BS Molecular Biology & Biotechnology

Planning Sheet - Catalog Year 2012/13

This planning sheet shows one suggested sequence in which the required courses for the molecular biology and biotechnology major may be taken. Many factors, including initial placement in math, chemistry and English composition, will affect your actual schedule for completion of these courses.

Freshman Year

Fall Semester

Chem 111	Principles of Chemistry I (*SAT/ACT/COMPASS scores; HS chem grade*)	4 cr
Engl 102	College Writing & Rhetoric (*prereq=Engl 101 or equiv*)	3 cr
Gen Ed Core elective	Student's choice of Humanities, Social Science, Integrated Seminar	3 cr
Math 160 or Math 170	Survey of Calc or Calc I (*prereq=SAT/ACT, COMPASS or Math 143*; *Math 170 also requires Math 144 Trig if Math 143 was taken, COMPASS trig score of 51 or higher will also satisfy the trigonometry prerequisite for Math 170)*	4 cr
Elective (optional)		3 cr
		14 - 17 cr

Spring Semester

Chem 112	Principles of Chemistry II (*prereq=Chem 111*)	5 cr
Gen Ed Core elective	Student's choice of Humanities, Social Science, Integrated Seminar	3 cr
Biol 115	Cells and the Evolution of Life (*pre or corequisite= Chem 101 or Chem 111*)	4 cr
Elective		3 cr
		15 cr

Sophomore Year

Fall Semester

Chem 277/278	Organic Chem I & lab *(prereq=Chem 112)*	4 cr
MMBB 250/255	General Microbiology/lab (*prereq=Chem 101 or 111*)	5 cr
Phys 111 or Phys 211	General Physics I (*with lab; prereq=Math 143*) or Engineering Physics I (*with lab; prereq=Math 170*)	4 cr
Stat 251	Statistical Methods	3 cr
		16 cr

Spring Semester

Chem 372	Organic Chemistry II (*prereq=Chem 277*)	3 cr
Phys 112 or Phys 212	General Physics II (*with lab; prereq=Phys 111*) or Engineering Physics II (*with lab; prereq=Phys 211*)	4 cr
Gen Ed Core		3 cr
Electives		6 cr
		16 cr

Junior Year

Fall Semester

Biol 310 or Gene 314 (314 taught in spring)	Genetics (*prereq=Biol 115*) or General Genetics (*prereq=Biol 115 or MMBB 154 or permission*)	4 cr
MMBB 380	Introductory Biochem *(prereq=Chem 111 and 277)*	4 cr
Chem 253	Quantitative Analysis (*prereq=Chem 112*)	3 cr
Chem 254	Quantitative Analysis lab (pre or co req=Chem 253)	2 cr
MMBB 382	Introductory Biochem lab (*prereq=Chem 101 or 111 and 278; coreq=MMBB 380*)	2 cr
Elective		3 cr
		18 cr

Spring Semester

MMBB 442	Advanced Biochemistry II (*prereq=Chem 372 and MMBB 380 or Chem 305 or 306*)	3 cr
MMBB elective - Molec Biol & Biotech		3 cr
Gen Ed Core elective		3 cr
Electives		6 cr
		15 cr

Senior Year

Fall Semester

MMBB 400	Seminar (prereq=permission)	1 cr
MMBB 488	Genetic Engineering (*prereq Biol 310 or Gene 314*)	3 cr
MMBB elective - Molec Biol & Biotech		3 cr
Electives		9 cr
		16 cr

Spring Semester

MMBB 440 or MMBBB 401	Advanced Lab Techniques (*prereq=MMBB 250*) or Undergraduate Research	4 cr
Electives		11 cr
		15cr

Total must equal a minimum of: 120 cr

You must complete an average of 15 credits per semester to earn the minimum credit total in 8 semesters.

Overall total for upper division credits must equal a minimum of **36 credits.**

Course offerings may change from year to year. Always check the current course catalog.