

Biology

Bachelor of Science

Pre-Veterinary Concentration

General College Curriculum (43 SH)				Hours
Campbell Freshman Seminar	CUFS	100	1	
Introduction to Christianity	CHRS	125	3	
English Fundamentals ¹	ENGL	100	3	
Academic Writing ¹	ENGL	101	3	
Academic Writing and Literature	ENGL	102	3	
Literature Elective	ENGL	2__	3	
Fine Arts (Art, Music, Theater) ²		131	3	
Western Civilization I OR II	HIST	111/112	3	
Foreign Language I ³		101	3	
Foreign Language II ³		102	3	
Foreign Language III ³		201	3	
Humanities/Fine Arts Elective ⁴			3	
Social/Behavioral Sciences Elective ⁵			3	
Humanities OR Social Science Elective ⁶			3	
Lifetime Wellness	PE	185	2	
Connections ⁷	CUC	100	0.5	
Connections ⁷	CUC	200	0.5	

Major Requirements (39 SH)				Hours
Basic Biology	BIOL	111	4	
Cellular & Molecular Biology	BIOL	201	4	
Botany	BIOL	202	4	
Zoology	BIOL	203	4	
Intro to Research & Scientific Lit.	BIOL	205	3	
Ecology	BIOL	327	4	
Genetics	BIOL	342	4	
Seminar	BIOL	451	1	
Biochemistry ⁸	BIOL	430	4	
Animal Physiology ⁸	BIOL	437		
Plant Physiology ⁸	BIOL	438		
Biology Elective ⁹	BIOL		4	
Biology Elective ⁹	BIOL		3	

Ancillary Requirements (31 SH)				Hours
Analytical Geometry & Calculus I	MATH	122	4	
Elementary Statistics	MATH	160	3	
General Chemistry I	CHEM	111	4	
General Chemistry II	CHEM	113	4	
Organic Chemistry I	CHEM	227	4	
Organic Chemistry II	CHEM	228	4	
General Physics	PHYS	221	4	
General Physics II	PHYS	222	4	

Open Electives ¹⁰ (minimum 11 SH)				Hours
Trigonometry (PREREQ FOR PHYS 221)	MATH	112	3	

Total Credit Hours Earned _____ (Minimum Hours Required= 124)	Students enrolled in this concentration must earn a grade of “C” or higher in all science courses (biology, chemistry, physics)
---	--

¹ **English:** ENGL 100 and ENGL 101 may be waived for students that meet certain criteria

² **Fine Arts:** "Appreciation," "Introduction," or "Survey" course in art, music, or theatre; (ART 131, MUSC 131, or THEA 131)

³ **Foreign Language:** Students are required to pass a 201 level Foreign Language Course. 3-9 hours, depending on placement.

⁴ **GCC Humanities/Fine Arts Electives:** Choose one course from CHRS (202, 212, 224, 236, 251, 322 or higher), PHIL 121, ENGL (201, 202, 203, 204, 205, or 206), HIST (1xx, 2xx, 3xx, or 4xx), FLAN (221, 222, 241, 242), MUSC 331, HONOR (207 or 305)

⁵ **GCC Social/Behavioral Sciences Electives:** Choose one course from CRIM, ECON, GEOG, POLS, PSYC, SOCI, COMM 240, or HONOR 307

⁶ **GCC Elective:** Choose one additional course from either the Humanities/Fine Arts or Social/Behavioral Sciences Elective Lists. (See ⁴ & ⁵)

7 Connections: Students entering with less than 30 semester hours must complete both CUC 100 **and** CUC 200. Students entering with 30 or more semester hours must complete either CUC 100 **or** CUC 200

⁸ Students are required to take **one** of the following: BIOL 430, BIOL 437, or BIOL 438

⁹ **Biology Electives:** Take a minimum of 7 hours of BIOL electives; some restrictions apply: maximum of 8 hours of Human A&P (BIOL 221, 285, 286), maximum of 4 hours of Microbiology (BIOL 275, 334). **See reverse for suggested electives.**

¹⁰**Open Electives:** Any Campbell course, including BIOL courses or courses from the GCC elective lists beyond the GCC requirements to reach a minimum of 124 total hours. Students are encouraged to complete more than the minimum number of hours in biology. **See reverse for suggested electives.**

Veterinary Programs:

Students should check the specific requirements for each veterinary school program. Some schools may have additional requirements. The GRE is required for admission to veterinary school.

Suggested Electives:

The following courses are **required** for most veterinary programs:

- BIOL 430 Biochemistry
- BIOL 334 Microbiology

The following courses are **recommended** for most veterinary programs:

- BIOL 320 Developmental Anatomy
- BIOL 336 Medical Microbiology
- BIOL 437 Animal Physiology

Additional courses may be recommended or required for admission to some veterinary programs. Some specialized courses may not be taught at Campbell University. It is the student's responsibility to verify which courses are required for admission to programs to which a student applies.

- Animal Nutrition
- Animal Husbandry
- Specific Humanities or Business courses

Most veterinary schools require animal experience (working with livestock, showing and/or breeding dogs, working at a zoo, equestrian activities, etc.). Pet ownership does not apply. Most veterinary programs also require work experience in the veterinary field. Experience in small animal medicine, large animal medicine, and one other area of veterinary medicine is preferred. All veterinary experience should be under the supervision of a DVM or Ph.D. Please check with each veterinary program for specific work related requirements.

SAMPLE CURRICULUM OUTLINE*

FRESHMAN YEAR

SEMESTER 1				SEMESTER 2			
			HRS				HRS
Basic Biology	BIOL	111	4.0	Botany	BIOL	202	4.0
English Fundamentals ¹	ENGL	100	3.0	Academic Writing	ENGL	101	3.0
Trigonometry	MATH	112	3.0	Elementary Statistics	MATH	160	3.0
Intro to Christianity	CHRS	125	3.0	Fine Arts ²		131	3.0
Lifetime Wellness	PE	185	2.0	Foreign Language		102	3.0
Freshman Seminar	CUFS	100	1.0	Connections	CUC	100	0.5

SOPHOMORE YEAR

SEMESTER 1				SEMESTER 2			
			HRS				HRS
Zoology	BIOL	203	4.0	Cellular & Molecular Biology	BIOL	201	4.0
General Chemistry I	CHEM	111	4.0	General Chemistry II	CHEM	113	4.0
Intro to Research & Sci. Lit	BIOL	205	3.0	Literature Elective	ENGL	2__	3.0
Academic Writing & Lit	ENGL	102	3.0	Analytical Geometry & Calc I	MATH	122	4.0
Foreign Language		201	3.0				
Connections	CUC	200	0.5				

JUNIOR YEAR

SEMESTER 1				SEMESTER 2			
			HRS				HRS
Microbiology & Immunology ⁹	BIOL	334	4.0	Genetics	BIOL	342	4.0
Organic Chemistry I	CHEM	227	4.0	Organic Chemistry II	CHEM	228	4.0
General Physics I	PHYS	221	4.0	General Physics II	PHYS	222	4.0
Western Civ. I or II	HIST	111/112	3.0	GCC Humanities Elective ⁴			3.0

SENIOR YEAR

SEMESTER 1				SEMESTER 2			
			HRS				HRS
Biochemistry ⁸	BIOL	430	4.0	Ecology	BIOL	327	4.0
Seminar	BIOL	451	1.0	Animal Physiology ⁹	BIOL	437	4.0
GCC Elective ⁶			3.0	Open Elective ¹⁰			4.0
Open Elective ¹⁰			4.0	GCC Social Sciences Elective ⁵			3.0
Open Elective ¹⁰			3.0				

**actual degree plan may differ, students should meet with their academic advisor to create a plan specific and unique to their interests/background*