



Degree Plan: Biology – Bachelor of Science

[AR-BS-BIOL-1]

School of Arts and Sciences

Department of Agriculture, Biology, and Health Sciences

Catalog Year: 2018-2019

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 2013, GEOG 3023, CRM 3603
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 undergraduate catalog for list.	HLTH 1012, 1053, 1063, any course from the following: PE 1--1, 2--1, 2--2 *Requirement waived for some students; see undergraduate catalog for list.

General Education Non-PE Electives (To total at least 44 hours, if needed)*.

General Education Electives must be selected from the list of approved Gen Ed courses, exclusive of those with the PE prefix.
For a full list of General Education courses, see: http://www.cameron.edu/catalog/general_ed.html.

University Requirements

UNIV 1001 or 1113 – 1-3 hours	Computer Literacy – MIS 2113	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 A & B only</i>) (SP) BIOL 2154/L Zoology & Lab (<i>Conc A & B only</i>) (FA) BIOL 3014/L Genetics & Lab (FA, SP) BIOL 3043 Evolution (<i>Conc A & B only</i>) (FA) BIOL 3901 Biology Capstone I (FA) BIOL 4901 Biology Capstone II (SP)	Choose one of the following: Cell and Molecular Concentration Organismal Biology Concentration Medical Laboratory Science (See next page for course list)

Additional Requirements 25 37 hours

CHEM 1361/1364 General Chemistry I & General Chemistry I Lab CHEM 1471/1474 General Chemistry II & General Chemistry II Lab CHEM 3314 3314L Organic Chemistry I & Lab CHEM 3324/L Organic Chemistry II & Lab (<i>Conc A & C only</i>) CHEM 4403 Biochemistry I (Conc A & C only) MATH 1613 Plane Trigonometry (or higher) (<i>Conc A & B only</i>) MATH 1513 or higher (<i>Conc C only</i>) MIS 2113 Fundamental MIS Tools and Skills PHYS 1115/L Physics I & Lab OR PHYS 2015/L Physics I for Science and Engineering Majors I & Lab (<i>Conc A & B only</i>) PHYS 1215/L Physics II & Lab OR PHYS 2025/L Physics II for Science and Engineering Majors I & Lab (<i>Conc A only</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 Division 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 at Registrar’s Office
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Concentration 19 49 hours**A. Cell and Molecular Concentration****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)

C. Medical Laboratory Science Concentration**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.

B. Organismal Biology Concentration**Required Courses (8 hours)**

BIOL 3064/L Ecology & Lab

BIOL 3054/L Plant Taxonomy & Lab **OR** BIOL 3074/L NaturalHistory 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)