



# Agriculture Energy Systems Management Concentration

Agriculture B.S. Degree

## Agriculture at EKU

The Agriculture Energy Systems Management curriculum provides career training to prepare you for a rewarding and successful career in Agriculture. A wide array of jobs are available both in offices and worksites where agricultural equipment and machinery are used – in private and commercial business, agriculture sales and finance, government agencies and vo-ag instruction. 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, vocational agriculture instruction, 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 job opportunities with a B.S. in Agriculture, Agriculture Energy Systems Management Concentration include Agribusiness Service Manager and Agribusiness Service Sales with salaries stating around \$35,000 - \$45,000.

- Precision Agriculture Specialist- Use and evaluation of the latest technologies in agriculture including drones and monitors
- Agricultural technologist –Use and Evaluate equipment and machinery used in agro-forestry production
- Agribusiness Service Manager - Agricultural business management, including sales and marketing.
- Agribusiness Service Sales - Sells to retail customers, keeps records of inventory, purchases, sells and demonstrates merchandise to potential customers.

## 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 Agriculture Energy Systems Management 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 or OHO** Experiential learning (2 hr)
- Free Electives** (3 hrs)

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

- AGR 383** Diesel Power
- GEO 456** Remote Sensing
- EET 257** Electronics
- AGR 362** Hydraulics (2 hrs)
- AGR or OHO** Experiential learning (1 hr)
- AGR 570** Adv Ag tech

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

- AGR 130** Principles of Agronomy
- AGR 131** Agronomy Lab (1 hr)
- E-1A ENG 101** Composition
- AGR 213** Agricultural Mechanics
- CIS 212 or INF 104**
- 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) 15 hrs**

- AGR 319** Energy Systems
- AGR 381** Ag Structures
- GEO 353** GIS
- E-6** Diversity (3 hrs)
- AGR/OHO** Upper Division Elective (3 hrs)

**Senior (2<sup>nd</sup> Semester) 15 hrs**

- AGR 411** Senior Seminar (1 hr)
- AGR/OHO** Upper Division Elective (3 hrs)
- AGR/OHO** Upper Division Elective (3 hrs)
- BTS 400** College to Careers Seminar (0 credit)\*\*
- AGR 410** Independent Study
- AGR 311** (2 hrs)
- ACCT Capstone**

\*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>Agricultural Energy Systems Management concentration</b> .....	20 hrs
AGR 125, 126 (1), 311(2), 362(2), 381, 383, 410(3) and 570	
<b>Supporting Course Requirement</b> .....	14 hrs
EET 257, GEO 353 and 456, 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	
<b>Free Electives</b> .....	3 hrs
<b>Total Curriculum Requirements</b> .....	<b>120 hrs</b>