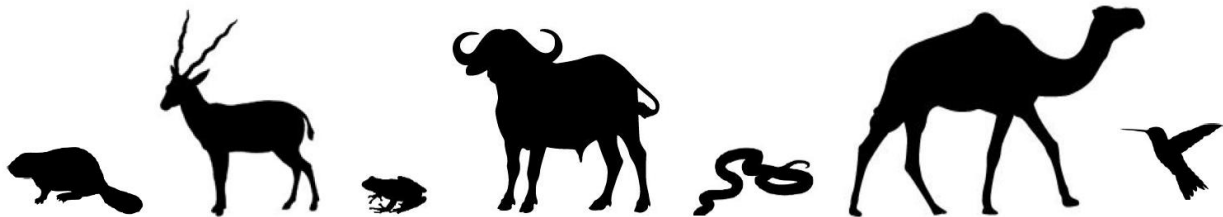




NEW ZOOLOGY
MAJOR PLANNER
WINTER 2014-2015
(for use with MyDegrees)



NOTE: The curriculum outlined in this document will be offered beginning in winter 2015. All students declaring Zoology winter 2015 or later will be in this curriculum. Current students can elect to change to this version of the major by using the form at http://oregonstate.edu/registrar/sites/default/files/forms/catalog_declaration-f.pdf - see your advisor for details. The Pre-Veterinary Medicine Option is no longer offered in Zoology - see the Biology major.

Oregon State University
Department of Integrative Biology
3029 Cordley Hall
Corvallis, OR 97331-2911
541-737-2993
<http://ib.oregonstate.edu>

ADVISING INFORMATION

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

	Fall	Winter	Spring
First year student	X	X	X
Sophomores		X	
Juniors			X
Seniors meet as needed to review graduation	?	?	?

- **MyDegrees:** Accessed in your Student Online Services, MyDegrees contains your checklist and course plan.
- **Listserve:** Current students are automatically subscribed to the Zoology major listserve.
- **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).
- **No double or dual majors are allowed in Zoology and either Biology, Fisheries and Wildlife or Biohealth Sciences.**
- **Student club, study abroad, internships, and research information** <http://ib.oregonstate.edu/undergraduates>

ZOOLOGY FOUR-YEAR PLANS

- **Courses are listed in order of priority.** Students planning to finish in four years should generally take 15 or 16 credits a term.
- **OSU math sequences for Zoology students:** MTH 102 (or 065), 103 (or 095), 111, 112, 251, 268 or 252

Track I

Placed MTH 102(065), 103(095), 111 or 112

1st Year

- Start math (MTH) fall term
- CH 231 & 261, 232 & 262, 233 & 263 (OR 121, 122, 123)
- Two or more Baccalaureate Core (Bacc Core) courses each term

2nd Year

- 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

- ST 351, 352
- Z 371, 372
- Z 361 and 362 OR Z 461
- Z 319 (WIC)
- One Bacc. Core a term until finished
- One course a quarter from: Z 423, BI 370, BI 311
- BI 445 or 345
- Complete course(s) not taken 2nd year (above) then fill with electives areas of major

4th Year

- BI 314
- Complete major course(s) not taken 3rd year
- Complete elective areas of major
- Complete 180/60 upper div. credits

Track II

Placed MTH 251 or higher

1st Year

- BI 211, 212, 213
- CH 231 & 261, 232 & 262, 233 & 263 (OR 121, 122, 123)
- One Baccalaureate Core (Bacc. Core) course a term with skills courses as the priority
- Math (MTH) each term starting in winter until complete

2nd Year

- 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 or 345

3rd Year

- Z 371, 372
- Z 361 and 362 OR Z 461
- Z 319 (WIC)
- BI 314
- One Bacc. Core a term until finished
- Complete course(s) not taken 2nd year (above) then fill with elective areas of major

4th Year

- Complete major course(s) not taken 3rd year
- Complete elective areas of major
- Complete 180/60 upper div. credit

OSU GRADUATION REQUIREMENTS

File for graduation with the Registrar three terms ahead and review your MyDegrees online checklist
File for graduation with the Registrar three terms ahead and review your MyDegrees online checklist with an advisor
Complete 180 total credits (major and Bacc Core courses do not total 180) and 60 upper division credits (300-400 level)
No more than 11 PAC, 12 MUP and 15 ALS credits can be used to reach the 180 credits required for graduation
Complete 45 of your last 75 credits in residence at OSU – Ecampus and approved abroad programs count for this
Maintain a 2.0 <u>average</u> for your degree and major courses – see MyDegrees for these numbers

BACCALAUREATE CORE REQUIREMENTS (details at <http://catalog.oregonstate.edu/bcc.asp>)

✓	Category – complete one per 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 below; 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, PHL 121, WR 222, 327 or 362	Completed as listed here; must complete in 1 st 90 credits (45 if transfer)
	Speech = COMM 111 for Zoology majors	Completed as listed here; must complete in 1 st 90 credits (45 if transfer)
Perspectives – No more than two courses from any one department may be used to satisfy the Perspectives requirements.		
✓	Biological Science, Physical Science and second course	Completed as part of major below
	Cultural Diversity	
	Literature and the Arts	
	Social Processes and Institutions	
	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 as a junior or senior, some count in major
?	Science Tech. and Society (STS)	Taken as a junior or senior, some count in major

ZOOLOGY MAJOR REQUIREMENTS (<http://catalog.oregonstate.edu/> to confirm term offered)

Major Core Coursework	Term Offered				Pre(Co*)Requisites / Comments
	F	W	Sp	Su	
BI 198 Biology Freshman Seminar	X				
MTH 251 Calculus (4)	X	X	X	X	C - or better in MTH 112
MTH 268 Mathematical Ideas in Biology (4) OR				X	C - or better in MTH 251
MTH 252 Calculus	X	X	X	X	C - or better in MTH 251
CH 231 & 261 General Chem. and Lab (4+1)	X	X		X	MTH 111 placement & HS chemistry or CH 121
CH 232 & 262 General Chem. and Lab (4+1)		X	X	X	CH 231 and 261
CH 233 & 263 General Chem. and Lab (4+1)			X	X	CH 232 and 262
*NOTE: CH 121, 122 & 123 are taught the same terms at CH 231, 232 and 233 above, require HS algebra, and meet major requirements					
BI 211 Principles of Biology (4)	X			X	C- or better required in this course
BI 212 Principles of Biology (4)		X		X	CH 121 or 231, C- or better required in this course
BI 213 Principles of Biology (4)			X	X	CH 121 or 231, C- or better required in this course
CH 331 Organic Chemistry (4)	X	X		X	One yr CH
CH 332 Organic Chemistry (4)		X	X	X	One yr CH; CH 331
ST 351 and ST 352 Introduction 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
BI 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 12x or 23/26x series
Z 361 Invertebrate Biology and Z 362 Lab (3+2) OR			X		C- in BI 211, 212, 213
Z 461 Marine and Estuarine Invertebrates (4)				X	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; may be taken alone or with Z 372
BI 445 Evolution (3) OR	X	X	X		BI 311
BI 345 Introduction to Evolution (3)	X	X	X	X	Junior standing
Z 319 Critical Thinking & Comm. in the Life Sciences (3)			?		WIC; BI 211, 212, 213, ST 351, ST 352*, JR standing
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 series, CH 23x/12x series; ~alternate years
BOT 321 Plant Systematics (4) OR			X		One year biology
RNG 353 Wildlands Plant Identification (4)	X				One year biology
FW 311 Ornithology (3)			X		One year biology
FW 315 Ichthyology (3)	X				One year biology
FW 317 Mammalogy (3) OR		X			One year biology
BI/FW 302 Biology & Cons. of Marine Mammals (4)	X			X	One year biology
FW 427 Principles of Wildlife Diseases (4)			X	X	Junior standing or instructor approval required.
MB 480 General Parasitology (3)		X	X		BI 314 or BB 450 or Z 361 or MB 302 or equivalent
Z 315 Dinosaur Biology (3)			X		C- in BI 211, 212, 213
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		X			C- in BI 211, 212, 213 & CH 332*
Z 432 Vertebrate Physiology II (3)			X		C- in BI 211, 212, 213 & CH 332*
Z 440 Insect Physiology (3)	?				C- in BI 211,212, 213; ~taught alternate years
Z 473 Herpetology (3)		?			C- in BI 211, 212, 213
Z 474 Systematic Herpetology (2)			?		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 Impacts on Ecosystems (3)^ OR BI 348 Human Ecology^ (3)	X	X			One year BI (C-) or CH and junior standing for both: ^ additional course not used above
BI 345 Intro. to Evolution (3)^ OR BI 445 Evolution (3)^	See major core				Junior standing; ^additional course not used above
BI 349 Biodiversity: Causes, Consequences & Conser. (3) OR FW 251 Principles of Fish and Wildlife Conservation (3)	X	X	X	X	Junior standing One term biology
BI 351 Marine Ecology (3)		X			C- in BI 211, 212, 213, BI 370 recommended
BI/FW 421 Aquatic Biological Invasions (4)				X	C- in BI 211, 212, 213
BI 427 Paleobiology (3)			X		C- in BI 211, 212, 213
BI 481 Biogeography (3)		?			C- in BI 211, 212, 213, ^taught alternate years
BI 495 Disease Ecology (3)			X		BI 370
BOT 341 Plant Ecology (4) OR BOT 440 Field Methods in Plant Ecology			X	X	One year biology, BOT 321 recommended Coursework in ecology and statistics
ENT 420 Insect Ecology (3)		X			ENT 350 or BI 370
FES/FW 445 Ecological Restoration (3) OR RNG 421 Wildland Restoration and Ecology (4)	X		X		BI 370 or BI 370H or instructor approval required Course work in soils and ecology
FOR/FW/RNG 446 Wildland Fire Ecology (3)		X			Course work in ecology and natural resource mgmt.
FW 320 Introductory Population Dynamics (3)	X	X	X	X	BI 370/BI 370 or BI 371, MTH 245 or higher, stats
FW 331 Ecology of Marine and Estuarine Birds (4)				X	One year biology
FOR/FW/RNG 446. Wildland Fire Ecology (3)		X			Coursework in ecology and natural resource mgmt..
FW 479 Wetlands and Riparian Ecology (3)	X	X	X	X	BI 370 or BI 371
Natural Resources/Management/Policy (NRMP) electives (select two 3+ credit courses)					
ANS/FW/SOC 485 Consensus and Natural Resources (3)		X			Junior standing
ANS 435 Applied Animal Behavior (3) OR ANS 280 Companion Animal Management (3)	X			X	Junior standing
AEC 250 Intro. Environmental Economics & Policy (3) OR AEC 253 Environmental Law, Policy and Econ. (4) OR AEC 351 Natural Resource Economics and Policy (3) OR AEC/ECON 352 Environmental Economics and Policy (3)	X	X	X	X	Junior standing Junior standing
BI/ENT 300 Plagues, Pests and Politics (3)	X	X	X		Junior standing
BI 348 Human Eco. (3)^ OR BI 301 Human Impact. Eco. (3)^	See EEC electives				Junior standing; ^additional course not used above
BI/FES 435 Genes & Chemicals in Agric. Value & Risk (3)	X	X	X	X	Junior standing
BOT/FES 415 Forest Insect and Disease Management (5)		X			BI 213 or BI 213H
FES 352 Wilderness Management (3)	X	X	X	X	
FES 355 Management for Multiple Resource Values (3)	X		X		
FES 365 Issues in Natural Resources Conservation (3)	X	X	X	X	Junior standing
FES 493 Environmental Interpretation (3)	X	X	X	X	
FOR/RNG 436 Wildland Fire Science & Management (4)	X	X	X		
FOR 462 Natural Resource Policy and Law (3)	X				Junior standing
FW 325 Global Crises in Resource Ecology (3)	X	X	X	X	Junior standing
FW 326 Integrated Watershed Management (3)	X	X	X	X	FW 251
FW 350 Endangered Species, Society & Sustainability (3)	X	X	X	X	Junior standing, FW 251
FW 415 Fisheries and Wildlife Law and Policy (3)		X			PS 201 or other introductory political science course
FW 426 Coastal Ecology and Resources Management (5)	X				FW 320 recommended
FW 431 Dynamics of Marine Biological Resources (4)	X				BI 370 or BI 371
FW 458 Mammal Conservation and Management (4)	X	X	X		9 credits of upper-division biological sciences
FW 462 Ecosystem Services (3) OR FES 492 Ecosystem Services Ecology, Sociology, Policy (3)	X		X		BI 370 Senior standing
GEO 423 Land Use in the American West (3)	X	X			Junior standing
PS 475 Environmental Politics and Policy (4)	X	X	X	X	PS 201 or instructor approval required.
SOC 481 Society and Natural Resources (4)			X	X	SOC 204 or SOC 204H
Complete two additional 3+ credit, upper division (300-400) science (UDSci) elective courses not used above:					
College of Science may be used to meet this requirement with the exception of the courses excluded below. Other science courses outside of COS and study abroad coursework can be used by Chief Advisor approval. Courses from other majors, minors or Baccalaureate Core synthesis requirements (not used above) may also be used. Approved Z 401 Research or Z 410 Internship credits or international internships can be used to meet 3 credits (one course). EXCLUDED COURSES: 405 Reading & Conference, 406 Projects, 407 Seminar, 409 Practicum, BI 331-333, BI 341-343, CH 334, 335, 336, ST 314 and any 399 or 499 courses not approved.					
UD Science Course 1:			UD Science Course 2:		
Complete the BI 499 Biology Senior Major Field Test your final term or spring term if graduating in summer.					