

Agricultural and Biosystems Engineering Doctorate

Department Information

- **Department Web Site:**
ndsu.edu/aben/ (<http://ndsu.edu/aben/>)
- **Application Deadline:**
Fall semester international applications - May 1; Spring semester international applications- October 1; Domestic applications must be received at least one month prior to the start of the semester
- **Credential Offered:**
Ph.D.
- **English Proficiency Requirements:**
TOEFL ibt 79; IELTS 6.5; Duolingo 105
- **Program Overview:**
ndsu.edu/programs/graduate/agricultural-and-biosystems-engineering (<http://ndsu.edu/programs/graduate/agricultural-and-biosystems-engineering/>)

Apply Now (https://ndsugrad.my.site.com/Application/TX_SiteLogin/?startURL=/Application/TargetX_Portal__PB)

Code	Title	Credits
Didactic credit (601-689, 691; 700-789, 791; 800-889 and 891)*		27
ABEN 899 and ABEN 790		30-45
Additional Credits (as need to complete 60 credits (post-master's) or 90 credits (post-bachelor's)		
Total credits		60-90

* at least 15 credits of which must be 700-800 level and a minimum of 9 credits must be ABEN courses.

Additional Requirements

- 60 credits after the M.S. or 90 credits after the B.S.
- A minimum of 30 credits of NDSU ABEN dissertation and graduate seminar after the M.S. or 45 credits after the B.S.
- A minimum of 9 credits of NDSU ABEN courses numbered 601-689 or 700-789, 15 credits if entering with other than an ABEN B.S.
- It is expected that one or more journal articles will be submitted for publication prior to the award of the degree.

Admission and Application Requirements

- Graduate School admission and application requirements are found on the Admission Information (<http://catalog.ndsu.edu/graduate/admission-information/>) page.
- In addition, this program requires applicants to have completed the following coursework:
 - Mathematics through Differential Equations (NDSU: MATH 266 (<https://catalog.ndsu.edu/search/?P=MATH%20266>) Introduction to Differential Equations)
 - Statistics (NDSU: ME 221 (<https://catalog.ndsu.edu/search/?P=ME%20221>) Engineering Mechanics I) and Dynamics (NDSU: ME 222 (<https://catalog.ndsu.edu/search/?P=ME%20222>) Engineering Mechanics II); these two may be substituted by a calculus-based Physics I class
 - Thermodynamics (NDSU: ME 350 (<https://catalog.ndsu.edu/search/?P=ME%20350>) Thermodynamics and Heat Transfer); may be substituted with ABEN 644 (<https://catalog.ndsu.edu/search/?P=ABEN%20644>) Transport Processes, which may also count toward graduate degree
 - Fluid Mechanics (NDSU: CE 309 (<https://catalog.ndsu.edu/search/?P=CE%20309>) Fluid Mechanics or ME 352 (<https://catalog.ndsu.edu/search/?P=ME%20352>) Fluid Dynamics)
 - Physics II/Electricity and Magnetism (NDSU: PHYS 252 (<https://catalog.ndsu.edu/search/?P=PHYS%20252>) University Physics II)
- If the courses (or their equivalent) were not taken prior to matriculating at NDSU, they should be taken in addition to other coursework required for the graduate degree.

- The major adviser may appeal to the ABEN graduate committee (not the student's supervisory committee) for substitutions or waivers of these requirements.
- Students are responsible for covering the costs of undergraduate courses.