

2020-2021 Advising Checklist  
**B.S. Environmental Science: Biological Science Option**  
 College of Natural Resources

Name: \_\_\_\_\_ Student ID: \_\_\_\_\_ Advisor: \_\_\_\_\_

**Course** (prerequisite classes; notes)

First Year – Fall Semester	CR	GR	Sem
ENVS 101 – Intro Environmental Science	3		FS
ENVS 102 – Field Activities (EnvS 101 pre-req or co-req)	1		FS
ENGL 101 – Introduction to College Writing (sufficient standardized test score)	3		FS
MATH 108 – Intermediate Algebra	3		FS
ISEM 101 – Integrated Seminar <b>OR</b> ^General Education Requirement	3		FS FS
^General Education Requirement	3		FS
<b>Total Credits</b>	<b>16</b>		

First Year – Spring Semester	CR	GR	Sem
BIOL 114 – Organisms & Environments	4		FS
COMM 101 – Fund of Public Speaking <b>OR</b> COMM 233 – Interpersonal Communication	2-3		FS
ENGL 102 – College Writing & Rhetoric (ENGL 101)	3		FS
MATH 143 – Pre-Calc Alg & Analy Geom. (Math 108)	3		FS
^General Education Requirement	3		FS
<b>Total Credits</b>	<b>16</b>		

Second Year – Fall Semester	CR	GR	Sem
STAT 251 – Stat. Methods (Math 108 or higher) <b>OR</b> STAT 301 – Probability & Stats (MATH 175)	3		FS
CHEM 111/111L – General Chemistry I (C or better in CHEM 101/L, MATH 143, 160, or 170)	4		FS
Breadth Elective-Human Dimensions	3		FS
Breadth Elective – Ecology	3		FS
ISEM 301- Integrated Seminar	1		FS
<b>Total Credits</b>	<b>14</b>		

Second Year – Spring Semester	CR	GR	Sem
ENVS/IS 225 – Int. Enviro Issues (Rec prep: ENVS 101)	3		S
CHEM 112/112L – General Chemistry II (CHEM 111/L)	5		FS
MATH 160 – Survey of Calculus (MATH 143) <b>OR</b> MATH 170 Calculus I (MATH 143 and 144)	4		FS
^General Education Requirement	3		FS
<b>Total Credits</b>	<b>15</b>		

Third Year – Fall Semester	CR	GR	Sem
ENVS 400 – Seminar	1		FS
PHIL 452 – Environmental Philosophy	3		FS
Breadth Elective – Enviro Policy & Reg	3		FS
GEOL 101/L – Physical Geology w/Lab <b>OR</b> GEOL 111/L – Physical Geology for Science Majors w/Lab <b>OR</b> SOIL 205/206 – The Soil Ecosystem (CHEM 101/L) <b>OR</b> GEOG 100/L – Physical Geography w/Lab	4		FS
Breadth Elective – Technical	3		FS
<b>Total Credits</b>	<b>14</b>		

Third Year – Spring Semester	CR	GR	Sem
ENGL 316 – Environmental Writing (ENGL 102) <b>OR</b> ENGL 317 – Technical Writing (ENGL 102, Jr. standing) <b>OR</b> ENGL 318 – Science Writing (ENGL 102)	3		FS
Breadth Elective-Technical	3		FS
Breadth Elective – Water	3		FS
Depth Elective	3		FS
Depth Elective	3		FS
^General Education Requirement	3		FS
<b>Total Credits</b>	<b>18</b>		

Fourth Year – Fall Semester	CR	GR	Sem
ENVS 497 – Senior Research (Senior Standing; Pre/Co-req ENGL 319 or 317)	2		FS
BIOL 250 – General Microbiology (BIOL 115/L and CHEM 101/L or 111/L)	3		FS
Breadth Elective – Sustainability & Int.	3		FS
Depth Elective	3		FS
Depth Elective	3		FS
Depth Elective	3		FS
<b>Total Credits</b>	<b>17</b>		

Fourth Year – Spring Semester	CR	GR	Sem
ENVS 497 – Senior Research (Senior Standing; Pre/Co-req ENGL 319 or 317)	2		FS
Breadth Elective-Technical	3		FS
Depth Elective	3		FS
Depth Elective	3		FS
Depth Elective	3		FS
^General Education Requirement	3		FS
<b>Total Credits</b>	<b>17</b>		

**This option is available to students wishing to pursue technically oriented careers in environmental professions such as natural resource management, bioremediation, and environmental impact analysis.**

^General Education Requirements: 18-credit minimum

<b>BREADTH ELECTIVES (see each category for credit req.)</b>	<b>24</b>
<b>Ecology (one course from the following)</b>	<b>CR</b>
BIOL 314 – Ecology & Population Biology (BIOL 114 and BIOL 115/115L; STAT 251 or 301; and MATH 160 or MATH 170) (S)	4
FOR/REM 221, WLF 220 or NR 321– Ecology (Biol 102/Biol 102L or Biol 114 or Biol 115 or PISc 205; or Permission)	3
GEOG 410 – Biogeography (GEOG 100/100L or WLF 220 or FOR/REM 221 or Permission)	3
<b>Environmental Policy &amp; Regs (one course from the following)</b>	<b>CR</b>
AIST 314 – Tribal Sovereignty & Federal Policy	3
AIST 421 – Native American Natural Resource Law	3
ENVS 479 – Intro to Environmental Regulations (F)	3
ENVS 577 – Law, Ethics & the Environment (NRS 235, POLS 364 & permission)	3
IS 322 – International Environmental Organizations	3
NRS 311-Public Involvement in NR Management	3
NRS/POLS 364 – Politics of the Environment	3
NRS/POLS 462 – Natural Resource Policy	3
<b>Human Dimensions (one course from the following)</b>	<b>CR</b>
AgEc 451 –Applied Environ and Nat'l Resource Economics (AgEc 301, AgEc 302, or ECON 385; or Permission)	3
AIST 344 – Indigenous Ways of Knowing	3
ANTH/SOC 465 – Environment, Policy & Justice	3
HIST 424 – American Environmental History	3
ECON 272 – Foundations of Economic Analysis	3
GEOG 345 – Global Economic Geography	3
NRS 235 – Society & Natural Resources	3
NRS 383 – NR & Ecosystem Serv. Econ. (NRS 235, ECON 202)	3
SOC 350 – Food, Culture & Society	3
<b>Water (one course from the following)</b>	<b>CR</b>
ASM 315 – Irrigation Systems & Water Mgmt (SOIL 205, MATH 160/170, or permission)	3
BE 453 – NW Climate and Water Resources Change (STAT 301)	3
ENVS/SOIL 450 – Environmental Hydrology (MATH 170)	3
ENVS 446 – Drinking Water and Human Health (S/Alt)	3
FISH 415 – Limnology (STAT 251, FOR 221/WLF 220)	4
FOR 462 – Watershed Science & Mgmt (MATH 143, PHYS 100/L or PHYS 111/L)	3
GEO 309 – Ground Water Hydrology (GEO 101/L, MATH 143)	3
<b>Sustainability &amp; Integration (one course from the following)</b>	<b>CR</b>
ENVS 415 – Environmental Lifecycle Assessment	3
ENVS 428 – Pollution Prevention (F)	3
ENVS 484 – History of Energy	3
ENVS 485 – Energy Efficiency & Conservation	3
FS 436 – Principles of Sustainability (Jr standing)	3
GEOG 435 – Climate Change Mitigation	3
ENVS 386 – Social-Ecological Systems	3
REM 456 – Integrated Rangeland Management (ENGL 313 or 317)	3
<b>Technical (choose three courses from the following)</b>	<b>CR</b>
BIOL 115/115L – Cells & the Evolution of Life w/lab (CHEM 101/L)	4
BIOL 250 – General Microbiology (BIOL 115, CHEM 101/L)	3
BIOL 483 – Mammalogy (BIOL 114, BIOL 115)	3
BIOL 489 – Herpetology (BIOL 114, BIOL 115)	4
CHEM 253/254 – Quantitative Analysis & Lab (CHEM 112) (F)	4
CHEM 275 – Carbon Compounds (CHEM 101, 111, or Permission)	3
CHEM 277 – Organic Chemistry I (CHEM 112)	3
ENVS 498 – Internship	1-3
FOR/NRS 472 – Remote Sensing of the Environment	3
GEOG 301 – Meteorology (GEOG 100/L, PHYS 100/L, MATH 143) (F)	3
GEOG 313 – Global Climate Change (F)	3
GEOG 385 – GIS Primer OR NRS 375-Sp. Analysis for NR Mgmt	3
GEOG 401 – Climatology (GEOG 301, GEOG 313) (S/Alt)	3
GEO 483 – Remote Sensing/GIS Integration (GEOG 385 or equiv)	3
GEO 361 – Geology & the Environment (GEO 101/L, MATH 143)	3
MATH 175 – Analytic Geometry & Calc II (MATH 170)	4
PHYS 111/L – General Physics I (MATH 143)	4
PHYS 112/L – General Physics II (PHYS 111/L) (S)	4
PHYS 211/L – Engineering Physics I (Pre/Co-req: MATH 170)	4
PHYS 212/L – Engineering Physics II (PHYS 211/L) (S)	4
SOIL 205 – Soil Ecosystem (CHEM 101 or CHEM 111)	3
WLF 482 – Ornithology (BIOL 114, BIOL 115)	4

<b>DEPTH ELECTIVES (Select four electives from two areas)</b>	<b>15</b>
<b>Water</b>	<b>CR</b>
ENVS 446 – Drinking Water and Human Health (S/Alt)	3
ENVS 450 – Environmental Hydrology (MATH 170) (S)	3
FOR 462 – Watershed Science and Management (MATH 143 and PHYS 100/L or 111/L) (S)	3
GEO 309 – Groundwater Hydrology (GEO 101/L and MATH 130 or 143 with a C or better)	3
GEO 410 – Techniques of Groundwater Study (MATH 143 with C or better; Pre- or Co-req: GEO 309)	3
HYDR 412 – Environmental Hydrology (GEO 309)	3
<b>Plant Protection</b>	<b>CR</b>
ENT 322 – General and Applied Entomology	3
PLSC 338 – Weed Control	3
PLSC 410 – Invasive Plant Biology (S/Alt)	3
PLP 415 – Plant Pathology (BIOL 154 and 155; or BIOL 250; and PLSC 102)	3
SOIL 446 – Soil Fertility	3
<b>Animal Ecology</b>	<b>CR</b>
WLF 314 – Ecology of Terrestrial Vertebrates (FOR 221 or WLF 220)	3
WLF 315 – Techniques Lab (Pre- or Co-req: WLF 314)	3
WLF 440 – Conservation Biology (FOR 221, WLF 220 or BIOL 314)	3
WLF 448 – Fish & Wildlife Population Ecology (STAT 251; MATH 160 or 170)	3
<b>Aquatic Ecology (take all three courses)</b>	<b>CR</b>
FISH 314 – Fish Ecology (FOR 221, WLF 220, BIOL 314)	3
FISH 415 – Limnology (STAT 251 and FOR 221 or WLF 220)	3
FISH 430 – Riparian Ecology and Management (FOR 221 or WLF 220)	3
<b>Soils</b>	<b>CR</b>
FS 409 – Principles of Environmental Toxicology	3
SOIL 425 – Microbial Ecology (BIOL 154 or 250)	3
SOIL 438 – Pesticides in the Environment	3
SOIL 454 - Pedology	3
<b>Forest and Range Systems</b>	<b>CR</b>
FOR 330 – Forest Soil and Canopy Processes (SOIL 205; and MATH 143 or 160; and PHYS 100/L or 111/L; and FOR 221) (S)	3
FOR 426 – Global Fire Ecology and Management (FOR 221)	3
REM 411 – Wildland Habitat Ecology and Assessment (STAT 251)	3
REM 429 – Landscape Ecology (FOR 221 or WLF 220) (S)	3
REM 440 – Restoration Ecology (FOR 221, WLF 220, or NR 321)	3
REM 459 – Rangeland Ecology (F)	2
<b>Geospatial Tools (take at least 3 of the 6 courses)</b>	<b>CR</b>
FOR 472 – Remote Sensing of the Environment	3
GEOG 385 – GIS Primer	3
GEOG 424 – Hydrologic Applications of GIS & Remote Sensing (GEOG 385 or equivalent)	3
GEOG 475 – Intermediate GIS (GEOG 385)	3
GEOG 483 – Remote Sensing/GIS Integration (GEOG 385 or equivalent)	3
LARC 495 – GIS Applications in Land Planning 2 (LARC 395 or GEOG 385)	3
<b>Climate Change and Ecosystems (take all three courses)</b>	<b>CR</b>
NRS 383 – Natural Resource and EcoSys Service Econ (ECON 202 or 272) (S)	3
GEOG 313 – Global Climate Change (F)	3
GEOB 410 – Biogeography (GEOG 100/L or FOR 221)	3