AGRICULTURAL SYSTEMS MANAGEMENT

This program combines students' interests in machinery, technology, and crop and livestock production with superior people skills, creative thinking, and problem solving to build a career in the agricultural and food production industry. Agricultural Systems Management graduates are well versed in agricultural foundations and have working knowledge of economic systems with a well-developed sense of professionalism. Companies are looking for multi-talented people who are confident around computers, machines, and business plans. The Agricultural Systems Management program offers four areas of emphasis to provide a unique portfolio of technical and business skills that gives graduates an edge in the job market.

Some golden nuggets to consider

MAJOR EMPHASIS AREAS

- Farm and Ranch Management: a blend of business and production management. The goal is to provide a solid foundation to be competitive and succeed in the changing world of modern agriculture.
- Precision Agriculture: Work in the field or in an office to help others improve agriculture production practices (chemical application, planting, pest management) by using satellites, geographical information systems (GIS), and precision data analysis.

STUDENT STORY

- "In my present job, during spring & fall, I work with agronomists and growers to build variable-rate maps for seeding and fertilizing. I help educate agronomists on how we can use these tools to benefit a growers operation. I also help teach growers and troubleshoot issues they may have with variable-rate maps loaded into their tractors. Working with technology everyday is the best!"
- -- Joe Blaufuss, ASM 2014 Grad. and participant in Resource's EXPLORE Issue

REAL. HANDS-ON. READY.

- Hands-on experience working with machinery, technology, and livestock productions.
- Work in the fields near campus using the latest agricultural production practices.
- Take field trips and tour local farms, businesses and elevators.
- Observe and learn about the relationship between GPS guidance, yield monitors, field mapping, and the digital history of a field.

HANDLING GROWTH

- Hands-on labs located right on campus
- Ag Industries Club & Ag Business Club
- Careers ranging from Farming and ranching, to Agriculture Financial Groups to Livestock and Crop Production Industries



PROGRAM REQUIREMENTS & CURRICULUM

PROGRAM CORE: 32 CREDITS

- AGRO 1183 Field Crops: Production Principles (3.0 cr)
- ASM 1021 Introduction to Agricultural Systems Management (3.0 cr)
- ASM 1034 Facility Maintenance and Safety (4.0 cr)
- ASM 2053 Electricity, Controls, and Sensors in Agriculture (3.0 cr)
- ASM 3002 Agricultural Mobile Power Systems (3.0 cr)
- GNAG 3899 Pre-Internship Seminar (0.5 cr)
- GNAG 3900 Internship (0.5-3.0 cr)
- GNAG 3901 Post Internship Seminar (0.5 cr)
- <u>GNAG 4652</u> Senior Seminar (1.0 cr)
- SOIL 1293 Soil Science (3.0 cr)
- Choose one of the following:
- ACCT 2101 Principles of Accounting I (3.0 cr)
- or ENTR 2200 -Introduction to Entrepreneurship and Small Business (3 cr)
- Choose one of the following:
- ANSC 3004 Livestock Facilities and Environmental Systems (3.0 cr)
- or ASM 3005 Facilities Planning and Selection (3.0 cr)
- Choose one of the following:
- COMM 2334 Communication Topics (3.0 cr) or COMM 3431 Persuasion (3.0 cr) or COMM 3704 Business and Professional Speaking (3.0 cr) or WRIT 3303 Writing in Your Profession (3.0 cr)

FARM & RANCH OPERATION EMPHASIS

- AGEC 2310 Agribusiness Financial Records (3.0 cr)
- AGEC 3540 Farm Business Management (3.0 cr)
- AGEC 3640 Agricultural Finance and Valuation (3.0 cr)
- AGEC 4740 Grain and Livestock Marketing (3.0 cr)
- ANSC 1004 Introduction to Animal Science (4.0 cr)
- ASM 2250 Agricultural Machinery Management (3.0 cr)
- · Choose one of the following:
- ASM 2043 Welding and Manufacturing Processes (3.0 cr)
- or ASM 2200 Introduction to Renewable Energy Systems (3.0 cr)
- Choose one of the following:
- ANSC 2104 Feeds and Feeding (4.0 cr) or ASM 3360 Applications in Precision Agriculture

LIBERAL EDUCATION REQUIREMENTS

- BIOL 1009 General Biology [BIOL SCI, PEOPLE/ENV] (4.0 cr)
- CHEM 1001 Introductory Chemistry [PHYS SCI] (4.0 cr)
- COMP 1011 Composition I [COMMUNICAT] (3.0 cr)
- COMP 1013 Composition II [COMMUNICAT] (3.0 cr)
- ECON 2101 Microeconomics [HI/BEH/SSC] (3.0 cr)
- MATH 1031 College Algebra [MATH THINK] (3.0 cr)
- MATH 1150 Elementary Statistics [MATH THINK] (3.0 cr)
- PHYS 1012 Introductory Physics [PHYS SCI, PEOPLE/ENV] (4.0 cr)
- SPCH 1101 Public Speaking [COMMUNICAT] (3.0 cr)
- Technology Requirements (3 cr)
- CA 1020 Spreadsheet Applications (3.0 cr)



PRECISION AGRICULTURE EMPHASIS

- AGEC 2310 Agribusiness Financial Records (3.0 cr)
- AGEC 2530 Professional Agriselling (3.0 cr)
- AGRO 2640 Applied Agriculture Chemicals (3.0 cr)
- ASM 2250 Agricultural Machinery Management (3.0 cr)
- ASM 3009 Surveying (4.0 cr)
- ASM 3360 Applications in Precision Agriculture (3.0 cr)
- ASM 3511 Yield Monitoring and Data Interpretation (1.0 cr)
- ASM 3512 Remote Sensing Applications in Precision Agriculture (1.0 cr)
- CA 1060 Database Applications (3.0 cr)
- NATR 2630 Introduction to Geographic Information Systems (3.0 cr)
- SOIL 3414 Soil Fertility and Plant Nutrition (4.0 cr)





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