

Spring 2012

**SOIL, ENVIRONMENTAL AND ATMOSPHERIC SCIENCES WITH EMPHASIS IN  
ENVIRONMENTAL SCIENCE/BIOCHEMISTRY DUAL B.S. DEGREE  
(131 credit hours)**

**Description**

The Department of Soil, Environmental and Atmospheric Sciences and the Division of Biochemistry offer a dual BS degree in Soil, Environmental and Atmospheric Sciences with an Environmental Science emphasis, and in Biochemistry. For more information, contact an adviser in the Department of Soil, Environmental and Atmospheric Sciences or the Division of Biochemistry.

**University Requirements (35 credits)**

ENGLISH 1000 - Exposition and Argumentation (3 credits) FSpS

Course to fulfill State Law Requirement (3 credits)

*(History 1100, 1200, or 1400 or Political Science 1100 or 1700)*

AG EC 1041 - Applied Microeconomics (3 credits) FSp

AG EC 1042 - Applied Macroeconomics (3 credits)

RU SOC 1000 - Rural Sociology (3 credits) FSp **or**

RU SOC 1120 - Population and Ecology (3 credits) FSp

Humanistic Studies and Fine Arts electives (6 credits)

COMMUN 1200 – Public Speaking (3 credits) FSpS **or**

AG ED 2220 - Verbal Communication in Agriculture, Food & Natural Res. (3 credits) FSp

MATH 1100 - College Algebra for Calculus Bound Students (3 credits) FSpS

STAT 2530 - Statistical Methods in Natural Resources (3 credits) Sp

CHEM 1310 - General Chemistry I (2 credits) FSpS

CHEM 1320 - General Chemistry II w/Lab (3 credits) FSpS

**Departmental Quantitative Skills (10 credits)**

MATH 1500 – Analytical Geometry and Calculus I (5 credits) FSpS

MATH 1700 – Calculus II (5 credits) FSp

**Departmental Sciences (43 credits)**

Biological Science (14 credits)

BIO SC 1500 - Introduction to Biological Systems w/Lab (5 credits) FSpS

BIO SC 2200 - General Genetics (4 credits) FSp

BIO SC 3650 - General Ecology (WI) (5 credits) F **or**

FOREST 4320 - Forest Ecology (WI) (5 credits) F

Chemistry (15 credits)

CHEM 1330 - General Chemistry III w/Lab (3 credits) FSpS

CHEM 2100 - Organic Chemistry I (3 credits) FSpS

CHEM 2110 - Organic Chemistry II (3 credits) FSpS

CHEM 2130 - Organic Chemistry Lab I (2 credits) FSp

CHEM 3200 – Quantitative Instrumental Analysis (4 credits)

Geology (4 credits)

GEOL 1100 - Principles of Geology w/Lab (4 credits) FSpS **or**

GEOL 1200 - Environmental Geology w/Lab (4 credits) FSp  
Physics (10 credits)  
PHYSICS 2750 - University Physics I (5 credits) FSpS  
PHYSICS 2760 - University Physics II (5 credits) FSp

**Departmental Requirements (43 credits)**

Atmospheric Science/Soil Science (8 credits)

ATM SC 1050 - Introduction to Meteorology (3 credits) FSp  
SOIL 2100 - Introduction to Soils (3 credits) FSp  
SOIL 2106 - Soil Science Laboratory (2 credits) FSp

Biochemistry (12 credits)

BIOCHM 1090 – Introduction to Biochemistry (3 credits) F  
BIOCHM 4270 – Biochemistry I (3 credits)  
BIOCHM 4272 – Biochemistry II (3 credits)  
BIOCHM 4300 – Physical Biochemistry (3 credits) F

Environmental Science Requirements (9 credits)

ENV SC 1100 - Introduction to Environmental Science (3 credits) F  
ENV SC 3290 - Soils and the Environment (WI) (3 credits) F  
ENV SC 4320 - Hydrologic and Water Quality Modeling (3 credits) F

Water Quality and Land Management (9 credits)

ENV SC 3330 – Land Use Management (3 credits) Sp  
ENV SC 3500 – Pollutant Fate and Transport (3 credits) Sp  
F&W 3400 - Water Quality & Natural Resource Management (3 credits) Sp **or**  
FOREST 4390 – Watershed Management & Water Quality (3 credits) F

Capstone Experience (5 credits)

BIOCHM 4974 – Biochemistry Laboratory (4 credits) **and**  
BIOCHM 4970 – Senior Seminar (1 credit)