Agricultural Systems Management

Department Information

- **Department Location:** Agricultural and Biosystems Engineering
- **Department Phone:** 701-231-7261
- **Department Email:** ndsu.asm@ndsu.edu
- **Department Web Site:** www.ndsu.edu/aben/
- **Credential Offered:** B.S.
- **Plan Of Study Sample:** bulletin.ndsu.edu/programs-study/undergraduate/agricultural-systems-management/#planofstudytext

Major Requirements

**Major: Agricultural Systems Management**

**Degree Type:** B.S.

**Minimum Degree Credits to Graduate:** 123

**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 residence 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. Residence credits include credits registered and paid for at NDSU.

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

**University General Education Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 110</td>
<td>College Composition I</td>
<td></td>
</tr>
<tr>
<td>ENGL 120</td>
<td>College Composition II</td>
<td></td>
</tr>
<tr>
<td>COMM 110</td>
<td>Fundamentals of Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Upper Division Writing<br>Quantitative Reasoning<br>Science and Technology<br>Humanities and Fine Arts<br>Social and Behavioral Sciences<br>Wellness<br>Cultural Diversity<br>Global Perspectives

| Total Credits | 39 |
### Agricultural Systems Management

- 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://bulletin.ndsu.edu/academic-policies/undergraduate-policies/general-education/#genedcoursertext).

## ASM Major Requirements

Students must maintain a 2.25 GPA in ASM prefix courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASM Major Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASM 115</td>
<td>Fundamentals of Agricultural Systems Management (Students transferring in or changing major to ASM with 32+ credits do not need to take ASM 115)</td>
<td>3</td>
</tr>
<tr>
<td>ASM 125</td>
<td>Fabrication &amp; Construction Technology (Students transferring in or changing major to ASM with 32+ credits do not need to take ASM 125)</td>
<td>3</td>
</tr>
<tr>
<td>ASM 225</td>
<td>Computer Applications in Agricultural Systems Management</td>
<td>3</td>
</tr>
<tr>
<td>ASM 264</td>
<td>Natural Resource Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>ASM 264L</td>
<td>Natural Resource Management Systems Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ASM 323</td>
<td>Post-Harvest Technology</td>
<td>3</td>
</tr>
<tr>
<td>ASM 354</td>
<td>Electricity and Electronic Applications</td>
<td>3</td>
</tr>
<tr>
<td>ASM 373</td>
<td>Tractors &amp; Power Units</td>
<td>3</td>
</tr>
<tr>
<td>ASM 374</td>
<td>Power Units Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ASM 378</td>
<td>Machinery Principles and Management</td>
<td>3</td>
</tr>
<tr>
<td>ASM 429</td>
<td>Hydraulic Power Principles and Applications</td>
<td>3</td>
</tr>
<tr>
<td>ASM 454</td>
<td>Principles and Application of Precision Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>ASM 475</td>
<td>Management of Agricultural Systems (Capstone Course)</td>
<td>2</td>
</tr>
<tr>
<td>ASM 496</td>
<td>(Expo)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Supporting Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 121</td>
<td>General Chemistry I (May satisfy general education category S)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 122</td>
<td>General Chemistry II (May satisfy general education category S)</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 114</td>
<td>Microcomputer Packages (May satisfy general education category S)</td>
<td>3</td>
</tr>
<tr>
<td>or MIS 116</td>
<td>Business Use of Computers</td>
<td></td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Microeconomics (May satisfy general education category B)</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Macroeconomics (May satisfy general education category B)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 105</td>
<td>Trigonometry (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 211</td>
<td>College Physics I (May satisfy general education category S)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 211L</td>
<td>College Physics I Laboratory (Either course may satisfy general education category S)</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 121L</td>
<td>General Chemistry I Laboratory</td>
<td></td>
</tr>
<tr>
<td>STAT 330</td>
<td>Introductory Statistics (May satisfy general education category R)</td>
<td>3</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3 or 6</td>
</tr>
<tr>
<td>ACCT 102</td>
<td>Fundamentals of Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 200 &amp; ACCT 201</td>
<td>Elements of Accounting I and Elements of Accounting II</td>
<td></td>
</tr>
</tbody>
</table>

**Specialized Options - Select from one of the specialized options listed below. A minor program of study may be completed in place of an option.**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30-38</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**

93-104

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1 AGR189 is only required for first-time, first-year students—A first-time, first-year student is defined as a student who has not yet completed a college course as a college student. Students that are not first-time, first-year students that either transfer into the university or change their major are not required to take AGR189.
specialized options

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Applied Business Option: Minimum 30 Credits</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This is the standard option for this major; students can declare another option or the minor option with the Office of Registration and Records.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete any course from the College of Ag, including Ag Econ as well as the BIO dept, and those listed under Program/Option Electives.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select courses in agriculture science or supporting areas to enhance careers in Agribusiness. Select courses in consultation with an advisor. Courses not on the list will require a substitution form to be submitted to the Office of Registration and Records.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Production Agriculture Option: Minimum of 30 Credits</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete any course from the College of Ag, including Ag Econ as well as the BIO dept, and those listed under Program/Option Electives.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select courses in consultation with an advisor. Courses not on the list will require substitution form to be submitted to the Office of Registration and Records.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Dealership Management Option: Minimum 32-38</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minor in either Business Administration (24 credits) or Agribusiness (18 credits) required.</td>
<td>18-24</td>
</tr>
<tr>
<td></td>
<td>ACCT 200 &amp; ACCT 201</td>
<td>Elements of Accounting I and Elements of Accounting II</td>
</tr>
<tr>
<td></td>
<td>ASM 496</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>Complete any course from the College of Ag, including Ag Econ as well as the BIO dept, and those listed under Program/Option Electives</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
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<tr>
<td></td>
<td>COMM 214</td>
<td>Persuasive Speaking</td>
</tr>
<tr>
<td></td>
<td>COMM 308</td>
<td>Business and Professional Speaking</td>
</tr>
<tr>
<td></td>
<td>COMM 315</td>
<td>Small Group Communication</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>32-38</td>
</tr>
</tbody>
</table>

**Degree Requirements and Notes:**

- Students must register for an ASM internship in the semester it is 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**

**Agricultural Systems Management**

**Minor Requirements**

**Required Credits: 16**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>ASM 264</td>
<td>Natural Resource Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>ASM 354</td>
<td>Electricity and Electronic Applications</td>
<td>3</td>
</tr>
<tr>
<td>ASM 373</td>
<td>Tractors &amp; Power Units</td>
<td>3</td>
</tr>
<tr>
<td>or ASM 378</td>
<td>Machinery Principles and Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Remaining Credits: Select 7 credits from the following:</strong></td>
<td></td>
</tr>
<tr>
<td>ASM 225</td>
<td>Computer Applications in Agricultural Systems Management</td>
<td></td>
</tr>
<tr>
<td>ASM 323</td>
<td>Post-Harvest Technology</td>
<td></td>
</tr>
<tr>
<td>ASM 374</td>
<td>Power Units Laboratory</td>
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<tr>
<td>ASM 429</td>
<td>Hydraulic Power Principles and Applications</td>
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<tr>
<td>ASM 454</td>
<td>Principles and Application of Precision Agriculture</td>
<td></td>
</tr>
<tr>
<td>ASM 475</td>
<td>Management of Agricultural Systems (Capstone)</td>
<td></td>
</tr>
</tbody>
</table>
### Agricultural Systems Management

**ASM 491**  
Seminar  

**ASM 496**  
(Expo)  

**ASM 496**  

| 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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>Option Electives</strong></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>ACCT 201</td>
<td>Elements of Accounting II</td>
<td></td>
</tr>
<tr>
<td>AGE 1XX - 4XX</td>
<td>International Business</td>
<td></td>
</tr>
<tr>
<td>ANSC 1XX - 4XX</td>
<td>Managerial Economics</td>
<td></td>
</tr>
<tr>
<td>BUSN 340</td>
<td>Human Communication</td>
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</tr>
<tr>
<td>BUSN 487</td>
<td>Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>BUSN 3XX - 4XX</td>
<td>Intercultural Communication</td>
<td></td>
</tr>
<tr>
<td>COMM 260</td>
<td>Introduction to Web Design</td>
<td></td>
</tr>
<tr>
<td>COMM 308</td>
<td>Business and Professional Speaking</td>
<td></td>
</tr>
<tr>
<td>COMM 313</td>
<td>Editorial Processes</td>
<td></td>
</tr>
<tr>
<td>COMM 362</td>
<td>Principles of Design For Media</td>
<td></td>
</tr>
<tr>
<td>COMM 343</td>
<td>Communication Law</td>
<td></td>
</tr>
<tr>
<td>COMM 484</td>
<td>Organizational Advocacy and Issue Management</td>
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</tr>
<tr>
<td>COMM 485</td>
<td>Risk and Crisis Communication</td>
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</tr>
<tr>
<td>ECON 105</td>
<td>Elements of Economics</td>
<td></td>
</tr>
<tr>
<td>ECON 341</td>
<td>Intermediate Microeconomics</td>
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</tr>
<tr>
<td>ECON 343</td>
<td>Intermediate Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>ECON 3XX - 4XX</td>
<td>Principles of Finance</td>
<td></td>
</tr>
<tr>
<td>ENT 1XX - 4XX</td>
<td>Fundamentals of Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>FIN 320</td>
<td>Introduction to Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>FIN 3XX - 4XX</td>
<td>Advanced Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG 105</td>
<td>Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>GEOG 480</td>
<td>Geographic Information Systems Pattern Analysis and Modeling</td>
<td></td>
</tr>
<tr>
<td>IME 335</td>
<td>Welding Technology</td>
<td></td>
</tr>
<tr>
<td>MGMT 320</td>
<td>Foundations of Management</td>
<td></td>
</tr>
<tr>
<td>MGMT 3XX - 4XX</td>
<td>Foundations of Marketing</td>
<td></td>
</tr>
<tr>
<td>MRKT 320</td>
<td>Introduction To Aviation</td>
<td></td>
</tr>
<tr>
<td>MRKT 3XX - 4XX</td>
<td>Introduction to Flight</td>
<td></td>
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<tr>
<td>ME 311</td>
<td>Commercial Instrument Ground School</td>
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</table>
PLSC 1XX - 4XX
SOIL 1XX - 4XX