

## Agribusiness: Agriculture Systems Management Option

### Bachelor of Science (BS)

# Agriculture Systems Management Option

The BS in Agribusiness/Agriculture Systems Management prepares students for positions in agricultural facilities management and operations for grain facilities and terminals, farm services, food processing facilities and precision production agriculture. It can also provide the basis for graduate work leading to a MS, or PhD. This option is designed for students who complete all four years at Southeast and for students transferring to Southeast with an AA degree.

Agriculture Systems Management students will learn to plan and manage machinery systems, building infrastructure, and soil and water resources used in the sustainable production of food, fiber and energy incorporating appropriate safety, environmental, legal and economic constraints. Students will implement and follow the business principles and ethical practices necessary to build and maintain a viable farm or agribusiness and become an accomplished professional in agriculture and related industries who continuously updates his or her technical and management skills and serves relevant industry association and organizations.

#### Your Home Department...

/ The Agriculture Department has a high number of scholarships, last year awarding more than \$650,000 to students.

/ Faculty sponsor nine Agriculture clubs to help students develop leadership skills and serve the community.

/ All Agriculture Department facilities employ eager students to expand experiential learning and facilitate career readiness.

#### Becoming Career Ready...

/ Faculty with experience in various agribusiness areas work closely with students by providing them with faculty-mentored guidance and professional development opportunities. Students receive personal curriculum advisement from their advisor.

/ The Agriculture Systems Management option prepares graduates to function effectively in a global society both as a team member and a leader interacting successfully with agricultural industry professionals, government officials, and an ethically and culturally diverse public. Example job titles include irrigation systems manager, production supervisor, agricultural engineering technician and production manager.

/ 100% of Southeast programs offer real-world experience. Agribusiness students earn this experience through a required internship or research project. Agribusiness students are also able to gain valuable hands-on experience in the classroom and at the departmental facilities.

/ The path to a successful career starts with you! You can maximize your career development by working closely with Career Services and Southeast faculty – they are here to help you connect your passions, interests and skills to jobs and opportunities in the field. Career Services provides professional career counseling and coaching, resume critiques, practice interviews, job search strategies, career events, networking opportunities and more.

#### Career Options for Graduates:

- Product Education – Use and Value
- Technical Assistance and Troubleshooting
- Technical Product Development, Testing, Application, and Sales
- Farm & Agribusiness Management
- Coordinating, Directing and Supervising Manufacturing and Processing Operations
- Building and Equipment Layout, Use (Materials Handling, Flow, Processing)
- Operations Manager and/or Supervisor
- Production Manager and/or Supervisor
- Product Quality Control Manager
- Financial Analyst and/or Advisor
- Research Analyst
- Insurance Agent
- Loan Officer
- GIS Specialist
- Water Resource Specialist
- Engineering Technician

#### Facilities

The department is committed to providing a variety of experiential learning opportunities for students majoring in agribusiness.

Students can gain experience at the following facilities:

- David M. Barton Agriculture Research Center
- Charles Hutson Horticulture Greenhouse
- Missouri Rice Research Farm
- Charles Nemanick Alternative Agriculture Garden
- With individual faculty and members on projects

For more information on the facilities, visit <http://www.semo.edu/agriculture/facilities.htm>

#### Transfer and Dual Credit Students

Transfer students should consult the Transfer Handbook developed by Southeast and your community college for a suggested program of study appropriate for your situation or consult with your Southeast advisor.

If you have dual credit or transfer credit, please visit our transfer course equivalencies guide at [semo.edu/transfercredit](http://semo.edu/transfercredit).



**To learn more**  
 Office of Admissions  
 (573) 651-2590  
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[semo.edu](http://semo.edu)

**To explore**  
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 Technology, Engineering and  
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[semo.edu/stem](http://semo.edu/stem)

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This is a guide based on the 2020-2021 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

### CURRICULUM CHECKLIST

#### Agribusiness Core – 71 hours – No Minor Required

- \_\_\_ AC 221 Principles of Accounting I (3)  
And
- \_\_\_ MI 101 Introduction to Computer Applications (3)  
OR
- \_\_\_ AG 208 Agribusiness Data Analysis (3)  
And
- \_\_\_ AG 381 Agribusiness Management II (3)
- \_\_\_ AG 245 Agricultural Economics (3)
- \_\_\_ AG 250 Agribusiness Management (3)
- \_\_\_ AG 334 Agribusiness Finance (3)
- \_\_\_ AG 355 Agriculture Seminar (2)
- \_\_\_ AG 447 Marketing of Agriculture Products (3)
- \_\_\_ AG 470 Agribusiness Sales (3)
- \_\_\_ AO 120 Plant Science (3)
- \_\_\_ AO 125 Plant Science Lab (1)
- \_\_\_ AY 101 Animal Science (3)
- \_\_\_ HO 110 Introduction to Horticulture (3)
- \_\_\_ UI 436 Agricultural Ethics (3)

Choose one course:

- \_\_\_ AG465 Agriculture Internship (3)
- \_\_\_ AG469 Undergraduate Research (3)

#### Agriculture Systems Management Option

- \_\_\_ AG 303 Agriculture Mechanization (3)
- \_\_\_ AO 215 Soils (3)
- \_\_\_ MA 223 Elementary Probability and Statistics (3)
- \_\_\_ MI 375 Management Information Systems (3)
- \_\_\_ PH 120 Introductory Physics (5)

Choose one course:

- \_\_\_ AG 327 Sustainable Agriculture (3)
- \_\_\_ AG 440 Precision Agriculture (3)
- \_\_\_ AO 401 Agriculture and Natural Resource Management (3)

Choose one course:

- \_\_\_ AG 444 Spatial Analysis in GIS (3)
- \_\_\_ AG 551 Water Management (3)

Choose 9 hours of ET prefix courses OR 9 hours of FM prefix courses:

- \_\_\_ ET 160 Basic Electricity & Electronics (3)
- \_\_\_ ET 365 Industrial Electrical Power (3)
- \_\_\_ ET 470 Energy Management
- \_\_\_ FM 504 Facilities Management (3)
- \_\_\_ FM 554 Facilities Operations and Supervision (3)
- \_\_\_ FM 565 Building Automation and Technology (3)

#### Additional Requirements:

- \_\_\_ CH 181 Basic Principles of Chemistry (5)  
OR
- \_\_\_ CH 185 General Chemistry (5)
- \_\_\_ MA 116 Precalculus A (3)

**General Education Requirements** – some requirements may be fulfilled by coursework in major program

- Social and Behavioral Sciences – 6 hours
- Constitution Requirement – 3 hours
- Written Communication – 6 hours
- Oral Communication – 3 hours
- Natural Sciences – 7 hours (from two disciplines, one to include a lab)
- Mathematics – 3 hours
- Humanities & Fine Arts – 9 hours (from at least two disciplines)
- Additional requirements – 5 hours (to include UI100 for native students)
- Civics examination

### SAMPLE FOUR-YEAR PLAN

	Fall Semester	Spring Semester		
	Course #	Hrs	Course #	Hrs
<b>FIRST YEAR</b>	UI 100	3	AG 245	3
	EN 100	3	HO 110	3
	AO 120/125	4	MA 223	3
	AY 101	3	General Education	3
	MA 116	3	General Education	3
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>15</b>	
<b>SECOND YEAR</b>	AG 208 or MI 101	3	AG 250	3
	CH 181/081/001 or CH 185/085/005	5	ETxxx or FMxxx	3
	ETxxx or FMxxx	3	PH 120/020	5
	General Education	3	General Education	3
	<b>Total</b>	<b>14</b>	<b>Total</b>	<b>14</b>
<b>THIRD YEAR</b>	AC 221 or AG 381	3	AO 215/015	3
	AG 303	3	MI 375	3
	AG 334	3	ETxxx or FMxxx	3
	General Education	3	General Education	3
	Elective*	3	Elective	2
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>14</b>	
<b>FOURTH YEAR</b>	AG 327/AG 444/AO 401	3	AG 355	2
	AG 440/AG 551	3	AG 470	1
	AG 447	3	UI 436	3
	General Education	3	General Education	3
	General Education	3	Elective**	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>12</b>	
<b>SUMMER SESSION</b>			AG465 or AG469	3

\*ET381 recommended

\*\*AY320 recommended

**Degree requirements for all students:** a minimum of 120 credit hours, completion of the General Education program, and completion of 39 senior division hours (300-599). Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

A minimum 2.0 GPA in the major and overall are required to graduate with a BS degree.