Computer Science B.S. Degree
2015-2016 Curriculum Chart

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

CMPS 5J
Intro to Prog: Java

OR

CMPS 11
Intermediate Programming

*CMPE 13/L
Computer Systems and C Programming

CMPS 12B/M
Data Structures

**OR

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

* * Students may take CMPS 13/L in lieu of another introductory programming class + data structures.

* STUDENTS MAY TAKE CMPS 13/L IN LIEU OF ANOTHER INTRODUCTORY PROGRAMMING CLASS + DATA STRUCTURES.

CMPS 101
Abstract Data Types

OR

CMPS 12B/M or CMPS 13H/L, CMPS 16, MATH 19B, MATH 21, 22, 23A

*AMS 10
Engr Math Methods I

or

*MATH 21
Linear Algebra

MATH 23A
Multivariable Calculus

*MATH 19A or 20A
Calculus

MATH 19B or 20B
Calculus

CMPE 107
Probability and Statistics

or

*AMS 131
Intro to Probability Theory

PHYS 5A/L or 6A/L
Intro to Physics I

or

*PHYS 5B/M or 6B/M
Waves & Optics

or

PHYS 5C/N or 6C/N
Electricity & Magnetism

CHEM 1A
General Chemistry

CHEM 1B/1M
General Chemistry

or

CHEM 1C/N
General Chemistry

CMPE 16
Discrete Math

CMPS 12/L
Computer Systems & Assembly Language

CMPE 110
Computer Architecture

CMPS 104A
Compiler Design I

CMPS 111
Operating Systems

CMPS 102
Analysis of Algorithms

CMPS 130
Computational Models

CMPS 11
Intermediate Programming

Complete either: 2 Phys + Labs or 2 Chem + Labs.

CMPE 13/L
Computer Systems and C Programming

CMPS 115
Multivariable Calculus

CMS 132 & 132W
Calculus

CMS 180 & 180W
Calculus

CMS 195

CMPE 185 (see back)

Upper Division ELECTIVE (Capstone)

Upper Division ELECTIVE (DC)

Upper Division ELECTIVE

Upper Division ELECTIVE

Additional Electives: Four upper-division computer science or computer engineering courses with course number 190 or below, or CMPE 195. One of these courses may be replaced by one of the upper-division mathematics courses listed on the back.

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.S. Degree
## 2015-2016 Curriculum Chart

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## Math Electives List
- AMS 114
- AMS 147
- MATH 115
- MATH 117
- MATH 126
- MATH 148

## 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.
- Students may not receive credit for both AMS 131 and CMPE 107.
- At most, only one elective may be substituted by an upper-division Math course.

- Course prerequisites.
- Course has pre-requisites that CS majors are not required to take in their regular course of study.
- Enrollment restricted to majors in Computer Engineering, Electrical Engineering, Bioengineering, Bioinformatics, Robotics Engineering, or Network and Digital Technology, or by permission of instructor.
- Can be repeated but only counts as an elective once.
- Course satisfies the Computer Science Comprehensive Requirement and an elective requirement.

### Student Name:

### Staff Advisor:

### Faculty Advisor: