**Computer Science B.S. Degree**
2014-2015 Curriculum Chart

*CMPS 12B/M*
Data Structures

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

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

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

CMPS 11
Intermediate Programming

CMPS 5J
Intro to Prog: Java

**CMPS 13/L**
Computer Systems and C Programming

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**MATH 19A or 20A**
Calculus

MATH 19B or 20B
Calculus

MATH 23A
Multivariable Calculus

**CMPE 16**
Discrete Math

**CMPE 12/L**
Computer Systems & Assembly Language

CMPE 110
Computer Architecture

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**AMS 10**
Engr Math Methods I

**MATH 21**
Linear Algebra

**CMPS 101**
Abstract Data Types

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

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

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

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

**AMS 131**
Intro to Probability Theory

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**CHEM 1A**
General Chemistry

**CHEM 1B/1M**
General Chemistry

**CHEM 1C/N**
General Chemistry

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**CMPS 12B/M or CMPS 13H/L, CMPE 16, MATH 19B, plus one from the following:**

**CMPS 101**
Abstract Data Types

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**CMPS 102**
Analysis of Algorithms

**CMPS 130**
Computational Models

**CMPS 104A**
Compiler Design I

**CMPS 111**
Operating Systems

**CMPS 112**
Comparative Prog. Languages

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**DC: Disciplinary Communication**
The following courses also satisfy an upper division elective:

CMPS 115
CMPS 132 & 132W
CMPS 180 & 180W
CMPS 185
CMPS 195
CMPE 185 (see back)

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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

**Upper Division ELECTIVE (Capstone)**

**Upper Division ELECTIVE (DC)**

**Upper Division ELECTIVE**

**Upper Division ELECTIVE**

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**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.

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Computer Science B.S. Degree  
2014-2015 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 ♣
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:

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