

Wildlife Ecology & Conservation Sciences



School of the Environment B.S. in Earth & Environmental Sciences Advising Sheet • Fall – 2016

Student Name _____

ID# _____

Email _____

Advisor: _____

Academic Coordinators: 509-335-6166 or 509-335-8538; Webster 1227 and 1229

BASIC REQUIREMENTS:

46 Credit minimum required (no more than three, three-credit courses within the major)

First Year Experience (3 credits)	Cr	Term	Offered
Roots of Contemporary Issues (HISTORY 105)	3		F,S,SS
Foundational Competencies (10 cr min.)			
<i>Written Communication</i>			
ENGL 101: Intro Writing [WRTG]	3		F,S,SS
<i>Communication</i>			
HD 205 or COM 102 [COMM]	3-4		F,S,SS
<i>Quantitative Reasoning</i>			
STAT 212 [QUAN], MATH 140 [QUAN] or MATH 171 [QUAN]	4		F,S,SS
Ways of Knowing (20 credits min.)			
<i>Inquiry in the Social Sciences (3)</i>			
ECONS 101 [SSCI]	3		F,S,SS
<i>Inquiry in the Humanities (3)</i>			
Elective [HUM]	3		.S,SS
<i>Additional Inquiry (3)</i>			
Elective [HUM, ARTS or SSCI]	3		F, S, SS
<i>Inquiry in Creative and Professional Arts (3)</i>			
Elective [ARTS]	3		F, S, SS
<i>Inquiry in the Natural Sciences (7 min.)</i>			
BIOLOGY 106 Intro to Organismal [BSCI]	4		F,S, SS
CHEM 101 Intro to Chem OR [PSCI]	4		F,S, SS
CHEM 105 Principles of Chem I [PSCI]			
Integrative & Applied Learn –Included in EES Core			
Global Diversity (3)			
NATRS 312 [DIVR]	0		
<i>Integrative Capstone (3)</i>			
NATRS 454 [M] [CAPS]	0		
Other Required Courses (13 cr.)			
MATH 106 College Algebra	3		F,S,SS
MATH 108 Trigonometry	2		F,S,SS
BIOLOGY 107 Cell Biology & Genetics	4		F,S,SS
CHEM 102 Chemistry Related to Life Sci. OR	4		S
CHEM 106 Principles of Chem II			F,S,SS

Writing in the major requirement: 1) _____ 2) _____

Writing Portfolio/Writing Exam Yes No

2-years of high school foreign language Yes _____ OR
at least 2-semesters at college level (required to graduate) Yes _____

Note: To certify in the major you must have at least 24 credits and a 2.0 cum GPA.

CHECKLIST:

- Basic Requirements (46 Cr.)
- EES Common Core (19-23 Cr.)
- WECS Core (42-43 Cr.)
- Professional Electives (10-13 Cr.)
- TOTAL (at least 120 credits with 40 in upper division courses)

EARTH & ENVIRONMENTAL SCIENCE DEGREE COMMON CORE REQUIREMENTS: (19-23 Cr)

Advanced Writing	Cr	Term	Offered
Writing in the Major ²	-		F,S
Earth Systems			
GEOL 210 Earth History & Evolution	4		F,S
Water Science			
NATRS 460 Watershed Management OR	3		S
GEOL 315 Water & Earth ¹	3		S
Ecology			
NATRS 300 Natural Resources Ecology OR	3		F,S
BIOL 372 General Ecology [M]	4		F, S, SS
Society & Environment			
NATRS 312 Nat Res & Society [DIVR]	3		S, SS
Spatial Analysis			
SOIL_SCI 368 Introduction to GIS	3		F
Integrated Capstone (UCORE Requirement)			
NATRS 454 [M] [CAPS] Restoration Ecology	3		F
Experiential			
Milestone: 135 approved work experience ⁷ OR	0		F,S,SS
NATRS 479 NRS Management Internship OR	3		F,S,SS
ENVR SCI 495 Undergraduate Internship OR	3		F,S,SS
ENVR_SCI 499 Special Problems	3		F, S, SS

*F = Fall; S = Spring; SS = Summer Session;
FAYO = Fall Alt.Yr. Odd; FAYE = Fall Alt. Yr. Even;
SAYO = Spring Alt. Yr. Odd; SAYE = Spring Alt. Yr. Even*

¹GEOL 315 requires GEOL 101 or 102 as prerequisite

²Writing in the Major courses completed as part of WECS major – NATRS 454, 446 and 450.

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WILDLIFE ECOLOGY & CONSV. SCI. – *PRE-VET*

First Year

First Term

	<i>Hours</i>
BIOLOGY 106 [BSCI]	4
CHEM 105 [PSCI]	4
COM 102 [COMM] or HD 205 [COMM]	3-4
HISTORY 105 [Roots]	3
MATH 106 or electives ¹	3

Second Term

	<i>Hours</i>
BIOLOGY 107 [BSCI]	4
CHEM 106	4
ENGLISH 101 [WRTG]	3
Humanities [HUM]	3
MATH 108 or electives ¹	2

Second Year

First Term

	<i>Hours</i>
ECONS 101 [SSCI]	3
NATRS 204	2
NATRS 300 or BIOLOGY 372 [M] ²	3-4
NATRS 301	3
NATRS 310	4

Second Term

	<i>Hours</i>
Arts [ARTS]	3
NATRS 302	3
NATRS 312 [DIVR]	3
STAT 212 [QUAN], MATH 140 [QUAN] or 171 [QUAN]	4
Foreign Language, if needed ³	0-4
Complete Writing Portfolio	

Third Year

First Term

	<i>Hour</i>
Animal Systematics/Genetics Elective ⁴	3-4
CHEM 345	4
NATRS 435	4
SOIL_SCI 368	3
Foreign Language, if needed ³	0-4

Second Term

	<i>Hours</i>
Additional [HUM, ARTS or SSCI]	3
GEOLOGY 210	4
NATRS 431	3
NATRS 438	3
STAT 412	3

Fourth Year

First Term

	<i>Hours</i>
BIOLOGY 301	4
MBIOS 303	4
NATRS 454 [M] [CAPS]	3
MBIOS 303	4
PHYSICS 101	4
SOE Experiential Requirement or Prof. electives if milestone hours ⁵	0-3

Second Term

	<i>Hours</i>
Animal Systematics/Genetics Elective ⁴	4
NATRS 460 or Geology 315 ⁶	3
NATRS 441	4
NATRS 446 [M]	3
NATRS 450 [M]	3

Total Hours Minimum

123

Required courses for those interested in Pre-Veterinary

Must take CHEM 105 and 106 plus 4 additional required courses.

Courses	Cr	Term	Offered
CHEM 345 Elementary Organic Chemistry	4		S
MBIOS 303 Biochemistry	4		F
BIOLOGY 301 General Genetics	4		F
PHYSICS 101 General Physics	4		F

Senior-Year Note: *IF* granted early admission into veterinary school, approximately 33 credits during first year of veterinary school, ultimately to be awarded BS in School of Environment, Wildlife Ecology & Conservation/Pre-Vet Major concurrent with completion of DVM.

IF NOT granted early admission into Vet School, pursue the schedule in the 4th year to complete the BS in the School of the Environment, Wildlife Ecology & Conservation/Pre-Vet plan.

FOOTNOTES

¹ MATH 106 and 108 are required courses. However, if students have tested into or taken MATH 140, 171, 172 or ALEKS with an 80% or better, MATH 106 and 108 will be waived. If waived, students would need to take 2-3 additional credits.

² Alternative to NATRS 300 is BIOLOGY 372 [M].

³ Two years of high school foreign language or at least two semesters of college-level foreign language are required by the College of Arts and Sciences for graduation.

⁴ Choose two of the following Animal Systematics/Genetics Courses: BIOLOGY 412, 423, 428 or 432[M] or NATRS 318.

⁵ Certified students in the School of the Environment are required to fulfill the SOE Experiential Requirement before graduation. This requirement is designed to give students experience that they will not receive in the traditional classroom oriented course, and to better prepare them for a successful career after graduation. There are various ways to complete this requirement and students are encouraged to choose an experience of interest to them. Approved courses include ENVR SCI 492, 495, 499 and NATRS 479; or as approved by advisor. In lieu of a course, students can complete a milestone of 135 hours of relevant practical experience, but may need another 3 cr. of professional electives.

⁶ Alternative to NATRS 460 is GEOLOGY 315 which requires an additional prerequisite of GEOLOGY 101 or 102.

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NOTES:

Wildlife Biologist, Federal - Wildlife Biology Series, 0486

For more information see <https://www.opm.gov/policy-data-oversight/classification-qualifications/general-schedule-qualification-standards/0400/wildlife-biology-series-0486/>

Requires no extra credits

Fisheries Biologist, Federal – Fish Biologist Series, 0482

For more information see: <https://www.opm.gov/policy-data-oversight/classification-qualifications/general-schedule-qualification-standards/0400/fish-biology-series-0482/>

- Take BIOLOGY 412, Biology of Management of Fishes as animal systematics elective
- Use professional 9 credits aquatic subjects such as NATRS 411 Limnology, ENVR_SCI 275 Rivers, ENVR_SCI 417 Fisheries Science, ENVR_SCI 430 Stream Ecology, BIOL 410 Marine Biology, or general zoology courses such as invertebrate or vertebrate zoology, comparative anatomy, histology physiology, embryology, genetics, entomology, parasitology, development or cell biology

Certified Professional Wildlife Biologist, The Wildlife Society

For more information see: www.wildlife.org/learn/professional-development-certification/certification-programs.

- For professional electives, take at least 3 **additional** credits of communication (writing, speaking, media)
- Take 3 **additional** credits of humanities or social sciences (can use course used to fill additional SSCI or HUM elective for UCORE requirements).

“WECS” COURSES with Prerequisites

BIOL 372 (F/S/SS) Or NATRS 300 (F/S)	BIOL 106 and CHEM 102 or 105 No prereq's
GEOL 315 (SAYO)	GEOL 101, 102, PHYS 101 or 201; CHEM 102 or 106; MATH 108, 140 or 171
NATRS 204 (F)	MATH 106/108 or 108 c// if 106 taken, or 140, 171
NATRS 301 (F)	NATRS 300 or c//
NATRS 302 (S)	NATRS 301
NATRS 310 (F)	BIOL 106 and 107
NATRS 430 (FAYE)	NATRS 301
NATRS 435 (F)	BIOL 372 or NATRS 300 and STAT 212 or 412
NATRS 438 (S)	Junior standing or permission of instructor. Recommended NATRS 312
NATRS 441 (S)	NATRS 300 or BIOL 372 and STAT 212 or 412
NATRS 450 (S)	Junior standing
NATRS 454 (F)	Senior standing
NATRS 455 (F)	BIOL 107
NATRS 460 (S)	Recommended NATRS 204 or sufficient background in spreadsheets
NATRS 464 (S)	Junior standing and recommended Soils 368
STATS 412 (F/S)	STATS 212, MATH 140 or 171
BIOL 412	BIOL 106
BIOL 423	BIOL 106
BIOL 428	BIOL 106

- S = Spring; F = Fall, SS = Summer
 - c// = concurrent

BIOLOGY 107:	<i>CHEM 101,102,105,106 or concurrent enrollment</i>
BIOLOGY 301:	<i>BIOLOGY 106 or 120; BIOLOGY 107; CHEM 101 or 105; CHEM 102 or 106.</i>
BIOLOGY 372:	<i>BIOLOGY 106 and CHEM 102 or 105 (NATRS 300 – has no prereq)</i>
CHEM 101:	<i>ALEKS score of 45% or placement/concurrent enrollment into MATH 105, 106, 107, 108, 140, 171, 172.</i>
CHEM 105:	<i>MATH 106 or c// or ALEKS score 70% or higher or MATH 107, 108, 140, 171, 172...</i>
CHEM 345:	<i>CHEM 102 w/C or better or CHEM 106 w/C or better</i>
MBIOS 303:	<i>CHEM 102 or 345</i>
PHYSICS 101:	<i>MATH 107 or 108 w/grade of C or better, ALEKS placement score 80% or higher or passing MATH 140, 171, 202 or 206.</i>