AGRICULTURAL SYSTEMS MANAGEMENT - BS

This program integrates practical technology and business courses, preparing students for both technical and managerial roles in the food and agricultural industries.

Graduates of the Agricultural Systems Management program manage people, money and machines in the food and agricultural industries. They are typically employed as production or processing operations managers, equipment managers, or in technical sales and services. Employers include farm and industrial equipment companies, food processing plants, cotton gins, grain and seed companies, livestock feeding operations, irrigation companies, construction companies, manufacturers, and a variety of other employers who need technical managers.

The technological courses are applications-oriented and focus on practical experience in food processing systems, water management, machinery and power systems, electrical systems and electronics. Business courses include accounting, economics, marketing, management, law and finance. Students can obtain a minor in either Agricultural Economics or Business by taking the 15 hours of noted coursework, plus one additional 3-hour class per minor. Management and systems science techniques such as linear programming, simulation, optimization, queuing theory, inventory models, PERT/CPM and expert systems are taught along with applications for solving realistic problems faced by agribusiness managers. Supporting courses provide a foundation of mathematics, chemistry, computer and communications skills. Technical electives are available to develop a degree program that meets personal career objectives.

The curriculum is administered by the Department of Biological and Agricultural Engineering and leads to the Bachelor of Science degree in Agricultural Systems Management. AGSM 360 prepares students for the opportunity to pursue an occupational license. Students who participate in the class regularly and pass the course will be eligible for a "30 hour Course for General Industry" diploma from NASP. Please refer to the Notification for Students Pursuing an Occupational License (https://catalog.tamu.edu/undergraduate/appendices/licensing/) in our catalog for additional information.

Program Requirements

First Year		
Fall		**Semester Credit Hours**
AGSM 125	Introduction to Agricultural Systems Management	1
AGSM 201	Agricultural Energy and Power Systems	3
CHEM 119	Fundamentals of Chemistry I	4
ENGL 104	Composition and Rhetoric	3
MATH 140	Mathematics for Business and Social Sciences	3
	Semester Credit Hours	**14**
Spring		
ECON 202	Principles of Economics	3
MATH 142	Business Calculus	3
MMET 105	Engineering Graphics	2
POLS 206	American National Government	3
Language, philosophy and culture (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) [1, 2]		3
General elective [3,4]		3
	Semester Credit Hours	**17**
Second Year		
Fall		
ACCT 209	Survey of Accounting Principles [3]	3
AGSM 301	Systems Analysis in Agriculture	3
PHYS 201	College Physics	4
POLS 207	State and Local Government	3
ENGL 210	Technical and Professional Writing	3
	Semester Credit Hours	**16**
Spring		
ACCT 210	Survey of Managerial and Cost Accounting Principles	3
COMM 203	Public Speaking	3
ECON 203	Principles of Economics	3
MGMT 209 or AGEC 344	Principles of Business Regulations and Law or Food and Agricultural Law	3
Creative arts (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts)		3
	Semester Credit Hours	**15**
Third Year		
Fall		
FINC 409 or AGEC 330	Survey of Finance Principles [3, 4] or Financial Management in Agriculture	3
MGMT 309 or AGEC 340	Survey of Management [3, 4] or Agribusiness Management	3
STAT 302 or STAT 303	Statistical Methods or Statistical Methods	3
American history (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) [1, 2]		3
AGSM Directed elective [5]		3
	Semester Credit Hours	**15**
Spring		
AGSM 310	Agricultural Machinery Management	3
AGSM 315/ FSTC 315	Food Process Engineering Technology	3
AGSM 325	Agri-Industrial Applications of Electricity	3
AGSM 360	Occupational Safety Management	3
Life and physical sciences (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences) [1]		3
	Semester Credit Hours	**15**
Fourth Year		
Fall		
AGSM 403	Processing and Storage of Agricultural Products	3

AGSM 439	Management of Agricultural Systems I [6]	3
AGSM 470	Agricultural Electronics and Control	3
Select one of the following:		3
AGSM 473	Project Management for Agricultural Systems Technology (Select one of the following)	
ECCB 351	Geographic Information Systems for Resource Management	
RWFM 351	Geographic Information Systems for Resource Management	
Technical elective [2,7]		3
	Semester Credit Hours	**15**
Spring		
AGSM 440	Management of Agricultural Systems II [6]	3
MKTG 409 or AGEC 314	Principles of Marketing [3,4] or Marketing Agricultural and Food Products	3
American history (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) [1,2]		3
AGSM Directed elective [5]		3
Technical elective [2,7]		3
Technical elective [2,7]		3
	Semester Credit Hours	**18**
	Total Semester Credit Hours	**125**

1. To be selected from the University Core Curriculum.
2. The 3 hours of international and cultural diversity (https://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/) and 3 hours of cultural discourse (https://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/) courses, as required for graduation, may be met in the curriculum. Students may select Language, Philosophy, and Culture, Creative Arts, Technical Electives, or American History Electives that also meet the ICD/CD requirement.
3. A minor in Business may be obtained by completing the noted courses, plus ISTM 209. Each of these courses must be completed with a C or better.
4. A minor in Agricultural Economics may be obtained by completed the noted courses, plus AGEC 105. Each of these courses must be completed with a C or better.
5. Select six hours from the following: AGSM 335, AGSM 337, AGSM 435, AGSM 437, AGSM 477.
6. All undergraduate students must take at least two (2) specific courses in their major designated as writing intensive (W). This course is an approved W course.
7. Technical electives must be selected in consultation with the student's advisor and from the current list of approved electives published by the department.

A grade of C or better is required for all Common Body of Knowledge (CBK) courses; ACCT 209, AGSM 301, CHEM 119, ECON 202, MATH 140, MATH 142 and PHYS 201, or equivalents and senior capstone courses AGSM 439 and AGSM 440.