



Science Courses for Computer Science Majors

(1) Computer Science students must take one of the following two-course science sequences (including the laboratory section, if the laboratory section is separate).

- **Biology:** 50.114/115
- **Geosciences:** 51.120/121 or 51.130/131
- **Chemistry:** 52.115/116
- **Physics:** 54.211/212 or 54.111/112

(2) In addition to the two-course sequence requirement, Computer Science students must take at least four additional credit hours from the courses listed below.

(3) Computer Science students must also take a total of at least thirty credit hours in science and mathematics. These hours include the required science courses of (1) and (2) above as well as required mathematics courses. Science courses used to satisfy this requirement must be selected from the lists that follow. Only general prerequisites in each discipline are noted – many courses have additional prerequisites.

Biology

Course Number(s)	Title	Credit Hrs.	Lab
50.114, 50.115	Concepts in Biology I, II	4, 4	X, X
50.211, 50.212	Invertebrate Zoology, Vertebrate Zoology	3	X
50.222	Comparative Biology of Plants	3	X
50.233	Human Genetics	3	
50.242	Microbiology	4	X
50.271	Cell Biology	4	X
50.331	Embryology	3	X
50.332	Genetics	3	X
50.342	Medical Microbiology	3	X
50.343	Immunology	3	
50.350	Plant Pathology	3	X
50.351	Ecology	3	X
50.364	Vertebrate Histology	3	X

Note: Upper level biology courses in the list above have at least a prerequisite of 50.115.

Geosciences

Course Number(s)	Title	Credit Hrs.	Lab
51.120, 51.121	Physical Geology, Physical Geology Lab	3, 1	X
51.130, 51.131	Historical Geology, Historical Geology Lab	3, 1	X
51.255	Meteorology	3	
51.259	Oceanography	3	
51.260	Earth Materials	4	X
51.261	Mineralogy	4	X
51.262	Petrology	4	X
51.265	Geomorphology	4	X
51.320	Remote Sensing of the Earth	4	X
51.360	Intro. to Paleontology	4	X
51.369	Structural Geology	4	X
51.370	Surface Hydrology	3	X

Note: Upper level biology courses in the list above have at least a prerequisite of 51.120 or 51.130.

Chemistry

Course Number(s)	Title	Credit Hrs.	Lab
52.115, 52.116	Chemistry for the Sciences 1, 2	4, 4	X, X
52.230	Fundamentals of Organic Chemistry	4	X
52.231, 52.232	Organic Chemistry I, II	4, 4	X, X
52.321	Analytical Chemistry	3	X
53.322	Instrumental Analytical Chemistry	4	X
52.341, 52.442	Biochemistry I, II	4, 4	X, X
52.361, 52.362	Physical Chemistry I, II	4, 4	X, X
52.371	Introduction to Polymer Science	3	X

Note: Upper level chemistry courses in the list above have at least a prerequisite of 50.116.

Physics

Course Number(s)	Title	Credit Hrs.	Lab
54.211, 54.212	General Physics I, II (Calculus Based)	4, 4	X, X
54.111, 54.112	Introduction to Physics I, II (Algebra Based)	4, 4	X, X
54.301, 54.302	Mechanics: Statics; Mechanics: Dynamics	3, 3	
54.310	Modern Atomic Physics	3	
54.314	Electricity and Magnetism	3	
54.315	Electronics	4	X
54.318	Optics	4	X
54.320	Nuclear Radiation	2	X
54.340	Astrophysics: The Stars	3	
54.341	Astrophysics: Galaxies and Cosmology	3	

Notes: Except for 54.316 and 54.317, upper level physics courses in the list above have a prerequisite of 54.211. Calculus (53.125 or 53.126) is also required for many courses as a prerequisite or co-requisite.