
The University of Tennessee at Martin

Soil & Water Conservation Concentration, 2004-2005

Career Opportunities

Urbanization, industrial growth and population growth are placing increased demands on our land and water resources. To provide food and shelter for future generations, many professionals trained to manage soil, water and other natural resources are needed. The future food supply must come from a declining land, energy and labor base, scientific principles and technology to protect and sustain our natural resources will become increasingly important.

The soil and water conservation curriculum prepares students for conservation and management of soil and water resources for the long range benefit of society. Requirements include a strong background in physical, chemical and biological relationship of soil, water and plants. Elective courses provide an opportunity for emphasis in areas of particular interest.

Employment Possibilities

Many excellent opportunities for employment are available for graduates of the soil and water conservation curriculum. Employment opportunities are available with federal agencies such as the Natural Resource Conservation Service and Bureau of Land Management; other government units, including state, county and municipal agencies; planning and economic development districts; business in the agricultural industry such as fertilizer, chemical, forest products and pollution control firms; public utility companies; and private industries including banks, financial institutions and real estate agencies. The local soil conservationist, soil scientist, land manager, etc., is most likely trained in this field. Students completing this curriculum will have met the academic requirements for certification.

Facilities

Facilities on campus, including the West Tennessee Agricultural Pavilion, the 700 acre UT Agricultural Experiment Station and UTM Agricultural Field Teaching/Demonstration Complex, and our nearness to farm people make an ideal setting and are excellent for study in this area. The great needs for conservation of soil, water and related natural resources for study are unlimited and easily accessible. Numerous computer facilities are also available for student use. Students participate in local, regional and national conferences and contests on a regular basis.

For More Information

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Program of Study

This list includes all courses required; however, the sequence may be flexible.

Freshman Year

Fall

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|---|----------|
| Biology 110: Introductory Cell Biology and Genetics . . . | 4 |
| English 111: English Composition | 3 |
| Math 140: College Algebra and Elementary Functions | 3 |
| Natural Resources Management 100: Intro to Natural Resources Management | 3 |
| <u>Economics 100: American Enterprise System</u> | <u>3</u> |
| Total Hours | 16 |

Spring

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|---|----------|
| Biology 120: Introductory Plant and Animal Biology . . . | 4 |
| English 112: English Composition | 3 |
| Math 160 or 210: Calculus for Business and Life Sciences or Elementary Statistics and Probability | 3 |
| <u>Plant Science 110: Introductory Plant and Soil Science</u> | <u>3</u> |
| Total Hours | 16 |

Sophomore Year

Fall

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| Chemistry 121: General Chemistry | 4 |
| Geology 111: Physical Geology | 3 |
| Geology 113: History of the Earth | 3 |
| Philosophy 160: Introduction to Ethics | 3 |
| Agricultural Engineering Technology 220: Surveying and <u>Soil and Water Engineering</u> | <u>3</u> |
| Total Hours | 16 |

Spring

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|--|----------|
| Chemistry 122: General Chemistry | 4 |
| Communications 230: Public Speaking | 3 |
| Soil Science 210: Introduction to Soil Science | 4 |
| Agricultural Economics 110: Introduction to Agricultural <u>Business</u> | <u>3</u> |
| Total Hours | 17 |

Junior Year

Fall

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| Soil Science 315: Soil and Water Conservation | 3 |
| Physics 211: College Physics | 4 |
| Plant Science 333: Weed Science | 3 |
| Agriculture 295: International Food and Fiber System | 3 |
| Geography 310 or 410: Principles of Geographic Information Systems or Geographic Information <u>Systems: Modeling and Applications</u> | <u>3</u> |
| Total Hours | 16 |

Spring

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|---|----------|
| Plant Science 422: Forage Crops | 3 |
| Computer Science 201: Introduction to Computer Applications | 3 |
| Microbiology 251: General Bacteriology | 4 |
| Biology 331: General Ecology | 3 |
| <u>Soil Science Elective*</u> | <u>1</u> |
| Total Hours | 14 |

Senior Year

Fall

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| Agriculture 441: Interpretation of of Agricultural Research | 3 |
| Natural Resource Management 200: Interpretive Tours–Practicum | 3 |
| English 325: Technical Communications | 3 |
| Natural Resources Management 390: Career Planning in Natural Resource Management | 3 |
| Aesthetic Elective* | 3 |
| <u>Soil Science Elective*</u> | <u>1</u> |
| Total Hours | 15 |

Spring

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|--|----------|
| Soil Science 321: Soil Genesis, Morphology and Classification | 3 |
| Soil Science 412: Soil Chemistry and Fertility | 3 |
| Agricultural Engineering Technology 460: Waste Management Technology | 3 |
| <u>Electives*</u> | <u>6</u> |
| Total Hours | 15 |

*See catalog for options.