



DEGREE SHEET / 2019-2020 CATALOG		
Student name:		
Eagle ID:		
Eagle Email:		
Phone:		
<p>BACHELOR OF SCIENCE (BS) ENVIRONMENTAL SCIENCE</p> <p>The Environmental Science program at Northern bridges education in traditional practices in agriculture and forestry to modern day environmental monitoring procedures. Course work ranges from wildlife and range science to ecotoxicology and radiation protection. Our students gain hands-on experiences in areas from research with the on-campus Sostenga farm, forestry experiments at the wildfire ecology research lab in El Rito, environmental monitoring in the Valles Caldera, and sampling of local waterways relating to Stream Ecology. The environmental sciences at Northern provide students with a strong background for graduate school and to compete for positions with federal, state, and local land management agencies, Los Alamos National Laboratories, and within private industry.</p>		
GENERAL EDUCATION REQUIREMENTS (31 Credits)	SEMESTER	GRADE
AREA I: COMMUNICATIONS (6 Credits)		
ENGL 1110 Composition I (3) <i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>		
ENGL 1120 Technical Communication (3) <i>Pre-requisite: ENG 1110</i>		
AREA II: MATHEMATICS (3 Credits)		
MATH 1220 College Algebra (3) <i>Pre-requisite: Math 1215 or adequate score on the Course Placement Evaluation</i>		
AREA III: LABORATORY SCIENCES (4 Credits)		
AREA IV: SOCIAL/BEHAVIORAL SCIENCES (3 Credits)		
AREA V: HUMANITIES (3 Credits)		
AREA VI: FINE ARTS (3 Credits)		

ADDITIONAL NINE CREDIT HOURS (9 Credits)				
COMM	1130	Public Speaking (3) <i>Pre-requisite: ENG 109</i>		
ENVS	2130	Critical Thinking in Science (3) <i>Pre-requisite: None</i>		
Choose one of the following Civics Courses (3)				
POLS	1110	Introduction to Political Science (3)		
POLS	1120	American National Government (3)		
CJUS	1110	Introduction to Criminal Justice (3)		
HIST	1110	United States History I (3)		
HIST	1120	United States History II (3)		
PROGRAM REQUIREMENTS (91 Credits)				
REQUIRED SCIENCE COURSES (43 CREDITS)				
MATH	1350	Introduction to Statistics (3) <i>Pre-requisite: MATH 1215</i>		
MATH	1250	Trigonometry and Pre-Calculus (4) <i>Pre-requisite: MATH 1220</i>		
MATH	1510	Calculus (4) <i>Pre-requisite: MATH 1250</i>		
ENVS	1110/L	Environmental Science I with Lab (4) <i>Pre-requisite: None</i>		
CHEM	1120/L	Introduction to Chemistry with Lab (4) <i>Pre-requisites: MATH 102 and ENG 109</i>		
CHEM	1215/L	General Chemistry for STEM Majors I with Lab (4) <i>Pre-requisites: MATH 1215, high school chemistry, or ACT score of 19 or higher in natural science and ENG 1110</i>		
CHEM	1220/L	General Chemistry for STEM Majors II with Lab (4) <i>Pre-requisite: CHEM 1215/L</i>		
BIOL	2610/L	Principles of Biology: Biodiversity, Ecology, and Evolution with Lab (4) <i>Pre-requisites: ENGL 1110, MATH 1220, and CHEM1215/L</i>		
BIOL	2640/L	Plant and Animal Form and Function with Lab (4) <i>Pre-requisites: MATH 1220, BIOL 2110/L, and CHEM1215/L</i>		
Take one of the following:				
BIOL	2110/L	Principles of Biology: Cellular and Molecular Biology and Lab (4) <i>Pre-requisites: ENGL 1110 and CHEM 1215/L</i>		
BIOL	2310/L	Microbiology with Lab (4) <i>Pre-requisite: BIOL 1110/L</i>		
CHEM	2120/L	Integrated Organic and Biochemistry with Lab (4) <i>Pre-requisite: CHEM 1110/L or CHEM 1215/L</i>		
Take one of the following:				
BIOL	2410/L	Principles of Biology: Genetics with Lab (4) <i>Pre-requisite: BIOL 2110/L</i>		
ENVS	2201/L	Environmental Physical and Chemical Process (4) <i>Pre-requisites: BIOL 2110/L and CHEM 1215/L</i>		

SUGGESTED SEQUENCE OF COURSES

FIRST SEMESTER (14 Credits)

ENGL 1110 Composition I (3)
CHEM 1120/L Introduction to Chemistry with Lab (4)
ENVS 1110/L Environmental Science I with Lab (4)
MATH 1220 College Algebra (3)

SECOND SEMESTER (17 Credits)

ENGL 1120 Technical Writing (3)
MATH 1250 Trigonometry and Pre-Calculus (4)
CHEM 1215/L General Chemistry I for STEM Majors with Lab (4)
ENVS 2140 Introduction to GIS/GPS and Cartography (3)
ENVS 2130 Critical Science in Thinking

THIRD SEMESTER (16 Credits)

BIOL 2610/L Ecology and Evolution with Lab (4)
CHEM 1220/L General Chemistry for STEM Majors II with Lab (4)
MATH 1510 Calculus (4)
BIOL 2110/L Principles of Biology: Cell and Molecular Biology with Lab (4)
OR
BIOL 2310/L Microbiology (4)
OR
CHEM 2120/L Integrated Organic and Biochemistry with Lab (4)

FOURTH SEMESTER (14 Credits)

BIOL 2640/L Plant and Animal Form and Function with Lab (4)
COMM 1130 Public Speaking (3)
ENVS 2160 Principles of Agriculture Ecology (3)
ENVS 2201/L Environmental Physical and Chemical Processes with Lab (4)
OR
BIOL 202/L Principles of Biology: Genetics with Lab (4)

FIFTH SEMESTER (14 Credits)

MATH 1350 Introduction to Statistics (3)
ENVS 3336/L Environmental Sampling and Instrumentation (4)
Upper Division Elective (4)
Area IV Social and Behavioral Sciences (3)

SIXTH SEMESTER (15 Credits)

Upper Division Elective (3)
Upper Division Elective (3)
Upper Division Elective (3)
Area V Humanities (3)
ENVS 3317 Rangeland Management (3)
OR
ENVS 3318 Silviculture (3)

SEVENTH SEMESTER (16 Credits)

ENVS 3319 Principles of Wildlife Management (3)
ENVS 3380 Undergraduate Research Experience (3)
Upper Division Elective (3)
Upper Division Elective (3)
Area III Laboratory Science (4)

EIGHTH SEMESTER (13 Credits)

BIOL 4472 Undergraduate Seminar in Biology (1)
ES 3338 Environmental Laws and Regulations (3)
ES 4480 Senior Capstone (3)
Upper Division Elective (3)
Area VI Fine Arts (3)
Civics Course Civics Course (3)

EDUCATIONAL PLANNING FORM (Semester)

FALL SEMESTER	SPRING SEMESTER	SUMMER
Total Units	Total Units	Total Units
FALL SEMESTER	SPRING SEMESTER	SUMMER
Total Units	Total Units	Total Units
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