

Biological Sciences: Ecology & Evolution ECEV (0404B)

effective August 2023

A minimum of 120 credits earned and a 2.0 cumulative GPA is needed to meet University graduation requirements. Major courses (Basic, Supporting, and Advanced) require a C– or better in each and a 2.0 average GPA.

1. Basic Program 15-16 credits

Sem	Gr	Cr	
		3	BSCI160 Ecology and Evolution *
		1	BSCI161 Ecology and Evolution Lab *
		3	BSCI170 Molecular and Cellular Biology *
		1	BSCI171 Molecular and Cellular Biology Lab *
		3	BSCI207 Principles of Biology III *
		4	BSCI222 Principles of Genetics *
		1	Freshmen seminar: UNIV100 ¹ , HONR100, GEMS100, HLSC100, HACS100 ² , HDCC105 ² , HEIP143, HHUM105 ³ , BSCV181, IDEA101, BSGC100
¹ All Biological Sciences majors must take UNIV100 or another approved freshman seminar from the list above in their first semester. ² Two-credit course. ³ Three-credit course. NOTE: Students enrolled in the Integrated Life Sciences Honors program will complete the following courses in lieu of the parenthetical courses: HLSC322 (BSCI222) and HLSC374 (BSCI374). * These are required benchmark courses, see: http://bsci.umd.edu/benchmarks			

2. Supporting Courses 32 credits

Sem	Gr	Cr	
		4	MATH135 Discrete Mathematics *
		4	MATH136 Calculus * OR
		4	MATH140 Calculus I *
		4	MATH141 Calculus II * OR
		4	MATH140 Calculus I *
		4	MATH135 Discrete Mathematics *
		3	CHEM131 General Chemistry I *
		1	CHEM132 General Chemistry I Lab *
		3	CHEM231 Organic Chemistry I *
		1	CHEM232 Organic Chemistry I Lab *
		3	CHEM241 Organic Chemistry II *
		1	CHEM242 Organic Chemistry II Lab *
		2	CHEM271 Gen Chem & Energetics *
		2	CHEM272 Bioanalytical Chem Lab *
		4	PHYS131 OR PHYS141 Physics I
		4	PHYS132 OR PHYS142 Physics II

3. General Education Requirements (at least 27 credits) (For more information on General Education, visit: www.gened.umd.edu.)

Fundamental Studies Math (MA), Analytic Reasoning (AR), Natural Sciences (NS) & Natural Sci. Lab (NL) are satisfied by major requirements. Courses may double or triple count among Distributive Studies, I-Series, and Diversity.

Sem	Gr	Course
Fundamental Studies		
		Academic Writing (AW) (ENGL101)
		Professional Writing (PW)
		Oral Communication (OC)
Distributive Studies		
		History and Social Sciences (HS)
		History and Social Sciences (HS)
		Humanities (HU)
		Humanities (HU)
		Scholarship in Practice (SP)
		Scholarship in Practice (SP) outside major
I-Series		
		I-Series (IS)
		I-Series (IS)
Diversity		
		Understanding Plural Societies (UP)
		Understanding Plural Societies (UP) or Cultural Competence (CC) (1–3 credits)

Summary of credits	
Required	Completed
Basic Program (15–16)	_____
Supporting Courses (32)	_____
Gen. Ed. (27+)	_____
Advanced Program (27)	_____
Elective	_____
Subtotal	_____
Duplicate credits (Subtract from subtotal)	_____
Total Credits	_____

4. Advanced Program courses: Please see reverse page.

NOTES:

Student name _____ UID _____

Advisor's signature _____ Date of audit _____

NOTE: The curriculum in Biological Sciences changes as faculty review and improve the program. The curriculum descriptions provided here are the latest versions. Your curriculum may look slightly different depending on when you declared the Biological Sciences major. Your academic advisor can provide you with the most accurate information on which curriculum you are under. Any questions can be referred to the Undergraduate Academic Programs Office, 301-405-6892.

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Ecology & Evolution ECEV (0404B) Advanced Program

27 credits minimum ♦ At least two courses designated as **Lab** must be taken

1. Required courses: 10 credits

Sem	Gr	Cr	
		4	BSCI361 Principles of Ecology
		3	BSCI370 Principles of Evolution

Sem	Gr	Cr	Statistics Course: one from below
		3	BIOM301 Introduction to Biometrics OR STAT400 Applied Probability & Statistics OR STAT464 Introduction to Biostatistics

2. ECEV Area courses: 14 credits

- At least two courses designated as **Lab** must be taken.
- At least two 400-level courses must be taken.

Sem	Gr	Cr	300-level courses	Sem	Gr	Cr	400-level courses (continued)
		4	BSCI330 Cell Biol. & Physiology w/ Lab			3	BSCI462 Population Ecology
		4	BSCI333 Principles of Paleontology w/ Lab			3	BSCI464 Microbial Ecology
		3	BSCI334 Mammalogy			4	BSCI467 Freshwater Biology w/ Lab
		1	BSCI335 Mammalogy Lab ¹			3	BSCI471 Molecular Evolution
		4	BSCI337 Biology of Insects w/ Lab			3	BSCI473 Marine Ecology
		3	BSCI338B Marine Biology			3	BSCI475 Sexual Selection in Nature
		3	BSCI339A Biology of Sex			3	BSCI476 Evolutionary Genomics
		2	BSCI339V Readings in Genetics			3	BSCI477 Ecol. & Evol. of Infectious Disease
		3	BSCI360 Animal Behavior			4	BSCI480 Arthropod Form & Function w/ Lab
		3	BSCI363 Biology Conservation & Extinct.			4	BSCI481 Insect Diversity & Classification w/ Lab
		3	BSCI366 Environmental Physiology of Animals			3	BSCI483 Insects, Pathogens, & Public Health
		4	BSCI374 Mathematical Biology w/ Lab			4	BSCI487 IPM: Science-Based Decision Making for Sustainable Pest Mgmt w/ Lab
		3	BSCI392 Biology of Extinct Animals			3	BSCI494 Animal-Plant Interactions
		1	BSCI393 Biology of Extinct Animals Lab ¹			4	BSCI497 Insect Pests of Ornamentals and Turf w/ Lab
			400-level courses			var.	Special Topics Courses ²
		3	BSCI400 Animal Diversity and Evolution				BSCI328 Special Topics ENTM Depart.
		3	BSCI401 Animal Communication				BSCI338 Special Topics BIOL Depart.
		3	BSCI403 Biology of Vision				BSCI339 Selected Topics BIOL Depart.
		3	BSCI405 Pop. and Evol. Genetics w/ Lab				BSCI348 Special Topics CBMG Depart.
		3	BSCI410 Molecular Genetics				BSCI439 Adv. Special Topics BIOL Depart.
		3	BSCI426 Global Change Biology				
		3	BSCI430 Developmental Biology				
		3	BSCI431 The Origin and Evolution of Nervous Systems				
							Departmental Honors Seminars ³
						1	BSCI378H and BSCI398H

3. Enrichment 3 credits

Enrichment Course: _____ Credits: _____ Semester: _____ Grade: _____

Minimum 3 credits from any 300- or 400-level BSCI, CHEM, or BCHM course.

Independent study or research courses from other departments can be used with the permission of your advisor.

Courses listed in the Advanced Program above can be used if they are not used to satisfy any category above.

Courses counted as Enrichment do not satisfy the 300- or 400-level laboratory requirement.

Independent study or research credits, including H and L versions, are acceptable up to a maximum of 3 credits overall in the Advanced Program.

Multiple semesters in research courses can possibly count for one of the two required lab courses. See your advisor for more details or ter.ps/reslabcredit

A maximum of 8 credits of any version of BSCI399 (BSCI399, BSCI399H, and BSCI399L) can be applied to one or more undergraduate degrees. Any

research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but **not applied to any undergraduate degree.**

Total credits in Advanced Program: _____

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