# Suggested Sequence for BS Biology with Molecular Biology Concentration

## Freshman Year / Fall
- **CHEM 121/121L Chemistry I/Lab** 5 Cr.
- **BIOL 115/115L Adv Gen Biol I/Lab** 4 Cr.
- **UCOR 101 Thinking & Writing** 3 Cr.
- **MATH 115 Calculus I** 4 Cr.
- **COSC 030 Research/Info Skills** 1 Cr.
- **Total Cr.: 17**

## Freshman Year / Spring
- **CHEM 122/121L Chemistry II/Lab** 5 Cr.
- **BIOL 117/117L Adv Gen Biol II/Lab** 4 Cr.
- **UCOR 102 Imag.Lit. & Critical Writing** 3 Cr.
- **1^MATH 116 Calculus II** 4 Cr.
- **1^UCOR Theology Requirement** 3 Cr.
- **Total Cr.: 15-16**

## Sophomore Year / Fall
- **CHEM 211/211L Org. Chem I/Lab** 4 Cr.
- **BIOL 212 Cell & Molecular Biology** 4 Cr.
- **MATH 225 Biostatistics** 3 Cr.
- **ENGL 302W Science Writing** 3 Cr.
- **Total Cr.: 14**

## Sophomore Year / Spring
- **CHEM 212/212L Org. Chemistry II/Lab** 4 Cr.
- **BIOL 250 Gen or BIOL 468 Hum. Gen** 3 Cr.
- **1^MATH 335 Biostatistics II** 3 Cr.
- **UCOR 132 Basic Philosophical Questions** 3 Cr.
- **GENL General Elective** 3 Cr.
- **SPRG 105 Career Development Seminar** 1 Cr.
- **Total Cr.: 17**

## Junior Year / Fall
- **PHYS 201 Physics for Life Sciences I** 4 Cr.
- **BIOL 370W Biology Lab I** 4 Cr.
- **CHEM 401 Biochem I** 3 Cr.
- **HIST 307 History of Science** 3 Cr.
- **BIOL 490 Biology Seminar** 1 Cr.
- **Total Cr.: 15**

## Junior Year / Spring
- **BIOL ___^2^BIOL/^4^CHEM Elective** 3 Cr.
- **PHYS 202 Physics for Life Sciences II** 4 Cr.
- **BIOL 37xW Biology Lab II or IV or VI** 4 Cr.
- **UCOR Ethics Requirement** 3 Cr.
- **UCOR Creative Arts Requirement** 3 Cr.
- **Total Cr.: 17**

## Senior Year / Fall
- **BIOL 419 Bioinformatics** 3 Cr.
- **BIOL ___^2^BIOL Elective/^3^Research** 3 Cr.
- **UCOR Faith and Reason Requirement** 3 Cr.
- **UCOR Social Justice Requirement** 3 Cr.
- **GENL General Elective** 3 Cr.
- **Total Cr.: 15**

## Senior Year / Spring
- **BIOL ___^2^BIOL/^4^CHEM Elective** 3 Cr.
- **BIOL ___^2^BIOL Elective/^3^Research** 3 Cr.
- **UCOR Global Diversity Requirement** 3 Cr.
- **GENL General Elective** 3 Cr.
- **Total Cr.: 12**

1. Students may opt for either MATH 116 or MATH 335. If opting for MATH 116 in Spring of freshman year, the UCOR course asterisked under Spring of freshmen year can be taken instead of MATH 335 during Spring of sophomore year.

2. BIOL electives may be chosen from any concentration. The following electives are suggested based on a significant cell/molecular component. Student in this track are not required to have a supra-organismal concentration.

- BIOL 313 Developmental Biology
- BIOL 319 General Microbiology
- BIOL 405 Microbial Genetics
- BIOL 424 Immunology
- BIOL 460 Endocrinology
- BIOL 475 Neurobiology
- BIOL426 Pathogenic Microbiology
- BIOL 250/468 Genetics / Human Genetics*
  *one of these courses is required, the other may be taken as elective credit
- CHEM402 Biochemistry II
  *If opting for this, should ideally be taken Spring of year 3, following CHEM 401
Undergraduate research is recommended but not required. The following courses related to undergraduate research and an Honors thesis (an option for some students) earn elective credit:

- BIOL398/399/415H Undergrad Research/Honors Research (max 6 credits of elective credit)
- BIOL394 Biology Research Forum (1 credit course for students engaged in research)

The following CHEM courses (in addition to 402) are possible as elective credits, CHEM 301 (Phys Chem for Life Sciences), CHEM 510 (Bioanalytical Chem).

The University will offer various courses each semester to satisfy the UCOR requirements. UCOR courses can be taken in any sequence throughout the undergraduate curriculum.

Notes:
- A minimum grade of C in Biology I & II, Cell & Molecular Biology is prerequisite for all advanced biology courses
- Students must maintain an overall grade point average (GPA) of 2.00 or better to remain enrolled in BSNES
- Students must maintain a GPA of 2.00 in biology courses in order to graduate