

# Agricultural Technology Major

## Major Requirements

Degree Type: B.S.  
Minimum Credits Required: 120

### University Degree Requirements

For complete details on these and other university degree requirements, refer to the Degree and Graduation Requirements (<http://catalog.ndsu.edu/academic-policies/undergraduate-policies/degree-and-graduation/>) section in the University Catalog.

1. Minimum of 120 semester credits (some programs may exceed this minimum).
2. Complete the University General Education requirements.
3. Minimum institutional GPA of 2.00 based on work taken at NDSU.
4. Minimum of 30 credits in resident at NDSU.
5. Minimum of 36 upper level credits (courses numbered 300 or higher).
6. Students with transfer credit must meet the NDSU 30 credits in residence (#4). Of these 30 credits in residence, a minimum of 15 credits must be in courses numbered 300 or above, and 15 credits must be in the student's declared major curricula.

### University General Education Requirements

A list of university approved general education courses along with the administrative policies governing the requirement and the categories is available here (<http://catalog.ndsu.edu/academic-policies/undergraduate-policies/general-education/>).

Code	Title	Credits
<b>Category C: Communication</b>		<b>12</b>
<b>Category R: Quantitative Reasoning</b>		<b>3</b>
<b>Category S: Science and Technology</b>		<b>10</b>
<b>Category A: Humanities and Fine Arts</b>		<b>6</b>
<b>Category B: Social and Behavioral Sciences</b>		<b>6</b>
<b>Category W: Wellness</b>		<b>2</b>
<b>Category D: Cultural Diversity</b>		
<b>Category G: Global Perspectives</b>		
<b>Category L: Digital Literacy</b>		
<b>Total Credits</b>		<b>39</b>

### Agricultural Technology Major

Code	Title	Credits
<b>Core Requirements</b>		
AGEC 242	Introduction to Agricultural Management	3
ASM 225	Computer Applications in Agricultural Systems Management	3
ASM 354	Electricity and Electronic Applications	3
ASM 348	Agricultural Technology Exposition	1
or PAG 348	Agricultural Technology Exposition	
ASM 378	Machinery Principles and Management	3
ASM 475	Management of Agricultural Systems (Capstone)	2
or PAG 475	Precision Ag Systems Capstone	
CSCI 114	Computer Applications	3
or TL 116	Business Software Applications	
CHEM 121	General Chemistry I	3
MATH 103	College Algebra	3
PAG 115	Introduction to Precision Agriculture	2
PHYS 120	Fundamentals of Physics	3
PHYS 120L	Fundamentals of Physics Laboratory	1
or CHEM 121L	General Chemistry I Laboratory	

STAT 330	Introductory Statistics	3
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**Option Requirement**

Select one option to complete this major: Precision Agriculture or Agricultural Technology	51 or 56
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<b>Total Credits</b>	<b>84-89</b>
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**Precision agriculture option**

Code	Title	Credits
<b>Precision Ag Option <sup>1</sup></b>		
PAG 115L	Introduction to Precision Agriculture Lab	1
PAG 215	Mapping of Precision Ag Data	3
PAG 315	Electronic Systems in Precision Ag	3
PAG 454	Applications of Precision Agriculture	3
PAG 496	Field Experience/Practicum (Internship)	1
GEOG 455	Introduction to Geographic Information Systems	4
PLSC 110	World Food Crops	3
or ANSC 114	Introduction to Animal Sciences	
PPTH 324	Introductory Plant Pathology	3
or ANSC 218	Anatomy and Physiology of Domestic Animals	
PLSC 225	Principles of Crop Production	3
or ANSC 220	Livestock Production	
SOIL 210	Introduction to Soil Science	3
or ANSC 223	Introduction to Animal Nutrition	
SOIL 322	Soil Fertility and Fertilizers	3
or ANSC 240	Meat Animal Evaluation and Marketing	

**Option Electives**

Select 21 credits from the Program Option Electives list below.	21
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<b>Total Credits</b>	<b>51</b>
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**Agricultural Technology Option**

Code	Title	Credits
<b>Agricultural Technology Option <sup>1</sup></b>		
ASM 115	Fundamentals of Agricultural Systems Management	3
ASM 125	Fabrication & Construction Technology	3
ASM 264	Natural Resource Management Systems	3
ASM 264L	Natural Resource Management Systems Laboratory	1
ASM 323	Post-Harvest Technology	3
ASM 373	Tractors & Power Units	3
ASM 374	Power Units Laboratory	1
ASM 429	Hydraulic Power Principles and Applications	3
ACCT 102	Fundamentals of Accounting	3
ECON 201	Principles of Microeconomics	3
ECON 202	Principles of Macroeconomics	3

**Option Electives**

Select 27 credits from the Program Option Electives list below.	27
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<b>Total Credits</b>	<b>56</b>
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**Program OPTION ELECTIVES**

Code	Title	Credits
Please select the appropriate number of elective credits for your option from the list below. <sup>2</sup>		
ACCT 201	Elements of Accounting II	3
AGEC 244	Agricultural Marketing	3

AGEC 246	Introduction to Agricultural Finance	3
ANSC 114	Introduction to Animal Sciences	3
ANSC 218	Anatomy and Physiology of Domestic Animals	3
ANSC 220	Livestock Production	3
ANSC 232	Dairy Cattle Evaluation	2
ANSC 240	Meat Animal Evaluation and Marketing	3
ANSC 330	Competitive Meat Grading and Evaluation	2
ANSC 331	Competitive Livestock Evaluation	2
ANSC 357	Animal Genetics	3
ANSC 463	Physiology of Reproduction	3
ASM 115	Fundamentals of Agricultural Systems Management	3
ASM 125	Fabrication & Construction Technology	3
ASM 234	3D Printing and Manufacturing	2
ASM 264	Natural Resource Management Systems	3
ASM 264L	Natural Resource Management Systems Laboratory	1
ASM 373	Tractors & Power Units	3
ASM 374	Power Units Laboratory	1
ASM 429	Hydraulic Power Principles and Applications	3
BIOL 150	General Biology I	3
BIOL 150L	General Biology I Laboratory	1
BUSN 340	International Business	3
BUSN 487	Managerial Economics	3
COMM 212	Interpersonal Communication	3
COMM 216	Intercultural Communication	3
COMM 308	Business and Professional Speaking	3
CSCI 479	Introduction to Data Mining	3
ECON 105	Elements of Economics	3
ECON 341	Intermediate Microeconomics	3
ECON 343	Intermediate Macroeconomics	3
ENT 210	Insects, Humans and the Environment	3
ENT 350	General Entomology	3
ENT 470	Insect Ecology	3
FIN 320	Principles of Finance	3
GEOG 105	Fundamentals of Geographic Information Systems	3
GEOG 455	Introduction to Geographic Information Systems	4
GEOG 456	Advanced Geographic Information Systems	3
GEOG 470	Remote Sensing	3
GEOG 480	Geographic Information Systems Pattern Analysis and Modeling	3
IME 335	Welding Technology	3
MGMT 320	Foundations of Management	3
MRKT 320	Foundations of Marketing	3
ME 311	Introduction To Aviation	3
ME 312	Introduction to Flight	2
NRM 452	Managing Natural and Rangeland Resources using GIS	3
PLSC 110	World Food Crops	3
PLSC 215	Weed Identification	1
PLSC 225	Principles of Crop Production	3
PLSC 315	Genetics	3
PLSC 315L	Genetics Laboratory	1
PLSC 320	Integrated Forage and Cover Crops Production Management and Ecosystem Services	3
PLSC 323	Principles of Weed Science	3
PAG 115L	Introduction to Precision Agriculture Lab	1

PAG 215	Mapping of Precision Ag Data	3
PAG 315	Electronic Systems in Precision Ag	3
PAG 454	Applications of Precision Agriculture	3
PPTH 324	Introductory Plant Pathology	3
PPTH 454	Diseases Of Field and Forage Crops	3
SOIL 210	Introduction to Soil Science	3
SOIL 217	Introduction to Meteorology & Climatology	3
SOIL 322	Soil Fertility and Fertilizers	3
SOIL 351	Soil Ecology	3
SOIL 410	Soils and Land Use	3
SOIL 433	Soil Ecohydrology and Physics	3
SOIL 444	Soil Genesis and Survey	3
SOIL 447	Microclimatology	3
SOIL 465	Soil And Plant Analysis	3

<sup>1</sup> Courses required in either option may be used as electives in the other option.

<sup>2</sup> In consultation with your advisor, courses not appearing on the list that are intended to be used in this area require a substitution form to be submitted to the Office of Registration and Records by the student's advisor during the term in which the student completes the course.