

Agricultural Systems Management

Department Information

- **Department Location:**
100 Agricultural and Biosystems Engineering
- **Department Phone:**
701-231-7261
- **Department Email:**
nds.asm@nds.edu
- **Department Web Site:**
www.ndsu.edu/aben/ (<http://www.ndsu.edu/aben/>)
- **Credential Offered:**
B.S.
- **Sample Program Guide:**
catalog.ndsu.edu/programs-study/undergraduate/agricultural-systems-management/#planofstudytext (<http://catalog.ndsu.edu/programs-study/undergraduate/agricultural-systems-management/#planofstudytext>)

Major Requirements

Major: Agricultural Systems Management

Degree Type: B.S.

Minimum Degree Credits to Graduate: 120

University Degree Requirements

1. Satisfactory completion of all requirements of the curriculum in which one is enrolled.
2. Earn a minimum total of 120 credits in approved coursework. Some academic programs exceed this minimum.
3. Satisfactory completion of the general education requirements as specified by the university.
4. A minimum institutional GPA of 2.00 based on work taken at NDSU.
5. At least 36 credits presented for graduation must be in courses numbered 300 or higher.
6. Transfer Students: Must earn a minimum of 60 credits from a baccalaureate-degree granting or professional institution.
 - a. Of these 60, at least 36 must be NDSU resident credits as defined in #7.
 - b. Within the 36 resident credits, a minimum of 15 must be in courses numbered 300 or higher and 15 credits in the major field of study.
7. At least 36 credits must be NDSU resident credits. Resident credits include credits registered and paid for at NDSU.

For complete information, please refer to the Degree and Graduation Requirements (<http://catalog.ndsu.edu/past-bulletin-archive/2022-23/academic-policies/undergraduate-policies/degree-and-graduation/>) section of this Bulletin.

University General Education Requirements

Code	Title	Credits
Communication (C)		12
ENGL 110	College Composition I	
ENGL 120	College Composition II	
COMM 110	Fundamentals of Public Speaking	
Upper Division Writing [†]		
Quantitative Reasoning (R) [†]		3
Science and Technology (S) [†]		10
Humanities and Fine Arts (A) [†]		6
Social and Behavioral Sciences (B) [†]		6
Wellness (W) [†]		2
Cultural Diversity (D) ^{**†}		
Global Perspectives (G) ^{**†}		
Total Credits		39

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- * May be satisfied by completing courses in another General Education category.
 - † General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review major requirements to determine if specific courses can also satisfy these general education categories.
- A list of university approved general education courses and administrative policies are available here (<http://catalog.ndsu.edu/past-bulletin-archive/2022-23/academic-policies/undergraduate-policies/general-education/#genedcoursestext>).

ASM Major Requirements

Students must maintain a 2.25 GPA in ASM prefix courses.

Code	Title	Credits
Agricultural Systems Management Core Requirements		
ASM 115	Fundamentals of Agricultural Systems Management (Students transferring in or changing major to ASM with 32+ credits do not need to take ASM 115)	3
ASM 125	Fabrication & Construction Technology (Students transferring in or changing major to ASM with 32+ credits do not need to take ASM 125)	3
ASM 225	Computer Applications in Agricultural Systems Management	3
ASM 264	Natural Resource Management Systems	3
ASM 264L	Natural Resource Management Systems Laboratory	1
ASM 323	Post-Harvest Technology	3
ASM 348	Agricultural Technology Exposition	1
ASM 354	Electricity and Electronic Applications	3
ASM 373	Tractors & Power Units	3
ASM 374	Power Units Laboratory	1
ASM 378	Machinery Principles and Management	3
ASM 429	Hydraulic Power Principles and Applications	3
ASM 475	Management of Agricultural Systems (Capstone Course)	2
Supporting Courses		
CHEM 121	General Chemistry I	3
CHEM 122	General Chemistry II	3
CSCI 114 or TL 116	Computer Applications Business Software Applications	3
ECON 201	Principles of Microeconomics	3
ECON 202	Principles of Macroeconomics	3
PAG 115	Introduction to Precision Agriculture	2
MATH 103	College Algebra	3
PHYS 120	Fundamentals of Physics	3
PHYS 120L or CHEM 121L	Fundamentals of Physics Laboratory General Chemistry I Laboratory	1
STAT 330	Introductory Statistics	3
Select one of the following:		3 or 6
ACCT 102	Fundamentals of Accounting	
ACCT 200 & ACCT 201	Elements of Accounting I and Elements of Accounting II	
Program Electives - May select courses offered in AGEC 300/400, ANSC, BIOL, BUSN 300/400, ECON 300/400, FIN 300/400, MGMT 300/400, MRKT 300/400, PAG, PLSC, PPTH, RNG, SOIL		31
Total Credits		93-96

specialized options

Degree Requirements and Notes:

- Students must register for an ASM internship in the semester it is to be completed. This includes internships arranged with the NDSU Career Center.
- Transfer grades must be 'C' or higher to count towards major requirements.

- The completion of a minor program of study is suggested but not required. Viable minor options include: Accounting, Agribusiness, Animal Sciences, Business Administration, Construction Management, Crop & Weed Sciences, Industrial Engineering & Management, Public Relations & Advertising, or Range Science.

Minor Requirements

Minor: Agricultural Systems Management

Required Credits: 16

Minor Requirements

Code	Title	Credits
Required Courses		
ASM 264	Natural Resource Management Systems	3
ASM 354	Electricity and Electronic Applications	3
ASM 373	Tractors & Power Units	3
or ASM 378	Machinery Principles and Management	
Remaining Credits: Select 7 credits from the following:		7
ASM 225	Computer Applications in Agricultural Systems Management	
ASM 234	3D Printing and Manufacturing	
ASM 323	Post-Harvest Technology	
ASM 374	Power Units Laboratory	
ASM 429	Hydraulic Power Principles and Applications	
ASM 454	Principles and Application of Precision Agriculture	
ASM 475	Management of Agricultural Systems (Capstone)	
ASM 348	Agricultural Technology Exposition	
ASM 496	Field Experience	
ABEN 358	Electric Energy Application in Agriculture	
ABEN 377	Numerical Modeling in Agricultural and Biosystems Engineering	
ABEN 444	Transport Processes	
ABEN 452	Bioenvironmental Systems Design	
ABEN 456	Biobased Energy	
ABEN 464	Resource Conservation and Irrigation Engineering	
ABEN 473	Agricultural Power	
ABEN 478	Machinery Analysis & Design	
ABEN 479	Fluid Power Systems Design	
ABEN 482	Instrumentation & Measurements	
Total Credits		16

Minor Requirements and Notes:

- A minimum of 8 credits must be taken at NDSU.
- Students must earn a minimum 2.00 GPA for the minor requirements.

Code	Title	Credits
Option Electives		
May select any courses offered in the College of Ag, including Ag Econ, as well as the Biology department, and those courses listed here.		
ASM 496 – Ag Tech Expo (1 add'l cr.) may be used as an Option Elective for all Specialized Options. ASM 496 – Field Exp/Internship, 1cr., may also be used as an Option Elective (maximum two credits) in the Applied Business and Production Agriculture Specialized Options only.		
ACCT 201	Elements of Accounting II	
AGEC 1XX - 4XX		
ANSC 1XX - 4XX		
BUSN 340	International Business	
BUSN 487	Managerial Economics	
BUSN 3XX -4XX		

COMM 114	Human Communication
COMM 212	Interpersonal Communication
COMM 216	Intercultural Communication
COMM 260	Introduction to Web Design
COMM 308	Business and Professional Speaking
COMM 313	Editorial Processes
COMM 362	Principles of Design For Media
COMM 484	Organizational Advocacy and Issue Management
COMM 485	Risk and Crisis Communication
ECON 105	Elements of Economics
ECON 341	Intermediate Microeconomics
ECON 343	Intermediate Macroeconomics
ECON 3XX - 4XX	
ENT 1XX - 4XX	
FIN 320	Principles of Finance
FIN 3XX - 4XX	
GEOG 105	Fundamentals of Geographic Information Systems
GEOG 455	Introduction to Geographic Information Systems
GEOG 456	Advanced Geographic Information Systems
GEOG 470	Remote Sensing
GEOG 480	Geographic Information Systems Pattern Analysis and Modeling
IME 335	Welding Technology
MGMT 320	Foundations of Management
MGMT 3XX - 4XX	
MRKT 320	Foundations of Marketing
MRKT 3XX - 4XX	
ME 311	Introduction To Aviation
ME 312	Introduction to Flight
ME 313	Commercial Instrument Ground School
PLSC 1XX - 4XX	
SOIL 1XX - 4XX	