

2017-2018 Advising Checklist
 Requirements for the **B.S. Ecology and Conservation Biology: Natural Resource Ecology option** degree
 College of Natural Resources

Name: _____ Student ID: _____ Advisor: _____

Course (prerequisite classes; notes)

First Year – Fall Semester	CR	GR	Sem
•BIOL 114 - Organisms & Environments	4		FS
COMM 101 - Fundamentals of Public Speaking	2		FS
•^ENGL 102 - College Writing & Rhetoric (ENGL 101)	3		FS
•MATH 160 - Survey of Calculus (MATH 143 with C or better) OR MATH 170 - Analytic Geom. & Calculus I (MATH 143 with C or better and MATH 144)	4		FS
NR 101 - Exploring Natural Resources	2		F
Total Credits	15		

•Recommended Semester for this course

First Year – Spring Semester	CR	GR	Sem
•CHEM 101 - Intro to Chemistry I OR CHEM 111 - Principles of Chemistry I (CHEM 050; or C or better in CHEM 101, MATH 143, MATH 160 or MATH 170)	4		FS
•^ISEM 101 - Integrated Seminar	3		FS
NR 200 - Seminar	1		S
PHYS 100/100L - Fundamentals of Physics and lab OR PHYS 111/111L - General Physics I and lab (MATH 143)	4		S FS
^General Education Requirement	3		FS
Total Credits	15		

Second Year – Fall Semester	CR	GR	Sem
BIOL 115 - Cells & the Evolution of Life (Prereq or Coreq: CHEM 101 or 111)	4		FS
ECON 202 - Principles of Microeconomics OR ECON 272 - Foundations of Economic Analysis	3 4		FS
FOR/NRS 235 - Society & Natural Resources	3		F
FOR/REM 221 or WLF 220 - Principles of Ecology (BIOL 102/L, 114, 115, or PLSC 205; or permission) OR BIOL 314 - Ecology & Population Biology (BIOL 114 and 115; MATH 143 or higher)	3 4		FS S
^General Education Requirement	3		FS
Total Credits	16-17		

Second Year – Spring Semester	CR	GR	Sem
BIOL 213 - Principles of Biological Structure & Function (BIOL 115)	4		S
FOR 375 - Intro to Spatial Analysis for Nat Res Mgmt (college algebra)	3		FS
NR 300 - ECB Thesis Seminar	1		S
SOIL 205 & 206 - The Soil Ecosystem and lab (CHEM 101 or CHEM 111)	4		FS
STAT 251 - Statistical Methods (MATH 108 or higher)	3		FS
Total Credits	15		

To graduate in this option, students must achieve a "C" or better in the following six courses:

NR 200, FOR 330, REM 429, SOIL 205, SOIL 206, and WLF 448.

Third Year – Fall Semester	CR	GR	Sem
FOR 320 - Dendrology (Prereq or Coreq: BIOL 114 or PISC 205; fall only) OR REM 341 - Systematic Botany (BIOL 115; and BIOL 213 or PISC 205; spring only)	4 3		F S
^ISEM 301 - Great Issues (ENGL 102 and Sophomore standing)	1		FS
^General Education Requirement	3		FS
Restricted Elective	3		FS
Restricted Elective	4		FS
Total Credits	14-15		

Third Year – Spring Semester	CR	GR	Sem
NRS 383 - NR & Ecosystem Service Economics (FOR/NRS 235; and ECON 202 or 272; and MATH 143)	3		S
ENGL 317 - Technical Writing (ENGL 102; junior standing or perm.)	3		FS
FOR 330 - Forest & Soil Canopy Processes (SOIL 205, MATH 143 or MATH 160, PHYS 100 or PHYS 111 and FOR/REM 221 or WLF 220)	4		S
FISH/FOR/NR/REM/WLF 497 - Senior Thesis (Cum. GPA of at least 3.2, completion > 90 credits, and perm. of faculty mentor) OR FISH/FOR/NRS/REM/WLF 485 - Senior Proj	1		FS
WLF 448 - Fish & Wildlife Population Ecology (STAT 251; MATH 160 or 170)	4		S
Total Credits	15		

120 total credits are required for this degree.

Fourth Year – Fall Semester	CR	GR	Sem
FISH/FOR/NR/REM/WLF 497 - Senior Thesis (Cum. GPA of at least 3.2, completion > 90 credits, and perm. of faculty mentor) OR FISH/FOR/NRS/REM/WLF 485 - Senior Proj	2		FS
Restricted Elective	4		FS
Restricted Elective	3		FS
^General Education Requirement	3		FS
Class of your choice	3		FS
Total Credits	15		

Fourth Year – Spring Semester	CR	GR	Sem
FISH/FOR/NRS/REM/RMAT/WLF 473 - Senior Project Presentation	1		FS
REM 429 - Landscape Ecology (FOR/REM 221 or WLF 220)	3		S
Restricted Elective	3		FS
Restricted Elective	3		FS
Class of your choice	3		FS
Class of your choice	3		FS
Total Credits	16		

Students pursuing this option must receive a grade of C or better in each of the following four indicator courses to graduate with a B.S. in Ecology and Conservation Biology: BIOL 114, BIOL 213, STAT 251, and FOR/REM 221 or WLF 220.

Indicator Courses	CR	GR	Sem
BIOL 114	4		FS
BIOL 213	4		S
FOR/REM 221 or WLF 220	3		FS
STAT 251	3		FS

2017-2018 Restricted Electives for ECB – Natural Resource Ecology option:

Quantitative Resource Analysis Restricted Electives (choose one)	CR	GR	Sem
FOR/NRS 472 - Remote Sensing of the Environment (Recommended Prep: MATH 143)	4		F
GEOG 385 - GIS Primer (Basic knowledge of PC-based operating system)	3		FS
NRS 310 - Social Research Methods in Conservation (STAT 251)	4		F
+REM 410 - Principles of Vegetation Measurement and Assessment	2		F
+REM 411 - Wildland Habitat Ecology and Assessment (Pre-req: STAT 251 or permission; Recommended co-req: REM 410)	2		F
STAT 422 - Sample Survey Methods (STAT 251, STAT 301 or STAT 416)	3		FS
STAT 431 - Statistical Analysis (STAT 251, STAT 301, or STAT 416)	3		FS

+Note: Both REM 410 and REM 411 must be completed to satisfy Quantitative Resource Analysis Restricted Elective Requirement.

Resource Management Restricted Electives (choose one)	CR	GR	Sem
FISH 418 - Fisheries Management (FISH 314, FISH 481, STAT 251)	4		F
FOR 424 - Silvicultural Principles and Practices (Sr standing, FOR 274, FOR 320 or other plant ID course, and FOR 330; or perm)	4		F
FOR 462 - Watershed Science and Management (MATH 143; and PHYS 100 or PHYS 111)	3		S
NRS 386 - Social-Ecological Systems	4		F
NRS 490 - Wilderness and Protected Area Management	3		Alt/S
NRS 496 - Monitoring Impacts in Protected Areas and Wilderness	3		Alt/S
REM 456 - Integrated Rangeland Management (ENGL 313 or ENGL 317)	3		S
WLF 492 - Wildlife Management (WLF 448; Prereq or Coreq: BIOL 483, FISH 481, or WLF 482)	4		S

Ecology Restricted Electives (10 credits with at least 2 cr from FISH 315, 415, or 430; REM 460; and/or WLF 315)	CR	GR	Sem
BIOL 421 - Advanced Evolution/Population Dynamics (BIOL 314 or FOR/REM 221)	3		S
BIOL 478 - Animal Behavior (BIOL 114 and 115)	3		S
ENT 469 - Introduction to Forest Insects (FOR 221/REM 221 or WLF 220)	2		S
FISH 314 - Fish Ecology (FOR/REM 221, WLF 220, or BIOL 314)	3		F
FISH 315 - Fish Ecology lab (Prereq or Coreq: FISH 314)	1		F
FISH 415 - Limnology (STAT 251; and FOR/REM 221, WLF 220, or BIOL 314)	4		F
FISH 430 - Riparian Ecology and Management (FOR/REM 221, WLF 220, or BIOL 314)	3		S
FOR 326 - Fire Ecology and Management (FOR/REM 221 or WLF 220)	3		F
FOR 468 - Forest and Plant Pathology (FOR 320 and FOR 330)	2		S
GEOG 410 - Biogeography (GEOG 100/100L, FOR/REM 221, or WLF 220)	3		FS
PLSC 410 - Invasive Plant Biology	3		Alt
REM 440 - Wildland Restoration Ecology (FOR/REM 221, WLF 220, or equivalent general ecology course)	3		S
REM/NRS 450 - Global Environmental Change (MATH 143 or STAT 251)			
REM 459 - Rangeland Ecology (online only; Rec Prep: FOR/REM 221 or WLF 220, ENGL 317, and REM 410 or FOR 274; or Perm.)	2		F
REM 460 - Integrating GIS and Field Studies in Rangelands (Coreq: REM 459)	2		F
WLF 314 - Ecology of Terrestrial Vertebrates (FOR/REM 221, WLF 220, or BIOL 314)	3		F
WLF 315 - Wildlife Techniques Laboratory (Prereq or Coreq: WLF 314)	2		F
WLF 440 - Conservation Biology (FOR/REM 221, WLF 220, or BIOL 314 or Permission)	3		F

Social Science/Political Science Restricted Electives (choose one)	CR	GR	Sem
COMM 410 - Conflict management (Online only; Recommended Preparation: COMM 233)	3		FS
FOR 484 - Forest Policy and Administration (Junior standing)	2		S
GEOG 420 - Land, Resources, and Environment	3		S
HIST 424 - American Environmental History	3		S
NRS 311 - Public Involvement in Natural Resource Management	3		S
NRS/POLS 364 - Politics of the Environment	3		F
NRS 387 - Environmental Communication Skills (NRS 125 or Permission)	3		S
NRS/POLS 462- Natural Resources Policy	3		S
NRS/LAS 493 - International Land Preservation and Conservation Systems	3		S
PHIL 452 - Environmental Philosophy	3		F