



Agronomy, Soils & Natural Resources Concentration (Agriculture B.S. Degree)

Agriculture at EKU

The Agronomy, Soils and Natural Resources curriculum provides career training to prepare you for a rewarding and successful career in Agriculture. A wide array of jobs are available in government agencies, private and commercial business, agriculture sales and finance. Our program stresses the latest technical information in the classroom with hands-on application through laboratories. Hands-on-training is reinforced through practicums at the university farms and through cooperative education. Our small class size promotes interaction between students and faculty. We are small enough to care for you as an individual but large enough to provide ever career opportunity.

Career Opportunities

The practical instruction and hands-on application enable you to be an immediate asset to employers. You will join the ranks of successful EKU graduates in areas such as agriculture sales, farm management, agriculture finance and banking, extension and 4-H agents, government agency employees, and pursuing advanced degrees. The United States Department of Agriculture predicts a shortfall of graduates in these areas. Potential entry-level job opportunities with a B.S. in Agriculture - Agronomy, Soils and Natural Resources Concentration include Agronomist, Environmental Resource Agent, and Water Quality Specialist.

- **Agronomist** - Private, State and Federal land manager of natural resources
- **Precision Agriculture Specialist** - Use and evaluation of the latest technologies in agriculture including drones and monitors
- **Soil Conservationist** - State, Federal and private land manager of natural resources
- **Environmental Resource Agent** - Monitoring and researching into water quality programs
- **Mining Reclamation Specialist** - State reclamation of abandoned mining sites
- **Laboratory Technician** - Assisting in the design and implementation of research experiments
- **Air Quality Specialist** - Monitoring and research into air quality problems
- **Extension/4-H agent** - Develop local agriculture and youth programs
- **Environmental Educator** - Teaching natural history in the field and classroom as a naturalist
- **Soil Scientist** - State, Federal and private land manager of natural resources

Philosophy

The Department of Agriculture blends scientific theory with practical application and hands-on experiences. Current concepts and theories are presented in the classroom and then applied in the laboratory with the faculty member as the laboratory supervisor using a hands-on approach. Practicum classes at the university enterprises and through cooperative education are further utilized to reinforce the practical application of scientific theory. Professors are experienced, enthusiastic, and passionate about providing students the skills necessary to succeed with the ever-changing technology and environment.

Department Facilities & Student Organizations

The Agriculture Program at EKU is supported by excellent classroom laboratories and facilities at the A.B. Carter Building, including a modern computer laboratory, ag mechanics shop, animal and plant science biotechnology laboratories equipped for research and cell cloning are also available. There are also garden displays, turf plots, and 5 greenhouses. Students will have the unique opportunity to work directly with and observe practical applications of agricultural technology at EKU's 1,100-acre Meadowbrook Farm located only eight miles from campus with an on-site classroom. The farm gives students an opportunity to experience all aspects of modern production in beef, dairy, sheep, swine, and crop enterprises. Students have the opportunity to develop their extracurricular leadership skills through the Agriculture/Collegiate Farm Bureau Club, Block & Bridle Club, Delta Tau Alpha Agriculture Honor Society, Horticulture Club, Pre-Vet Club, and Sigma Alpha Sorority.

For More Information

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Suggested Curriculum Guide for Agronomy, Soils & Natural Resources Concentration

Freshman (1st semester) 15 hrs

GSD 101	Foundations of Learning	3
AGR 115	Operation of Agricultural Equipment	3
AGR 213	Principles of Ag Mechanics and Energy Sys	3
Gen. Ed. 1A (ENG 101)		3
Gen. Ed. 2 (Math)		3

Sophomore (1st semester) 16 hrs

AGR 215	Principles of Soils	3
AGR 216	Principles of Soils Laboratory	1
AGR 340	Conservation of Agricultural Resources	3
^G ECO 120	Economic Reasoning and Issues	3
Gen. Ed. 3A (Arts)		3
Gen. Ed. 5A (History)		3

Junior (1st semester) 15 hrs

AGR 304	Pest Management	4
AGR 305	Professional Skills Seminar	1
AGR 310	Principles of Agribusiness Management	3
AGR 312	Ecology & Mgmt Forages/Grassland	4
AGR 430	Row and Biomass Crops	3

Senior (1st semester) 14 hrs

AGR 416	Soil Fertility and Management	3
AGR 570	Advanced Ag Technologies	3
AGR 301	Directed Work Experience -OR-	2
AGR 349	Applied Learning in Agriculture	
GEO 353	Geographic Information Systems	3
AGR/OHO Upper Division Elective		3

Freshman (2nd semester) 14 hrs

AGR 125	Principles of Animal Science	3
AGR 126	Animal Science Laboratory	1
AGR 130/131	Plant Science with Lab -OR-	4
OHO 131/132	Principles of Horticulture with Lab	
INF 104	Computer Lit and Software Appl -OR-	3
TEC 161	Computer Applications in Technology	
Gen. Ed. 1B (ENG 102)		3

Sophomore (2nd semester) 16 hrs

AGR 308	Agricultural Economics	3
AGR 319	Renewable & Sustainable Energy Sys	3
^G BIO 111/111L	Cell and Molecular Biology -OR-	4
^G BIO 112/111L	Ecology and Evolution	
Gen. Ed. 1C (Oral Communications)		3
Gen. Ed. 3B (Humanities) Course 1		3

Junior (2nd semester) 14 hrs

AGR 404	Advanced Pest Management	3
^G CHE 101	Introduction to Chemistry	3
CHE 101L	Introduction to Chemistry Lab	1
AGR 301	Directed Work Experience -OR-	1
AGR 349	Applied Learning in Agriculture	
AGR/OHO Upper Division Elective		3
Gen. Ed. 3B Course 2		3

Senior (2nd semester) 16 hrs

AGR 345	Sustainable Agroecosystems	3
AGR 411	Senior Seminar	1
AGR 499	Ag Advocacy and Issues Capstone -OR-	3
AGR 509	Ag Research Methods and Interpretation	
AGR/OHO Upper Division Elective		3
Gen. Ed. 5B Course 2		3
Free Elective		3

^G Denotes that 3 credit hours from the course are/can be applied to fulfill Gen Ed. Requirements.

UNIVERSITY GRADUATION REQUIREMENTS

General Education	39 hours
Foundations in Learning (GSD 101; waived for transfers with 30+ hrs)	36 hours
Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)	3 hours

MAJOR REQUIREMENTS

Core Courses.

AGR 125, AGR 130 and 131(1) or OHO 131 and 132(1), AGR 115, AGR 213, AGR 215, AGR 216(1), AGR 301 or AGR 349, AGR 304(4), AGR 305(1), AGR 308, AGR 310, AGR 319, AGR 340, AGR 411(1), AGR 499 or AGR 509, INF 104 or TEC 161.	46 hours
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Agronomy, Soils & Natural Resources Concentration Requirements.

AGR 126(1), AGR 312(4), AGR 345, AGR 404, AGR 416, AGR 430, AGR 570; Plus nine hours selected from upper division AGR and/or OHO courses.	29 hours
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Supporting Course Requirements.

^G BIO 111 and 111L or ^G BIO 112 and 112L, ^G CHE 101 and 101L(1), ^G ECO 120, GEO 353.	3 hours
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Free Electives.....	3 hours
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Total Curriculum Requirements

120 hours