

## **Bachelor of Science in Agriculture Agricultural Systems Technology**

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### **Career Outlook**

The opportunities in agricultural systems technology are diverse and challenging. Skilled graduates are needed in areas of work related to agricultural structures, electronics/electrical power, precision agriculture/GPS, agricultural power, metal process, agricultural safety and food engineering/processing. A person with a degree in agricultural systems technology may be involved in one of a great number of agricultural careers, such as working for an agricultural equipment corporation, managing a machinery dealership, serving as a sales representative for an irrigation equipment company or as a farm manager.

Each year the agriculture industry is becoming more technologically advanced. This creates a need for trained specialists to manage agricultural systems. This field of study is geared toward a student with an inquisitive mind that enjoys solving problems and testing new ideas.

### **Academic Highlights**

The curriculum in Agricultural Systems Technology teaches the mechanical and physical principles that relate to the design, operation, maintenance and management of systems used in agriculture. A balanced selection of courses such as agricultural processing systems, agricultural buildings and construction, agricultural power systems, agriculture safety, agricultural electrification systems, precision agriculture/GPS and soil and water engineering incorporate theory and hands-on training that will permit graduates to enter into satisfying and rewarding careers.

**Visit Our Website**  
[www.murraystate.edu/agr](http://www.murraystate.edu/agr)

### **Facilities**

Agricultural Systems Technology facilities include classrooms, laboratories, a state-of-the-art computer lab and offices housed in the south wing of Oakley Applied Science Building, the E.B. Howton Agricultural Systems Technology Building and the West Farm Agricultural Systems Technology Facility.

Hutson School of Agriculture has four farm complexes located within a mile of the main campus. These complexes include three greenhouses, agronomy plots, the Beef Complex, the Wm. Bill Cherry Agricultural Exposition Center and the Equine Center. These facilities are utilized for classes, contests, field days, judging contests, clinics, agritourism events and numerous agricultural activities.

### **Organizations**

#### **Agriculture Engineering Technology Club**

- The club's mission is to promote the growth and science of Agricultural Systems Technology through fellowship among members with kindred interests.
- Furnishes career contacts for agricultural systems technology students.
- Helps to develop new interests and improve agricultural instruction.
- Promotes the Hutson School of Agriculture at Murray State University.

### **For More Information Contact**

**Recruitment Coordinator**  
**Murray State University**  
**Hutson School of Agriculture**  
**(270) 809-3329**  
**[msu.ag@murraystate.edu](mailto:msu.ag@murraystate.edu)**

**Murray State University Hutson School of Agriculture  
Agricultural Systems Technology Curriculum 2022-2023**

University Studies - Foundations				
Cat.	Dept.	No.	Description	Hrs.
<b>Oral Communications</b>				3
	COM	161	Intro. to Public Speaking	
<b>Written Communications</b>				4
	ENG	105	Critical Reading, Writing & Inquiry	
<b>Scientific Inquiry and Methodologies (must include lab)</b>				4
	BIO	101	Biological Concepts <b>AND</b>	
	BIO	100	Intro to Biology Lab	
<b>Quantitative Reasoning</b>				4-5
	MAT	130	Technical Math <b>OR</b>	
	MAT	140	College Algebra	
University Studies - The Human Experience				
<b>Literary &amp; Philosophical Perspectives</b>				3
<b>Historical Perspectives</b>				3
<b>Creative Perspectives</b>				3
<b>Social &amp; Behavioral Perspectives</b>				3
	AGR	199	Contemp. Issues in Food, Fiber & NR	
<b>Culture, Diverse Perspectives &amp; Responsible Citizenship</b>				3
	AGR	200	Cultural & Intl. Ag Perspectives <b>OR</b>	
	AGR	353	World, Food, Agriculture & Society	
<b>BS Science/Mathematics Requirement</b>				4
	CHE	101	Consumer Chemistry <b>OR</b>	
	CHE	105	Introductory Chemistry <b>OR</b>	
	PHY	130	General Physics I <b>AND</b>	
	PHY	131	General Physics I Lab <b>OR</b>	
	EES	199	Earth Science	

Agriculture Core Courses				
Cat.	Dept.	No.	Description	Hrs.
	AGR	100T	Transitions	1
	AGR	100	Animal Science	3
	AGR	130	Agricultural Economics	3
	AGR	133	Field Applications for Ag	2
	AGR	160	Horticultural Science <b>OR</b>	3
	AGR	240	Crop Science	
	AGR	170	Intro to Ag Systems Tech	3
	AGR	199	Contemp. Issues in Food, Fiber & NR	3
	AGR	339	Computer Apps for Ag	3
	AGR	345	Soil Science	3
	AGR	399	Prof Development Sem I <b>OR</b>	1
	AGR	499	Leadership/Prof Development Sem II	
	AGR	599	Ag Senior Capstone	1
Agricultural Systems Technology Track Courses				
	AGR	370	Intro to Precision Agriculture	3
	AGR	371	Ag Buildings and Construction <b>OR</b>	3
	AGR	372	Ag Metal Processes	
	AGR	377	Agriculture Safety	3
	AGR	477	Agricultural Power Units <b>OR</b>	3
	AGR	577	Tractor Power Principles	
	AGR	576	Agricultural Electrifications Systems	3
	AGR		Electives	6
	AST		Electives	9

**Required Support Courses (Complete 1 of the following Emphases)**

**Agricultural Systems Technology Emphasis**

Complete 5 of the following:				15
	AGR	379	Field Equipment Tech Management	
	AGR	470	Soil and Water Engineering	
	AGR	471	Applications in Precision Agriculture	
	AGR	474	Agricultural Fluid Power Systems	
	AGR	475	Precision Agriculture Hardware	
	AGR	477	Agricultural Power Units	
	AGR	479	UAS Applications in Precision Ag	
	AGR	488	Cooperative Education/Internship	
	AGR	489	Cooperative Education/Internship	
	AGR	551	Selected Studies in Agriculture	
	AGR	570	Ag Systems Tech Lab Management	
	AGR	571	Advanced Precision Agriculture	
	AGR	572	Advance Metal Work	
	AGR	573	Ag Processing Systems	
	AGR	574	Ag Irrigation & Water Systems	
	AGR	575	Combine & Grain Handling Systems	
	AGR	578	R&D of Ag Tractors & Equipment	

**Sales/Marketing Emphasis**

	AGR	330	Principles of Agribusiness Management	3
	AGR	333	Agribusiness Records & Analysis	3
	AGR	337	Agricultural Sales and Marketing	3
	AGR	433	Farm Management	3
	AGR	531	Agricultural Finance	3

**Crop Production Emphasis**

	AGR	547	Crop Management	3
	AGR	549	Weeds & Their Control	3
<b>Complete at least 3 of the following:</b>				9
	AGR	455	Soil Management	
	AGR	470	Soil & Water Engineering	
	AGR	542	Plant Breeding	
	AGR	546	Integrated Pest Management	
	AGR	555	Advanced Soil Fertility	
	UAS	110	Introduction to Aviation	
	AGR	479	UAS Applications in Agriculture	

**Precision Agriculture Emphasis**

	AGR	471	Applications in Precision Agriculture	3
	AGR	475	Precision Agriculture Hardware	3
	AGR	571	Advanced Precision Agriculture	3
	UAS	110	Introduction to Aviation	3
<b>Complete 1 of the following</b>				3-4
	AGR	479	UAS Applications in Precision Ag	
	EES	312	Introduction to Remote Sensing	
	EES	561	Precision GIS/GPS Applications	
	EES	579	Remote Sensing of Vegetation	

**Certificates**

Unmanned Aerial Systems Certificate - 15 Hours  
Geographic Information Science Certificates - 15-16 Hours

**Minimum Credential Hours: 120**