

B.S. in Bioinformatics - Applied Mathematics Minor

Click on the course number to view course title and description.

Code	Title	Semester Hours
BS Bioinformatics with minor in Mathematics (120 hours)		
Core Requirements (39 hours)		
First Year Seminar		3
FYE 1301	First Year Seminar	
Freshmen Composition I		3
EN 1311	Rhetoric and Composition	
or EN 1313	Rhetoric and Composition for International Students	
Literature		3
Any EN 23XX literature course		
History		3
Any 1000, 2000, or 3000-level HS course		
Social Science		6
Select two from the following: BA 1310, CJ 1301, CPH 1301, EC 2301, EC 2303, ED 2330, HU 3300, HU 3303, PO 1311, PO 1312, PO 1314, PS 1301, PS 2310, PS 2353, PS 2355, PS 2363, PS 2337, SC 1311, SC 2321, SC 2371, 3 hrs. of Communication Studies (CM 1341, CM 2333, CM 2334)		
Mathematics		
Satisfied by MT 2412 in the courses required for this major.		
Natural or Physical Sciences		
Satisfied by CH 1401 in the courses required for this major.		
Fine Arts		3
Select any 3 hrs. of the following: Art (AR), Drama (DM), Music (MU) or MU 1300		
Foreign Language and International Engagement		6
This requirement is satisfied through one of four ways: (1) One 3-hour course in any language at the 3000 level or above, with a grade of B or better; (2) Two courses (1311 and 1312) in a language not previously studied; (3) Two courses (2311 and 2312) in a language previously studied at the high school or college level; (4) Qualifying scores on an AP or CLEP exam, or both the ACTFL OPI and WPT exams		
Philosophy - Self		3
PL 1301	Intro to Philosophy	
Philosophy - Ethics		3
PL 2301	Foundations of Ethics	
Theology - God		3
TH 1301	Introduction to Theology	
Intermediate Theology		3
Any TH 33xx course		
Bioinformatics Major Courses - Mathematics minor (79 hours)		
BIO 3310	Intro to Bioinformatics	3
BIO 3312	Algorithms for Computational Biology	3
BIO 3313	Big Data Concepts	3
BIO 3314	Internship/Research	3
BIO 3410	Biostatistics for Life Science	4
BIO 4312	Bioinformatics Capstone	3
BIO 4411	Genes, Genomes and Genomics	4
BL 1401	General Biology for Majors I	4
BL 1402	General Biology for Majors II	4
BL 2110	Sophomore Biology Seminar	1
BL 2330	Genetic Principles	3
BL 2332	Cell Biology	3
BL 3110	Junior Biology Seminar	1

BL 4110	Senior Biology Seminar	1
BL 34XX or 44XX	-Advanced Biology	4
CH 1401	General Chemistry I	4
CH 1402	General Chemistry II	4
CS 1310	Programming I in C	3
MT 2412	Calculus I	4
MT 2413	Calculus II	4
MT 2414	Calculus III	4
MT 2318	Applied Linear Algebra	3
MT 4331	Probability Theory	3
MT 4332	Statistics	3
MT 4333	Applied Statistical Methods	3

Electives (2 hours) **2**

An elective can be any course taken from any discipline. Students can use these hours to pursue certificates, minors, or second majors.

Total Semester Hours **120**

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First Year

Fall	Semester Spring Hours	Semester Hours
FYE 1301	3 BL 1402	4
BL 1401	4 EN 1311	3
CH 1401	4 MT 2413	4
MT 2412	4 CH 1402	4
	MT 2318	3
	15	18

Second Year

Fall	Semester Spring Hours	Semester Hours
CS 1310	3 BIO 3410	4
BIO 3310	3 BL 2332 or 2330	3
BL 2332 or 2330	3 MT 2414	4
PL 1301	3 TH 1301	3
BL 2110	1 Literature	3
	13	17

Third Year

Fall	Semester Spring Hours	Semester Hours
BIO 4411	4 BIO 3312	3
MT 4331	3 BIO 3313	3
Social Science	3 History	3
Foreign Language	3 Foreign Language	3
BL 3110	1 MT 4332	3
	14	15

Fourth Year

Fall	Semester Spring Hours	Semester Hours
BIO 3314	3 Electives	2
Advanced Biology	4 BIO 4312	3
MT 4333	3 Fine Arts	3
PL 2301	3 Social Science	3

BL 4110	1 Advanced Theology	3
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Total Semester Hours 120		