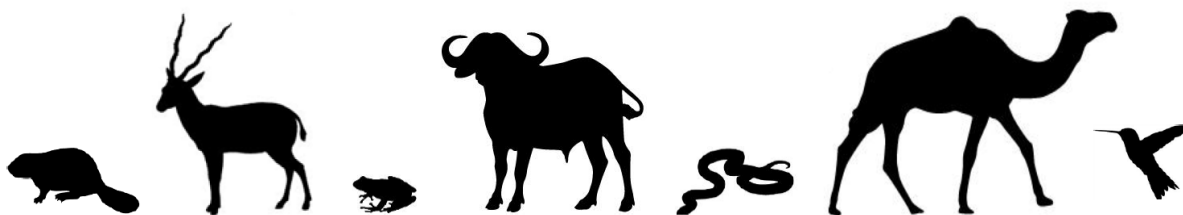


OSU ZOOLOGY MAJOR ADVISING GUIDE 2018-2019



DEPARTMENT AND ADVISING INFORMATION

Contacts:

- Department of Integrative Biology, 3029 Cordley Hall, 541-737-2993, ib@oregonstate.edu
- The Biosphere student lounge, 3019 Cordley Hall
- Integrative Biology Club (IBC): All zoology students are automatically members. Contact integrativebiologyclub@oregonstate.edu or see Facebook for details on upcoming events.

	Fall	Winter	Spring
First year student must meet each term	X	X	X
Sophomores must meet winter OR spring term		X	X
Juniors must meet winter OR spring term		X	X
Transfer students meet their first term after transferring	?	?	?
Seniors meet as needed to review for graduation	?	?	?

Tools

- **Degree Checklists:** See MyDegrees in your Student Online Services to view your major checklist.
- **Listserv:** Current students are auto-subscribed to the major listserv and receive posts in their ONID account.
- **IB Website:** see information about student clubs, study abroad, internship, and research opportunities <http://ib.oregonstate.edu/undergraduates>.

Rules:

- **GPA requirement:** The Zoology major requires a 2.0 cumulative OSU and major GPA to graduate.
- **C- requirement for Biology (BI 21x), Math (MTH) and Chemistry (CH):** All students must receive a C- or better in any math (MTH) and BI 211, 212 and 213 or CH 23x/26x series and CH 331 to continue on to courses that have these courses as prerequisites (e.g. MTH 251, CH 232/262, BI 370).
- **Double counting courses:** Appropriate minor, major and Bacc Core Synthesis courses may count for the major upper division science electives requirement. Some major requirements also count for Baccalaureate Core courses. Options also clear categories of the major in some cases – see the options <http://ib.oregonstate.edu/advising/planners>.
- **S/U and withdraw (W):** Zoology students cannot S/U major courses and are only allowed 12 withdraws.
- **Chemistry Minor:** The Chemistry Minor can be completed by taking one additional course, which also count as upper division science electives – talk to the Chemistry Department for approval and details.
- **Double or dual majors** are not allowed in Biology, Biochemistry and Biophysics, Biochemistry and Molecular Biology, Biohealth Sciences, Fisheries and Wildlife, Microbiology or Zoology.
- **Class Retakes:** OSU academic regulations often result in retakes not working the way students expect in terms of their GPA and requirements. If you are considering repeating a course you first completed at OSU or another school or you are repeating any OSU course for the third time, you should bring this to the attention of your advisor. Students can also review the retake information at <https://ib.oregonstate.edu/advising/faq/retake-gpa> for additional detailed information.

ZOOLOGY FOUR-YEAR PLANS

- **Major courses are listed in order of priority.** Students planning to finish in four years should average 15 credits a term.
- **OSU math sequences for Zoology students:** MTH 065, 103, 111, 112, & [MTH 227 & 228] or [MTH 251 & 252]

<u>Track I</u>
Placed MTH 103, 111 or 112
1st Year
<ul style="list-style-type: none"> • BI 198 in fall, BI 298 in spring • Start math (MTH) fall term and each term forward • CH 231 & 261, 232 & 262, 233 & 263 (<u>OR</u> 121x) • Two or more Baccalaureate Core (Bacc Core) courses each term
2nd Year
<ul style="list-style-type: none"> • BI 211, 212, 213 • CH 331, 332 • One Bacc. Core course a quarter • Finish MTH course then fill in with Bacc. Core.
3rd Year
<ul style="list-style-type: none"> • CH 337 or 390 • ST 351, 352 • Z 371, 372 • Z 361 and 362 <u>OR</u> Z 461 • Writing Intensive Course • One Bacc. Core a term until finished • One course a quarter from: Z 423, BI 370, BI 311, BI 445 • Complete course(s) not taken 2nd year (above) then fill with electives areas of major
4th Year
<ul style="list-style-type: none"> • BB 314 and BI 483 • Complete major course(s) not taken 3rd year • Complete elective areas of major • Complete 180/60 upper div. credits • BI 498 Senior Biology Major Field Test

<u>Track II</u>
Placed MTH 251 placement/credit
1st Year
<ul style="list-style-type: none"> • BI 198 in fall, BI 298 in spring • BI 211, 212, 213 • CH 231 & 261, 232 & 262, 233 & 263 (<u>OR</u> 121x) • One Baccalaureate Core (Bacc. Core) course a term with skills courses as the priority • Math (MTH) in winter or spring
2nd Year
<ul style="list-style-type: none"> • CH 331, 332 • Finish MTH then ST 351, 352 • One Bacc. Core Course a term • One course a quarter from: Z 423, BI 370, BI 311 • BI 445
3rd Year
<ul style="list-style-type: none"> • CH 337 or CH 390 • Z 371, 372 • Z 361 and 362 <u>OR</u> Z 461 • Writing Intensive Course • BB 314 and BI 483 • One Bacc. Core a term until finished • Complete course(s) not taken 2nd year (above) then fill with elective areas of major
4th Year
<ul style="list-style-type: none"> • Complete major course(s) not taken 3rd year • Complete elective areas of major • Complete 180/60 upper div. credit • BI 498 Senior Biology Major Field Test

BACCALAUREATE CORE REQUIREMENTS

Category	Notes
Skills	
Fitness (HHS 231) & Fitness Lab (HHS Lab or PAC)	
Math (C- or better required in math course prerequisites)	Completed as part of major; must complete in 1 st 45 OSU credits
Writing I = WR 121 (A-G Fall, H-N Winter, O-Z Spring)	Must complete in 1 st 45 OSU credits
Writing II = HC 199, 327 or 362 major (or WR 222)	Completed as listed here; must complete 1 st 90 credits (45 if transfer)
Speech = COMM 111	Completed as listed here; must complete 1 st 45 credits (45 if transfer)
Perspectives - No more than two courses from any one department may be used to satisfy the perspectives requirement	
Biological and Physical Science and second course	Completed as part of major
Cultural Diversity	
Literature and the Arts	
Social Processes and Institutions	GEO 204 recommended
Western Culture	
Difference, Power and Discrimination	
Difference, Power and Discrimination	
Synthesis Courses - Courses used to fulfill the synthesis requirements may not be from the same department	
Contemporary Global Issues (CGI)	Taken junior/senior year, some count toward major or options
Science, Technology, and Society (STS)	Taken junior/senior year, some count toward major or options

ZOOLOGY MAJOR REQUIREMENTS

Major Core Coursework	Term Offered				Pre(Co*)Requisites / Comments
	F	W	Sp	Su	
BI 198 Professional Development I: Biology & Zoology (1)	X				
BI 298 Professional Development for Biologists II (1)			X		
Zoology majors must complete one of two calculus series. Choose from MTH 227 and 228 OR MTH 251 and 252					
MTH 227 Calculus and Probability for Life Sci. I (4) AND		X	X		C - or better in MTH 112 (complete 227 and 228 as series)
MTH 228 Calculus and Probability for Life Sci. 2 (4)	X		X		C - or better in MTH 112 (complete 227 and 228 as series)
OR MTH 251 Calculus (4) AND MTH 252 Calculus (4)	X	X	X	X	251: C - or better in MTH 112, 252: C - or better in MTH 251
CH 231 & 261 General Chemistry and Lab (4+1)	X	X		X	Placement & HS chemistry
CH 232 & 262 General Chemistry and Lab (4+1)		X	X	X	C- or better in CH 231 and 261
CH 233 & 263 General Chemistry and Lab (4+1)	X		X	X	C- or better in CH 232 and 262
*NOTE: CH 121, 122 & 123 are taught the same terms at CH 231, 232 & 233 and also meet major requirements.					
BI 211 Principles of Biology (4)	X			X	C- or better in BI 211
BI 212 Principles of Biology (4)		X		X	CH 121 or 231 & 261; C- or better in BI 212
BI 213 Principles of Biology (4)			X	X	CH 121 or 231 & 261; C- or better in 213
CH 331 Organic Chemistry (4)	X	X		X	C- in CH 233/263 or 123
CH 332 Organic Chemistry (4)		X	X	X	C- in CH 331
CH 337 Organic Chemistry Lab (4)	X		X	X	C- in CH 332
OR CH 390 Environmental Chemistry (3)		X	X		C- in CH 331
ST 351 AND ST 352 Intro. Statistical Methods (4+4)	X	X	X	X	MTH 111 / ST 351
BI 370 Ecology (3)	X	X	X	X	C- in BI 211, 212, 213
BI 311 Genetics (4)	X	X	X	X	C- in BI 211, 212, 213
BB 314 Cell & Molecular Biology (4)	X	X	X	X	C- in BI 211, 212, 213; CH 331*
Z 423 Environmental Physiology (3)	X				C- in BI 211, 212, 213, CH 123 or 233/263
Z 361 Invertebrate Biology and Z 362 Lab (3+2)			X	X	C- in BI 211, 212, 213
OR Z 461 Marine and Estuarine Invertebrates (4)				*	C- in BI 211, 212, 213; taught at Hatfield
Z 371 Vertebrate Biology AND Z 372 Lab (3)	X				C- in BI 211, 212, 213
BI 445 Evolution (3)	X	X	X		BI 311
BI 483 Population Biology		X			BI 311 or 370; MTH 251; ST 351 & 352*
BI 498 Senior Biology Major Field Test – 2 hours exam taken FINAL TERM or spring if graduating summer term					
Writing Intensive Course – Select one course below					
BI 319 Critical Thinking & Communication in Life Sci. (3)	X	X	X		BI 211, 212, 213, ST 351
BI 371 Ecological Methods (3)			X		BI 370
BI 373 Field Methods in Marine Ecology (3)			X	X	BI 370 or BI 351; summer is taught at Hatfield
BI 450 Marine Biology & Ecology (15) (by application)			X		BI 370, ST 351, ST 352*; JR standing; taught Hatfield
Elective Courses – Zoology students must complete two courses from each of the four categories below					
Organismal/Physiology/Systematics (OPS) electives (select two 3+ credit courses)					
BI 358 Symbiosis and the Environment (3)		*			C- in BI 21x, CH 233/263 or 123; * alternate years
BI 485 Monster Biology (3)		X			BI 311, BI 370 (may be concurrent)
BOT 321 Plant Systematics (4)			X		BI 211, 212, 213
OR RNG 353 Wildland Plant Identification (4)	*	*	*	*	BI 211, 212, 213, *see catalog
FW 311 Ornithology (3)	X				BI 211, 212, 213
FW 315 Ichthyology (3)	X				BI 211, 212, 213
OR BI 450 Marine Biology & Ecology (15) (by application)			X		BI 370, ST 351, ST 352*; JR standing; taught Hatfield
FW 317 Mammalogy (3)		X			BI 211, 212, 213
OR FW 302 Biol. & Conservation of Marine Mammals (4)				*	BI 211, 212, 213; *taught at Hatfield
MB 480 General Parasitology (3)		X			BI/BB 314 or BB 450 or Z 361 or MB 302
Z 350 Animal Behavior (3)		X			C- in BI 211, 212, 213
Z 365 Biology of Insects (4)			*		C- in BI 211, 212, 213; *taught alternate years
Z 431 Vertebrate Physiology I (3)		X			C- in BI 211, 212, 213 & CH 332*
Z 438 Behavioral Neurobiology (3)			X		C- in BI 211, 212, 213, CH 123 or CH 233/263
Z 440 Insect Physiology (3)	*				C- in BI 211, 212, 213; *taught alternate years
Z 473 Herpetology (3) (Z 474 currently not taught)	*	*	*	*	C- in BI 211, 212, 213, *see catalog
Z 477 Aquatic Entomology (4)		X			C- in BI 211, 212, 213

Ecology/Evolution/Conservation (EEC) electives (select two 3+ credit courses)					
	Term Offered				Pre(Co*)Requisites / Comments
	F	W	Sp	Su	
BI 301 Human Impacts on Ecosystems. (3) OR BI 348 Human Ecology (3)		X ?			C- BI 21x or CH 23x/26x or 12x; JR standing C- BI 21x; JR standing
BI 351 Marine Ecology (3) OR BI 450 Marine Biol. & Ecology (15) (by application)		X	*		C- in BI 211, 212, 213 BI 370, ST 351, ST 352*; JR standing; taught Hatfield
BI 353: Pacific Northwest Coastal Ecosystems				X	*Taught at Hatfield
BI 375 Field Methods in Ecological Restoration (4)				*	*Taught in and around Cascades campus (Bend)
BI 427 Paleobiology (4)			X		
BI 481 Biogeography (3)		*			BI 370, *taught alternate years
BI 495 Disease Ecology (3)		*			BI 370, taught alternate years
BOT 341 Plant Ecology (4)			X		C- in BI 211, 212, 213, BOT 321 recommended
ENT 420 Insect Ecology (3)		X			ENT 350 or BI 370
FES 440. Wildland Fire Ecology (3)		X			
FES/FW 445 Ecological Restoration (3)			X		BI 370
FW 320 Introductory Population Dynamics (3)		X			BI 370, MTH 251 or 227 or higher, ST 351
FW 331 Ecology of Marine and Estuarine Birds (4)				*	C- in BI 211, 212, 213; *taught at Hatfield
FW 421 Aquatic Biological Invasions (4)				*	*Taught at Hatfield
FW 427 Principles of Wildlife Diseases (4)		X	X		C- in BI 211, 212, 213; JR standing
FW 479 Wetlands and Riparian Ecology (3)	X	X	X	X	BI 370
Z 349 Biodiversity: Causes, Consequences & Conservation (3)	X	X			BI 211 or 213 and junior standing
Z 475 Insect Biodiversity Survey	*				*Field work starts before fall; alternate years
Natural Resources/Management/Policy (NRMP) electives (select two 3+ credit courses)					
AEC 250 Intro. Env. Economics & Policy (3) OR AEC 253 Env. Law, Policy & Econ. (4) OR AEC 351 Natural Resource Econ. & Policy (3) OR AEC/ECON 352 Env. Economics & Policy (3)	X	X X X	X X X	X X	Junior standing Junior standing
ANS 435 Applied Animal Behavior (3) OR ANS 280 Companion Animal Management (3)	X			X	JR standing and Z 350
BI 347 Oceans in Peril (3)		X			BI 150, 211 or 213; JR standing
BI 348 Human Ecology (3) OR BI 301 Human Impacts on Ecosystems (3)		See EEC list			Cannot also be used above – see EEC list details above
FES 412 Forest Entomology (3)		?			BI 211, 212, 213
FES/TOX 435 Genes & Chem. Value & Risk (3)			X		Junior standing
FOR 436 Wildland Fire Science & Management (4)			X		
FOR 462 Natural Resource Policy and Law (3)	X				Junior standing
FW 350 Endangered Species, Society & Sustainability (3)	*	*	*	*	Junior standing, *see catalog
FW 458 Mammal Conservation and Management (4)			X		9 credits of upper-division biological sciences
FW 462 Ecosystem Services (3)			X		BI 370
GEOG 450 Land Use in the American West (3)	X				Junior standing
PS 475 Environmental Politics and Policy (4)	X				PS 201 or instructor approval required.
SOC 481 Society and Natural Resources (4)			X		SOC 204 or SOC 204H
TRAL 493 Environmental Interpretation (3)		X			
Upper Division Science Elective (Complete one of the two tracks below)					
Track I: Experiential Credits (complete any combination of three credits of the following):					
BI 309 Teaching Practicum	*	*	*	*	By approval
BI 401 Research and Scholarship	*	*	*	*	By approval
BI 406 Projects: Curatorial Assistant	*	*	*	*	By approval
BI 409 Advanced Teaching Practicum	*	*	*	*	By approval
BI 410 Internship	*	*	*	*	By approval
Track II: Upper Division Science Elective Course (select one course that meets the constraints below):					
Select an additional 3+ credit, 300–400 level course from BB, BI, BOT, CH, MB, MTH, PH, ST, Z not used to complete other major requirements. Some courses are excluded (see below). Science courses outside of COS and courses completed internationally may be used by Biology Lead Advisor approval. EXCLUDED COURSES: 401–410 credits (except as outlined above or by approval), BI 331–BI 333, BI 341–BI 343, BI 351 and BI 450 (unless specially approved and not used above), CH 334, 335, 336, ST 314, Z 361/362, Z 461 and any 399 or 499 courses not specifically approved.					