



Degree Requirements: Biology (310)-Bachelor of Science

School of Arts and Sciences

Department of Agriculture, Biology, and Health Sciences

Catalog Year: 2020-2021

General Education Requirements (44-46 hours)		
Communication (9 hours)	American History (3 hours)	Behavioral Science (3 hours)
ENGL 1113; ENGL 1213; COMM 1113	HIST 1483 or 1493	FAMS 1123, PSY 1113, SOCI 1113, HON 2133
Mathematics (3-5 hours)	Political Science (3 hours)	Economics-3 hours
MATH 1513, 1613, 2215, 2713, or STAT 1513	PS 1113	AGRC 2013, ECON 2003, ECON 2013, GEOG 3023
Science* (8-9 hours)	Humanities* (6 hours)	Health and Wellness * (4 hours)
Biological Science: BIOL 1364/L Physical Science: CHEM 1361/1364	Diversity (3 hours) Aesthetics (3 hours) *One course must be taken from each category; see Gen Ed course list.	SES 2003, 2013, 2023, MSL 1112, PE 1--1, 2--1, 2--2 *Requirement waived for some students; see Gen Ed course list.
General Education Electives (To total at least 44 hours, if needed)*.		
*Must be selected from the list of approved general education courses (MSL and PE prefixes excluded).		
University Requirements		
UNIV 1001 or 1113-1-3 hours	Computer Literacy-BIOL 4901	Capstone Experience-BIOL 4901
Major Requirements (44-63 hours)		
Required Core Courses (14-25 hours)	Concentration (19-49 hours)	
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 & OB only</i>) (SP) BIOL 2154/L Zoology & Lab (<i>Conc CMB & OB only</i>) (FA) BIOL 3014/L Genetics & Lab (FA, SP) BIOL 3043 Evolution (<i>Conc CMB & 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: Cell and Molecular Concentration Organismal Biology Concentration Medical Laboratory Science (See next page for course list)	
Additional Requirements (22-34 hours)		
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 3314L Organic Chemistry I & Lab (<i>All Concs</i>) CHEM 3324/L Organic Chemistry II & Lab (<i>Concs CMB & MLS</i>) CHEM 4403 Biochemistry I (<i>Concs CMB & MLS</i>) MATH 1613 Plane Trigonometry (or higher) (<i>Concs CMB & OB</i>) MATH 1513 or higher (<i>Conc OB</i>) PHYS 1115/L Physics I & Lab OR PHYS 2015/L Physics I for Science and Engineering Majors I & Lab (<i>Concs CMB & OB</i>) PHYS 1215/L Physics II & Lab OR PHYS 2025/L Physics II for Science and Engineering Majors I & Lab (<i>Conc CMB</i>)		
General Electives (to Complete 124 hours)		
Graduation Requirements		
Department Requirements Minimum 124 Total Credit Hours Minimum 40 Upper Division Credit Hours Minimum 40 Liberal Arts & Science Credit Hours Minimum 30 Credit Hours in Residence at Cameron	Minimum 60 Credit Hours at a 4-Year Institution Minimum ½ of Major Upper Div Hours Completed at CU 15 of last 30 Credit Hours or ½ of Major Completed at CU Retention GPA 2.0; Cameron GPA 2.0 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 & Lab

BIOL 4174/L Cell Biology & Lab

Electives (11-12 hours)

BIOL 2034/L Human Anatomy & Lab

BIOL 2124/L Microbiology & Lab

BIOL 3054/L Plant Taxonomy & Lab

BIOL 3064/L Ecology & Lab

BIOL 3074/L Natural History of the Vertebrates & Lab

BIOL 3084/L Ornithology & Lab

BIOL 3093 Immunology

BIOL 3104/L Comparative Vertebrate Anatomy & Lab

BIOL 3114/L Mammalogy & Lab

BIOL 3124/L Histology & Lab

BIOL 4004/L Physiology & Lab

BIOL 4054/L Vascular Plant Morphology & Lab

BIOL 4064/L Advance Ecology & Lab

BIOL 4114/L Advanced Microbiology & Lab

BIOL 4121-4* Special Studies

BIOL 4153 Biometry

BIOL 4163 Physiology & Molecular Biology of Plants

*(Maximum 4 hours of upper level credit)

Medical Laboratory Science (MLS)

Required Courses (49 hours)

BIOL 2124/L Microbiology & Lab

BIOL 2134/L Human Physiology & Lab **OR** BIOL 4004/L
Physiology & Lab

BIOL 3093 Immunology

BIOL 3174/L Molecular Biology & Lab

BIOL 4174/L Cell Biology & 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 & 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 2034/L Human Anatomy & Lab

BIOL 2124/L Microbiology & Lab

BIOL 3054/L Plant Taxonomy & Lab

BIOL 3074/L Natural History of the Vertebrates & Lab

BIOL 3084/L Ornithology & Lab

BIOL 3093 Immunology

BIOL 3104/L Comparative Vertebrate Anatomy & Lab

BIOL 3114/L Mammalogy & Lab

BIOL 3124/L Histology & Lab

BIOL 3174/L Molecular Biology & Lab

BIOL 4004/L Physiology & Lab

BIOL 4054/L Vascular Plant Morphology & Lab

BIOL 4064/L Advanced Ecology & Lab

BIOL 4114/L Advanced Microbiology & Lab

BIOL 4121-4* Special Studies

BIOL 4153 Biometry

BIOL 4163 Physiology & Molecular Biology of Plants

BIOL 4174/L Cell Biology & Lab

*(Maximum 4 hours of upper level credit)