

Environmental & Ecosystem Sciences

Available Pullman, Tri-Cities, Vancouver



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

Student Name _____ ID# _____

Email _____ Advisor: _____

Academic Coordinators Contact Information – Pullman: 509-335-6166 or 509-335-8538; Webster 1227 and 1229

BASIC REQUIREMENTS:

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

First Year Experience (3 Cr.)	Cr	Term	Offered
Roots of Contemporary Issues (HISTORY 105)	3		F,S,SS
Foundational Competencies (10 Cr..)			
<i>Written Communication</i>			
ENGLISH 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, MATH 140 [QUAN] or MATH 171 [QUAN]	4		F,S,SS
Ways of Knowing (20 Cr.)			
<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		F,S,SS
<i>Additional Inquiry (3)</i>			
Elective [HUM, ARTS or SSCI]	3		F,S, S
<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)			
Non-major elective or NATRS 312 [DIVR]	0-3		
<i>Integrative Capstone (3)</i>			
NATRS 454 [M] [CAPS] or ENVR_SCI 404 [CAPS]			
Other Required Courses (21 Cr.)			
ENVR_SCI 101 Environ. & Human	4		F,S
GEOL 101 Introduction to Geology OR	4		F, S, SS
GEOL 102 Physical Geology	4		F, S
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

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

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

CHECKLIST:

- Basic Requirements (53 - 56Cr.)
- EES Common Core (18-23 Cr.)
- Required Lower Div. & Statistics Electives (5-6 Cr. Min.)
- Professional Electives (27-40 Cr. minimum @ 200-400 Level)

TOTAL (at least 120 credits with 40 in upper division courses)

EARTH & ENVIRONMENTAL SCIENCE COMMON CORE REQUIREMENTS: (18-23 Cr.)

Advanced Writing/Communications			
ENGLISH 301 Writing & Rhetorical Conv.	3		F,S
ENGLISH 402 [M] Technical & Prof Writing			F,S,SS
Third Writing in the Major Course [M]			
Ecology		Cr	Term offered
NATRS 300 Natural Resources Ecology OR	3		F,S
BIOL 372 General Ecology [M]	4		F,S,SS
Spatial Analysis			
SOIL SCI 368 Intro to GIS	3		F
Earth Systems			
GEOL 210 Earth History & Evolution OR	4		F,S
ENVR_SCI 250 Intro to Earth System Science	3		
Society & Environment			
NATRS 312 Nat Res & Society [DIVR] OR	3		S
POL_S 430 The Politics of Natural Resource & Environmental Policy	3		F
Water Science			
GEOL 315 Water & Earth OR	3		S
NATRS 460 Watershed Management	3		S
Integrated Capstone (UCORE Requirement)			
NATRS 454 [M] [CAPS] OR	3		F
ENVR_SCI 404 [M]	3		F
Experiential			
NATRS 479 NRS Mgmt Internship OR	3		F,S,SS
ENVR_SCI 495 Undergraduate Internship OR	3		F,S,SS
ENVR_SCI 499 Special Topics OR	3		F, S, SS
135 hours of advisor approved work experience	0		

Environmental & Ecosystem Sciences Required Electives (RE)

100-200-Level Electives (2-3 Cr. min.)	Cr	Term	Offered
NATRS 204 Nat Res Measurements	2		F,S
GEOL 230 Intro to Oceanography	3		F
ENVR_SCI 250 Intro to Earth System Science	3		FAYO
ENVR_SCI 275 Rivers:Forms,Function&Mgmt	3		F S
ENVR_SCI 285 Climate Change: Planning.for..	3		F
Advanced Statistics Elective (300-400-level)	Cr	Term	Offered
STAT 412, 360, or NATRS 404	3		

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Advising Recommendations PULLMAN CAMPUS ONLY

If no minor, recommended course distribution)

	Cr	Term	Offered
NATRS 450 [M] Conservation Biology <i>OR</i> Climate Change Biology (online)	3		S
ENVR SCI 310 Modeling the Environment <i>OR</i> NATRS 441 Population Ecology & Conserv.	3		F
NATRS 302 Arid Land Plants & Ecosystems	3		S
NATRS 435 Wildlife Ecology <i>OR</i> NATRS 446 [M] Wildlife Habitat Ecology	3		S S
NATRS 305 Silviculture <i>OR</i> NATRS 464 [M] Landscape Ecology <i>OR</i> NATRS 455 Elements of Range Mgmt Sci <i>OR</i> BIOL 462 Community Ecology	3		F S S FAYE?
ENVRSCI 445 Hazardous Waste Mgmt <i>OR</i> GEOL 303 Environmental Geology <i>OR</i> GEOL 390 Global Climate & Earth History	3		F S ?
NATRS 411 [M] Limn/Aquatic Eco Mgmt <i>OR</i> NATRS 460 Watershed Management <i>OR</i> BIOL 410 Marine Ecology <i>?????</i>	3		F S
NATRS 438 Nat Res Policy & Law <i>OR</i> ENVRSCI 444 Environ. Assessment <i>OR</i> Senior Seminar/Special Topics	3 4 -		S F,S,SS

Other Suggested School Electives:

	Cr	Term	Offered
NATRS 310 Methods in Wildlife Ecology	4		F
NATRS 411 [M] Limnology and Aquatic Ecosystems Management	3		F
NATRS 419 Topics in Natural Resources	V		F,S,SS
NATRS 430 Intro to Wildland Fire	3		FAYE
NATRS 431 Wildlife Nutrition	3		S
NATRS 441 Population Ecology	4		S
NATRS 479 NRS Mgmt Internship	V		F,S,SS
ENVR SCI 406 Intro to Radiological Science	2		
ENVR SCI 410 [M] Global Biogeochemistry	3		
ENVR SCI 445 Hazardous Waste Mgmt	3		
ENVR SCI 464 Intro Physical Oceanography	3		
ENVR SCI 463 Water in the Environment	3		
ENVR SCI 465 Aquatic Microbial Ecology	2		
ENVR SCI 490 Special Topics	V		F,S,SS
ENVR SCI 491 Senior Seminar	1		S
ENVR SCI 492 Special Topics	V		F,S,SS
ENVR SCI 495 Undergraduate Internship	V		F,S,SS
ENVR SCI 499 Special Problems	V		F,S,SS

“EES” COURSES with Prerequisites

BIOL 372 (F/S/SS) Or NATRS 300 (F/S)	BIOL 106 and CHEM 102 or 105 No prereq's
ENVR_SCI 275 (F)	ENVR_SCI 101
ENVR_SCI 285 (F)	ENVR_SCI 101
GEOL 303 (S)	GEOL 101 or 102
GEOL 315 (SAYO)	GEOL 101, 102, PHYS 101 or 201; CHEM 102 or 106; MATH 108, 140 or 171
NATRS 204 (F/S)	MATH 106/108 or 108 c// if 106 taken, or 140, 171
NATRS 310 (F)	BIOL 106 and 107
NATRS 301 (F)	NATRS 300 or c//
NATRS 302 (S)	NATRS 301
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

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

BIOL 107:	<i>CHEM 101,102,105,106 or concurrent enrollment</i>
BIOL 372:	<i>BIOL 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>
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>

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Other Areas of Emphasis

Policy

	Cr	Term	Offered
NATRS 419 Topics in NRS	V		F,S,SS
SOC 424 Sociology and Public Policy	3		S
ENVR SCI 444 Environmental Assessment	4		F
POL S 101 American National	3		F,S
POL S 316 American Public	3		F
POL S 340 Intro to Public	3		F
POL S 418 Human Issues in Intern't	3		S
POL S 420 Political Parties & Interest	3		S
POL S 430 The Politics of Nat Res & Environmental Policy	S		S
POL S 443 Admin Jurisprudence	S		S
POL S 446 Public Budgeting	S		S
POL S 448 Urban Politics and Policy	S		S

Wetland/Aquatic Resources

NATRS 411 [M] Limnology and Aquatic Ecosystems Management	3		S
FISH 418 Fisheries Mgmt (UI)	4		F
FISH 422 Concepts in Aquaculture (UI)	3		S
FISH 424 Fish Health Management (UI)	4		S
NATRS 419 Topics in Natural Resources	3		F,S,SS
NATRS 460 Watershed Management	3		S
Soil Sci 368 Intro to GIS	3		S
Soil Sci 468 ArcGIS & Geospatial Analysis	4		F
BIOL 412 Biology & Mgmt of Fishes	3		FAYE
BIOL 432 Biology of Amphibians & Reptiles	4		SAYE

Other Suggested Professional Electives:

Biol 469 Ecosystem Ecology & Global Change	3		
C E 341 Intro to Environmental Engineering	3		
C E 401 Climate Change Science & Eng.	3		
C E 402 Applied Meteorology	3		
C E 415 Environmental Measurements	3		
C E 456 Sustainable Develop. in Water Resources	3		
EconS 330 Nat Res Economics	3		F
EconS 326 Aspects of Sustainable Develop.	3		
EconS 430 Managing the Global Environment	3		
EconS 431 Economic Analysis of Envr. Policy	3		
EconS 432 Natural Resource Economics & Policy	3		
Psych 466 Environmental Psychology	3		
Soil Sci 201 [B] Soil: A Living Sys	3		
Soil Sci 368 Intro to GIS	3		F,S
Soil Sci 374 Remote Sensing & Airphoto Inter p	3		S
Soil Sci 413 Soils & Environmental Physics	3		
Soil Sci 414 Environmental Biophysics	2		
Soil Sci 415 Environmental Biophysics Lab	1		
Soil Sci 468 ArcGIS & Geospatial Analy	4		S

