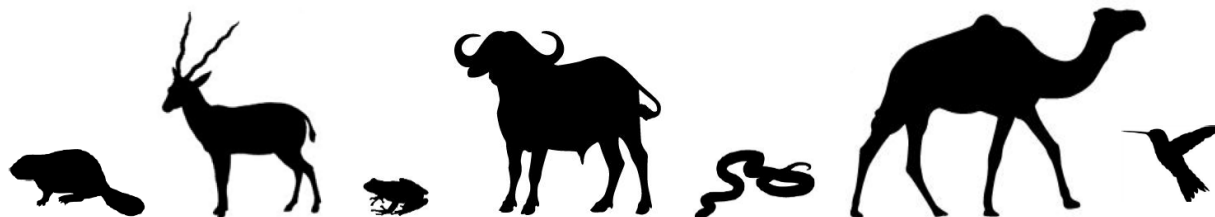


OSU ZOOLOGY MAJOR ADVISING GUIDE 2017-2018



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
- All zoology students are automatically members of the Integrative Biology Club (IBC). Contact integrativebiologyclub@oregonstate.edu or see Facebook for details on upcoming events.

Advising Appointments: Make appointments at <http://ib.oregonstate.edu/advising/appointments>

	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

- **MyDegrees:** Accessed in your Student Online Services, MyDegrees is your major checklist.
- **Listservs:** Current students are auto-subscribed to the major listserv and receive posts in their ONID account.
- **Student club, study abroad, internships, and research information** <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.
- **Organic Chemistry Laboratory:** Though not required, students are strongly encouraged to complete the CH 337 laboratory. The laboratory will count as an upper division science elective for the major (see the last major electives category).
- **Double or dual majors** are not allowed in Biology, Biochemistry and Biophysics, Biochemistry and Molecular Biology, Biohealth Sciences, Fisheries and Wildlife, Microbiology or Zoology.

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 102 (or 065), 103 (or 095), 111, 112 (or 150x), & [MTH 251 & 252] or [MTH 227 & 228]

<u>Track I</u>
Placed MTH 102(065), 103(095), 111 or 112
1st Year
<ul style="list-style-type: none"> • 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 (337 recommended) • One Bacc. Core course a quarter • Finish MTH course then fill in with Bacc. Core.
3rd Year
<ul style="list-style-type: none"> • 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 • 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 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 (337 recommended) • 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"> • Z 371, 372 • Z 361 and 362 <u>OR</u> Z 461 • Writing Intensive Course • BB 314 • 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

Complete one course per category—details at <https://catalog.oregonstate.edu/earning-degrees/bcc/>

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 (see <http://catalog.oregonstate.edu/> to confirm term offered)

Major Core Coursework	Term Offered				Pre(Co*)Requisites / Comments
	F	W	Sp	Su	
BI 198 Professional Development I: Biology & Zoology (1)	X				BI 198 is required for 1 st year students
BI 298 Professional Development for Biologists II (1)			X		BI 298 is required for 1 st year and transfer students
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 Chem. and Lab (4+1)	X	X		X	Placement & HS chemistry
CH 232 & 262 General Chem. and Lab (4+1)		X	X	X	C- or better in CH 231 and 261
CH 233 & 263 General Chem. and Lab (4+1)			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	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) OR Z 461 Marine and Estuarine Invertebrates (4)			X	X	C- in BI 211, 212, 213 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/Z 319. Critical Think. & Comm. in Life Sci. (3)	X	?	X		BI 211, 212, 213, ST 351, ST 352 (may be concurrent)
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 Biol. & 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
BOT 321 Plant Systematics (4) OR RNG 353 Wildlands Plant Identification (4)	X		X		BI 211, 212, 213 BI 211, 212, 213
FW 311 Ornithology (3)	X				BI 211, 212, 213
FW 315 Ichthyology (3) OR BI 450 Marine Biol. & Ecol. (15) (by application)	X	X	X	X	BI 211, 212, 213 BI 370, ST 351, ST 352*; JR standing; taught Hatfield
FW 317 Mammalogy (3) OR BI/FW 302 Biol. & Cons. of Marine Mammals (4)		X		X	BI 211, 212, 213 BI 211, 212, 213; taught at Hatfield
FW 427 Principles of Wildlife Diseases (4)			X	X	Junior standing or instructor approval required.
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) OR Z 432 Vertebrate Physiology II (3)		X	X		C- in BI 211, 212, 213 & CH 332* 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
Z 477 Aquatic Entomology (4)		X			C- in BI 211, 212, 213
Ecology/Evolution/Conservation (EEC) electives (select two 3+ credit courses)					
BI 301 Human Impact. Eco. (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. & Ecol. (15) (by application)		X	*		C- in BI 211, 212, 213 BI 370, ST 351, ST 352*; JR standing; taught Hatfield
BI 375 Field Methods in Ecological Restoration (5)				*	Taught in and around Cascades campus (Bend)

Ecology/Evolution/Conservation (EEC) electives (continued from previous page) (select two 3+ credit courses)					
Major Core Coursework	Term Offered				Pre(Co*)Requisites / Comments
	F	W	Sp	Su	
BI/FW 421 Aquatic Biological Invasions (4)				X	C- in BI 211, 212, 213; taught at Hatfield
BI 427 Paleobiology (4)			X		C- in BI 211, 212, 213
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) OR RNG 421 Wildland Restoration and Ecology (4)	X		X		BI 370 Course work in soils and ecology
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)				X	C- in BI 211, 212, 213; 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, Conseq. & Conser. (3)	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	Junior standing Junior standing
ANS 435 Applied Animal Behavior (3) OR ANS 280 Companion Animal Management (3)	X		X		JR standing and Z 350
ANS/FES/FW/SOC 485 Consensus Natural Res. (3)		X			JR standing
BI 347 Oceans in Peril (3)		X			BI 150, 211 or 213; JR standing
BI 348 Human Eco. (3) OR BI 301 Human Impac. (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 & Manag. (4)			X		
FOR 462 Natural Resource Policy and Law (3)	X				Junior standing
FW 350 Endangered Species, Society & Sustain. (3)			X		Junior standing
FW 458 Mammal Conservation and Management (4)	X	X	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			
Complete two <u>additional</u> 3+ credit, upper division (300-400) science (UDSci) elective courses not used above or one course and three credits of approved experiential learning (BI 309, 401, 406, 409, 410).					
Any 300–400 level courses from the College of Science may be used to meet this requirement with the exception of the courses listed below as excluded. Other science courses outside of COS and courses taken internationally can be used by chief advisor approval. Courses from other majors, minors or baccalaureate core synthesis requirements not used to meet the requirements above may also be used. Approved BI 309 Teaching Practicum, BI 401 Research, BI 406 Projects: Curatorial Assistant, BI 409 Advanced Teaching Practicum or BI 410 Internship or IE ₃ Global Internship credits can be used to meet 3 credits (one course) of this requirement. 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.					
UD Science Course 1:					
UD Science Course 2:					