Soil and Water Conservation

Concentration

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.

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.

Facilities

Facilities on campus, including the Ned R. McWherter Agricultural Complex, the 700-acre UT Martin Agricultural and Natural Resources 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.

Sample Program of Study

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

Freshman Year

Fall

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: Introduction to Natural Resources Management 3
Humanities Elective* (see note 4) 3

Total Hours.....16

Spring

Agricultural Economics 110: Introduction to Agricultural Business.....3
Biology 120: Introductory Plant and Animal Biology 4
English 112: English Composition.....3
Math 210: Calculus for Business and Life Sciences or Elementary Statistics and Probability 3
Plant Science 110: Introductory Plant and Soil Science ..3

Total Hours.....16

Sophomore Year

Fall

Agricultural Engineering Technology 220: Surveying and Soil and Water Engineering 3
Chemistry 111: Introduction to Chemistry I: General and Organic 4
Geology 110: Physical Geology 4
Humanities Elective* (see note 4) 3
Soil Science Elective (see note 1) 1

Total Hours.....15

Spring

Chemistry 112: Introduction to Chemistry II: General and Organic 4
Communications 230: Public Speaking 3
Soil Science 210: Introduction to Soil Science 4
Humanities Elective* (see note 4)… 3

Total Hours.....14

Junior Year

Fall

Geology 365 or 445: Tennessee's Geologic and Cultural Landscapes or Geohydrology 3
Physics elective 150 or 211: Concepts and Demonstrations in Physics or College Physics 4
GIS Elective* (see note 2) 3
Soil Science Elective (see note 1) 1
Soil Science Elective (see not 5) 3

Total Hours.....14

Spring

Biology 331: General Ecology.....3
Plant Science 333: Weed Science or 422: Forage Crops 3
Microbiology 251: General Bacteriology 4
Social & Behavioral Sciences Electives* 6

Total Hours.....16

Senior Year

Fall

Agriculture 441: Interpretation of Agricultural Research 3
English 325: Technical Communications.....3
Natural Resource Management 210: Mediating Environmental Conflict 3
Fine Arts Elective* 3
Soil Science Elective (see note 5) 3
Total Hours 15

Spring

Agricultural Engineering Technology 460: Waste Management Technology.....3
Natural Resources Management 390: Career Planning in Natural Resource Management 2
Science Electives (see note 3).....6
Soil Science Elective (see note 5)... 3

Total Hours.....14

*See catalog for options

Note 1: ..... SOIL 250: Soil and Landscape Evaluation, recommended.

Note 2: To selected from GEOG 310, GEOG 410, AGET 482

Note 3: Chose from upper division courses in departments of agriculture and natural resources; biological sciences; chemistry; geology, geography and physics; or engineering. Student encouraged to satisfying electives with NRM 420.

Note 4: One course must be selected from Economics 100, 201, or 202

Note 5: Chose from SOIL 315: Soil and Water Conservation, SOIL 321: Soil Genesis, Morphology, and Classification, SOIL 412: Soil Chemistry and Fertility, or SOIL 440: Soil Physics

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