

COMPUTER SCIENCE MAJOR – B.S.

Summary

Code	Title	Credits
	Computer Science B.S. Major Requirements	71-79
	Integrative Core Curriculum Requirements ¹	29-41
	Electives	0-21
	Total Credits	121

¹ See Integrative Core Curriculum requirements, with information about the H&S CLA requirement. (<https://catalog.ithaca.edu/undergrad/schools/school-humanities-sciences/#integrativecorecurriculumicctext>)

Degree Requirements

Prerequisite information: A grade of C or better is required for a course in computer science to fulfill a prerequisite for another computer science course.

Code	Title	Credits
CORE COURSES IN THE DEPARTMENT		
COMP 11500	Discrete Structures for Computer Science	4
COMP 17100	Principles of Computing Science I	4
COMP 17200	Principles of Computer Science II	4
COMP 21000	Introduction to Computer Organization and Systems	4
COMP 22000	Introduction to Data Structures	4
COMP 31100	Algorithms and Data Structures	4
COMP 32100	Programming Languages	4
	or COMP 3250CHCI: User Interface Design and Development	
	or COMP 3650C Computer Networks	
	or COMP 3750C Database Systems	
COMP 34500	Introduction to Software Engineering	4
COMP 47500	Senior Project	3
COMP xxxxx	Five elective courses in computer science ¹	15-20

Select one course at level-2, 3, or 4

Select two courses at level-3 or 4

Select two courses at level-4

COURSES OUTSIDE THE DEPARTMENT

Mathematics

MATH 11100	Calculus I	4
MATH 11200	Calculus II	4
MATH 14400	Statistics for Business, Economics and Management	3-4
	or MATH 21600 Statistical Analysis	

Laboratory Science Sequence

Select one laboratory science sequence from the following: 7-8

Sequence I

PHYS 11700 Principles of Physics I: Mechanics
& PHYS 11800 and Principles of Physics II: Electricity
and Magnetism

Sequence II

CHEM 12100 Principles of Chemistry
& CHEM 12200 and Principles of Chemistry Laboratory

OR

CHEM 12300 Principles of Chemistry - Enriched
Section

AND

CHEM 22100 Organic Chemistry I

Sequence III

BIOL 12100 Principles of Biology, Cell and Molecular
& BIOL 12200 and Principles of Biology, Ecology and
Evolution

Sequence IV

BIOL 11900 Fundamentals of Biology: Cells and
& BIOL 12000 Bodies
and Fundamentals of Biology: Ecology
and Evolution

Sequence V

PHYS 10100 Introduction to Physics I
& PHYS 10200 and Introduction to Physics II

Science Elective

Select an additional 3-4 credits from the following options: 3-4

BIOL / CHEM / Any course required for majors in
PHYS biology, chemistry, or physics

MATH 21100 Calculus III

MATH 23100 Linear Algebra

Oral Communication

Select one course from the following: 3

CMST 11000 Public Communication

CMST 11500 Business & Professional Comm

CMST 14000 Small Group Communication

Total Credits 74-82

¹ Students may use only one project course - COMP 370xx, COMP 470xx or COMP 47500 taken for at least 3 credits - to fulfill the electives requirement; COMP 49800 cannot be counted as a computer science elective.