BIOSYSTEMS AND AGRICULTURAL ENGINEERING

Graduate Programs

BAE Graduate Programs

The Department of Biosystems and Agricultural Engineering (BAE) offers programs leading to the Master of Science and Doctor of Philosophy degrees in Biosystems Engineering. These degrees emphasize research and development.

BAE provides excellent laboratory and computer facilities for students to explore research and design in such areas as bioprocessing and food engineering, machine vision, sensor and control technology, waste management and utilization, hydrology, water quality, porous media flow, and intelligent systems for agricultural machine design and production.

Graduate students design experiments and special equipment to conduct their work. They are expected to demonstrate, by supporting research or by design, the ability to identify a problem, define alternatives, propose a solution, organize a design or an experimental investigation, manage the project to completion, analyze and interpret data, and report the results through peer-reviewed papers and professional presentations.

Research projects are supported by the Oklahoma Agricultural Experiment Station and by state, federal and private grants and contracts. Well-trained faculty members, many of whom are registered professional engineers with research, consulting and design experience, guide the graduate students’ activities and plan programs to meet students’ needs.

Graduate Admission Requirements

Admission to either the Master of Science (MS) or Doctor of Philosophy (PhD) degree program requires graduation from an engineering curriculum accredited by the ABET Engineering Accreditation Commission, http://www.abet.org. Students without accredited degrees may be admitted provisionally and may be required to take additional courses. A student must be accepted by an advisor in the department prior to official admission to the graduate program. Admission is competitive based on GPA(s) from previous degree(s), TOEFL/IELTS (for international students), statement of interests, experience, and recommendations. The GRE is not required, but often considered for graduate assistantship.

Degree Requirements

Each graduate student follows an approved plan of study and is supervised by his/her advisory committee. The Plan of Study is designed to satisfy the individual goals of the student, while conforming to the general requirements of the BAE Department and the Graduate College. All BAE graduate students are required to enroll in one credit hour of BAE Graduate Seminar (BAE 5501).

Master of Science Degree – Thesis Option

The Master of Science degree program with the thesis option requires a minimum of 24 credit hours of approved graduate-level coursework and six hours of research work. A written thesis and an oral thesis defense are required.

Master of Science Degree – Non-Thesis Option

The Master of Science degree program with a non-thesis option requires a minimum of 32 credit hours of approved graduate-level coursework, six of which are creative components, e.g. approved internship and technical projects.

PhD Degree

The Doctor of Philosophy degree requires a minimum of 60 credit hours beyond the master’s degree, or 90 credit hours beyond a bachelor degree, including 30 research dissertation hours. A one-credit-hour Teaching Practicum (BAE6101) is required for all PhD students, in addition to Graduate College requirements.