Baskin School of Engineering
2002-2003
Computer Engineering BS Curriculum Chart

MATH

- MATH 19A* Calculus
- MATH 19B* Calculus
- MATH 23A* MV Calculus
- MATH 23B MV Calculus
- MATH 21* Linear Alg
- MATH 24* Diff Eqs

OR

- CMPS 12A* Programming
- CMPS 12B* Data Structs
- CMPS 101* Algorithms
- CMPE 16* Discrete Math
- CMPE 107 Stochastic
- CMPE 100/L* Digital Logic
- CMPE 110* Computer Arch
- CMPE 121/L* Micro Systems

SCIENCE

- PHYS 5B/M Waves
- PHYS 5D Heat

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

- PHYS 5A/L Mechanics
- PHYS 5C/N Elect & Mag

- EART 10/L Geo Principles
- EART 1xx (not 111)

- BIOL 20A OR BIOL 21A Cell & Molecular

SPECIALTY

System Programming

- CMPS 111 OS
- CMPS 115 Software Methods
- CMPS 116 OR SENIOR Software Project

- TWO OF:
  - CMPE 113 Parallel Programming
  - CMPE 117 Embedded Software
  - CMPS 104A Compilers
  - CMPS 104B Compilers

- Upper Division Elective From Approved List

Computer Systems

- CMPS 111 OS
- CMPS 125/L HDL
- CMPE 123/L (Adv Micro) OR CMPE 126/L (Adv Logic) OR SENIOR THESIS

Networks

- CMPS 111 OS
- CMPS 150 Networks
- CMPS 154 Data Comm. or EE 103 & EE 151

- CMPE 155/L OR SENIOR Network Project

- TWO OF:
  - CMPE 108 Data Compression
  - CMPE 113 Parallel Programming
  - CMPE 152 Network Analysis
  - CMPE 177 Applied Graph Theory
  - CMPE 250 Multimedia

Digital Hardware

- EE 171/L Analog OR CMPE 172/L Circuits
- CMPE 173/L High Speed

- CMPE 123/L Adv Micro OR CMPE 126/L Adv Logic
- CMPE 125/L HDL Design
- SENIOR THESIS

Project portfolio (3 projects and narrative statement), exit survey, and interview
*Requirements for the Minor in Computer Engineering are indicated with an asterisk.*

**Approved List of Upper Division Electives**

CMPE 108 Data Compression
CMPE 113 Parallel Programming
CMPE 117 Embedded Software
CMPE 123/L Adv. Micro. System Design
CMPE 125/L Logic Design with Verilog
CMPE 126 Adv. Logic Design
CMPE 127 Comp.-Aided Synth. of VLSI
CMPE 150 Intro. to Computer Networks
CMPE 151 Network Administration
CMPE 152 Analysis & Design Comm. Protocols
CMPE 154 Data Communications
CMPE 155 Computer Networks Project
CMPE 172/L Linear/Nonlin. Circuits
CMPE 173/L High Speed Digital Design
CMPE 177 Applied graph Theory/Alg.

CMPS 102 Analysis of Algorithms
CMPS 104A Compiler Design I
CMPS 104B Compiler Design II
CMPS 109 Advanced Programming
CMPS 112 Comparative Prg. Langs.
CMPS 115 Software Methodology
CMPS 116 Software Design Project
CMPS 122 Computer Security
CMPS 129 Data Storage Systems
CMPS 130 Computational Models
CMPS 132 Computability and Compl.
CMPS 140 Artificial Intelligence
CMPS 160 Computer Graphics
CMPS 161 Visualization & Compt. Animation
CMPS 180 Database Systems
CMPS 190X Methods of Cryptography
EE 103 Signals and Systems
EE 130 Optoelectronics & Photonics
EE 135/L Electro. Fields and Waves
EE 136 Engr. EM
EE 145/L Properties of Materials
EE 151 Communications Systems
EE 153 Signal Processing
EE 154 Feedback Control Systems
EE 171/L Analog Electronics
EE 178 Device Electronics
ENGR 146 Discrete Dynamical Systems
ENGR 147 Computational Methods and Applc.
ENGR 156 Linear S

Any 5-Credit CS, CE, or EE Graduate Course
CMPE 265A & CMPE 265B Special Topics in Image Processing

At most, one elective may be substituted by an upper-
division individual or field study (CMPE, CMPS, EE 193 or 198):statistical Models