
Bachelor of Science in Quantitative Biology

CURRICULUM CREDITS

University Requirements

- ENGL 110 Critical Reading and Writing (minimum grade C-) 3
- First Year Experience 0-4
- Discovery Learning Experience* 3
- Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender-related course content..... 3

College Requirements

- Writing (minimum grade C-) 3
Second writing course taken after completion of 60 credit hours.

Breadth Requirements

Eighteen credits from Groups A, B and C with a minimum of six credits from each group. One of the courses should be in the area of Bioethics.

- Group A 6
- Group B 6
- Group C 6

Major Requirements

A grade of C- or better is required for major courses and related work.

Biology Section

- BISC 207 Introduction to Biology I 4
- BISC 208 Introduction to Biology II 4

*The Core Bio Lab satisfies this requirement

- ☐ Three of the following three-credit (CORE BIO) courses 9
 - BISC 302 General Ecology
 - BISC 305 Cell Physiology
 - BISC 306 General Physiology
 - BISC 401 Molecular Biology of the Cell
 - BISC 403 Genetic and Evolutionary Biology
- ☐ One of the following three-credit (CORE BIO LAB) laboratory classes 3
 - BISC 312 General Ecology Laboratory
 - BISC 315 Experimental Cell Biology
 - BISC 316 Experimental Physiology
 - BISC 411 Experimental Molecular Biology
 - BISC 413 Advanced Genetics Laboratory

Computer and Information Sciences Section

- ☐ Either CISC 106 (for those with no previous equivalent experience),
or CISC 181 Introduction to Computer Science 3

Chemistry Section

- ☐ One of the following options (A, B or C, 8–12 credits total)

Option A

- CHEM 103 General Chemistry 4
- CHEM 104 General Chemistry 4

Option B

- CHEM 111 General Chemistry 3
- CHEM 112 General Chemistry 3
- CHEM 119 Quantitative Chemistry I 3
- CHEM 120 Quantitative Chemistry II 3

Option C

- CHEM 111 General Chemistry 3
- CHEM 112 General Chemistry 3
- CHEM 220 Quantitative Analysis 3
- CHEM 221 Quantitative Laboratory 1

<input type="checkbox"/> CHEM 321 Organic Chemistry	4
<input type="checkbox"/> CHEM 322 Organic Chemistry	4
<input type="checkbox"/> CHEM 527 Introductory Biochemistry	3

Mathematics Section

<input type="checkbox"/> MATH 210 Discrete Mathematics I	3
<input type="checkbox"/> MATH 241 Analytic Geometry and Calculus A	4
<input type="checkbox"/> MATH 242 Analytic Geometry and Calculus B	4
<input type="checkbox"/> MATH 243 Analytic Geometry and Calculus C	4
<input type="checkbox"/> MATH 302 Ordinary Differential Equations	3
<input type="checkbox"/> MATH 349 Elementary Linear Algebra	3
<input type="checkbox"/> MATH 350 Probability Theory and Simulation Methods	3
<input type="checkbox"/> MATH 426 Introduction to Numerical Analysis and Algorithmic Computation	3
<input type="checkbox"/> MATH 450 Mathematical Statistics	3
<input type="checkbox"/> MATH 535 Introduction to Partial Differential Equations	3
<input type="checkbox"/> MATH 460 Introduction to Systems Biology	3

Physics Section

<input type="checkbox"/> PHYS 207 Fundamentals of Physics I	4
<input type="checkbox"/> PHYS 208 Fundamentals of Physics II	4

Other Requirements

<input type="checkbox"/> Two one-credit integrative seminars	2
MATH 260 Integrative Seminar	
<input type="checkbox"/> Three integrative or technical electives, 6 credits of which should be integrative electives from a list maintained by the Department of Mathematical Sciences	9
<input type="checkbox"/> Credits to total a minimum of	124
