COMPUTER SCIENCE MAJOR

Concentration in Computer Science with Cooperative Experience

Domain General Education (10 Courses Required):
Domain II A is satisfied through completion of the Computer Science major, leaving ten courses to be completed to satisfy the remaining General Education subdomains through courses taken outside the major department. Only courses designated (Gen. Ed. Domain) after the course title will meet General Education requirements. Please refer to the catalog for full information.

Common Core: A. ENWR 110 Composition 2
B. MATH XXX

Domain I: A. Creative Arts
B. Humanities
C. Language

Domain II: A. Analysis, Modeling, Problem-Solving X
B. Sciences (two; one must be a lab science)

Domain III: A. Perspectives on the Past
B. Perspectives on Contemp. World

Major and Related Courses:
Major Core Requirements (8)
CSCI 120 Introduction to Information Technology
CSCI 130 Computer Science I Using Java
CSCI 200 Pre-Coop Seminar (0.5)
CSCI 215 Computer Science II Using Java
CSCI 258 Introduction to Operating Systems Using UNIX
CSCI 360 Database Management
MATH 206 Discrete Math I
STAT 117 Introduction to Statistics

Concentration in Computer Science with Cooperative Experience
This concentration integrates two (2) full-time six-month cooperative work experiences with the required courses for the Concentration in Computer Science. These cooperative work experiences allow students to apply and further investigate the discipline of computer science. This concentration prepares students for careers in software development.

Concentration Entrance Requirements – Students must:
• Maintain a minimum overall GPA of 2.80;
• Maintain a 3.00 GPA in all Computer Science courses;
• Complete and submit the cooperative experience application during the semester prior to enrolling in CSCI 310 Cooperative Experience I. Transfer students must complete three (3) Computer Science courses at Framingham State University prior to participating in CSCI 310 Cooperative Experience I;
• Have junior standing at the time of the first cooperative experience.

Required Concentration Core (8)
CSCI 271 Data Structures
CSCI 310 Computer Science Cooperative Experience I
CSCI 317 Discrete Structures *
CSCI 347 Analysis of Algorithms
CSCI 352 Comp. Architecture & Assembly Language
CSCI 362 Software Engineering
CSCI 410 Computer Science Cooperative Education II
CSCI 460 Theory of Computing
CSCI 465 Operating Systems Internals
CSCI 477 Computer Networking
*MATH 330 Discrete Mathematics II may be substituted for CSCI 317 Discrete Structures

Choose three (3) Computer Science Electives:
CSCI 300 Artificial Intelligence
CSCI 308 Python Programming
CSCI 320 Windows Server & Client Management
CSCI 333 Object-Oriented Programming Using C==
CSCI 340 Unix System Administration
CSCI 345 Computer & Network Security
CSCI 373 Advanced Web Technologies
CSCI 400 Special Topics in Computer Science
CSCI 490 Independent Study in Computer Science
CSCI 495 Internship in Computer Science

Choose One (1) Science Laboratory Course:
BIOL 130/130L Principles of Biology with Lab
CHEM 107/107L Principles of Chemistry with Lab
GEOL 108/108L Physical Geology with Lab
PHYS 201/201L Physics for Earth and Life Scientist with Lab
PHYS 211/211L Principles of Physics I with Lab

Free Electives (2):

2022-2023