

College of Arts and Sciences 2024-2025 Degree Worksheet

B.S. BIOLOGY with Concentration in Ecology & Conservation Biology (ECB)

COLLEGE of ARTS & SCIENCES Language Requirement

All students who major in the College of Arts & Sciences are required to demonstrate competence in a second language. For complete details: <https://www.gonzaga.edu/college-of-arts-sciences/about/information-for-students/language-requirement-information>

Credits Sem/Yr

--	--	--

UNIVERSITY CORE REQUIREMENTS:

► FUNDAMENTAL CORE COURSES

Year 1: Understanding & Creating

Writing	Credits Sem/Yr	
ENGL 101 Writing (fulfills 3 credits Writing Enriched)*	3	
Reasoning		
PHIL 101 Reasoning	3	
First Year Seminar		
Dept. 193	3	
Communication & Speech		
COMM 100 Communication & Speech	3	
Math		
MATH (must be above Math 100)	3	
Scientific Inquiry (2cr + 1cr lab) **		
BIOL or CHEM or PHYS 104/104L (taken year 1 or 2)	3	

Year 2: Being & Becoming

Christianity & Catholic Traditions	Credits Sem/Yr	
RELI (see approved list)**	3	
Philosophy of Human Nature		
PHIL 201 Philosophy of Human Nature	3	

Year 3: Caring & Doing

World/Comparative Religion	Credits Sem/Yr	
RELI (see approved list)** (fulfills 3cr Global Studies)*	3	
Ethics		
PHIL 301 Ethics or RELI 330 Principles-Christian Morality	3	

Year 4: Imagining the Possible

Core Integration Seminar	Credits Sem/Yr	
Dept. 432	3	

NOTE: some courses have pre-requisites, check the catalog carefully!

► BROADENING COURSES - see approved list**

Social & Behavioral Science	Credits Sem/Yr	
	3	
Literature		
	3	
History		
	3	
Fine Arts & Design		
	3	

► REQUIRED COURSE DESIGNATIONS - see approved list**

*Writing Enriched	Credits Sem/Yr	
	9 total	
Social Justice		
	3 total	
*Global Studies		
	6 total	

****for list of approved RELI, Broadening & Designated courses, see :** <https://my.gonzaga.edu/academics/undergraduate-programs/general-degree-requirements-procedures/university-core>

****BIOL 105/105L meets the Scientific Inquiry requirement of the University Core for Biology Majors & Minors.**

*Students must earn C- grade or better in BIOL 105/105L & BIOL 106 to take BIOL 205, 206, or 207. Students must also get C- grade or better in BIOL 205/205L, 206/206L, 207/207L & BIOL 399 to take BIOL 499.

Upper division BIOL electives: minimum of 10 credits(BS), 6 credits(BA), 4 credits(Minor) must be taken from GU faculty. Study Abroad students take note.

Credits from BIOL 497 Biology Internship, do not satisfy any requirements for the Biology Major or Minor.

B.S. BIOLOGY- Concentration in Ecology & Conservation Biology (ECB) 63-67 CREDITS

LOWER DIVISION

38-40 Credits

Course	Course Title	Credits	Grade
BIOL 105/105L	Info Flow in Biological Systems + Lab**	3	
BIOL 106	Energy Flow in Biological Systems	3	
BIOL 205/205L	Physiology & Biodiversity + Lab*	4	
BIOL 206/206L	Ecology + Lab*	4	
BIOL 207/207L	Genetics + Lab*	4	
BIOL 111	Biology Pathways	1	
CHEM 101/101L	General ChemistryI + Lab	4	

Choose one of the following sets of courses + labs: 4 credits

CHEM 102/102L	General Chemistry II + Lab	4	
CHEM 230/230L	Organic Chemistry I + Lab	4	
ENVS 202/202L	Applied Environmental Chemistry + Lab	4	

Choose one of the following sets of courses + labs: 5 credits

PHYS 111/111L	General Physics I + Lab	5	
PHYS 121/121L	Physics I + Lab	5	

Choose one of the following Math courses: 3-4 credits

MATH 148	Survey of Calculus	3	
MATH 157	Calculus-Analytical Geometry I	4	

Choose one of the following Statistics courses: 3-4 credits

MATH 221	Applied Statistics (MATH 148 is a pre-requisite)	3	
BIOL 305	Biological Data Analysis	4	

UPPER DIVISION

25-27 Credits

BIOL 399	Advanced Topics	2	
BIOL 495	Senior Evaluation	0	
BIOL 499	Senior Colloquium	1	

Biology Upper-Division Electives: 16 Credits

At least 12 credits of upper-division BIOL electives must be from this list. At least 2 courses must include labs. A significant research experience (BIOL 498) may substitute for 1 lab course.

BIOL 303/303L	Population Ecology + Lab	4	
BIOL 313	Animal Behavior	3	
BIOL 323/323L	Conservation Biology + Lab	4	
BIOL 331	Parasitology	3	
BIOL 333	Community Ecology	3	
BIOL 340/340L	Field Botany + Lab	4	
BIOL 342/342L	Plant Population Ecology + Lab	4	
BIOL 344	GIS + Ecological Techniques (+344L 1cr Lab if offered)	3	
BIOL 357/357L	Principles of Wildlife Mgmt + Lab	4	
BIOL 359/359L	Studies in Biodiversity + Lab	4	
BIOL 360	Plant Biology	3	
BIOL 367/367L	Entomology + Lab	4	
BIOL 403/403L	Marine Biology + Lab	4	
BIOL 420	Physiological Ecology	3	
BIOL 498	Approved ECB Research	4	

BIOL Electives may also include BIOL 301-498 + those listed above not used for any requirement. BIOL 399,495,497 do not qualify.

Additional Science Electives: 6-8 credits

A minimum of 6 credits from: BIOL 300-400 level, or any CHEM course 102 or above, or any MATH course above 148. All not already used for the concentration, or CPSC 121 and above, or PHYS above 111, BIOL 399,495,497, CHEM 104 do not qualify.

ALL courses should be chosen in consultation with a Biology faculty advisor.