



# 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 every career opportunity.

## Career Opportunities

The practical instruction and hands-on application enables you to be an immediate asset to employers. You will join the ranks of successful EKU graduates in areas such as retail store operation, 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 & 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 facilities and through cooperative education are further utilized to reinforce the practical application of scientific theories. Professors are experienced, enthusiastic, and passionate about providing students the skills necessary to succeed in the ever-changing 21st Century environment.

## Department Facilities & Student Organizations

The Agriculture Program at EKU is supported by excellent classroom laboratories and facilities at the A.B. Carter Building. A modern computer laboratory, ag mechanics shop, and a plant science-biotechnology laboratory equipped for research and cell cloning are also available. We operate a 720-acre commercial farm that is modern and includes an agriculture mechanics shop and an onsite classroom. Agriculture enterprises include an 80-sow farrow to finish swine operation, a 40-ewe flock of sheep, a 140-beef cow herd, a 400-500 beef backgrounding operation, a 50-cow registered Holstein dairy herd, a crop enterprise to produce the forage and grain for the livestock. Students have the opportunity to develop their extracurricular leadership skills through the Agriculture Club, Pre-Vet Club, Colonel Agronomy Club, and DTA, an agricultural honorary society.

## For More Information

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**Suggested Curriculum Guide for Agronomy, Soils and Natural Resources Concentration**

**Freshman (1<sup>st</sup> Semester) 14 hrs**

- BTO 100\*\* Orientation (1 hr)
- AGR 125 Principles of Animal Science
- AGR 126 Animal Science Lab (1 hr)
- AGR 115 Agricultural Equipment (2 hrs)
- E-2 MAT 105 or Higher Mathematics
- E-4A BIO 111 or 112 Biology (4 hrs)

**Sophomore (1<sup>st</sup> Semester) 14 hrs**

- E-4B CHE 101 Chemistry
- E-4B CHE 101L Chemistry Lab (1 hr)
- E-5B ECO 120 Economics
- E-1B ENG 102 Composition II
- AGR 304 Pest Mgmt (4 hrs)

**Junior (1<sup>st</sup> Semester) 15 hrs**

- AGR 305 Professional Skills Seminar (1 hr)
- E-6 Diversity (3 hrs)
- AGR 310 Ag Business Records
- AGR 340 Conservation of Ag Resources
- AGR 430 Crop Production
- AGR or OHO Experiential learning (2 hr)

**Senior (1<sup>st</sup> Semester) 15 hrs**

- AGR 416 Soil Mgmt
- AGR 570 Adv Ag tech
- AGR/OHO Upper Division Elective (3 hrs)
- AGR/OHO Upper Division Elective (3 hrs)
- GEO 353 GIS

**Freshman (2<sup>nd</sup> Semester) 16 hrs**

- AGR 130 or OHO 131 Principles of Agronomy
- AGR 131 or OHO 132 Agronomy Lab (1 hr)
- E-1A ENG 101 Composition
- AGR 213 Agricultural Mechanics
- CIS 212 or INF 104 or TEC 161
- E-5A Historical Perspective (3 hrs)

**Sophomore (2<sup>nd</sup> Semester) 16 hrs**

- AGR 215 Soils
- AGR 216 Soils Lab (1 hr)
- AGR 308 Agricultural Economics
- E-3A Arts (3 hrs)
- E-1C CMS 100 or 210 Communications
- E-3B Humanities-Writing Intensive (3 hrs)

**Junior (2<sup>nd</sup> Semester) 16 hrs**

- AGR 319 Energy Systems
- AGR 312 Forages (4)
- E-6 Diversity (3 hrs)
- AGR 404 Adv Pest Mgmt
- AGR/OHO Upper Division Elective (3 hrs)

**Senior (2<sup>nd</sup> Semester) 14 hrs**

- AGR 411 Senior Seminar (1 hr)
- AGR/OHO Upper Division Elective (3 hrs)
- Free Electives (3 hrs)
- AGR or OHO Experiential learning (1 hr)
- AGR 345 Sus Agro Ecosystems
- ACCT Capstone
- BTS 400 College to Careers Seminar (0 credit)\*\*

\*A total of 42 credits including electives must be upper division (>300). \*\*Course must be taken in semester indicated.

**UNIVERSITY GRADUATION REQUIREMENTS**

<b>University Requirements</b> .....	37 hrs
Orientation Course (1 hr) -waived for transfers with 30+ hrs.	
General Education (36 hrs) -see also supporting course requirements	
<b>College Requirements:</b>	
BTS 400 (CR only, no hrs).....	0 hr
<b>Program Core Courses</b> .....	31 hrs
AGR 115(2), 130, 131(1), 213, 215, 216(1), 304(4), 305(1), 308, 310, 319, 340, 411(1)	
<b>Program Electives</b> .....	15 hrs
<b>Experiential learning.</b> 3 hours from AGR 301, 302, 349, OHO 301,349;	
<b>ACCT capstone.</b> Select one course from AGR 499, 509, OHO 498, 499;	
<b>Upper Division Electives in AGR and/or OHO</b> ...9 hours	
<b>Agronomy, Soils and Natural Resources concentration</b> .....	26 hrs
AGR 125, 126 (1), 312 (4), 345; 404, 416, 430 and 570 and AGR/OHO Upper Division electives (3 hours)	
<b>Supporting Course Requirement</b> .....	8 hrs
BIO 111 or 112 (counted in GE Element 4A) and CHE 101/101L (counted in GE Element 4B) and ECO 120 (counted in GE Element 5B) and CIS 212 or INF 104, and GEO 353	
<b>Free Electives</b> .....	3 hrs
<b>Total Curriculum Requirements</b> .....	<b>120 hrs</b>