

CORVALLIS ZOOLOGY MAJOR ADVISING GUIDE 2021-22

for use with MyDegrees



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ADVISING INFORMATION

Advisor and Advising Appointments:

[You can view your advisor and make appointments here.](#) Students can meet for advising at any time, but use this table to determine when you **must** meet for advising:

Who	Must Meet
First year student, those using military benefits, athletes, honors college	Each term
Sophomores	Winter term
Juniors	Winter term
Transfer students	First term after transfer
Seniors	As needed to review for graduation

Other Contacts:

- **Department of Integrative Biology (IB) (where advisors are located):**
 - Integrative Biology office, 3029 Cordley Hall, 541-737-2993, ib@oregonstate.edu
 - The Biosphere student lounge, 3019 Cordley Hall is open for all Biology and Zoology students.
- **Integrative Biology Club (IBC):** All biology students are automatically members. Contact integrativebiologyclub@oregonstate.edu or see Facebook for upcoming events.
- **Science Success Center**, Kidder Hall 109, 541-737-3854, is open for registration and other help. Email sciencesuccess@oregonstate.edu or [Zoom](#) (passcode COSBEAVS).

Important Student Resources:

- **My Degrees**, available in your student online services, is used with this advising guide to plan your degree.
 - **My Degrees Checklist** lets you view your completed courses and remaining requirements for all declared programs (major, minor, etc.). View the [My Degrees Checklist tutorial](#) for details.
 - **My Degrees Planner** stores degree plans you share with your advisor. View the [Planner tutorial](#) for details.
- **Integrative Biology (IB) Website:** Student clubs, study abroad, internship, research and other engagement opportunities.
- **Integrative Biology (IB) Listserv:** Current students are auto-subscribed and receive departmental posts in their ONID email.

POLICIES & GUIDELINES:

- **GPA:** The Zoology major requires a 2.0 cumulative OSU and major GPA to graduate.
- **C- for Biology (BI), Math (MTH), and Chemistry (CH):** All students must receive a C- or better in BI 221, 222 and 223; the CH 23x/26x series; and CH 331 to continue to courses that have these as prerequisites. Also, all math courses require a C- or higher in the previous math course in order to progress to the next one.
- **Double counting courses:** Courses from other majors, minors and Baccalaureate Core (Bacc. Core) courses may be counted for major requirements, unless a minor restricts sharing. No courses may be shared within the major or within Bacc. Core even though some are listed in multiple areas.
- **S/U and withdraw (W):** Zoology students cannot S/U major courses. All OSU students are only allowed 18 withdraws.
- **Restricted double or dual majors:** No combination of Biology, Biohealth Sciences, Fisheries and Wildlife Sciences, or Zoology majors is allowed.
- **Chemistry Minor:** A Chemistry Minor can be completed by taking one additional course (often CH 324, CH 390, or CH 424). Contact your advisor for approval and details. CH 324 is often restricted by major until phase II of registration.
- **Class Retakes:** OSU academic regulations often result in retakes not working how students expect. Tell your advisor if you are considering retaking a course you first completed at OSU or another school, or if you are repeating an OSU course for the third time. [Students should also review the retake information here.](#)

BACCALAUREATE CORE REQUIREMENTS:

The Baccalaureate Core (Bacc Core) Curriculum promotes understanding of interrelationships among disciplines in order to increase students' capacities as ethical world citizens. Writing I, Math, and Communications must be completed in the first 45 credits. Some of the courses overlap major requirements and count for both the major and Baccalaureate Core (see notes below).

Skills:

These courses build a foundation for success in other courses.

- **Fitness:** HHS 231 lecture & [HHS 241 or Physical Activity Course (PAC) course]
- **Math (1st year):** Major requires calculus courses. A C- or better is required in math course prerequisites. Once math is started based on placement, continue this sequence each term until completed MTH 065 → 103 → 111 → 112 → either [MTH 227 & 228] or [MTH 251 & 252]
- **Writing I (1st year WR 121).** Registration is by last name with A-G Fall, H-N Winter, O-Z Spring.
- **Writing II (2nd year):** Major requires WR 327 or 362. Must complete in first 90 credits (45 if transfer).
- **Speech (1st year):** Major requires COMM 111.

Perspectives:

These build a broader understanding of our multifaceted world. No more than two courses from any one department may be used to satisfy the perspectives requirements. Each listing represents a category with many course choices.

- **Biological Science, Physical Science:** Major requires BI 221, 222, 223 and CH 231/261, 232/262, 233/263.
- **Cultural Diversity (see list)**
- **Literature and the Arts (see list)**
- **Social Processes and Institutions (see list)**
- **Western Culture (see list)**

Difference, Power and Discrimination:

These address intersections of human identity and experience with institutionalized systems of inequity and privilege in the US.

Synthesis Courses:

These facilitate synthesis of information and experience. As such, they are completed after the other categories above.

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 requirements
- **Science, Technology, and Society (STS):** Taken junior/senior year, some count toward major requirements

ZOOLOGY FOUR YEAR PLANS:

These tracks outline ways to complete the degree within four years, averaging 15 credits a term. Tracks are determined by where students start in math (ALEKS placement or transfer credits). The math sequences for Corvallis Zoology students is MTH 065 → 103 → 111 → 112 → either [MTH 227 & 228] or [MTH 251 & 252]. Courses are listed in order of priority based on prerequisites. Students taking fewer credits should focus on completing courses in earlier years before progressing toward the next year.

Math Placement	Track 1: Placed in MTH 103, 111, or 112	Track 2: MTH 251 placement
Year 1	<ul style="list-style-type: none"> Start MTH Fall, continue each term BI 198 Fall, BI 298 Spring CH 231 & 261, 232 & 262, 233 & 263 (OR 121x) Two or more Bacc. Core courses a term: Prioritize COMM 111 and WR 121. 	<ul style="list-style-type: none"> MTH in Winter, continue each term BI 198 Fall, BI 298 Spring BI 221, 222, 223 CH 231&261, 232&262, 233&263 (OR 121x) One Bacc Core course a term: Prioritize COMM 111 and WR 121.
Year 2	<ul style="list-style-type: none"> BI 221, 222, 223 CH 331, 332 One Bacc Core course a term: Prioritize WR 327 or 362. Finish MTH courses then fill with BaccCore 	<ul style="list-style-type: none"> CH 331, 332 Finish MTH then ST 351, 352 One Bacc Core course a term: Prioritize WR 327 or 362. One course a term from: BI 370, BI 311, BI 445, Z 423
Year 3	<ul style="list-style-type: none"> CH 337 or 390 ST 351, 352 Z 371, 372 (Z 361 and 362) OR Z 461 (summer only) Writing Intensive Course One Bacc Core course a term until finished One course a term from: BI 370, BI 311, BI 445, Z 423 Complete courses not taken above then fill with major electives 	<ul style="list-style-type: none"> CH 337 or 390 Z 371, 372 (Z 361 and 362) OR Z 461 (summer only) Writing Intensive Course BB 314 and BI 483 One Bacc. Core course a term until finished Complete courses not taken above then fill with major electives
Year 4	<ul style="list-style-type: none"> BB 314 and BI 483 Complete major course(s) not taken above Complete 180 credits, 60 upper division BI 498 Biology Major Field Test: Summer graduates take spring; all others take last OSU term 	<ul style="list-style-type: none"> Complete major course(s) not taken above Complete 180 credits, 60 upper division BI 498 Biology Major Field Test: Summer graduates take spring; all others take last OSU term

ZOOLOGY MAJOR REQUIREMENTS:

Unless noted, these courses reflect Corvallis campus offerings. Check the Schedule of Classes for offering at other campuses.

Zoology Core Courses:

Professional Development:

Course	Description	Term(s)	Pre-/co-requisites	Comments
BI 198	Professional Development: Biology and Zoology (1)	F	-	Required in 1 st year
BI 298	Professional Development for Biologists II (1)	SP	-	Required in 1 st year

Math & Statistics:

Take either Calculus and Probability for Life Sci. (MTH 227 & MTH 228) -or- Calculus (MTH 251 & MTH 252)

Course	Description	Term(s)	Pre-/co-requisites	Comments
MTH 227	Calculus and Probability for Life Sci. I (4)	W, SP	MTH 112 (C-)	Complete MTH 227 & 228 as series
& MTH 228	Calculus and Probability for Life Sci. 2 (4)	F, SP	MTH 227 (C-)	Complete MTH 227 & 228 as series
MTH 251	Calculus (4)	All	MTH 112 (C-)	Complete MTH 251 & 252 as series
& MTH 252	Calculus (4)	All	MTH 251 (C-)	Complete MTH 251 & 252 as series

Take ST 351 then ST 352

Course	Description	Term(s)	Pre-/co-requisites	Comments
ST 351	Introduction to Statistical Methods (4)	All	MTH 111	-
ST 352	Introduction to Statistical Methods II (4)	All	ST 351	-

General Chemistry:

Course	Description	Term(s)	Pre-/co-requisites	Comments
CH 231 & 261	General Chem. and Lab (4+1)	F, W, Su	MTH 111 credit or placement	-
CH 232 & 262	General Chem. and Lab (4+1)	W, Sp, Su	CH 231/261 (C-)	-
CH 233 & 263	General Chem. and Lab (4+1)	F, Sp, Su	CH 232/262 (C-)	-

Principles of Biology:

Course	Description	Term(s)	Pre-/co-requisites	Comments
BI 221	Principles of Biology: Cells (4)	F, Su	CH 121 or CH 231/261*	*May be taken concurrently
BI 222	Principles of Biology: Organisms (4)	W, Su	BI 221 (C-); CH 121 or CH 231/261 (C-)	*May be taken concurrently
BI 223	Principles of Biology: Populations (4)	Sp, Su	BI 221 (C-); CH 121 or CH 231/261 (C-)	-

Organic Chemistry:

Take CH 331 & CH 332. Then, choose CH 337 or CH 390

Course	Description	Term(s)	Pre-/co-requisites	Comments
CH 331	Organic Chemistry (4)	F, W, Su	CH 233/263 or 123 (C-)	-
CH 332	Organic Chemistry (4)	W, Sp, Su	CH 331 (C-)	-
CH 337 <u>or</u>	Organic Chemistry Lab (4)	F, Sp, Su	CH 332 (C-)	-
CH 390	Environmental Chemistry (3)	W, Sp	CH 331 (C-)	-

Upper Division Zoology Core:

Choose either (Z 361&362) or Z 461.

Course	Description	Term(s)	Pre-/co-requisites	Comments
BI 370	Ecology (3)	F, W, Sp	BI 221, 222, 223 (C-)	-
BI 311	Genetics (4)	F, W, Sp	BI 221, 222, 223 (C-)	-
BB 314	Cell and Molecular Biology (4)	All	BI 221, 222, 223 (C-); CH 331*	*May be taken concurrently
Z 361 & 362 <u>or</u>	Invertebrate Biology & Lab (3 + 2)	Sp	BI 221, 222, 223 (C-)	-
Z461	Marine & Estuarine Invertebrates (4)	Su*	BI 221, 222, 223 (C-)	*Hatfield campus only
Z 371 & 372	Vertebrate Biology & Lab (3)	F	BI 221, 222, 223 (C-)	-
Z 423	Environmental Physiology	F	BI 221, 222, 223 (C-), CH 233/263 or 123	-
BI 445	Evolution (3)	F, W, Sp	BI 311	-
BI 483	Population Biology (3)	W	(BI 311 or BI 370), MTH 251, ST 352*	*May be taken concurrently

Writing Intensive Course (WIC):

Take one of the following.

Course	Description	Term(s)	Pre-/co-requisites	Comments
BI 319	Critical Thinking & Comm. Life Sci. (3)	F, W, Sp	BI 221, 222, 223 (C-), ST 351	-
BI 371	Ecological Methods (3)	Sp	BI 370	-
BI 373	Field Methods in Marine Ecology (3)	Sp	BI 370 or BI 351	-
BI 450	Marine Biology & Ecology (15)*	Sp*	BI 370, ST 351, ST 352, junior +	*By application; Hatfield campus only

Zoology Electives:

Organismal/Physiology/Systematics (OPS) electives:

Take two of the following.

Course	Description	Term(s)	Pre-/co-requisites	Comments
BI 358	Symbiosis & the Environment (3)	W*	BI 22X, CH 233/263 or 123 (C-)	*Alternate years
BI 485	Monster Biology (3)	W	BI 311, BI 370 (co)	-
BOT 321	Plant Systematics (4)	Sp	BI 221, 222, 223 (C-)	-
FW 302 <u>or</u>	Biol. & Conserv. of Marine Mammals (4)	Su*	BI 221, 222, 223 (C-)	*Hatfield campus only
FW 311 <u>or</u>	Ornithology (3)	Sp	BI 221, 222, 223 (C-)	
FW 315 <u>or</u>	Ichthyology (3)	F	BI 221, 222, 223 (C-)	
FW 317 <u>or</u>	Mammology (3)	W	BI 221, 222, 223 (C-)	
FW 331	Ecology of Marine & Estuarine Birds (4)	Su*	BI 221, 222, 223 (C-)	* Hatfield campus only
MB 480	General Parasitology (3)	W	BI 221, 222, 223 (C-)	-
Z 350	Animal Behavior (3)	W	BI 221, 222, 223 (C-)	-
Z 365	Biology of Insects (4)	Sp*	BI 221, 222, 223 (C-)	*Ecampus only
Z 422	Comparative/Functional Vert. Anat. (5)	F	BI 221, 222, 223 (C-), CH 332*	*May be taken concurrently
Z 431	Vertebrate Physiology I (3)	W	BI 221, 222, 223 (C-), CH 332*	*May be taken concurrently
Z 438	Behavioral Neurobiology (3)	Sp	BI 22X (C-), CH 233/263 or 123 (C-)	-
Z 473	Herpetology (3)	Sp*	BI 221, 222, 223 (C-)	*Ecampus only
Z 477	Aquatic Entomology (4)	W*	BI 221, 222, 223 (C-)	*Alternative years

Ecology/Evolution/Conservation (EEC) electives:

Take two of the following.

Course	Description	Term(s)	Pre-/co-requisites	Comments
BI 301 <u>or</u> BI 348	Human Impacts on Ecosystems (3) Human Ecology (3)	W F*	BI 22X or CH 23x; sophomore + Sophomore +	*Ecampus only
BI 351 <u>or</u> BI 450	Marine Ecology (3) Marine Biol. & Ecology (15) (application)	W Su*	BI 221, 222, 223 (C-) BI 370, ST 351, ST 352; junior +	*By application, Hatfield campus only
BI 353 BI 375	Pacific Northwest Coastal Ecosystems (4) Field Methods in Ecolg. Restoration (4)	Su* F*	BI 221, 222, 223 (C-) BI 221, 222, 223 (C-)	*Hatfield campus only *Cascades (Bend) campus only; end of summer just before fall term
BI 427	Paleobiology (4)	Sp	BI 221, 222, 223 (C-)	Not offered 2022
BI 481	Biogeography (3)	W*	BI 370	*Alternate years
BI 495	Disease Ecology (3)	W*	BI 370 (C-)	*Alternate years
BOT 341	Plant Ecology (4)	Sp	BI 22X (C-), BOT321 recommended	-
FES 440 <u>or</u> FES/FW445	Wildland Fire Ecology (3) Ecological Restoration (3)	W SP	BI 370 BI 370	- *See catalog
FW 320 <u>or</u> FW 421 <u>or</u> FW 427 <u>or</u> FW 479	Introductory Population Dynamics (3) Aquatic Biological Invasions (4) Principles of Wildlife Diseases (4) Wetlands & Riparian Ecology (3)	W * * All*	BI 370 BI 221, 222, 223 (C-) BI 221, 222, 223 (C-) BI 221, 222, 223 (C-)	- *See catalog; Ecampus only *See catalog; Ecampus only *Ecampus only
Z 349	Biodiversity: Causes, Conseq.& Conser (3)	F, W	BI 221; sophomore +	-

Natural Resources/Management/Policy (NRMP) electives:

Select two of the following.

Course	Description	Term(s)	Pre-/co-requisites	Comments
AEC 250 <u>or</u> AEC 253	Environmental Economics & Policy (3) Env. Law, Policy & Econ. (4)	* W	-	*See catalog; Ecampus only -
AEC 432	Environmental Law (4)	Sp	-	-
ANS 280	Companion Animal Management (3)	Sp	-	-
BI 347	Oceans in Peril (3)	W	BI 150 or 221; sophomore +	-
BI 301 <u>or</u> BI 348	Human Impacts on Ecosystems (3) Human Ecology (3)	W F*	BI 22X or CH 23x; sophomore + Sophomore +	Cannot also be used above *Ecampus only; cannot also be counted above
FES 355	Management for Multiple Resource (3)	*	-	*See catalog; Ecampus only
FES 412	Forest Entomology (3)	Sp	BI 221, 222, 223 (C-)	-
FES/FW 452	Biodiversity Conserv. Manag. Forests (3)	W, Sp	BI 370	-
FES 485	Consensus and Natural Resources (3)	F, W	-	-
FOR 436	Wildland Fire Science & Management (4)	F	-	-
FW 350	Endangered Species, Society & Sustainability (3)	F	Sophomore +	-
FW 451	Avian Conservation and Management (3)	*	FW 311	*See catalog; Ecampus only
FW 458	Mammal Conservation & Manag. (4)	Sp	BI 22x and 3 upper division courses	-
FW 462	Ecosystem Services (3)	*	BI 370	*See catalog; Ecampus only
GEOG 450	Land Use in the American West (3)	*	Sophomore +	*See catalog
PS 475	Environmental Politics and Policy (4)	F	-	-
PS 477	Intern. Environment. Politics & Policy (4)	*	-	*See catalog; Ecampus only
SOC 481	Society and Natural Resources (4)	All*	Sophomore +	*See catalog; Ecampus only
TRAL352 <u>or</u> TRAL 357	Wilderness Management (3) Parks & Protected Areas Manage. (3)	All* F	- Sophomore +	*See catalog; Ecampus only

Upper Division Science Elective:

Complete Track 1 (Experiential Credits), Track 2 (Skills Course), or an option.

Track 1: Experiential – complete any combination of 3 credits of the following

Course	Description	Term	Pre-/co-requisites	Comments
BI 309	Teaching Practicum (1-3)	All	Department approval	See online forms here
BI 401	Research & Scholarship (1-3)	All	Department approval	See online forms here
BI 406	Projects: Curatorial Assistant (1-3)	All	Department approval	See online forms here
BI 409	Advanced Teaching Practicum (1-3)	All	Department approval	See online forms here
BI 410	Internship (1-3)	All	Department approval	See online forms here

Track 2: Skills Course – select one course

Course	Description	Term	Pre-/co-requisites	Comments
ANS 435	Applied Animal Behavior (3)	*		*See catalog
BI 375	Field Methods in Ecol. Restoration (4)	F*	-	* Cascades (Bend) only; end of summer just before fall term
BI 450	Marine Biology (15)	Sp*	BI 370 and ST 351 (352 recommended)	*By application, Hatfield campus only
BOT 425	Flora of the Pacific Northwest (3)	Sp	BOT 321 recommended	-
BOT 440	Field Methods in Plant Ecology (4)	*	-	*See catalog; Ecampus only
CS 201 <u>or</u> CS 161	Computer Program. for Non CS Majors (3) Intro to Computer Science I (4)	W/Su* F,Sp,Su	-	*Ecampus only? *Ecampus only
FES 430	Forest as Classroom (4)	F/Sp*	-	*Ecampus only
FW 255	Field Sampling of Fish and Wildlife (3)	F, Sp	-	-
FW 430	Intro to Scientific Diving (4)	*	Requires rescue diver certifications	*See catalog
FW 493	Field Methods for Marine Research (3)	*	-	*Currently not taught; Hatfield campus only
FW 498	Aquaculture Laboratory (3)	Su*	-	* Hatfield campus only
GEOG 360	GIScience I: Geographic Info. Syst. & Theory (4)	F, Sp	-	-
KIN 232	Backcountry Leadership (3)	F	EXSS 230 & KIN 239, PAC 301, 303, 329	-
NR 325	Sci. Methods Analyzing Nat. Res. Problems (3)	F	-	*See catalog
RNG 353	Wildland Plant Identification (4)	F	-	-
RNG 441	Rangeland Analysis (4)	Sp	ST 351	*Ecampus only
SED 435	Communication Ocean Sci. Informal Audience (3)	*	-	*See catalog
TRAL 493	Environmental Interpretation (4)	Sp	-	-

GRADUATION REQUIREMENTS:

1. [BI 498 Biology Major Field Test](#): Is offered fall, winter and spring terms. It must be completed in your final term (spring if planning to graduate in summer)
2. Complete all major courses and 180 total credits and 60 upper division credits (300-400 level). Note that Zoology major and Bacc Core courses alone do not total 180 credits.
3. No more than 11 PAC, 12 MUP, or 15 ALS credits can be used to reach 180 required
4. Maintain a 2.0 average GPA for your degree AND major (tracked in My Degrees).