

ABEN Potential Graduate Students — General Application Procedure Information

General Information

Welcome, and thanks for your interest in our Department of Agricultural and Biosystems Engineering (ABEN), Graduate Degree Programs! This webpage is expected to provide some basic and supporting information to potential students who would like to apply to graduate studies (MS and Ph.D.) offered by ABEN, NDSU, Fargo, ND. For detailed information visit the webpages of the Graduate School (<https://www.ndsu.edu/gradschool>) and the ABEN Department (<https://www.ndsu.edu/aben/>, https://www.ndsu.edu/aben/engineering/grad_studies/, and <https://catalog.ndsu.edu/programs-study/graduate/agricultural-biosystems-engineering/#text>). International students are encouraged to follow the application deadlines (June 1st for Fall - August start; and November 1st for Spring - January start <https://www.ndsu.edu/international/apply/faq/>). The webpage can also be visited for FAQs for graduate students. Make sure to check with the parent department for clarification.

Two Program Paths

Prospective students after admission may undergo the program on two paths based on their background. In general, students holding engineering degrees will go through the “Agricultural and Biosystems Engineering” path, and those holding science degrees through the “Environmental and Conservation Sciences (ECS; <https://www.ndsu.edu/ecs/>)” or “Natural Resource Management (NRM; <https://catalog.ndsu.edu/programs-study/graduate/natural-resources-management/#text>).” Students from both paths will be attached to ABEN and advised by ABEN faculties. Students admitted to the ABEN path should fulfill the admission requirements regarding previously taken courses (<https://catalog.ndsu.edu/programs-study/graduate/agricultural-biosystems-engineering/#admissionrequirements>). A GPA of 3.0 or better in 4.0 point scale at their baccalaureate level for MS or masters for Ph.D. (<https://catalog.ndsu.edu/admission/>) is needed for full standing in a graduate degree program.

Following are the prerequisite courses for the ABEN M.S. or Ph.D. degree that students have taken or should take additionally. Otherwise, the students can go through ECS or NRM programs.

- Differential Equations (NDSU: Math 266)
- Statics (NDSU: ME 221) and Dynamics (NDSU: ME 222); these two may be substituted by a calculus-based Physics I class
- Thermodynamics (NDSU: ME 350); may be substituted with ABEN 644 which may also count toward graduate degree
- Fluid Mechanics (NDSU: CE 309 or ME 352)
- Physics II/Electricity and Magnetism (NDSU: PHYS 252)

English Proficiency Requirements for International Students

Prospective international students should have a valid score of TOEFL ibt 79, IELTS 6.5, or Duolingo 105 or better (Right panel: <https://catalog.ndsu.edu/programs-study/graduate/agricultural-biosystems-engineering/#text>). International students who earned their degree from some countries were exempted from the English proficiency requirement (See exempted countries list <https://www.ndsu.edu/gradschool/apply/international>). The graduate record exam (GRE) score is optional with ABEN.

Fellowship and Tuition Waiver

Most graduate students admitted to ABEN will have fellowships/stipends either provided by the faculty advisor or sponsored by some programs (local or international). A fellowship in good standing comes with the benefit of a tuition waiver for all graduate students receiving the fellowship. So maintaining the necessary grades is essential to retain the tuition waiver benefits. Other competitive opportunities such as Teaching Assistants and Research Assistants will also be available to admitted students. Even though tuition is waived, students should pay the other fees administered and should take care of their living expenses from their stipend/personal funds.

Advisor Availability

All graduate students are attached to a faculty member of their interest. The faculty is also the principle investigator (PI) of the research project to which the student is admitted. The faculty who admits the student to their research program provides the fellowship/stipend to the student, and the funds are usually from a grant with specific start and end dates. Hence, the students will work to support the research objectives of the project that pays them. Understandably, the availability of advisors that have funds to support graduate students is highly competitive and students with good credentials and research experience will have a better chance of getting admitted. Also, the research area, the availability of the faculty advisor, and the research area of interest will influence admission.

Students Preliminary Inquiry

Students are encouraged to contact individual faculty of ABEN based on their combined research interests and inquire whether the faculty is willing to serve as the student's major-advisor and have funding to support the student's study program (MS or Ph.D.). Of course, the student should be eligible at first based on previous degree GPA and English proficiency scores. Students' CVs and undergraduate and graduate transcripts may be attached during such an inquiry to provide faculty with necessary background information. Following this preliminary inquiry process, the student will have an idea about the possibility and chances of getting admitted to the program paths and specific programs of their choice. After inquiry and assessing chances, the students can submit the official online application to Grad. School by paying the necessary fees. If necessary, the student might mention their interest in working with the major-advisor encouraged to apply. This procedure will keep the contacted advisor informed, and the review of the application will go through that advisor first, and then passed on to others if the student was not admitted by the contacted advisor.

Graduate Application Process and Fee

Students apply to Grad. School online (<https://www.ndsu.edu/gradschool/apply>) after paying the non-refundable and mandatory fee (<https://www.ndsu.edu/gradschool/apply/international>). While applying students also require: Statement of Purpose, Letters of Recommendation (3), Official Transcripts, and English Proficiency Scores. Check the Grad. School and Department websites (shown before) for details.

Processing of Official Students Applications

The students apply directly to the University Grad. School indicate their program and department of choice. Only student applications that are complete in all aspects will be processed by the Grad. School. The Grad. School will forward the completed application to the respective departments. In the departments, the application will be processed and reviewed by interested faculty, and the faculty will make a final decision and be forwarded to the department office.

Here the preliminary inquiry will play a significant role. Faculty with different research areas of interest, lack of funds, and lack of time due to other research commitments may not be interested in applications that come through the department review. Therefore, an application where the student has directly applied to the university and when it comes to departmental review among faculty stands less chance of being accepted, but not impossible as sometimes the faculty will accept the student and initiate the dialog with the student. Given these circumstances, some of the directly filed applications will stay in the department system as

pending cases until it is processed and the students will not hear further. However, the student can contact the department anytime and get to know the current status of their application.

Graduate Degree Requirements

Specific combinations of course credits from the parent ABEN department, other departments, thesis/dissertation, seminar, and GPA (conditional if any) requirements are in place for successful graduation. The specific degree requirements are outlined in <https://catalog.ndsu.edu/programs-study/graduate/agricultural-biosystems-engineering/#degreerequirementstext> and other details are found in the Graduate Students Handbook (https://www.ndsu.edu/fileadmin/aben/Forms/Graduate_student_handbook_20210802.pdf). Students from ECS and NRM have a flexible list of courses degree requirements and courses should be selected in consultation with their advisors and committee members.

The course brackets and suggestions that apply to ABEN students, regarding the required credits of ABEN courses, will not be apply to ECS and NRM students; however, these students should undergo the “ABEN 790 Graduate Seminar” course to receive their respective degrees from ABEN.

We welcome again all prospective students to apply and successfully go through our ABEN Graduate Programs. Feel free to reach out to us. We wish you all success!

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