


**Degree Requirements: Biology (310)-Bachelor of Science**

School of Arts and Sciences

Department of Agriculture, Biology, and Health Sciences

Catalog Year: 2021-2023

<b>General Education Requirements (44-46 hours)</b>		
<b>Communication (9 hours)</b>	<b>American History (3 hours)</b>	<b>Behavioral Science (3 hours)</b>
ENGL 1113; ENGL 1213; COMM 1113	HIST 1483 or 1493	FAMS 1123, PSY 1113, SOCI 1113
<b>Mathematics (3-5 hours)</b>	<b>Political Science (3 hours)</b>	<b>Economics (3 hours)</b>
MATH 1513, 1613, 2215, 2713	PS 1113	AGRC 2013, ECON 2003, ECON 2013, GEOG 3023
<b>Science* (8-9 hours)</b>	<b>Humanities* (6 hours)</b>	<b>Health and Wellness* (4 hours)</b>
Biological Science: BIOL 1364/L Physical Science: CHEM 1361/1364	Diversity (3 hours) Aesthetics (3 hours) *One course taken from each category.	SES 2003, 2013, 2023, MSL 1112, PE 1--1, 2--1, 2--2 *Requirement waived for some students.
<b>General Education Non-PE Electives (To total at least 44 hours, if needed)*.</b>		
Gen ed electives must be selected from the list of approved <a href="#">general education</a> courses, (MSL- and PE-prefixes excluded).		
<b>University Requirements</b>		
UNIV 1001 or 1113 (1-3 hours)	Computer Literacy (BIOL 4901)	Capstone Experience (BIOL 3901, 4901)
<b>Major Requirements (44-63 hours)</b>		
<b>Required Core Courses (14-25 hours)</b>	<b>Concentration (19-49 hours)</b>	
BIOL 1364/L Principles of Biology I & Lab ((FA, SP) BIOL 1474/L Principles of Biology II & Lab (FA, SP) BIOL 2144/L Botany & Lab ( <i>Conc CMB &amp; OB only</i> ) (SP) BIOL 2154/L Zoology & Lab ( <i>Conc CMB &amp; OB only</i> ) (FA) BIOL 3014/L Genetics & Lab (FA, SP) BIOL 3043 Evolution ( <i>Conc CMB &amp; OGB only</i> ) (FA) BIOL 3901 Biology Capstone I (FA) BIOL 4901 Biology Capstone II (SP) <i>FA=Fall; SP=Spring; SU=Summer</i>	Choose one of the following: <b>Cell and Molecular Concentration</b> <b>Organismal Biology Concentration</b> <b>Medical Laboratory Science</b> (See next page for course list)	
<b>Additional Requirements (22-34 hours)</b>		
CHEM 1361/1364 General Chemistry I & General Chemistry I Lab ( <i>All Concs</i> ) CHEM 1471/1474 General Chemistry II & General Chemistry II Lab ( <i>All Concs</i> ) CHEM 3314/L Organic Chemistry I & Lab ( <i>All Concs</i> ) CHEM 3324/L Organic Chemistry II & Lab ( <i>Concs CMB &amp; MLS</i> ) CHEM 4403 Biochemistry I ( <i>Concs CMB &amp; MLS</i> ) MATH 1613 Plane Trigonometry (or higher) ( <i>Concs CMB &amp; OB</i> ) MATH 1513 or higher ( <i>Conc OB</i> ) PHYS 1115/L Physics I & Lab <b>OR</b> PHYS 2015/L Physics I for Science and Engineering Majors I & Lab ( <i>Concs CMB &amp; OB</i> ) PHYS 1215/L Physics II & Lab <b>OR</b> PHYS 2025/L Physics II for Science and Engineering Majors I & Lab ( <i>Conc CMB</i> )		
<b>General Electives (To Complete 124 hours)</b>		
<b>Graduation Requirements</b>		
Department Requirements	Minimum 60 Credit Hours at a 4-Year Institution	
Minimum 124 Total Credit Hours	Minimum ½ of Major Upper Div Hours Completed at CU	
Minimum 40 Upper Division Credit Hours	15 of last 30 Credit Hours or ½ of Major Completed at CU	
Minimum 55 Liberal Arts & Science Credit Hours	Retention GPA 2.0; Cameron GPA 2.0	
Minimum 30 Credit Hours in Residence at Cameron	Complete Graduation Application Online	

**Degree Requirements: Biology (310)-Bachelor of Science (Cont'd)****Concentration (19-49 hours)****Cellular and Molecular Biology (CMB)***Required Courses (8 hours)*

BIOL 3174/L Molecular Biology &amp; Lab

BIOL 4174/L Cell Biology &amp; Lab

*Electives (11-12 hours)*

BIOL 3054/L Plant Taxonomy &amp; Lab

BIOL 3064/L Ecology &amp; Lab

BIOL 3074/L Natural History of the Vertebrates &amp; Lab

BIOL 3084/L Ornithology &amp; Lab

BIOL 3093 Immunology

BIOL 3104/L Comparative Vertebrate Anatomy &amp; Lab

BIOL 3114/L Mammalogy &amp; Lab

BIOL 3124/L Histology &amp; Lab

BIOL 3184/L Principles of Anatomy &amp; Lab

BIOL 3194/L Fundamentals of Microbiology &amp; Lab

BIOL 4004/L Physiology &amp; Lab

BIOL 4054/L Vascular Plant Morphology &amp; Lab

BIOL 4064/L Advance Ecology &amp; Lab

BIOL 4114/L Advanced Microbiology &amp; Lab

BIOL 4121-4 Special Studies (4 hours max)

BIOL 4153 Biometry

BIOL 4163 Physiology &amp; Molecular Biology of Plants

BIOL 4421-3 Biology Internship (3 hours max)

**Medical Laboratory Science (MLS)***Required Courses (49 hours)*BIOL 2134/L Human Physiology & Lab **OR** BIOL 4004/L  
Physiology & Lab

BIOL 3093 Immunology

BIOL 3174/L Molecular Biology &amp; Lab

BIOL 3194/L Fundamentals of Microbiology &amp; Lab

BIOL 4174/L Cell Biology &amp; Lab

MLS 4117 Clinical Microbiology\*

MLS 4125 Clinical Chemistry\*

MLS 4236 Clinical Hematology\*

MLS 4246 Clinical Immunology\*

MLS 4325 Clinical Chemistry II\*

MLS 4351 Topics in Medical Technology\*

*\*Acceptance into an approved Oklahoma Consortium of Clinical  
Laboratory Science Affiliates (OCCLSA) clinical training program  
and departmental permission is required.***Organismal Biology (OB)***Required Courses (8 hours)*

BIOL 3064/L Ecology &amp; Lab

BIOL 3054/L Plant Taxonomy & Lab **OR** BIOL 3074/L  
Natural History of Vertebrates & Lab **OR** BIOL 3104/L  
Comparative Vertebrate Anatomy & Lab*Electives (11-12 hours)*

BIOL 3054/L Plant Taxonomy &amp; Lab

BIOL 3074/L Natural History of the Vertebrates &amp; Lab

BIOL 3084/L Ornithology &amp; Lab

BIOL 3093 Immunology

BIOL 3104/L Comparative Vertebrate Anatomy &amp; Lab

BIOL 3114/L Mammalogy &amp; Lab

BIOL 3124/L Histology &amp; Lab

BIOL 3174/L Molecular Biology &amp; Lab

BIOL 3184/L Principles of Anatomy &amp; Lab

BIOL 3194/L Fundamentals of Microbiology &amp; Lab

BIOL 4004/L Physiology &amp; Lab

BIOL 4054/L Vascular Plant Morphology &amp; Lab

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BIOL 4421-3 Biology Internship (3 hours max)