

# Bachelor of Arts in Biology

## About This Program

The Bachelor of Arts Degree in Biology is suitable for career preparation in a number of biological career fields and for students who desire teaching certification with a teaching field in biology or composite science. Students choosing this program are required to consult with the Department of Biology's undergraduate advisor to develop an acceptable degree plan. Students seeking teaching certification with a teaching field in biology or composite science are required to consult with the Department of Biology certification advisor in order to develop an acceptable teaching certification degree program

## Competencies

1. Upon completion, students will be able to describe the types of evidence that support the conclusion that evolution explains the diversity of life on Earth and reveal evolutionary relationships amongst groups of organisms.
2. Upon completion, students will be able to explain how the structure and function of cells affects their ability to survive, reproduce, and carry out specific functions in multicellular organisms including how genetic information is stored and passed from one generation to the next.
3. Upon completion, students will be able to describe and demonstrate the scientific methods of observation, experimentation, hypothesis formulation, and hypothesis testing.
4. Upon completion, students will be able to apply quantitative skills such as estimation, graphing data, statistical analyses, and analysis of large datasets.

## Curriculum

### Foundations

General Core Requirements (<https://catalog.uta.edu/academicregulations/degree requirements/generalcore requirements/>) 42

Students are required to complete specific courses in certain core areas.

For Communication select:

ENGL 1301	RHETORIC AND COMPOSITION I
ENGL 1302	RHETORIC AND COMPOSITION II

For Life & Physical Science select:

PHYS 1441	GENERAL COLLEGE PHYSICS I
PHYS 1442	GENERAL COLLEGE PHYSICS II

For Mathematics select: <sup>1</sup>

MATH 1302	COLLEGE ALGEBRA
MATH 1303	TRIGONOMETRY

For US History select:

HIST 1301	HISTORY OF THE UNITED STATES TO 1865
HIST 1302	HISTORY OF THE UNITED STATES, 1865 TO PRESENT

Biology Foundations

Additional hours required core. 2

UNIV 1131	STUDENT SUCCESS	1
or UNIV 1101	CAREER PREPARATION AND STUDENT SUCCESS	

CHEM 1441	GENERAL CHEMISTRY I	4
-----------	---------------------	---

CHEM 1442	GENERAL CHEMISTRY II	4
-----------	----------------------	---

CHEM 2321	ORGANIC CHEMISTRY I	3
-----------	---------------------	---

Select one of the following for oral communication competency: 3

COMS 2302	PROFESSIONAL AND TECHNICAL COMMUNICATION FOR SCIENCE AND ENGINEERING
COMS 1301	FUNDAMENTALS OF PUBLIC SPEAKING

Or other communication course approved by advisor.

Select 12 hours of advanced electives (3000/4000 level courses) 12

Select 13 hours in any level electives 13

### Biology Specialization

BIOL 1441	BIOLOGY I FOR SCIENCE MAJORS: CELL AND MOLECULAR BIOLOGY	4
-----------	----------------------------------------------------------	---

BIOL 1442	BIOLOGY II FOR SCIENCE MAJORS: ECOLOGY AND EVOLUTION	4
-----------	------------------------------------------------------	---

BIOL 3315	GENETICS	3
-----------	----------	---

Diversity Courses		
BIOL 3427	PLANT SCIENCE	4
BIOL 3454	GENERAL ZOOLOGY	4
BIOL 2444	GENERAL MICROBIOLOGY	4
Select 7 hours of advanced core courses from the following:		7
BIOL 3301	CELL PHYSIOLOGY	
BIOL 3310	SELECTED TOPICS IN BIOLOGY	
BIOL 3339	INTRODUCTION TO EVOLUTION	
BIOL 3442	HUMAN PHYSIOLOGY	
BIOL 3446	HUMAN ANATOMY	
BIOL 3457	GENERAL ECOLOGY	
Advanced BIOL elective course - approved by advisor		6
<b>Total Hours</b>		<b>120</b>

<sup>1</sup> Transfer students must present a minimum of six semester credit hours of equivalent or higher level mathematics courses.

## SUGGESTED COURSE SEQUENCE

<b>First Year</b>			
<b>First Semester</b>	<b>Hours</b>	<b>Second Semester</b>	<b>Hours</b>
ENGL 1301		3 ENGL 1302	3
MATH 1302		3 MATH 1303	3
BIOL 1441		4 BIOL 1442	4
Social/Behavioral Science		3 CHEM 1441	4
UNIV 1131 or 1101		1	
		<b>14</b>	<b>14</b>
<b>Second Year</b>			
<b>First Semester</b>	<b>Hours</b>	<b>Second Semester</b>	<b>Hours</b>
POLS 2311		3 POLS 2312	3
BIOL 3315		3 BIOL 2444	4
CHEM 1442		4 CHEM 2321	3
Language, Philosophy and Culture		3 Advanced Biology Elective	3
		Any Level Elective	3
		<b>13</b>	<b>16</b>
<b>Third Year</b>			
<b>First Semester</b>	<b>Hours</b>	<b>Second Semester</b>	<b>Hours</b>
PHYS 1441		4 PHYS 1442	4
BIOL 3427		4 BIOL 3454	4
Foundational Component Area Elective		3 BIOL 3301 or 3339	3
HIST 1301		3 COMS 2302	3
		Creative Arts	3
		<b>14</b>	<b>17</b>
<b>Fourth Year</b>			
<b>First Semester</b>	<b>Hours</b>	<b>Second Semester</b>	<b>Hours</b>
Advanced Elective		6 Advanced Biology Elective	3
BIOL 3442 or 3446		4 Advanced General Elective	6
Any Level Elective		7 HIST 1302	3
		Any level elective	3
		<b>17</b>	<b>15</b>
<b>Total Hours: 120</b>			

## Advising Resources

Biology department advising is available for transfer students, prospective students, and first time in college students after meeting transition criteria.

### Location:

Life Science Building 3rd floor - 345, 347, 349, 351

**Email:**

Find advisor emails at link below.

**Phone:**

817-272-2408

**Web:**

Contact your advisor - schedule an appointment (<https://www.uta.edu/academics/schools-colleges/science/departments/biology/advising/>)