

Biology

Bachelor of Science

Biological Sciences

Pre-Graduate School Concentration

2019 Undergraduate Bulletin

Hours

112

MATH

General College Curriculum (43 SH)			<u>Hours</u>	Major Requirements (39 SH)			Hours
Campbell Freshman Seminar	CUFS	100	1	Basic Biology	BIOL	111	4
Introduction to Christianity	CHRS	125	3	Cellular & Molecular Biology	BIOL	201	4
English Fundamentals ¹	ENGL	100	3	Botany	BIOL	202	4
Academic Writing ¹	ENGL	101	3	Zoology	BIOL	203	4
Academic Writing and Literature	ENGL	102	3	Intro to Research & Scientific Lit.	BIOL	205	3
Literature Elective	ENGL	2	3	Ecology	BIOL	327	4
Fine Arts (Art, Music, Theater) ²		131	3	Genetics	BIOL	342	4
Western Civilization I OR II	HIST	111/112	3	Seminar	BIOL	451	1
Foreign Language I ³		101	3	Biochemistry ⁸	BIOL	430	4
Foreign Language II ³		102	3	Animal Physiology ⁸	BIOL	437	
Foreign Language III ³		201	3	Plant Physiology ⁸	BIOL	438	
Humanities/Fine Arts Elective4			3	Biology Elective ⁹	BIOL		4
Social/Behavioral Sciences Elective ⁵			3	Biology Elective ⁹	BIOL		3
Humanities OR Social Science Elective ⁶			3				
Lifetime Wellness	PE	185	2				
Connections ⁷	CUC	100	0.5	Ancillary Requirements (31 SH)			Hours
Connections ⁷	CUC	200	0.5	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 Organic Chemistry II	CHEM CHEM	227 228	4
				General Physics	PHYS	221	4
				General Physics II	PHYS	222	4
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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)

Open Electives¹⁰ (minimum 11 SH)

Trigonometry (PREREQ FOR PHYS 221)

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.

SAMPLE CURRICULUM OUTLINE*

FRESHMAN YEAR							
SEMESTER 1			HRS	SEMESTER 2			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			HRS	SEMESTER 2			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			HRS	SEMESTER 2			HRS
Biology Elective ⁹			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			<u>HRS</u>	SEMESTER 2			HRS
Biochemistry, Plant Phys., or E			4.0	Ecology	BIOL	327	4.0
Seminar	BIOL	451	1.0	Animal Physiology or Biology I	Elective ^{8 9})	4.0
GCC Social Science Elective ⁴			3.0	Open Elective ¹⁰			4.0
Essentials of Human A & P9	BIOL	221	4.0	GCC Elective ⁶			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