

B.S. in BIOLOGICAL SCIENCES
(Ecology, Evolution, Biodiversity and Conservation Concentration)
Suggested 4-Year Academic Flowchart

Updated 3/5/2020

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Diversity & History of Life BIO 160 (4)	Intro to Cell & Molecular Biology BIO 161 (4) (Recom: CHEM 110, 111, 124, or 127) [B2 & B3]	Intro to Organismal Form & Function BIO 162 (4) (BIO 161, Recom: CHEM 110, 111, 124, or 127)	Introductory Ecology & Evolution BIO 263 (4) (BIO 160 or 161)		Principles of Genetics BIO 351 (5) (BIO 161; CHEM 216, 312, or 316)				Evolutionary Medicine or Evolution (choose one) BIO 413 or 414 (4)*		
	Calculus for the Life Sciences I MATH 161 (4) * [B4]	Calculus for the Life Sciences II MATH 162 (4) (MATH 161) [GE Elective]			Ecology (choose one) BIO 327, 363, 442; BOT 326; MCRO 436; MSCI 300 (4)*				Senior Project BIO 461 or 462 (2)*		
General Chem for Agriculture & Life Science I CHEM 127 (4) * [B1 & B3]	General Chem for Agriculture & Life Science II CHEM 128 (4) (CHEM 127 or AP CHEM score of 5)	General Chem for Agriculture & Life Science III CHEM 129 (4) (CHEM 128)	Applied Statistics for the Life Sciences STAT 218 (4) *	Organic Chem CHEM 216 (5) (CHEM 126 or 129) OR CHEM 312 (5) (CHEM 111, 124, or 127)		College Physics I PHYS 121 (4) (MATH 118 or 119)	College Physics II PHYS 122 (4) (PHYS 118, 121, 131, or 141)	College Physics III PHYS 123 (4) (PHYS 118, 121, 131, or 141, Recom: PHYS 122)	Ecology & Evolution (choose one) (4)^{3,6}*		
	Expository Writing ENGL 133/134 (4)** [A2]		Applications in GIS LA/NR 218 (3)* OR GEOG 318 (3)*	Principles in Conservation Biology BIO 363 (4) (BIO 263 or NR 306)		Biodiversity (choose three) (12)^{2,6}*			Conservation (choose one) (4)^{4,6}*		
	Oral Communication COMS 101/102 (4)** [A1]				GE (4) **			Approved Elective (4)⁵*	Approved Elective (4)⁵*	Approved Elective (4)⁵*	Approved Elective (4)⁵*
Free Elective (2)¹	Free Elective (2)¹	Free Elective (1)¹					GE (4) **	GE (4) **	GE (4) **	GE (4) **	GE (4) **
	Reasoning, Argumentation, & Writing [A3] COMS 126; COMS/ENGL 145; ENGL 148; PHIL 126 (4)** (Completion of GE A2 with a C- or better) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years.							GE (4) **	GE (4) **	GE (4) **	GE (4) **
14	18	17	11	13	13	16	16	12	16	16	18
									TOTAL: 180		

Notes:

MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET.

* Refer to current catalog for prerequisites.

** One course from each of the following GE areas must be completed: A1, A2, A3, Upper-Division B, C1, C2, Lower-Division C Elective, Upper-Division C, D1, D2, D2, Upper-Division D, E, and GE Electives. Upper-Division B, Upper-Division C, and Upper-Division D should be taken only after Junior standing is reached (90 units).

Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR).

USCP requirement can be satisfied by some (but not all) courses within GE categories: Upper-Division B, C1, Upper-Division C, D1, D2, Upper-Division D, or E.

¹5 units of Free Electives required. SCM 150 workshops for Math/Science courses recommended for remaining units.

²**Biodiversity Courses:** Select 12 units from the following: BIO 321, 322, 323, 324, 335, 336, BOT 313, 433, MCRO 224, MSCI 437

³**Ecology and Evolution Courses:** Select 4 units from the following: BIO 415, 442, 444, 445, 446, BOT 326, MCRO 436, MSCI 300

⁴**Conservation Courses:** Select 4 units from the following: BIO 427, MSCI 428, 439, NR 416

⁵16 units of Approved Electives required. Consultation with advisor is recommended prior to selecting approved electives. No double-counting with other major requirements.

⁶Courses may be taken once. Consult catalog to determine terms in which courses are offered. Excess units applied to Electives.

Legend:

Course Title		Major (35)
Course # (Units)		Support (41)
(Prerequisite)		Concentration (43)
[GE Area]		General Ed. (56)
		Free Electives (5)