Cellular and Molecular Biology (B.S.) Sample Curriculum

We have provided this as an example but you will work with your advisor to customize a plan

Freshman							
Fall	BIOL 198 (4) Principles of Biology	CHM 210 (4) Chemisry 1	BIOL 100 (1) Biology First-Year Orientation	BIOL 461 (3) Phage Hunters 1	Free Elective (1)		13 Credits
Spring	BIOL 455 (4) General Microbiology	CHM 230 (4) Chemistry 2	STAT 325 (3) Introduction to Statistics	COMM 106 (3) Public Speaking			14 Credits
Sophomore							
Fall	BIOL 450 (4) Modern Genetics	CHM 531 (3) Organic Chemistry 1	MATH 220 (4) Calculus 1 Students often take during the summer	ENGL 100 (3) Expository Writing 1	Free Elective (2)		16 Credits
Spring	CHM 550 (3) Organic Chemistry 2	CHM 532 (2) Organic Chemistry Lab	PHYS 113 (4) General Physics 1	ENGL 200 (3) Expository Writing 2	Social Science or Humanity (3)		15 Credits
Junior							
Fall	BIOL 580 (3) Molec Biol of Genes & Genomes	BIOL 520 (3) Evolution	PHYS 114 (4) General Physics 2	U.S. Multicultural Overlay (3)	Social Science or Humanity (3)		16 Credits
Spring	BIOL 541 (3) Cell Biology	BIOCH 521 (3) General Biochemistry	BIOL elective (2)	International Overlay (3)	Social Science or Humanity (3)		15 Credits
Senior							
Fall	BIOL 676 or 695/698 (3) Mol. Gen. Lab or Research / Internship	BIOL elective with lab (3)	Free Elective (3)	Upper Level Social Science (3)	Social Science or Humanity (3)	*Apply to graduate programs (if applicable)*	15 Credits
Spring	BIOL elective with lab (3)	BIOL elective (2)	Social Science or Humanity (3)	Social Science or Humanity (3)	Free Elective (3)		16 Credits

Notes

All Bachelors Degrees require 120 credits, of which 45 must be upper division courses. Only 60 credits from community colleges may count toward degree.

At least 13 credit hours of upper level biology electives including two with a lab are REQUIRED.

Recommended electives include:
BIOL 410 (2) Biology of the Cancer Cell
BIOL 461 (3) Phage Hunters 1
BIOL 462 (2) Phage Hunters 2
BIOL 675 (3) Genetics of Microorganisms (Fall) *prereq for 676
BIOL 676 (3) Molecular Genetics Lab
BIOL 695 or 698 (1-3) Internship or Research in Biology
BIOL 705 (3) Eukaryotic Genetics
BIOL 707 (3) Advanced Cell Biology
BIOL 730 (3) Virology
BIOL 734 (3) Intro to Genomics and Bioinformatics
BIOCH 522 (3) Biochemistry Lab

NOTE: Check official degree reqs for full list of electives.

The following need to be considered in the general reqs.:

- Social Sci. courses need to be from 3 different areas.
- One Social Science course must be at 500 level or above, or carry a prerequisite in the same department.
- Philosophy course cannot be a logic class.

Note on Organic Chemistry:
Consult with your advisor on which organic chemistry option you should choose (CHM 531 versus CHM 350)

Key

Biology elective (see course catalog list)

Course offered only in Fall Semester

Course offered only in Spring Semester

Total Hours: 120