Computer Science BS Degree
Curriculum Chart
2007-2008

Select 4 CMPE/CMPS electives from the Theory and Practice course lists.
At most, only one elective may be substituted by an upper-division Math course from the Theory course list.

Exit Requirement - Students have three options to fulfill the Computer Science exit requirement:
1. Pass a Capstone Course (which can also fulfill an elective requirement, see * on back for courses)
2. Receive a score of 600 or above on the GRE Computer Science Subject Test
3. Submit a Senior Thesis

- Eligibility to enroll in MATH 19A, or MATH 19A or 11A, or AMS 11A, or ECON 11A
CMPS 12A/L
Intro to Programming

- CMPS 12A/L, 16
CMPE 110
Computer Architecture

- one of: CMPE 3 or 8, CMPS 10, 12A, 60G or 60N, BME 60, or programming experience
CMPE 12/L
Computer Systems & Assembly Language

- Math 19A placement or
AMS 3 or Math 11A or 3
CMPE 16
Discrete Math

- AMS 3 or Math 3 or Math placement
MATH 19A or 20A
Calculus

- Math 19A
MATH 19B or 20B
Calculus

- Math 19B
MATH 23A
Multivariable
Calculus

- Math 19B or Math
23A
AMSP 27/L
Engineering Math

- CMPE 16, CMPS 12B/M,
MATH 19B, # Math (see below)
CMPS 101
Abstract Data Types

- CMPS 101
CMPS 102
Analysis of Algorithms

- CMPE 12/L, CMPS 101
CMPS 104A
Compiler Design I

- CMPS 101, CMPE 110
CMPS 111
Operating Systems

- CMPS 101 or 109
CMPS 112
Comparative Programming Languages

- CMPS 101
CMPS 130
Computational Models

- Math 19B
AMS 131
Intro Probability Theory

- Chem 1A/L
CHEM 1B/1M
General Chemistry

- Chem 1B/M
CHEM 1C/1N
General Chemistry

COMPLETE EITHER
2 PHYS & Labs
or
2 CHEM & Labs

- Phys 6A/L
PHYS 6B/6M**
Intro to Physics II
Waves
OR
- Phys 6A/L
PHYS 6C/6N**
Intro to Physics II
Electricity & Magnetism

- CMPE 16, Math
22 or 23A
CMPS 107
Stochastic

- AMPS 101
CMPS 12A/L
Data Structures

- Upper Division
ELECTIVE

- Upper Division
ELECTIVE

- Upper Division
ELECTIVE

- Upper Division
ELECTIVE

- CMPS 101
CMPS 102
Analysis of Algorithms

- CMPE 12/L, CMPS 101
CMPS 104A
Compiler Design I

- CMPS 101, CMPE 110
CMPS 111
Operating Systems

- CMPS 101 or 109
CMPS 112
Comparative Programming Languages

- CMPS 101
CMPS 130
Computational Models

= Course Prerequisite
** = Physics 5 series (intended for Physics majors) can be substituted
# = Any 5-unit math course numbered in the 20s

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COMPUTER SCIENCE BS
DEGREE CURRICULUM

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*This course has pre-requisites that CS majors are not required to take in their regular course of study.

NOTE: Students may not receive credit for both AMS 131 and CMPE 107.

Many graduate courses can also be used to satisfy the electives; however students will need instructor and department approval.

♣ = Course Satisfies the CS Exit Requirement and an elective requirement

STUDENT'S NAME:

STAFF ADVISOR:

FACULTY ADVISOR: