

# Computer Science Four Year Plan

## First Year

### Fall

- CIS 121 Intro to Programming
  - MATH 121 Calculus 1
  - ENG 101 Composition
  - Gen Ed
- (15-18 credits)

### Spring

- CIS 122 Data Structures
  - MATH 122 Calculus 2
  - Science Elective
  - Gen Ed
- (15-18 credits)

*Science electives can be chosen from: BIOL 105, 106, CHEM 201, 202, GEOL 121, 122, PHYS 221, 222+232, 223+233. Choose two from different departments to meet general education requirements.*

## Second Year

### Fall

- CIS 224 Computer Architecture
  - MATH 247 Linear Algebra
  - Science Elective
  - Gen Ed
- (15-18 credits)

### Spring

- CIS 223 Algorithms
  - MATH 280 Discrete Math for CS 1
  - CMST 102 or ENG 271W
  - Gen Ed
- (15-18 credits)

*Apply for admission to upper division, project-based computer science major during Second Year!*

## Third Year

### Fall

- CS 495 Seminar
  - CS 391W CS Project 1
  - CS 301 CS Core: Operating Systems
  - CS 302 CS Core: Software Engr & Parallel Computing
  - MATH 380 Discrete Math for CS 2
  - Gen Ed
- (16 credits)

### Spring

- CS 495 Seminar
  - CS 392W CS Project 2
  - CS 303 CS Core: Programming Languages
  - CS 304 CS Core: Databases & Info. Security
  - MATH 354 Probability & Statistics
  - CS Elective
- (15 credits)

*CS Core and CS Elective classes are each 2 credits.*

## Fourth Year

### Fall

- CS 495 Seminar
  - CS 491W CS Capstone Project 1
  - CS Elective (2)
  - CS Elective (2)
  - CS Elective (2)
  - Gen Ed
- (15 credits)

### Spring

- CS 495 Seminar
  - CS 492W CS Capstone Project 2
  - CS Elective (2)
  - CS Elective (2)
  - Gen Ed
  - Gen Ed
- (12-15 credits)

- *Students earn a math minor while completing the requirements for the computer science degree.*
- *CS Electives are in a wide range of computer science topics and broadly relate to: Operating Systems, Programming Languages, Networking & Communication, Algorithms & Computability, Parallel & Distributed Computing, Architecture & Organization, Intelligent Systems, Information Management, Information Assurance & Security, Computational Science, Graphics & Visualization, Human Computer Interaction, Software Engineering, and Platform-based Development*

## Computer Science Faculty Contact Information

Prof. Suboh Alkushayni	<a href="mailto:suboh.alkushayni@mnsu.edu">suboh.alkushayni@mnsu.edu</a>	507-389-2363	WH 227
Prof. Becky Bates	<a href="mailto:bates@mnsu.edu">bates@mnsu.edu</a>	507-389-5587	WH 231
Prof. Lin Chase	<a href="mailto:lin.chase@mnsu.edu">lin.chase@mnsu.edu</a>	415-799-6721	WH 229
Prof. Jonathan Hardwick	<a href="mailto:jonathan.hardwick@mnsu.edu">jonathan.hardwick@mnsu.edu</a>	507-389-5312	WH 242
Prof. Guario Salivia	<a href="mailto:salivia@mnsu.edu">salivia@mnsu.edu</a>	507-389-5311	WH 221