



Department of Agriculture
School of Applied Sciences and Technology
College of Business & Technology (2019-2020)

Agriculture Engineering Technology Concentration

Agriculture B.S. Degree

Agriculture at EKU

The Agriculture Engineering Technology curriculum provides hands-on, rigorous career training to prepare you for a rewarding and successful career. A wide array of jobs are available to graduates in the Agriculture Engineering Technology field, bridging the gap between the engineer and the technician. In conjunction with EKU's Department of Applied Engineering Management, 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 industry 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 agriculture sales, farm management, production, product testing, quality assurance management, environmental engineering, project engineering, biomedical engineering, design technology, environmental consulting, network engineering, and pursuing advanced degrees. The United States Department of Agriculture predicts a shortfall of graduates in these areas.

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 labs, 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 25-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, and Delta Tau Alpha, an agricultural honorary society.

For More Information

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Suggested Curriculum Guide for Agriculture Engineering Technology Concentration

Freshman (1st Semester) 16 hrs

- BTO 100** Orientation (1 hr)
- AEM 201 Metallic Material Processes
- E-1A ENG 101 Composition
- AGR 115 Agricultural Equipment (2 hrs)
- E-2 MAT 112 A/B or 114 Mathematics
- E-4A BIO 111 or 112 Biology (4 hrs)

Freshman (2nd Semester) 16 hrs

- AGR 130 or OHO 131 Principles of Agronomy
- AGR 131 or OHO 132 Agronomy Lab (1 hr)
- E-1B ENG 102 Composition II
- AGR 213 Agricultural Mechanics
- CIS 212 or INF 104 or TEC 161
- AEM 195 Computer Aided Drafting

Sophomore (1st Semester) 14 hrs

- E-4B CHE 101 Chemistry
- E-4B CHE 101L Chemistry Lab (1 hr)
- E-5B ECO 120 Economics
- AEM 330 Materials Testing & Metrology
- AGR 304 Pest Mgmt (4 hrs)

Sophomore (2nd Semester) 16 hrs

- AGR 215 Soils
- AGR 216 Soils Lab (1 hr)
- AGR 308 Agricultural Economics
- STA 215 Intro to Statistical Reasoning
- E-1C CMS 100 or 210 Communications
- AEM 301 Non-metallic Material Process

Junior (1st Semester) 14 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 (1 hr)
- AEM 308 Methods of Lean Operations

Junior (2nd Semester) 15 hrs

- AGR 319 Energy Systems
- AEM 202 Introduction to Quality
- AEM 352 Robotics and Automated Systems
- E-6 Diversity (3 hrs)
- E-3A Arts (3 hrs)

Senior (1st Semester) 15 hrs

- AGR 383 Diesel Power
- AEM 407 Fundamentals of Project Management
- E-3B Humanities (3 hrs)
- AGR 362 Hydraulics (2 hrs)
- AGR or OHO Experiential learning (1 hr)
- AGR 570 Adv Ag tech

Senior (2nd Semester) 14 hrs

- AGR 411 Senior Seminar (1 hr)
- AEM 310W Technical Communication
- E-5A History (3 hrs)
- BTS 400 College to Careers Seminar (0 credit)**
- Free Elective (3 hrs)
- AGR or OHO Experiential Learning (1 hr)
- ACCT Capstone

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

UNIVERSITY GRADUATION REQUIREMENTS

University Requirements	37 hrs
Orientation Course (1 hr) -waived for transfers with 30+ hrs.	
General Education (36 hrs) -see also supporting course requirements	
College Requirements:	
BTS 400 (CR only, no hrs).....	0 hr
Program Core Courses	31 hrs
AGR 115(2), 130 and 131(1) or OHO 131 and 132(1), AGR 213, 215, 216(1), 304(4), 305(1), 308, 310, 319, 340, 411(1)	
Program Electives	6 hrs
Experiential learning. 3 hours from AGR 301, 302, 349, OHO 301, 349;	
ACCT capstone. Select one course from AGR 499, 509, OHO 498, 499;	
Agricultural Technology Management concentration	26 hrs
AEM 195, 201, 202, 301, 330, 352, AGR 362(2), 383, 570	
Supporting Course Requirements	17 hrs
AEM 308, 310W, 407, 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 or TEC 161, STA 215	
Free Electives	3 hrs
Total Curriculum Requirements	120 hrs