

## COLLEGE OF ARTS AND SCIENCES

## Bachelor of Science in Biology

The curriculum leading to the Bachelor of Science degree with a major in biology is designed to prepare students for positions in industry, state and federal government, and to continue their education in professional and graduate schools. Successful students will be highly motivated for achievement in science and mathematics as well as achievement in the liberal arts. Careers in science range from agriculture to zoology and from teaching and research to medicine. Majors in biology are prepared to pursue graduate or professional study in such fields as physiology, genetics, botany, microbiology, biotechnology, molecular biology, medicine, veterinary medicine, dentistry, pharmacy, and many others.

## Recommended 4-Year Curriculum

## FRESHMAN YEAR

First Semester			Credit Hours	Second Semester			Credit Hours
BIOL	1306	General Biology I	3	BIOL	1307	General Biology II	3
BIOL	1106	General Biology I Lab	1	BIOL	1107	General Biology II Lab	1
CHEM	1311	General Chemistry I	3	CHEM	1312	General Chemistry II	3
CHEM	1111	General Chemistry I Lab	1	CHEM	1112	General Chemistry II Lab	1
_____	_____	*Communication	3	_____	_____	*Communication	3
_____	_____	Elective (math 2312 suggested)	3	MATH	2413	Calculus I	4
<b>Total Semester Hours</b>			<b>14</b>	<b>Total Semester Hours</b>			<b>15</b>

## SOPHOMORE YEAR

First Semester			Credit Hours	Second Semester			Credit Hours
MATH	1342	Statistics <u>OR</u>		CHEM	3344	Organic Chemistry II	3
CHEM	3310	Analytical Chem. (with CHEM 3111)	3-4	CHEM	3145	Organic Chemistry II Lab	1
CHEM	3342	Organic Chemistry I	3	BIOL	_____	**Group I	3
CHEM	3143	Organic Chemistry I Lab	1	BIOL	_____	**Group I Lab	1
BIOL	3332	Genetics	3	BIOL	3334	Cell Biology	3
BIOL	3133	Genetics Lab	1	BIOL	3134	Cell Biology Lab	1
_____	_____	*Social and Behavioral Science	3	_____	_____	*Language, Philosophy & Culture	3
<b>Total Semester Hours</b>			<b>14-15</b>	<b>Total Semester Hours</b>			<b>15</b>

## JUNIOR YEAR

First Semester			Credit Hours	Second Semester			Credit Hours
BIOL	3336	Ecology	3	BIOL	_____	**Group III	3
BIOL	3137	Ecology Lab	1	BIOL	_____	**Group III Lab	1
BIOL	3339	Plant Biology+	3	BIOL	3338	Biological Evolution	3
BIOL	3139	Plant Biology Lab+	1	PHYS	1302	College Physics II ++	3
HIST	1301	United States History	3	PHYS	1102	College Physics II Lab ++	1
PHYS	1301	College Physics ++	3	_____	_____	Elective	3
PHYS	1101	College Physics Lab ++	1	<b>Total Semester Hours</b>			<b>14</b>
<b>Total Semester Hours</b>			<b>15</b>	<b>Total Semester Hours</b>			<b>14</b>

## SENIOR YEAR

First Semester			Credit Hours	Second Semester			Credit Hours
POLS	2305	Intro. American Government	3	POLS	2306	Intro. Texas Politics	3
CHEM	4334	Biochemistry I	3	BIOL	4115	Biological Seminar II	1
CHEM	4135	Biochemistry I Lab	1	BIOL	_____	**Group IV	3
BIOL	4114	Biological Seminar I	1	BIOL	_____	**Group IV Lab	1
BIOL	_____	**Group II	3	_____	_____	*Human Expression	3
_____	_____	Elective	3	_____	_____	Elective	1-2
HIST	1302	United States History II	3	_____	_____	*Creative Arts	3
<b>Total Semester Hours</b>			<b>17</b>	<b>Total Semester Hours</b>			<b>15-16</b>

**Total hours must equal at least 120 hours, including 42 upper-division hours**

## NOTES:

+ See Department Advisor for possible substitutions

++ University Physics (PHYS 2325/2125 and 2326/2126 may be substituted for college physics)

\*See UT Tyler Core Curriculum for approved course(s).

\*\*At least one lecture and laboratory from each of the following groups is required:

**Group I:** Microbiology, Bioinformatics, Molecular Biology for Modifying Organisms

**Group II:** Biogeography, Genomics, Conservation Biology, Immunology

**Group III:** Aquatic Biology, Entomology, Ornithology

**Group IV:** Vertebrate Natural History, Physiology, Herpetology

**This is only a recommended outline. Because degree requirements do change, you should consult an advisor as well as the University Catalog, which is the only official document regarding baccalaureate degree requirements.**