

# 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	<u>  X  </u>
	B. Sciences (two; one must be a lab science)	_____
		_____
Domain III:	A. Perspectives on the Past	_____
	B. Perspectives on Contemp. World	_____
	C. Global Comp., Eth. Reas., Human Div.	_____

### 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):

_____	_____	_____
_____	_____	_____

