

**SOIL, ENVIRONMENTAL & ATMOSPHERIC SCIENCES B.S. DEGREE WITH
EMPHASIS IN SOIL RESOURCE MANAGEMENT
(128 credit hours)**

University Requirements (32 credits)

Eng 1000 - Exposition and Argumentation (3 cr) FWS
Course to fulfill State Law Requirement (3 cr)
(History 1100, 1200, or 1400 or Political Science 1100 or 1700)
Economics/Business Elective (3 cr)
Additional Social Science elective (3 cr)
Humanistic Studies and Fine Arts electives (9 cr)
Math 1100 – College Algebra (3 cr)
Stat 1400 - Statistical Analysis (3 cr) FWS **or**
Stat 2530 - Statistical Methods in Natural Resources (3 cr) W
Chem 1310 - General Chemistry I (2 cr) FWS
Chem 1320 - General Chemistry II (3 cr) FWS

Departmental Quantitative Skills (9 cr)

Math 1400 - Calculus for Social and Natural Sciences (3 cr) FWS
Quantitative Electives (6 cr)
*Other courses in Math, Computer Science, and Statistics **or***
NatR 4320 - Hydrologic & Water Quality Modeling (3 cr) W
NatR 4325 - Introduction to Geographic Information Systems (GIS) (3 cr) W
NatR 4365 - GIS applications (3 cr)
NatR 4385 - Landscape Ecology and GIS Analysis I (3 cr)
NatR 4395 - Landscape Ecology and GIS Analysis II (3 cr)

Departmental Sciences (24-29 cr)

Chemistry (3-8 cr)

Must include one course in organic or biochemistry

Organic Chemistry

Chem 2050 - Organic Chemistry (5 cr) F **or**
Chem 2100 - Organic Chemistry I (3 cr) FWS **and**
Chem 2120 - Organic Chemistry II (3 cr) FWS **and**
Chem 2140 - Organic Chemistry Lab (2 cr)

Biochemistry

Biochem 2110 – The Living World: Molecular Scale (3 cr) **or**
Biochem 2112 - Biotechnology in Society (3 cr)

Biological Science (8 cr)

PISci 2110 – Plant Growth and Culture (3 cr) **and**
PISci 2120 – Plant Science Laboratory (2 cr) **and**
NatR 1070 - Ecology and Renewable Resource Management (3 cr)

Geology (4 cr) - any course

Science Electives (9)

Courses in biochemistry, biology, chemistry, entomology, geology, physics, and plant pathology as well as the following courses:

CivEng 3702 - Hydrology (3 cr) FW
For 4320 - Forest Ecology (3 cr) F (WI)
PISci 3210 - Principles of Weed Sciences (4 cr) F
PISci 3225 - Basic Plant Genetics (3 cr) F
PISci 4315 - Crop Physiology (3 cr) W

Departmental Requirements (36 cr)

Soil and Atmospheric Sciences (6 cr)

Atm Sci 1050 - Introduction to Meteorology (3 cr) FW
Soils 2100 - Introduction to Soil Science (3 cr) FW

Computer Science (3 cr)

Agriculture 1111 - Computing and Information Systems I (3 cr) FW **or**
NatR 1080 – Computer Applications in Natural Resources (2 cr) FW **and**
NatR 1090 – Beginning GIS for Natural Resources (1 cr) F

Capstone Experience (3 cr)

NatR 4970 - Natural Resources Practicum (3 cr) W

Additional Emphasis Area Requirements (24 cr)

Soils 2106 - Introduction to Soil Science Lab (2 cr) FW
Soils 3290 - Soils and the Environment (3 cr) F
Additional Soils courses (12 cr)

Other Soils courses or the following courses (7 cr):

BioEng 4150 - Soil Conservation Engineering (3 cr) F
BioEng 4250 - Irrigation and Drainage Engineering (3 cr) F
CivEng 3400 - Fundamentals of Geotechnical Engineering (4 cr) FW
F&W 3400 - Natural Resources Mgmt & Water Quality (3 cr) W
For 4390 - Watershed Management (3 cr) F
NatR 4320 - Hydrologic and Water Quality Modeling (3 cr) W

V. Electives (22-27 credits)

Remaining hours from university, quantitative, science, and department to complete 128 credit hours total requirement.