

John Carroll University Department of Biology

BS Environmental Science Sample Study Plan 2023–2024 Bulletin; <https://jcubulletin.coursedog.com/programs/BLE.BS>

First Year

Fall Semester	Credits	Major	Core	Minor/ Other	Spring Semester	Credits	Major	Core	Minor/ Other
BL1500 Principles of Biology I	3	X			BL1600 Principles of Biology II	3	X		
BL1505 Principles of Biology I Lab	1	X			BL1605 Principles of Biology II Lab	1	X		
PH1150 Environmental Earth Science	3	X			CORE	3		X	
PH1151 Environ Earth Science Lab	1	X			CORE	3		X	
EN1250 Seminar on Academic Writing	3		X		CORE	1–3		X	
CORE	3		X		COM1251 Speech Communication	3		X	
Total Credit Hours	14				Total Credit Hours	14–16			

Second Year

Fall Semester	Credits	Major	Core	Minor/ Other	Spring Semester	Credits	Major	Core	Minor/ Other
BL1700 Principles of Biology III	3	X			BL2220 Ecology (or BL370 Evolution)	3	X		
BL1705 Principles of Biology III Lab	1	X			DATA 2280 Statistics-Biological Science	3	X		
CH1410 General Chemistry I	4	X			CH1420 General Chemistry II	4	X		
CH1430 General Chemistry I Lab	1	X			CH1440 General Chemistry II Lab	1	X		
MT1350 Calculus & Analytic Geometry I or DATA 2500 Intermediate Statistics with SPSS	4	X	X		CORE	3	X		
CORE	3		X						
Total Credit Hours	16				Total Credit Hours	14			

Third Year

Fall Semester	Credits	Major	Core	Minor/ Other	Spring Semester	Credits	Major	Core	Minor/ Other
"Terrestrial" or "Aquatics" course	4	X			BL3310 Global Climate Change	3	X		
CORE	3				BL4170 & 4175 Introduction to GIS	4	X		
CORE	3	X			CORE	3		X	
CORE LINKED pair	6	X			CORE	3		X	
					ES Elective*	3	X		
Total Credit Hours	16				Total Credit Hours	16			

Fourth Year

Fall Semester	Credits	Major	Core	Minor/ Other	Spring Semester	Credits	Major	Core	Minor/ Other
BL4440 & 4445	4	X			ES Elective	3–4	X		
"Terrestrial" or "Aquatics" course	4	X			ES Elective	3–4	X		
ES Elective*	3	X			ES Elective*	3	X	X	
CORE	3		X		CORE	3		X	
					CORE	3		X	
Total Credit Hours	14				Total Credit Hours	15–17			

Students not taking a gap year should plan to take the GRE or other standardized exams in the summer between years 3 and 4 for applications in year 4.

Total Credit Hours Required for Major: 58–66 Total Credit Hours Required to Graduate: 120

Notes:

The ES major includes 58–66 credit hours of required courses.

BL1500–1705 is the normal introductory sequence for biology and environmental science majors. If, for some reason acceptable to the department, BL1505, 1605, and 1705 are taken separately from BL1500, 1600, and 1700, the student is expected to take BL1500, 1600, and 1700 or their equivalent before taking the laboratory courses.

The BL electives must also be used to meet the Additional Writing (AW), Capstone (C), and Oral Presentation (OP) requirements in the major; an individual class may count for multiple categories.

*Environmental Science majors must take one of the following courses: CH2610, EC1101, EC2201, EN2635, PL2085, PL2088, PO3140, SC3800, or BI 1100 & BI1200.

Please consult your academic advisor to address specific needs of your major, minor, and/or concentration.