



Life After Graduation

Graduates in biosystems engineering are well-equipped to use their expertise in many areas that affect our quality of life and environment. They are sought by industry, government and public service organizations for their ability to apply engineering fundamentals to biological systems and to the management of land and water resources.

Biosystems engineers often develop innovative green products and industries; convert bio-based resources to food, fuel and other renewable products; design new generations of biological systems and devices; and control biological systems for natural resource protection, waste remediation and ecosystem restoration.

They design equipment and systems for processing, manufacturing, distribution and quality protection of food products; manage air, land and water resources; and develop sensors, control systems and computer models to monitor and control biological processes occurring in industry or the environment.

The Auburn Advantage

Auburn University has provided instruction, research and outreach to the state and nation for more than 150 years and is among a select group of universities designated as Land, Sea and Space Grant institutions. Auburn makes a nearly \$5 billion economic contribution to the state each year, has more than 250,000 graduates and provides 130 degree programs to more than 24,000 graduate and undergraduate students.

Contact Us

Steve Taylor, Department Head
Department of Biosystems Engineering
200 Tom Corley Building
Auburn, AL 36849
334.844.4180
taylost@auburn.edu
www.eng.auburn.edu/bio

Office of Engineering Student Services
1210 Shelby Center
Auburn, AL 36849
334.844.4310
engineering@auburn.edu
www.eng.auburn.edu/ess



AUBURN UNIVERSITY

SAMUEL GINN
COLLEGE OF ENGINEERING

www.auburn.edu

ENB1006BE1

Auburn University is an equal opportunity educational institution/employer.

AUBURN BIOSYSTEMS ENGINEERING UNIVERSITY



Welcome to the Department of Biosystems Engineering

Biosystems engineers ensure that we have a safe and plentiful supply of food and fiber, clean and abundant water to drink, renewable sources of energy, and a healthy environment. Auburn biosystems engineers apply engineering to the challenges and opportunities presented by living ecosystems and the natural environment.

Auburn University's Department of Biosystems Engineering, one of nine departments in the Samuel Ginn College of Engineering, boasts the only program in biosystems engineering in Alabama. Within the biosystems engineering degree, the options in ecological engineering and forest engineering are also unique in the region. Since 1919, the department has been providing engineering solutions to advance the economic and environmental well-being of Alabama's citizens, as well as those around the world. With dynamic growth of faculty and students, the department will continue to serve the state into the 21st century.



Undergraduate Curriculum

Bachelor of Biosystems Engineering

The biosystems engineering program offers students a strong foundation in biology, math, physics, chemistry and engineering to solve problems in the production, processing and distribution of food and fiber, as well as the protection and enhancement of the environment. Areas of study include:

- ▶ Bioenergy and bioproducts engineering
- ▶ Food engineering
- ▶ Water resources engineering
- ▶ Biological waste management

Bachelor of Biosystems Engineering

▶ Ecological Engineering Option

The ecological engineering option meets a growing demand for engineers with the ability to solve environmental problems using knowledge of natural ecological and biological principles. Areas of concentration include:

- Natural resource conservation
- Stream and river restoration
- Non-point source pollution
- Watershed modeling

Bachelor of Biosystems Engineering

▶ Forest Engineering Option

The forest engineering option, the only one of its kind in the South, provides students with engineering fundamentals and focuses on one of our most important resources — our forests. Students complete a summer field practicum after their sophomore year. Areas of concentration include:

- GPS, GIS and precision forestry
- Structural wood engineering
- Forest operations engineering
- Off-highway vehicle engineering

Research and Laboratories

Biosystems engineering provides its students with opportunities for research in many different areas within the field. Broad faculty expertise, combined with the department's quality teaching and state-of-the-art equipment, ensures that students obtain a thorough understanding of biosystems engineering. Research laboratories include:

- Computing Laboratory
- GPS and GIS Laboratory
- Sensors and Controls Laboratory



- Soil and Water Laboratory
- Hydraulics Laboratory
- Biomass Processing and Renewable Fuels Laboratory
- Food Engineering Laboratory
- Biosystems Automation Laboratory

Extracurricular Opportunities

Auburn Engineering students can participate in a variety of activities beyond the classroom, gaining experience with teamwork and project management. Along with engineering-focused student competition teams, such as the War Eagle Pullers Quarter-Scale Tractor Design Competition, biosystems engineering students are encouraged to participate in campus organizations that include:

- American Society of Agricultural and Biological Engineers
- Alpha Epsilon biological and agricultural engineering honor society
- Society of American Foresters
- Society of Women Engineers
- National Society of Black Engineers



For more information, visit www.eng.auburn.edu/organizations

Scholarships

The College of Engineering and the Department of Biosystems Engineering provide numerous scholarship opportunities to students at every stage of their academic career. While no application is required for most university and college-wide scholarships, the deadline for biosystems engineering departmental scholarship applications is Dec. 1.

For information about these offerings, visit www.eng.auburn.edu/scholarships