 275	Advanced Data Communication Systems (CSC 138 or CPE 138 or CSC 205)
Software Engineering		Software Engineering	
CSC 230	Software System Engineering (Fully classified graduate status in Computer Science or Software Engineering)	CSC 230	Software System Engineering (Fully classified graduate status in Computer Science or Software Engineering)
CSC 231	Software Engineering Metrics (Fully classified graduate status in Computer Science or Software Engineering)	CSC 231	Software Engineering Metrics (Fully classified graduate status in Computer Science or Software Engineering)
CSC 232	Software Requirements Analysis and Design (Fully classified graduate status in Computer Science or Software Engineering)	CSC 232	Software Requirements Analysis and Design (Fully classified graduate status in Computer Science or Software Engineering)
CSC 233	Advanced Software Engineering Project Management (Fully classified graduate status in Computer Science or Software Engineering)	CSC 233	Advanced Software Engineering Project Management (Fully classified graduate status in Computer Science or Software Engineering)
CSC 234	Software Verification and Validation (Fully classified graduate status in Computer Science or Software Engineering)	CSC 234	Software Verification and Validation (Fully classified graduate status in Computer Science or Software Engineering)
CSC 235	Software Architecture (Fully classified graduate status in Computer Science or Software Engineering)	CSC 235	Software Architecture (Fully classified graduate status in Computer Science or Software Engineering)
CSC 236	Formal Methods in Secure Software Engineering (Fully classified graduate status in Computer Science or Software Engineering)	CSC 236	Formal Methods in Secure Software Engineering (Fully classified graduate status in Computer Science or Software Engineering)

CSC 238	Human-Computer Interface Design (Fully classified graduate status in Computer Science or Software Engineering)
System Software	
CSC 239	Advanced Operating Systems Principles and Design (CSC 205)
CSC 245	Performance Modeling and Evaluation (Fully classified graduate status in Computer Science or Software Engineering)
CSC 250	Computer Security (Fully classified graduate status in Computer Science or Software Engineering)
CSC 251	Principles of Compiler Design (CSC 151 or CSC 201)

CSC 238	Human-Computer Interface Design (Fully classified graduate status in Computer Science or Software Engineering)
System Software	
CSC 239	Advanced Operating Systems Principles and Design (CSC 205)
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CSC 250	Computer Security (Fully classified graduate status in Computer Science or Software Engineering)
CSC 251	Principles of Compiler Design (CSC 151 or CSC 201)