CMPS 12A/L Intro to Prog. (Accelerated)

CMPS 5J Intro to Prog: Java

CMPS 11 Intermediate Programming

CMPS 13/L Computer Systems and C Programming

CMPS 12B/M Data Structures

CMPS 13H/L Intro to Prog. & Data Structures (Honors)

*CMPS 12/L Comp. Systems & Assembly Language

*CMPE 13/L Intro to Prog. & Data Structures (Honors)

*CMPE 12/L Comp. Systems & Assembly Language

*MATH 11A or 19A or 20A Calculus

MATH 11B or 19B or 20B Calculus

*MATH 11A or 19A or 20A Calculus

CMPS 101 Abstract Data Types

*MATH 21 Linear Algebra

*AMS 10 Engr Math Methods I or

1. Students must complete three courses from this breadth list:
   - CMPE 110 Computer Architecture
   - CMPS 102 Introduction to Analysis of Algorithms
   - CMPS 104A Compiler Design
   - CMPS 111 Operating Systems
   - CMPS 112 Comparative Programming Languages
   - CMPS 115 Software Methodology
   - CMPS 122 Computer Security
   - CMPS 140 Artificial Intelligence
   - CMPS 160/L Computer Graphics
   - CMPS 180/CMPS 180W Database Systems

2. Students must complete two additional 5-unit (or more) upper division Computer Science courses selected from all upper division CMPS courses except those numbers 191-194 and 196-199.

3. Students must complete two additional 5-unit (or more) upper division technical electives selected from the following:
   - Any 5-credit upper division course offered by the BSOE except those numbered 191 through 194 and 196 through 199.
   - Any 5-credit upper division course from the Division of Physical and Biological Sciences except those numbered 190 and above.

   - ART 118 Computer Art: Theories, Methods, and Practices
   - ART 120/121 Advanced Projects in Computer Art I/II
   - ECON 100M Intermediate Microeconomics, Math Intensive
   - ECON 100N Intermediate Macroeconomics, Math Intensive
   - ECON 101 Managerial Economics
   - ENVS 115A/L Geographic Information Systems
   - FDM 170A Fundamentals of Introduction to Digital Media Production
   - FDM 177 Digital Media Workshop: Computer as Medium
   - LING 112/113/114 Syntax I/II/III
   - LING 116/118 Semantics II/III
   - LING 125 Foundations of Linguistic Theory
   - MUS 123 Electronic Sound Synthesis
   - MUS 124 Intermediate Electronic Sound Synthesis
   - MUS 125 Advanced Electronic Sound Synthesis

**Comprehensive Requirement** - Students have two options to fulfill the Computer Science exit requirement:

1. Pass one of the Capstone Courses (which can also fulfill an elective requirement, see * on back for courses)
2. Successfully complete a Senior Thesis.
## Computer Science B.A. Degree
### 2015-2016 Curriculum Chart

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### Capstone Courses
- CMPS 104B
- CMPS 117
- CMPS 161/L
- CMPS 165
- CMPS 181
- CMPS 183

### Notes:
- Shaded boxes represent foundation courses.
- Many graduate courses can also be used to satisfy electives; however, students will need instructor and department approval.

- Course prerequisites.
- * Check catalog/SOE course descriptions for additional prerequisites.
- ♦ Enrollment restricted to majors in Computer Engineering, Electrical Engineering, Bioengineering, Bioinformatics, Robotics Engineering, or Network and Digital Technology, or by permission of instructor.
- ♠ Course satisfies the Computer Science Comprehensive Requirement and an elective requirement.