College of Natural Resources
Proposed Catalog Changes
Effective Summer 2019

1. Make the following curricular changes to the **Major in Environmental Science (B.S.Env.S.):**

Required course work includes the university requirements (see regulation J-3), the general requirements for the B.S. degree, and:

~~BIOL 115~~	~~Cells & the Evolution of Life~~	~~3~~
BIO 114	Organisms and Environments	4
~~BIOL 115L~~	~~Cells and the Evolution of Life Laboratory~~	~~1~~
~~CHEM 111~~	~~Principles of Chemistry I~~ [1]	~~3~~
~~CHEM 111L~~	~~Principles of Chemistry I Laboratory~~	~~1~~
COMM 101	Fundamentals of Public Speaking (OR one semester of a foreign language course)	2-4
OR COMM 233	Interpersonal Communication	3
ENVS 101	Introduction to Environmental Science	3
ENVS 102	Field Activities in Environmental Sciences	1
ENVS 225	International Environmental Issues Seminar	3
ENVS 400	Seminar	1-16
ENVS 497	Senior Research (4 cr, 2 cr each semester of SR YR)	4
ENGL 316	Environmental Writing	3
OR ENGL 317	Technical Writing	3
OR ENGL 318	Science Writing	3
PHIL 452	Environmental Philosophy	3
STAT 251	Statistical Methods	3
or STAT 301	Probability and Statistics	
GEOG 100	Physical Geography	3
& GEOG 100L	Physical Geography Lab	1
OR GEOL 101	Physical Geology	3
& GEOL 101L	Physical Geology Lab	3
OR GEOL 111	Physical Geology for Science Majors	3
& GEOL 111L	Physical Geology for Science Majors Lab	1
OR SOIL 205	The Soil Ecosystem	3
&SOIL 206	The Soil Ecosystem Lab	1
Ecology 1 course from the following:		
BIOL 314	Ecology and Population Biology	4
FOR/REM 221	Principles of Ecology	3
OR WLF 220	Principles of Ecology	3
GEOG 410	Biogeography	3
NR 321	Ecology	3
Environmental Policy and Regulations 1 course from the following:		
AIST 314	Tribal Sovereignty and Federal Policy 3	3
AIST 421	Native American Natural Resource Law	3
ENVS 477	Law, Ethics, and the Environment	3
ENVS 479	Intro to Environmental Regulations	3
IS 322	International Environmental Organizations	3
NRS 311	Public Involvement in Natural Resource Management	3
NRS/POLS	Politics of the Environment	3
NRS/POLS	Natural Resource	3
Human Dimensions – 1 course from the following:		
AGEC 451	Applied Env. and Natural Resource Economics	3
AIST 344	Indigenous Ways of Knowing	3
SOC/ANTH 465	Environment Policy and Justice	3
HIST 424	American Environmental History	3
ECON 272	Foundations of Economic Analysis	4

GEOG 345	Global Economic Geography	3
NRS/FOR 235	Society and Natural Resources	3
NRS 383	Natural Resource and Ecosystem Service Economics	3
SOC 350	Food, Culture, and Society	3
Water 1 course from the following:		
ASM 315	Irrigation Systems and Water Management	3
BE 453	Northwest Climate and Water Resource Change	3
ENVS/SOIL 450	Environmental Hydrology	3
ENVS 446	Drinking Water and Human Health	3
FISH 415	Limnology	4
FOR 462	Watershed Science and Management	3
GEOL 309	Ground Water Hydrology	3
Sustainability and Integration 1 course from the following		
ENVS 415	Environmental Lifecycle Assessment	3
ENVS 428	Pollution Prevention	3
ENVS 484	History of Energy	3
ENVS 485	Energy Efficiency and Conservation	3
FS 436	Principles of Sustainability	3
GEOG 435	Climate Change Mitigation	3
ENVS 386	Social-Ecological Systems	3
REM 456	Integrated Rangeland Management	3
Technical 3 courses from the following		
BIOL 115	Cells and the Evolution of Life	3
BIO 250	General Microbiology	3
BIOL 483	Mammalogy	3
BIOL 489	Herpetology	4
CHEM 253 and 254	Quantitative Analysis and Lab	5
CHEM 275	Carbon Compounds	3
CHEM 277	Organic Chemistry 1	3
ENVS 498	Internship *sub-note: *only allowed once*	*1-16*
FOR/NRS 375	Intro to Spatial Analysis for NR Management	3
OR GEOG 385	GIS Primer	3
FOR/NRS 472	Remote Sensing of the Environment	4
GEOG 301	Meteorology	3
GEOG 313	Global Climate Change	3
GEOG 401	Climatology	3
GEOG 483	Remote Sensing/GIS Integration	3
GEOL 361	Geology and the Environment	3
MATH 175	Analytic Geometry and Calculus 11	4
PHYS 111	General Physics I	3
PHYS 111L	General Physics I Lab	1
PHYS 112	General Physics II	3
PHYS 112L	General Physics II Lab	1
PHYS 211	Engineering Physics I	3
PHYS 211L	Engineering Physics I Lab	1
PHYS 212	Engineering Physics II	3
PHYS 212L	Engineering Physics II Lab	3
SOIL 205	Soil Ecosystem	3
WLF 482	Ornithology	4
*for Phys. 2 Science Option only:		
ENVS 428	Pollution Prevention	3
ENVS 429	Environmental Audit	3
GEOL 375	Geology of National Parks	2
REM 407	GIS Application in Fire Ecology and Management	2
REM 459	Rangeland Ecology	2

Options	
Select one of the following options:	**63-68**
Biological Science	
Physical Science	
Physical Science 2	
Social Science	
Biophysical Science	
Total Hours	**87-109**

[1] Students in Social Science option may substitute CHEM 101 & CHEM 101L.

A. Biological Science Option

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

~~ENVS 497~~	~~Senior Research~~	~~4~~
BIOL 250	General Microbiology	3
CHEM 112	Principles of Chemistry II	4
CHEM 112L	Principles of Chemistry II Laboratory	1
~~ENGL 317~~	~~Technical Writing~~	~~3~~
MATH 160 or MATH 170	Survey of Calculus Analytic Geometry and Calculus I	4
~~Select one of the following:~~		~~4~~
~~GEOG 100~~ ~~& 100L~~	~~Physical Geography~~ ~~and Physical Geography Lab~~	
~~GEOL 101~~ ~~& 101L~~	~~Physical Geology~~ ~~and Physical Geology Lab~~	
~~Select 24 credits of Advisor-directed breadth electives, including at least one course from the first four areas and 9 credits from the technical area:~~		~~24~~
~~***Ecology:***~~		
~~BIOL 314~~	~~Ecology and Population Biology~~	
~~FOR 221~~	~~Principles of Ecology~~	
~~GEOG 410~~	~~Biogeography~~	
~~REM 221~~	~~Principles of Ecology~~	
~~***Natural Resource Economics and Sociology:***~~		
~~AGEC 451~~	~~Applied Environmental and Natural Resource Economics~~	
~~NRS 383~~	~~Natural Resource and Ecosystem Service Economics~~	
~~ECON 385~~	~~Environmental Economics~~	
~~FOR 235~~	~~Society and Natural Resources~~	
~~***Management:***~~		
~~OM 378~~	~~Project Management~~	
~~NRS 311~~	~~Public Involvement in Natural Resource Management~~	
~~ENVS 428~~	~~Pollution Prevention~~	
~~FOR 484~~	~~Forest Policy and Administration~~	
~~GEOG 411~~	~~Natural Hazards and Society~~	
~~***History, Philosophy, and Political Science:***~~		
~~AGEC 477~~	~~Law, Ethics and the Environment~~	
~~ENVS 484~~	~~History of Energy~~	
~~HIST 424~~	~~American Environmental History~~	
~~PHIL 351~~	~~Philosophy of Science~~	
~~POLS 364~~	~~Politics of the Environment~~	
~~***Technical:***~~		
~~CHEM 253~~ ~~& CHEM 254~~	~~Quantitative Analysis~~ ~~and Quantitative Analysis: Lab~~	
~~CHEM 275~~	~~Carbon Compounds~~ [1]	
~~CHEM 277~~	~~Organic Chemistry I~~ [1]	
~~ENVS 498~~	~~Internship~~	
~~FOR 472~~	~~Remote Sensing of the Environment~~	

~~GEOG 301~~	~~Meteorology~~	
~~GEOG 313~~	~~Global Climate Change~~	
~~GEOG 401~~	~~Climatology~~	
~~GEOG 385~~	~~GIS Primer~~	
~~GEOL 309~~	~~Ground Water Hydrology~~	
~~GEOL 361~~	~~Geology and the Environment~~	
~~MATH 175~~	~~Analytic Geometry and Calculus II~~	
~~PHYS 111~~ ~~& 111L~~	~~General Physics I~~ ~~and General Physics I Lab~~ [2]	
~~PHYS 211~~ ~~& 211L~~	~~Engineering Physics I~~ ~~and Laboratory Physics I~~ [2]	
~~PHYS 112~~ ~~& 112L~~	~~General Physics II~~ ~~and General Physics II Lab~~ [3]	
~~PHYS 212~~ ~~& 212L~~	~~Engineering Physics II~~ ~~and Laboratory Physics II~~ [3]	
~~SOIL 205~~	~~The Soil Ecosystem~~	
Select 4 ~~Advisor-approved depth~~ electives ~~in any area unless otherwise noted~~ from at least two of the following areas:		**20**
Plant Protection:		
ENT 322	General and Applied Entomology	
PLSC 338	Weed Control	
PLSC 410	Invasive Plant Biology	
PLP 415	Plant Pathology	
SOIL 446	Soil Fertility	
Animal Ecology:		
WLF 314	Ecology of Terrestrial Vertebrates	
WLF 315	Techniques Laboratory	
WLF 440	Conservation Biology [4]	
WLF 448	Fish and Wildlife Population Ecology [4]	
Aquatic Ecology (Take all three courses):		
FISH 314	Fish Ecology	
FISH 415	Limnology	
FISH 430	Riparian Ecology and Management	
Forest and Range Systems:		
FOR 330	Forest Soil and Canopy Processes	
FOR 426	Global Fire Ecology and Management	
REM 411	Ecological Monitoring and Analysis	
REM 429	Landscape Ecology	
REM 440	Wildland Restoration Ecology	
REM 459	Rangeland Ecology	
Soils:		
FS 409	Principles of Environmental Toxicology	
SOIL 425	Microbial Ecology	
SOIL 438	Pesticides in the Environment	
SOIL 454	Pedology	
Water:		
ENVS 450	Environmental Hydrology	
ENVS 446	Drinking Water and Human Health	
FOR 462	Watershed Science and Management	
GEOL 309	Ground Water Hydrology	
GEOL 410	Techniques of Groundwater Study	
HYDR 412	Environmental Hydrogeology	
Geospatial Tools (take at least 3 of the 6 courses listed below):		
FOR 472	Remote Sensing of the Environment	
GEOG 385	GIS Primer	

GEOG 424	Hydrologic Applications of GIS and Remote Sensing	
GEOG 475	Intermediate GIS	
GEOG 483	Remote Sensing/GIS Integration	
LARC 495	GIS Applications in Land Planning 2	
Climate Change and Ecosystems (Take all three courses):		
NRS 383	Natural Resource and Ecosystem Service Economics	
GEOG 313	Global Climate Change	
GEOG 410	Biogeography	
Total Hours		**67**

Course List

Courses to total 120 credits for this degree

[1] Either CHEM 275 or CHEM 277 may be used as a technical breadth elective.

[2] Either PHYS 111/PHYS 111L or PHYS 211/PHYS 211L may be used as a technical breadth elective.

[3] Either PHYS 112/PHYS 112L or PHYS 212/PHYS 212L may be used as a technical breadth elective.

[4] *Either* WLF 440 *or* WLF 448 *may be used as a depth elective.*

B. Physical Science Option

This option is suitable for students wishing to pursue technical careers in environmental professions such as air, soil, and water pollution abatement, hazardous waste management, waste minimization, and ecological restoration.

Code	Title	Hours
~~ENVS 497~~	~~Senior Research~~	~~4~~
~~CHEM 112~~	~~Principles of Chemistry II~~	~~4~~
~~CHEM 112L~~	~~Principles of Chemistry II Laboratory~~	~~1~~
~~ENGL 317~~	~~Technical Writing~~	~~3~~
~~MATH 170~~	~~Analytic Geometry and Calculus I~~	~~4~~
~~PHYS 111~~	~~General Physics I~~	~~3~~
~~PHYS 111L~~	~~General Physics I Lab~~	~~1~~
~~Select one of the following:~~		~~4~~
~~GEOG 100 & 100L~~	~~Physical Geography and Physical Geography Lab~~	
~~GEOL 101 & 101L~~	~~Physical Geology and Physical Geology Lab~~	
~~Select Advisor-Directed breadth electives, including at least one course from the first four areas and 9 credits from the technical area:~~		24
~~***Ecology:***~~		
~~BIOL 314~~	~~Ecology and Population Biology~~	
~~FOR 221~~	~~Principles of Ecology~~	
~~GEOG 410~~	~~Biogeography~~	
~~REM 221~~	~~Principles of Ecology~~	
~~***Natural Resource Economics and Sociology:***~~		
~~AGEC 451~~	~~Applied Environmental and Natural Resource Economics~~	
~~NRS 383~~	~~Natural Resource and Ecosystem Service Economics~~	
~~ECON 385~~	~~Environmental Economics~~	
~~FOR 235~~	~~Society and Natural Resources~~	
~~***Management:***~~		
~~OM 378~~	~~Project Management~~	
~~NRS 311~~	~~Public Involvement in Natural Resource Management~~	
~~ENVS 428~~	~~Pollution Prevention~~	
~~FOR 484~~	~~Forest Policy and Administration~~	
~~GEOG 411~~	~~Natural Hazards and Society~~	
~~REM 456~~	~~Integrated Rangeland Management~~	
~~***History, Philosophy, and Political Science:***~~		
~~AGEC 477~~	~~Law, Ethics and the Environment~~	

Code	Title	Hours
~~HIST 424~~	~~American Environmental History~~	
~~PHIL 351~~	~~Philosophy of Science~~	
~~POLS 364~~	~~Politics of the Environment~~	
~~***Technical:***~~		
~~CHEM 253~~	~~Quantitative Analysis~~	
~~& CHEM 254~~	~~and Quantitative Analysis: Lab~~	
~~CHEM 275~~	~~Carbon Compounds~~ ~~[1]~~	
~~CHEM 277~~	~~Organic Chemistry I~~ ~~[1]~~	
~~ENVS 498~~	~~Internship~~	
~~FOR 472~~	~~Remote Sensing of the Environment~~	
~~GEOG 301~~	~~Meteorology~~	
~~GEOG 313~~	~~Global Climate Change~~	
~~GEOG 401~~	~~Climatology~~	
~~GEOG 385~~	~~GIS Primer~~	
~~GEOL 309~~	~~Ground Water Hydrology~~	
~~GEOL 361~~	~~Geology and the Environment~~	
~~MATH 175~~	~~Analytic Geometry and Calculus II~~	
~~PHYS 211~~	~~Engineering Physics I~~	
~~& 211L~~	~~and Laboratory Physics I~~	
~~PHYS 112~~	~~General Physics II~~	
~~& 112L~~	~~and General Physics II Lab~~ ~~[2]~~	
~~PHYS 212~~	~~Engineering Physics II~~	
~~& 212L~~	~~and Laboratory Physics II~~ ~~[2]~~	
~~SOIL 205~~	~~The Soil Ecosystem~~	
Select 4 ~~Advisor-approved depth~~ electives ~~in any area unless otherwise noted~~ from at least two of the following areas:		20
Water:		
ENVS 446	Drinking Water and Human Health	
ENVS 450	Environmental Hydrology	
FOR 462	Watershed Science and Management	
GEOL 309	Ground Water Hydrology	
GEOL 410	Techniques of Groundwater Study	
HYDR 412	Environmental Hydrogeology	
Hazardous Waste:		
BE 433	Bioremediation	
BE 452	Environmental Water Quality	
BIOL 380	Biochemistry I	
CHEM 418	Environmental Chemistry	
ENVS 479	Introduction to Environmental Regulations	
FS 409	Principles of Environmental Toxicology	
Geology:		
GEOL 335	Geomorphology	
GEOL 361	Geology and the Environment	
GEOL 422	Principles of Geophysics	
GEOL 423	Principles of Geochemistry	
Mathematics and Statistics:		
MATH 175	Analytic Geometry and Calculus II	
MATH 275	Analytic Geometry and Calculus III	
MATH 310	Ordinary Differential Equations	
STAT 431	Statistical Analysis	
Soils:		
CHEM 418	Environmental Chemistry	
SOIL 415	Soil and Environmental Physics	
SOIL 422	Environmental Soil Chemistry	

Code	Title	Hours
SOIL 454	Pedology	
Economics and Management (take all three courses):		
OM 378	Project Management	
ECON 385	Environmental Economics	
ENVS 428	Pollution Prevention	
Geospatial Tools (take at least 3 of the 4 courses):		
FOR 472	Remote Sensing of the Environment	
GEOG 385	GIS Primer	
GEOG 424	Hydrologic Applications of GIS and Remote Sensing	
GEOG 483	Remote Sensing/GIS Integration	
Climate Change and Emissions Reduction:		
ENVS 485	Energy Efficiency and Conservation	
GEOG 313	Global Climate Change	
GEOG 401	Climatology	
GEOG 435	Climate Change Mitigation	
Total Hours		**68**

Course List

Courses to total 120 credits for this degree

[1] Either CHEM 275 or CHEM 277 may be used as a technical breadth elective.

[2] PHYS 112/PHYS 112L or PHYS 212/PHYS 212L may be used as a technical breadth elective.

C. Physical Science 2 Option

This option is only available to students in Coeur d'Alene and Idaho Falls.

~~ENVS 497~~	~~Senior Research~~	~~3~~
~~CHEM 112~~	~~Principles of Chemistry II~~	~~4~~
~~CHEM 112L~~	~~Principles of Chemistry II Laboratory~~	~~1~~
~~ENGL 317~~	~~Technical Writing~~	~~3~~
~~PHYS 111~~	~~General Physics I~~	~~3~~
~~PHYS 111L~~	~~General Physics I Lab~~	~~1~~
~~MATH 160~~ ~~or MATH 170~~	~~Survey of Calculus~~ ~~Analytic Geometry and Calculus I~~	~~4~~
~~Select one of the following:~~		~~4~~
~~GEOG 100~~ ~~& 100L~~	~~Physical Geography~~ ~~and Physical Geography Lab~~	
~~GEOL 101~~ ~~& 101L~~	~~Physical Geology~~ ~~and Physical Geology Lab~~	
~~Select Advisor-Directed breadth electives, including at least one course from the first four areas and 9 credits from the technical area:~~		24
~~***Ecology:***~~		
~~BIOL 314~~	~~Ecology and Population Biology~~	
~~FOR 221~~	~~Principles of Ecology~~	
~~REM 221~~	~~Principles of Ecology~~	
~~***Natural Resource Economics and Sociology:***~~		
~~ECON 201~~	~~Principles of Macroeconomics~~	
~~ECON 202~~	~~Principles of Microeconomics~~	
~~ECON 272~~	~~Foundations of Economic Analysis~~	
~~INDT 415~~	~~Impact of Technology on Society~~	
~~***Management:***~~		
~~ENVS 436~~	~~Principles of Sustainability~~	
~~ENVS 479~~	~~Introduction to Environmental Regulations~~	
~~FOR 426~~	~~Global Fire Ecology and Management~~	
~~GEOG 424~~	~~Hydrologic Applications of GIS and Remote Sensing~~	
~~***History, Philosophy, and Political Science:***~~		
~~ENVS 484~~	~~History of Energy~~	

~~HIST 461~~	~~Idaho and the Pacific Northwest~~	
~~POLS 364~~	~~Politics of the Environment~~	
~~***Technical:***~~		
~~BIOL 114~~	~~Organisms and Environments~~	
~~CHEM 253~~	~~Quantitative Analysis~~	
~~& CHEM 254~~	~~and Quantitative Analysis: Lab~~	
~~CHEM 275~~	~~Carbon Compounds~~	
~~CHEM 277~~	~~Organic Chemistry I~~	
~~ENVS 428~~	~~Pollution Prevention~~	
~~ENVS 429~~	~~Environmental Audit~~	
~~ENVS 498~~	~~Internship~~	
~~GEOG 385~~	~~GIS Primer~~	
~~GEOL 309~~	~~Ground Water Hydrology~~	
~~GEOL 375~~	~~Geology of National Parks~~	
~~MATH 175~~	~~Analytic Geometry and Calculus II~~	
~~PHYS 112~~	~~General Physics II~~	
~~& 112L~~	~~and General Physics II Lab~~ [1]	
~~PHYS 212~~	~~Engineering Physics II~~	
~~& 212L~~	~~and Laboratory Physics II~~ [1]	
~~REM 407~~	~~GIS Application in Fire Ecology and Management~~	
~~REM 440~~	~~Wildland Restoration Ecology~~	
~~REM 459~~	~~Rangeland Ecology~~	
~~SOIL 205~~	~~The Soil Ecosystem~~	
Select 4 ~~Advisor approved depth~~ electives ~~in any area unless otherwise noted~~ from at least two of the following areas:		**20**
Water:		
CE 433	Water Quality Management	
ENVS 450	Environmental Hydrology	
FISH 540	Wetland Restoration	
GEOL 309	Ground Water Hydrology	
HYDR 414	Ground Water-Surface Water Interactions	
Mathematics and Statistics:		
MATH 175	Analytic Geometry and Calculus II	
MATH 275	Analytic Geometry and Calculus III	
MATH 310	Ordinary Differential Equations	
STAT 431	Statistical Analysis	
Management Tools (take three of the following):		
ENVS 415	Environmental Lifecycle Assessment	
ENVS 428	Pollution Prevention	
GEOG 385	GIS Primer	
GEOG 475	Intermediate GIS	
GEOG 424	Hydrologic Applications of GIS and Remote Sensing	
INDT 364	Hazardous Materials	
INDT 448	Project and Program Management	
Environmental Policy and Regulations (Take three of the following):		
NRS 572	Human Dimensions of Restoration Ecology	
ENVS 429	Environmental Audit	
ENVS 436	Principles of Sustainability	
ENVS 479	Introduction to Environmental Regulations	
ENVS 482	Natural Resource Policy and Law	
Energy Systems:		
GEOG 453	Water and Energy Systems	
ENVS 484	History of Energy	
ENVS 485	Energy Efficiency and Conservation	
INDT 415	Impact of Technology on Society	

INDT 434	Power Generation and Distribution	
Sustainability Science:		
ENVS 415	Environmental Lifecycle Assessment	
ENVS 428	Pollution Prevention	
ENVS 436	Principles of Sustainability	
FS 409	Principles of Environmental Toxicology	
INDT 457	Lean to Green Sustainable Technology	
Total Hours		**67**

Course List

Courses to total 120 credits for this degree

[1] Either PHYS 112 / PHYS 112L or PHYS 212 / PHYS 212L may be used as a technical breadth elective.

D. Social Science Option

This option is suitable for students wishing to pursue careers in environmental professions such as environmental regulation, land use planning, environmental administration, and as a pre-law program for environmental law.

ENGL 309	Rhetorical Style	3
OR ENGL 202	Introduction to Professional Writing	3
OR PHIL 201	Critical Thinking	3
~~or JAMM 428~~	~~Environmental Journalism~~	
SOC/ANTH 309	Social Science Methods 3	
OR NRS 310	Social Science Methods 4	
~~ENGL 316~~	~~Environmental Writing~~	~~3~~
~~or ENGL 317~~	~~Technical Writing~~	
~~ENVS 497~~	~~Senior Research~~	~~4~~
~~GEOG 100~~	~~Physical Geography~~	~~3~~
~~GEOG 100L~~	~~Physical Geography Lab~~	~~1~~
~~GEOL 101~~	~~Physical Geology~~	~~3~~
~~GEOL 101L~~	~~Physical Geology Lab~~	~~1~~
MATH 143	Pre-calculus Algebra and Analytic Geometry	3
~~PHIL 201~~	~~Critical Thinking~~	~~3~~
~~or POLS 235~~	~~Political Research Methods and Approaches~~	
~~Select Advisor-Directed breadth electives, including at least one course from the first four areas and 9 credits from the technical area:~~		24
~~***Ecology:***~~		
~~BIOL 314~~	~~Ecology and Population Biology~~	
~~FOR 221~~	~~Principles of Ecology~~	
~~GEOG 410~~	~~Biogeography~~	
~~REM 221~~	~~Principles of Ecology~~	
~~***Natural Resource Economics and Sociology:***~~		
~~AGEC 451~~	~~Applied Environmental and Natural Resource Economics~~	
~~NRS 383~~	~~Natural Resource and Ecosystem Service Economics~~	
~~ENVS 428~~	~~Pollution Prevention~~	
~~ECON 385~~	~~Environmental Economics~~	
~~FOR 235~~	~~Society and Natural Resources~~	
~~***Management:***~~		
~~OM 378~~	~~Project Management~~	
~~NRS 311~~	~~Public Involvement in Natural Resource Management~~	
~~FOR 484~~	~~Forest Policy and Administration~~	
~~GEOG 411~~	~~Natural Hazards and Society~~	
~~REM 456~~	~~Integrated Rangeland Management~~	
~~***History, Philosophy, and Political Science:***~~		
~~AGEC 477~~	~~Law, Ethics and the Environment~~	
~~ENVS 484~~	~~History of Energy~~	
~~HIST 424~~	~~American Environmental History~~	
~~PHIL 351~~	~~Philosophy of Science~~	
~~POLS 364~~	~~Politics of the Environment~~	

~~***Technical:***~~		
~~CHEM 253~~	~~Quantitative Analysis~~	
~~& CHEM 254~~	~~and Quantitative Analysis: Lab~~	
~~CHEM 275~~	~~Carbon Compounds~~ [1]	
~~CHEM 277~~	~~Organic Chemistry I~~ [1]	
~~ENVS 498~~	~~Internship~~	
~~FOR 472~~	~~Remote Sensing of the Environment~~	
~~GEOG 301~~	~~Meteorology~~ [2]	
~~GEOG 313~~	~~Global Climate Change~~ [2]	
~~GEOG 401~~	~~Climatology~~	
~~GEOG 385~~	~~GIS Primer~~	
~~GEOL 309~~	~~Ground Water Hydrology~~	
~~GEOL 361~~	~~Geology and the Environment~~	
~~MATH 175~~	~~Analytic Geometry and Calculus II~~	
~~PHYS 111~~	~~General Physics I~~	
~~& 111L~~	~~and General Physics I Lab~~ [3]	
~~PHYS 211~~	~~Engineering Physics I~~	
~~& 211L~~	~~and Laboratory Physics I~~ [3]	
~~PHYS 112~~	~~General Physics II~~	
~~& 112L~~	~~and General Physics II Lab~~ [4]	
~~PHYS 212~~	~~Engineering Physics II~~	
~~& 212L~~	~~and Laboratory Physics II~~ [4]	
~~SOIL 205~~	~~The Soil Ecosystem~~	
Select 5 ~~Advisor approved~~ depth electives from one of the following areas:		**15**
Policy and Law:		
ENVS 479	Introduction to Environmental Regulations	
PHIL 470	Philosophy of Law	
POLS 364	Politics of the Environment	
POLS 467	Constitutional Law	
POLS 468	Civil Liberties	
Administration and Planning:		
ACCT 482	Enterprise Accounting	
COMM 410	Conflict Management	
NRS 386	Social-Ecological Systems	
NRS 387	Environmental Communication Skills	
~~ECON 385~~	~~Environmental Economics~~	
FOR/NRS 484	Forest Policy and Administration	
GEOG 330	Urban Geography	
POLS 364	Politics of the Environment	
POLS 451	Public Administration	
POLS 454	Public Organization Theory	
POLS 462	Natural Resource Policy	
PSYC 416	Industrial/Organizational Psychology	
NRS 475	Local and Regional Environmental Planning	
Green Building and Community Design:		
ARCH 151	Introduction to the Built Environment	
ARCH 266	Materials and Methods	
ARCH 463	Environmental Control Systems I	
ARCH 464	Environmental Control Systems II	
GEOG 435	Climate Change Mitigation	
GEOG 486	Transportation, GIS & Planning	
LARC 380	Water Conservation Technologies	
LARC 480	The Resilient Landscape	
Climate Change - Human Dimensions:		
ECON 385	Environmental Economics	

ENVS 479	Introduction to Environmental Regulations	
ENVS 484	History of Energy	
ENVS 485	Energy Efficiency and Conservation	
GEOG 313	Global Climate Change	
GEOG 435	Climate Change Mitigation	
GEOG 455	Societal Resilience and Adaptation to Climate Change	
NRS 383	Natural Resource and Ecosystem Service Economics	
GEOG 411	Natural Hazards and Society	
Total Hours		**63**

Courses to total 120 credits for this degree

[1] Either CHEM 275 or CHEM 277 may be used as a technical breadth elective.

[2] Either GEOG 301 or GEOG 401 may be used as a technical breadth elective.

[3] Either PHYS 111 / PHYS 111L or PHYS 211 / PHYS 211L may be used as a technical breadth elective.

[4] Either PHYS 112 / PHYS 112L or PHYS 212 / PHYS 212L may be used as a technical breadth elective.

E. Biophysical Science Option

This option is intended for students at a distance wishing to pursue technically oriented careers in environmental professions such as natural resource management, bioremediation, and environmental impact analysis. Students need to work closely with an academic advisor to plan the courses needed to fulfill degree requirements which are not available through distance delivery.

BIOL 250 or PHYS 111	General Microbiology General Physics I	3
ENGL 317	Technical Writing	3
ENVS 497	Senior Research	2-4
MATH 170	Analytic Geometry and Calculus I	4
Select one of the following:		**4**
GEOG 100 & 100L	Physical Geography and Physical Geography Lab	
GEOL 101 & 101L	Physical Geology and Physical Geology Lab	
Select 48 credits of ~~Advisor-directed breadth~~ electives, including at least one course from each of the following ~~depth~~ areas (all are available online):		48
Water and Soils:		
BE 452	Environmental Water Quality	
ENVS 446	Drinking Water and Human Health	
ENVS 450	Environmental Hydrology	
SOIL 205	The Soil Ecosystem	
SOIL 438	Pesticides in the Environment	
SOIL 446	Soil Fertility	
Sustainability:		
ENVS 428	Pollution Prevention	
FCS 411	Global Nutrition	
FS 409	Principles of Environmental Toxicology	
FS 436	Principles of Sustainability	
GEOG 313	Global Climate Change	
INDT 415	Impact of Technology on Society	
Ecology:		
FOR 426	Global Fire Ecology and Management	
REM 221	Principles of Ecology	
REM 410	Principles of Vegetation Monitoring and Measurement	
REM 440	Wildland Restoration Ecology	
REM 459	Rangeland Ecology	
WLF 440	Conservation Biology	
Energy:		

ENVS 484	History of Energy	
ENVS 485	Energy Efficiency and Conservation	
Geographical Information Systems:		
GEOG 385	GIS Primer	
GEOG 424	Hydrologic Applications of GIS and Remote Sensing	
REM 407	GIS Application in Fire Ecology and Management	
Social Science:		
IS 322	International Environmental Organizations	
ENVS 428	Pollution Prevention	
ENVS 484	History of Energy	
FCS 411	Global Nutrition	
INDT 415	Impact of Technology on Society	
Total Hours		**64-66**

Courses to total 120 credits for this degree.