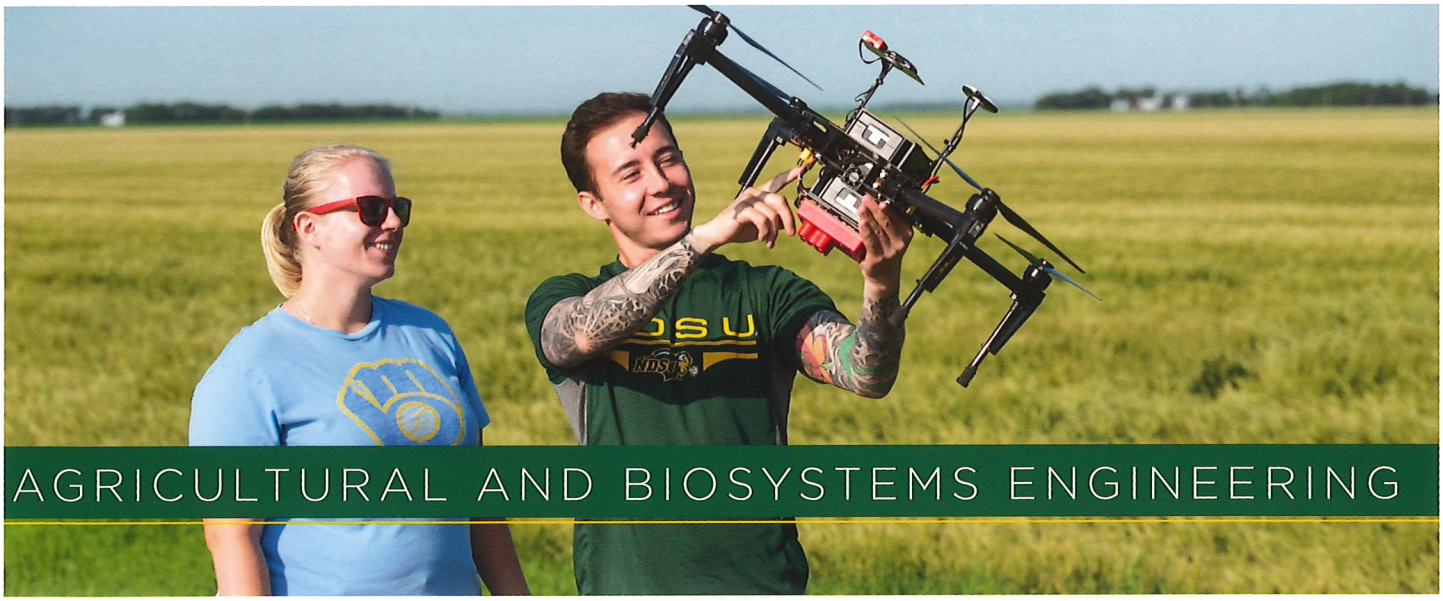
NDSU | COLLEGE OF ENGINEERING



AGRICULTURAL AND BIOSYSTEMS ENGINEERING

OVERVIEW

Agricultural and biosystems engineers are uniquely qualified to use their knowledge of mathematics, biological and physical sciences, and engineering principles to solve problems relating to the:

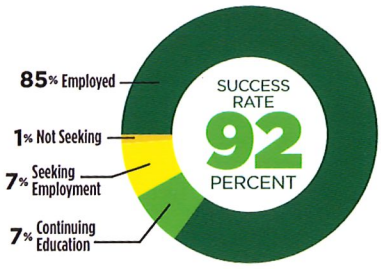
- Design, testing and production of machine systems
- Production, handling and processing of crops and biological materials for food, feed, fiber and fuel
- Building environmental design
- Utilization and conservation of natural resources
- Protection of the environment

Graduates design machines, processes and natural resource systems. They solve problems using mathematics and applying physical, biological and engineering sciences. Agricultural and biosystems engineers address society's challenges in food, energy and water.

Although internships are not required by the curriculum, students are strongly encouraged to take advantage of paid internships, which allow students to spend a summer or, more typically, a summer and a semester doing engineering work. There are also opportunities to work as a research assistant in projects conducted by faculty. The intern and research assistant positions help students gain hands-on experience in engineering and open doors for employment upon graduation.

CAREER OUTCOMES

Starting salaries are among the highest of all college graduates and are comparable to those in other fields of engineering. Recent starting salaries range from $55,000 to $75,000 per year with an average of $60,000 per year.



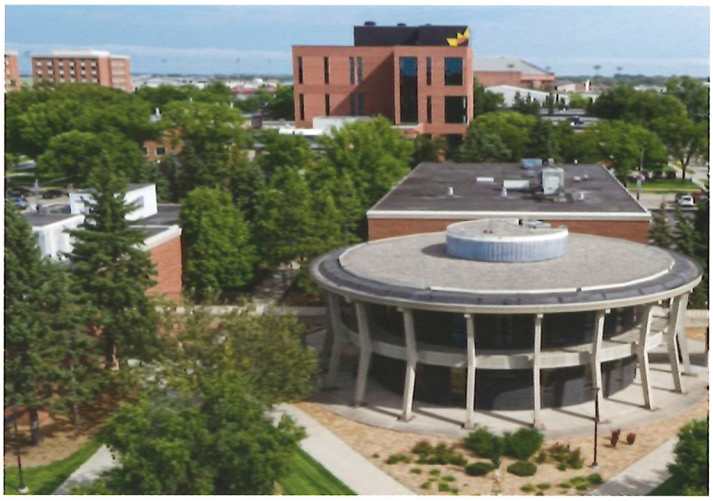
2021 Outcomes Report from College of Engineering

DEGREE TYPE
Major

CAREER PATHS

WHERE COULD I GO AFTER GRADUATION?

- Agriculture & Biosystems Process Engineer
- Coastal Engineer
- Consulting Engineer
- Design Engineer
- Energy Advisor
- Farming
- Field Test Technician
- Manufacturing Engineer
- ND Department of Health
- ND State Water Commission
- Product Engineer
- Product Management Engineer
- Quality Control Manager
- Research Scientist
- Test Engineer



ACCREDITATION

The program leading to the Bachelor of Science in Agricultural and Biosystems Engineering is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

SAMPLE COURSES

IMPORTANT DISCLAIMER: A Sample Program Guide provides an unofficial guide of program requirements and should be used by prospective students who are considering attending NDSU in the future. It is NOT an official curriculum and should NOT be used by current NDSU students for official degree planning purposes. Note that the official curriculum used by current NDSU students can vary from the Sample Program Guide due to a variety of factors such as, but not limited to, start year, education goals, transfer credit and course availability. To ensure proper program completion, enrolled students should utilize Degree Map and Schedule Planner in Campus Connection and consult regularly with their academic advisor.

FIRST YEAR

Introduction to Agricultural and Biosystems Engineering; General Chemistry I & II; College Composition I & II; Calculus I & II; Field Experience; Fundamentals of Visual Communication for Engineers; Fundamentals of Visual Communication for Engineers; Engineering Mechanics I; Chemistry/ Biology Elective

SECOND YEAR

Computer Aided Analysis & Design; Fundamentals of Public Speaking; Engineering Mechanics II; Mechanics of Materials; Multivariate Calculus; Intro to Linear Algebra; Biological Materials Processing; University Physics II & Lab; Intro to Differential Equations; Thermodynamics and Heat Transfer; General Elective; Computer Elective

THIRD YEAR

Evaluation of Engineering Data; Fluid Mechanics; Writing in the Technical Professions or Writing in the Sciences or Researching and Writing Grants and Proposal; Numerical Modeling in Agricultural and Biosystems Engineering; Seminar; Instrumentation & Measurements; Electrical Engineering I; Major Electives; Gen Ed Elective; Chem/Bio Elective

FOURTH YEAR

Design Project I & II; Engineering Economy; Ethics; Engineering; and Technology; Major Elective; Gen Ed Elective; Technology Electives; Chemistry/Biology Elective; Business/ Communication Elective

VIEW OFFICIAL CURRICULUM GUIDE

VIEW NDSU TRANSFER EQUIVALENCIES

Location: Agricultural and Biosystems Engineering 100 » 701.231.7261