

# BACHELOR OF SCIENCE IN BIOLOGY - RESEARCH

## INTRODUCTION

Biological Science is the study of God's created life and is therefore one of the broadest subjects you can study. Biology encompasses everything from the minute (molecular study of life processes) to the gigantic (animal and plant communities/biomes). Most of our classes have both lectures and labs. Due to a common core, lateral transition to other biology degrees is possible even in the Junior or Senior years. B.S. degrees don't require a minor, but you automatically qualify for a chemistry minor if you wish.

## SPECIALTY

Students interested in research or who want to be more academically competitive for residencies after medical school often choose the B.S. Biology – Research degree. The three additional classes (1 credit each) prepare students to write research proposals and participate in original research. Due to the extra time needed to mentor students in this degree, positions are limited, so interested students need to express their interest to the research coordinator their freshman year.

## SKILLS

Biology degrees start with core classes to give you a basic understanding of the terminology used and the wide range of topics to enjoy. As you progress through the degree, the classes become more specialized and deeper in detail. You will develop key skills such as using a wide range of laboratory equipment, collecting and analyzing data, building teams, strong written and oral communication, leadership, and time management.

**64-65 HOURS = CORE (45) + COGNATES (19-20)**

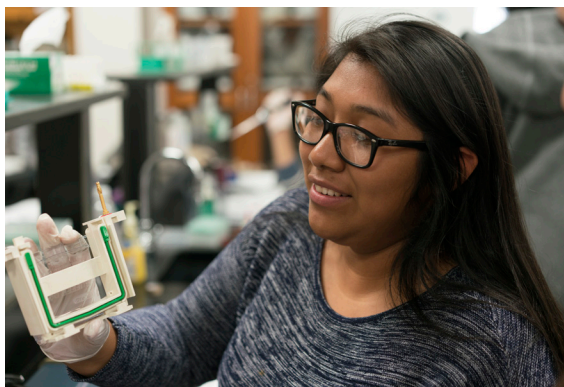
BIOLOGY CORE			COGNATES		
		HOURS			HOURS
BIOL 151-152	General Biology I & II	8	BIOL 305	Proposal Writing (W)	1
BIOL 282	Biological Analysis	3	BIOL 476	Research in Biology	1 - 2
BIOL 311	Genetics	4	BIOL 496	Senior Thesis (W)	1
BIOL 317 or 321	Ecology (Fall) or Field Ecology (Summer)	3	CHEM 311-312	Organic Chemistry I & II	8
BIOL 412	Cell & Molecular Biology	4	PHYS 211-212	General Physics I & II *	6
BIOL 424	Issues in Nat Sci & Rel (W)	3	PHYS 213-214	General Physics I & II Lab	2
BIOL	Biology Electives *	12			<b>20</b>
CHEM 151-152	General Chemistry I & II	8			
		<b>45</b>			

\* Contact School of Engineering & Physics regarding pre-requisites.

**ELECTIVE AREAS (12 HRS)\*\***

BIOLOGICAL SYSTEMS			ORGANISMAL BIOLOGY		
BIOL 313	Developmental Biology	3	BIOL 252	Tropical Biology (Summer)	3
BIOL 416	Human Anatomy	3	BIOL 314	Ornithology	3
BIOL 417	Animal Histology	3	BIOL 320	Entomology	3
BIOL 418	Animal Physiology	3	BIOL 321	Field Ecology (Summer)	3
			BIOL 387	Animal Behavior	3
			BIOL 415	Comparative Anatomy	3
			BIOL 458	Ecotoxicology	3
CLINICAL SCIENCES					
BIOL 315	Human Parasitology (W)	3			
BIOL 329	General Microbiology	3			
BIOL 333	Medical Toxinology	3			
BIOL 340	Immunology	3			
BIOL 450	Epidemiology	3			

\*\* Take one class from each category plus one more from any category. See course schedule for topics courses that may be applied to any elective area.



## B.S. BIOLOGY/RESEARCH EMPHASIS 4-YEAR SUGGESTED PLAN SHEET

FALL SEMESTER	HOURS	WINTER SEMESTER	HOURS
<b>FRESHMAN YEAR</b>			
___ BIOL 151: General Biology I (I-7)	4	___ BIOL 152: General Biology II (I-7)	4
___ CHEM 151: General Chemistry I	4	___ BIOL 282: Biological Analysis	3
___ COMM 135: Comm & Pub Spkg (I-3)	3	___ CHEM 152: General Chemistry II	4
___ ENGL 101: Crit Thnk in Ac Rdg/Wrt I (I-2)	3	___ ENGL 102: Crit Thnk in Ac Rdg/Wrt II (I-2)	3
___ NOND 101: Southern Connections (I-1)	1	___ PEAC 125: Fitness for Collegiate Life (P-1)	1
	<b>15</b>		<b>15</b>
<b>SOPHOMORE YEAR</b>			
___ BIOL 311: Genetics	4	___ BIOL 305: Proposal Writing (W)	1
___ CHEM 311: Organic Chemistry I	4	___ CHEM 312: Organic Chemistry II	4
___ MATH 215: Statistics (I-4)	3	___ CPTC 100: Computer Concepts (I-5)	1
___ Physical Activity (P-2)	1	___ Biology Elective *	3
___ RELB 125 or RELT 177 (R-1)	3	___ Physical Activity (P-2)	1
	<b>15</b>	___ Historical Perspectives (IN-6)	3
		___ Elective **	3
			<b>16</b>
<b>JUNIOR YEAR</b>			
___ PHYS 211: General Physics I	3	___ BIOL 412: Cell & Molecular Biology	4
___ PHYS 213: General Physics I Lab	1	___ BIOL 476: Research in Biology	1 - 2
___ RELT 138, 225 or 255 (R-2)	3	___ PHYS 212: General Physics II	3
___ Aesthetic Analysis (IN-10)	3	___ PHYS 214: General Physics II Lab	1
___ UD Biology Elective *	3	___ Biblical Studies (W) (R-3)	3
___ Elective **	3	___ UD Elective **	3
	<b>16</b>		<b>15 - 16</b>
<b>SENIOR YEAR</b>			
___ BIOL 317 or 321: Ecology or Field Ecology (Summer)	3	___ PEAC 425: Fit for Hire (P-3)	1
___ BIOL 424: Issues in Nat Sci & Rel (W)	3	___ PSYC 128 or SOCI 125 (I-8)	3
___ BIOL 496: Senior Thesis (W)	1	___ UD Biology Elective *	3
___ Stewardship, Business & Econ (IN-9)	3	___ UD Religion (W) (R-4)	3
___ UD Biology Elective *	3	___ Electives **	5
___ Elective **	3	___ UD Elective **	1
	<b>16</b>		<b>16</b>
		___ ___ ___ "W" Classes	TOTAL HOURS
		___ ___ ___ "S" Classes	124

\* Take one class from each category plus one more from any category. See course schedule for topics courses that may be applied to any elective area.

\*\* Electives to bring total credit hours to 124.