

Precision Agriculture

Department Information

- **Department Location:**
100 Agricultural and Biosystems Engineering
- **Department Phone:**
701-231-7261
- **Department Email:**
ndsu.aben@ndsu.edu
- **Department Web Site:**
www.ndsu.edu/aben/ (<http://www.ndsu.edu/aben/>)
- **Credential Offered:**
B.S.
- **Program Overview:**
catalog.ndsu.edu/programs-study/undergraduate/precision-agriculture/ (<http://catalog.ndsu.edu/programs-study/undergraduate/precision-agriculture/>)

Minor Requirements

Minor: Precision Agriculture

Required Credits: 17

Code	Title	Credits
Required Courses		
PAG 115	Introduction to Precision Agriculture	2
PAG 215	Mapping of Precision Ag Data	3
PAG 454	Applications of Precision Agriculture	3
GEOG 105	Fundamentals of Geographic Information Systems	3
Elective Courses - Select 6 credits from the following:		
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	
AGEC 244	Agricultural Marketing	
AGEC 246	Introduction to Agricultural Finance	
AGEC 342	Farm and Agribusiness Management II	
AGEC 350	Agrisales	
ANSC 114	Introduction to Animal Sciences	
ASM 264	Natural Resource Management Systems	
ASM 354	Electricity and Electronic Applications	
ASM 378	Machinery Principles and Management	
ASM 429	Hydraulic Power Principles and Applications	
BIOL 150	General Biology I	
BIOL 150L	General Biology I Laboratory	
CSCI 479	Introduction to Data Mining	
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
ME 311	Introduction To Aviation
ME 312	Introduction to Flight
ME 313	Commercial Instrument Ground School
PAG 115L	Introduction to Precision Agriculture Lab
PAG 315	Electronic Systems in Precision Ag
PAG 455	Applications of Big Data in Precision Agriculture
PAG 475	Precision Ag Systems Capstone
PLSC 225	Principles of Crop Production
NRM 453	Rangeland Resources Watershed Management
SOIL 217	Introduction to Meteorology & Climatology
SOIL 322	Soil Fertility and Fertilizers

Total Credits
17**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.