## Department Information

- **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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAG 115</td>
<td>Introduction to Precision Agriculture</td>
<td>2</td>
</tr>
<tr>
<td>PAG 215</td>
<td>Mapping of Precision Ag Data</td>
<td>3</td>
</tr>
<tr>
<td>PAG 454</td>
<td>Applications of Precision Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 105</td>
<td>Fundamentals of Geographic Information Systems</td>
<td>3</td>
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**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
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PAG 115L</td>
<td>Introduction to Precision Agriculture Lab</td>
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<tr>
<td>PAG 315</td>
<td>Electronic Systems in Precision Ag</td>
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<td>PAG 455</td>
<td>Applications of Big Data in Precision Agriculture</td>
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<td>PAG 475</td>
<td>Precision Ag Systems Capstone</td>
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<td>PLSC 225</td>
<td>Principles of Crop Production</td>
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<tr>
<td>NRM 453</td>
<td>Rangeland Resources Watershed Management</td>
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<tr>
<td>SOIL 217</td>
<td>Introduction to Meteorology &amp; Climatology</td>
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<tr>
<td>SOIL 322</td>
<td>Soil Fertility and Fertilizers</td>
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</tbody>
</table>

**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.