To: Computer Science Majors  
From: Barry Levine, Acting-Chair, Department of Computer Science  
Subject: Electives requirement (four 3-unit courses)  

The electives requirement for Computer Science majors (00-01 Bulletin) is:

Electives are selected from the nine subareas of Computer Science listed below. Electives must meet the following requirements:

1. One of the electives must be either CSc 520, theory of Computing, or CSc 656, Computer Organization.*
2. Depth Requirement: Two of the electives must be chosen from the same subarea of the discipline.
3. Breadth Requirement: Electives must be chosen from three different subareas.

(*CSc 520 and CSc 656 can be used to partially meet the depth and breadth requirements.)

Note: it is recommended that students planning to continue their study of Computer Science in graduate school take both CSc 656 and CSc 520.

Below is a table which lists the subareas that each course is included in. You may use this table to determine whether or not you are meeting the requirements.

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For example, the following four electives meet the requirement:

CSc 520  Theory of Computing  Algorithms & Theory
CSc 620  Natural Language Processing  Artificial Intelligence
CSc 671  Neural Networks  Artificial Intelligence
CSc 675  Introduction to Database Systems  Database

CSc 520 meets requirement (1).
CSc 620 and CSc 671 are both in the Artificial Intelligence area (depth requirement (2)).
CSc 520, CSc 620, and CSc 675 are in three different areas (breadth requirement (3)).
Areas of Special Emphasis

Algorithms and Theory of Computing
CSc 520 Theory of Computing
CSc 630 Computer Graphics Systems Design
CSc 635 Software Techniques for the Processing of Computer Music and Sound Data
CSc 671 Neural Networks
CSc 675 Introduction to Database Systems
MATH 400 Numerical Analysis I

Architecture
CSc 641 Computer Performance Evaluation
CSc 656 Computer Organization

Artificial Intelligence
CSc 620 Natural Language Processing
CSc 665 Introduction to Artificial Intelligence
CSc 671 Neural Networks

Database
CSc 675 Introduction to Database Systems

Graphics
CSc 630 Computer Graphics Systems Design
CSc 642 Human Computer Interaction

Numerical and Symbolic Computing
MATH 400 Numerical Analysis I

Operating Systems and Distributed Processing
CSc 641 Computer Performance Evaluation
CSc 645 Computer Networks
CSc 650 Secure Networked Systems
CSc 651 System Administration
CSc 656 Computer Organization
CSc 667 Internet Application Design and Development

Programming Languages
CSc 520 Theory of Computing
CSc 620 Natural Language Processing
CSc 640 Software Engineering
CSc 665 Introduction to Artificial Intelligence
CSc 668 Object Oriented Programming

Software Engineering
CSc 640 Software Engineering
CSc 642 Human Computer Interaction
CSc 667 Internet Application Design and Development
CSc 668 Object Oriented Programming