

The University of Tennessee at Martin
Bachelor of Science in Agriculture (with a major in General Agriculture)
Plant and Soil Science Concentration
Crop and Soil Management Option (program 1121)

Overview

Food and fiber production for a growing world population on a decreasing land base is one of the greatest challenges facing the American people. They are looking to agriculture to supply food and fiber for the future. Students in the crop and soil management option are required to complete 29 hours of plant and soil science courses plus a core curriculum of introductory courses. The program includes a number of courses in agricultural engineering technology to provide students with a background in the modern technologies used in crop production. Course requirements during the first two years are very similar to those of other universities, allowing easy transfer of credits. Students completing this curriculum will have met the academic requirements for the Certified Crop Advisor program (CCA).

Career Opportunities

The crop and soil management option is designed to help students prepare themselves for careers in food and fiber production. Students graduating from this curriculum area are well prepared for further educational studies in plant and soil science at the graduate level.

As the world population continues to increase, demand for food and fiber will also increase. With this demand will come the need for more people to support the farmer. Less than 10% of our graduates return to the farm; most serve the farmer through supportive areas. Career opportunities available in addition to farming include various federal and state agencies such as The U.S. Department of Agriculture, Ag Extension Service, and Natural Resource Conservation Service; various industries associated with agriculture and the environment, including feed, seed, fertilizer, chemical, agricultural supplies and equipment companies; agricultural communications and public relations; lending agencies; environmental consultants; conservation and recreation. The recent emergence of biotechnology has opened several additional careers in plant and soil science research.

Facilities

UT Martin's 700-acre Agricultural and Natural Resources Teaching/Demonstration Complex is jointly used for research, teaching, and demonstration. Modern agricultural laboratories and classrooms are located in Brehm Hall and the Ned R. McWherter Agricultural Complex. Numerous computer facilities are available for student use. In addition to the use of these facilities, field trips to leading agricultural businesses, industries, and farms are conducted. Thus, students have a first-hand opportunity to observe proper application of new concepts, technology and management principles in real-life situations.

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Fine Arts (3 hours) *Select One*
 ART 110 Understanding Visual Arts ___/3
 ARTH 210 The History of Art ___/3
 ARTH 211 The History of Art ___/3
 DANC 110 Understanding Dance ___/3
 MUS 111 Masterpieces of Music ___/3
 MUS 112 Music in Our Time ___/3
 MUS 113 Western Masterpieces ___/3
 MUS 114 Historical Survey of Jazz ___/3
 MUS 115 Music for the Masses ___/3
 THEA 110 Understanding Theatre ___/3
 THEA 111 Understanding Theatre ___/3

AGET 119 Intro: AG Engineering Lab ___/1
 AGET 220 Surveying & Soil & Water Conservation ___/3
Plant Physiology or Plant Ecology Requirement (3 hours) Pick one
 BOT 421 Plant Physiology ___/3
 or BOT 431 Plant Ecology ___/4
 or PLSC 442 Crop Adaptation and Ecology ___/3
 PLSC 119 Intro: Plant & Soil Science Lab ___/1
 PLSC 322 Intro: Plant Pathology ___/3
 PLSC 333 Weed Science ___/3
 PLSC 431 Principles of Plant Breeding ___/3
 SOIL 412 Soil Chemistry & Fertility ___/3
 PLSC 310 Integrated Pest Management ___/4
 or ZOOL 325 General Entomology ___/4

Biological & Physical Systems (16 hours)
 BIOL 130 Foundations: Ecology, Evolution, & Diversity ___/4
 BIOL 140 Foundations: Cell & Molecular ___/4
Chemistry (8 hours) Select a sequence of two
 CHEM 111 Intro: General & Inorganic ___/4
 &CHEM 112 Intro: Organic & Bio ___/4
 or
 CHEM 121 General Chemistry ___/4
 &CHEM 122 General Chemistry ___/4

Plant & Soil Science Electives (3 hours) *Select one*
 ENGL 325 Technical Communications ___/3
 COMM 356 Comm in Professional Environments ___/3

Communications (9 hours)
 ENGL 111 English Composition (Must earn a C or better) ___/3
 ENGL 112 English Composition (Must earn a C or better) ___/3
 COMM 230 Public Speaking ___/3

Crop and Soil Management Option (22 hours)
 AGRI 270 Intro: Geospatial Technology ___/3
 AGET 382 Precision Agriculture Technologies ___/3
 AGET 420 Irrigation ___/3
 PLSC 205 Intro: Pesticides ___/3
 PLSC 420 Supervised Field Experience in Plant Science ___/4
 PLSC 422 Forage Crops ___/3
 PLSC 433 Field Crop Production ___/3

Humanities (9 hours) *Select three*
 ENGL 250 British Literature ___/3
 ENGL 251 British Literature ___/3
 ENGL 260 American Literature ___/3
 ENGL 261 American Literature ___/3
 ENGL 270 World Literature ___/3
 ENGL 271 World Literature ___/3
 FREN 250 France Today ___/3
 GERM 250 Germany Today ___/3
 HIST 121 World Civilization I ___/3
 HIST 122 World Civilization II ___/3
 HIST 201 History of the U.S. I ___/3
 HIST 202 History of the U.S. II ___/3
 PHIL 110 Adventure of Ideas: Historical ___/3
 PHIL 120 Adventure of Ideas: Contemporary ___/3
 PHIL 130 Ethics and Race ___/3
 PHIL 160 Exploring Ethics ___/3
 RLST 201 Intro to Religion Studies ___/3
 SPAN 250 Latin America Today ___/3

UD Science Electives (9 hours)
 AGRI 441 Interpretation of Agricultural Research ___/3
 BOT 303 Plant Taxonomy ___/3
 SOIL 315 Soil and Water Conservation ___/3
 SOIL 321 Soil Genesis, Morphology, and Classification ___/3
 SOIL 401 Research Participation ___/3
 SOIL 430 Wetland Science ___/3
 SOIL 440 Soil Physics ___/3
 PLSC 341 Dendrology & Forest Ecology ___/3
 PLSC 342 Fruit & Vegetable Production ___/3
 PLSC 401 Research Participation ___/3

Mathematics (6 hours) *Select two*
 MATH 210 Elementary Statistics & Probability ___/3
Select One (Prerequisite to Math 210)
 MATH 140 College Algebra & Elementary Function ___/3
 MATH 185 Precalculus ___/5
 MATH 251 Calculus I ___/3

Social Dynamics & Behavioral Science (6 hours)
 ECON 201 Principles of Macroeconomics ___/3
 ECON 202 Principles of Microeconomics ___/3

Plant & Soil Science Concentration Requirements (34 hours)
 AGET 110 Introduction to Agricultural Engineering ___/3
 PLSC 110 Introductory Plant & Soil Science ___/3
 SOIL 210 Soil Science ___/4

**B.S. in Agriculture
Plant and Soil Science – Crop and Soil Management
2017-2018**

Freshman Fall	
General Studies 101	2
ENGL 111	3
MATH 140	3
BIOL 130	4
PLSC 110	3
Semester Total	15

Freshman Spring	
ENGL 112	3
BIOL 140	4
Fine Arts Elective	3
AGET 110	3
AGET 119	1
PLSC 119	1
Semester Total	15

Sophomore Fall	
CHEM 111 or 121	4
COMM 230	3
ECON 201	3
AGRI 270	3
MATH 210	3
Semester Total	16

Sophomore Spring	
SOIL 210	4
ECON 202	3
AGET 220	3
Humanities Elective	3
PLSC 205	3
Semester Total	16

Junior Fall	
Humanities Elective	3
CHEM 112 or 122	4
PLSC 333	3
PLSC 431	3
UD Science Elective	3
Semester Total	16

Junior Spring	
AGET 382	3
PLSC 322	3
BOT 421 or 431 or PLSC 442	3
ECW Elective	3
UD Science Elective	3
Semester Total	15

Senior Fall	
UD Science Elective	3
PLSC 420	4
PLSC 433	3
ZOOL 325 or PLSC 310	4
Semester Total	14

Senior Spring	
PLSC 422	3
SOIL 412	3
AGET 420	3
UD Science Elective	3
Humanities Elective	3
Semester Total	15