

BACHELOR OF SCIENCE DEGREE IN BIOINFORMATICS Catalog yr: 2024

Name: _____

Student # _____

Date: _____

General Education Requirements

English Composition

ENGL 101 & 102* 3 _____ 3 _____

OR ENGL (106 &) 107 & 108* 3 _____ 3 _____

OR ENGL 109H* 3 _____

**A grade of B or higher in ENGL 102, 108 or 109H is required to satisfy the Mid-Career Writing Assessment (MCWA).*

Second Language

2nd semester proficiency _____

Mathematics

MATH 122A & 122B (OR 125) *Calculus I* 5 (3) _____

General Education

UNIV 101 Intro to General Education 1 _____

Exploring Perspectives _____

Artist 3 _____

Humanist 3 _____

Natural Scientist 3 _____

Social Scientist 3 _____

Building Connections _____

Course 1 3 _____

Course 2 3 _____

Course 3 3 _____

Capstone _____

UNIV 301 1 _____

May double dip up to 9 units between general education and major requirements

Upper Division Requirement

A minimum of 42 units of upper division (300/400 level) coursework is required to complete this degree. Students are responsible to ensure this requirement is met.

Bioinformatics Major Foundation Courses

Chemistry

CHEM 151 General Chemistry I 3 _____ 1 _____

CHEM 152 General Chemistry II 3 _____ 1 _____

CHEM 241A & 243A *Organic Chemistry I* 3 _____ 1 _____

CHEM 241B & 243B *Organic Chemistry II* 3 _____ 1 _____

Biology

MCB 181R & 181L *Introductory Biology I* 3 _____ 1 _____

ECOL 182R & 182L *Introductory Biology II* 3 _____ 1 _____

Mathematics

MATH 263 *Biostatistics* 3 _____

Computer Science

ISTA 130 *Computational Thinking and Doing* 4 _____

ISTA 116 *Statistical Foundations for Information Age* 3 _____

Bioinformatics Major Core Courses (19 units)

ECOL 296B *Seminar in Bioinformatics (Fall only)* 1 _____

ECOL 346 *Bioinformatics (Spring only)* 4 _____

ECOL 320 *Genetics* 4 _____

ECOL 335 *Evolutionary Biology (Spring only)* 4 _____

ISTA 320 *Applied Data Visualization* 3 _____

ISTA 321 *Data Mining and Discovery* 3 _____

OR ISTA 322 *Data Engineering* 3 _____

Major Electives

Elective courses must be upper division (300 or 400 level)

Minimum of 23 units of upper division Bioinformatics electives

_____	_____
_____	_____
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_____	_____

Graduation Requirements

- | | | | | |
|---|--|---|---|--|
| <input type="checkbox"/> 120 total units | <input type="checkbox"/> 42 upper division units | <input type="checkbox"/> 30 units or more completed at UA | <input type="checkbox"/> 2.00 or higher cum & major GPA | <input type="checkbox"/> 56 university units |
| <input type="checkbox"/> Major Complete <input type="checkbox"/> General Education Complete <input type="checkbox"/> MCWA Complete- A grade of B or higher in ENGL 102, 108 or 109H OR with ENGL 308. | | | | |

Sample 4 Year Plan with Algebra Placement			
Fall	11	Spring	18
MATH 112	3	CHEM 151	4
ENGL 101	3	MATH 120R	4
ECOL 296B	1	ENGL 102	3
UNIV 101	1	ISTA 130	4
Gen Ed	3	Gen Ed	3
Fall	16	Spring	13
MATH 122A	1	MCB 181R	3
MATH 122B	4	MCB 181L	1
CHEM 152	4	CHEM 241A	3
ECOL 182R	3	ISTA 320	3
ECOL 182L	1	MATH 263	3
ISTA 116	3		
Fall	14	Spring	18
ECOL 320	4	ECOL 335	4
CHEM 241B	3	ECOL 346	4
ISTA 321	3	Gen Ed	3
OR 322 OR 331		Major Elective	4
Major Elective	4	Gen Ed	3
Summer	2		
CHEM 243 A	1		
CHEM 243 B	1		
Fall	16	Spring	14
Language 101	4	Language 102	4
Major Elective	3	Major Elective	3
Major Elective	3	Major Elective	3
Gen Ed	3	Major Elective	3
Gen Ed	3	UNIV 301	1
Total Units	120		

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 ☐ 42 upper division units
 ☐ 30 units or more completed at UA
 ☐ 2.00 or higher cum & major GPA
 ☐ 56 university units
☐ Major Complete
 ☐ General Education Complete
 ☐ MCWA Complete- A grade of B or higher in ENGL 102, 108 or 109H OR with ENGL 308.