



# *Viewbook*

**SAMUEL GINN  
COLLEGE OF ENGINEERING**



**AUBURN**

**UNIVERSITY**





## THE AUBURN CREED

I believe that this is a practical world  
and that I can count only on what I earn.  
Therefore, I believe in work, hard work.

I believe in education,  
which gives me the knowledge to work wisely  
and trains my mind and my hands to work skillfully.

I believe in honesty and truthfulness,  
without which I cannot win the respect  
and confidence of my fellow men.

I believe in a sound mind,  
in a sound body and a spirit that is not afraid,  
and in clean sports to develop these qualities.

I believe in obedience to law because  
it protects the rights of all.

I believe in the human touch,  
which cultivates sympathy with my fellow men  
and mutual helpfulness  
and brings happiness for all.

I believe in my Country,  
because it is a land of freedom  
and because it is my own home,  
and that I can best serve that country  
by "doing justly, loving mercy,  
and walking humbly with my God."

And because Auburn men  
and women believe in these things,  
I believe in Auburn and love it.

— George Petrie, 1945





## TABLE OF CONTENTS

- 04 MEET THE DEAN
- 06 YOU MIGHT BE AN ENGINEER
- 08 ACADEMIC MAJORS
- 10 ACADEMIC MINORS
- 12 ACHIEVE YOUR DREAMS
- 14 DISCOVER OPPORTUNITY
- 18 COME SEE US



*We Believe.*









*War Eagle!*

Some students grow up knowing that when they go to college, it will be at Auburn. Others evaluate all of their options first before choosing the perfect fit for them. As dean of the College of Engineering, I am particularly enthusiastic about what we offer you as a prospective student.

The Samuel Ginn College of Engineering is a premier college nationally, and we were recently ranked 33rd among public institutions. This illustrates that we set a high standard for excellence in the classroom and in the laboratory. We are exceedingly proud that our students contribute to a global workforce immediately upon graduation and are engaged in meaningful and productive careers. As such, our large base of alumni continues to thrive as industry leaders and innovators of tomorrow's world.

Auburn is well known for its strong sense of family, and the same is certainly true in the College of Engineering. Our top priority involves the success of our students and their achievements. We offer premier facilities that now include the Brown-Kopel Engineering Student Achievement Center which is significantly transforming the personal and professional success of tomorrow's Auburn engineers. We have assembled a world class team of faculty members who have a strong focus on technological innovation and creative research in their approach to teaching. Our college is also highly dedicated to providing personalized mentoring and tutoring services that offer students all of the support they need to reach their highest levels of achievement. We strive to be – and I believe we are – the best student-centered engineering experience in the country.

At Auburn, we are committed to innovating the future. I hope you will join us as you set out on your own journey.



Dean Christopher B. Roberts



# YOU MIGHT BE AN ENGINEER.

There are plenty of schools out there, but few can provide the life-changing experience awaiting you at Auburn University. **Join our family and become a part of the best student-centered engineering college in the country.**

## *Ask yourself...*

- > Do you want to understand how things work?
- > Are you a problem solver?
- > Do you enjoy academic challenges and have the discipline to manage your time?
- > Do you want a career that's interesting and varied?
- > Do you like to work with other creative, inventive individuals?
- > Do you want to make a difference in the world?

### **Freshman**

During your first year, you will learn about different engineering disciplines offered at Auburn and will take the first of the science and math courses that form the foundation of your engineering education. As a pre-engineer, you will also take courses covering basic engineering principles, computer programming and computer-aided design, as well as classes that make up the university's core curriculum.

### **Sophomore**

During your second year, you will complete your foundation math and science classes and begin courses in engineering design. You'll also take additional core classes and broaden your academic horizons through electives.

### **Junior**

As you complete the basics, you will begin applying the principles you have learned. Discipline-specific design courses teach you how to devise a system, component or process to meet a desired outcome. You will also take additional electives and complete the required university core classes.

### **Senior**

The foundation is laid and you are ready for hands-on experience. Course work designed to integrate what you've learned concludes with a senior project, working with a team to solve practical challenges.



## First-Year Students

Applications to the university must be submitted online through the Office of Undergraduate Admissions. For dates and deadlines, visit [auburn.edu/admissions](http://auburn.edu/admissions)

## Transfer Students

For detailed information on transferring to Auburn, check out [auburn.edu/transfer](http://auburn.edu/transfer)  
[eng.auburn.edu/transfer](http://eng.auburn.edu/transfer)

## International Students

Our engineering student body includes students from more than 100 countries, bringing with them contributions to the institution's diversity of academic thought, language and culture.

[auburn.edu/international](http://auburn.edu/international)



**"I have learned a great deal with my time on the formula team. It provided me an excellent environment to grow and gain real world experience as a young engineer. I owe the formula team a lot of credit to my development as the engineer I am today."**

*Stuart Coats / Mechanical Engineering '18  
Chief Chassis Engineer  
Auburn University Formula SAE Racing Team*



# ENGINEERED EDUCATION.

## MAJORS

**“ Choosing Auburn was one of the best decisions I’ve ever made. I visited a few other schools with great engineering programs, but they seemed too impersonal. Auburn was different. It was a perfect fit. It had a beautiful campus, there was a great mix of people to meet, and it offered a top-notch engineering education at the same time. It just felt like what you wanted college to feel like. ”**

Nick Kellenberger '19  
Biosystems Engineering

### Aerospace

Aerospace engineers apply their knowledge of aerodynamics, astrodynamics, propulsion, structures, controls and performance in the design, development, testing and analysis of aerospace vehicles and systems used for national defense, communications, earth observation, space exploration and the transport of people and goods.

[eng.auburn.edu/aero](http://eng.auburn.edu/aero)

### Biosystems

*Options: Bioprocess, Biosystems, Ecological, Forest*

Biosystems engineers ensure that we have the necessities of life: a safe and plentiful supply of food and fiber, clean water to drink, renewable fuels, alternative energy sources and a healthy environment. They combine engineering concepts with biology to meet challenges and opportunities presented by living ecosystems and the natural environment.

[eng.auburn.edu/bsen](http://eng.auburn.edu/bsen)

### Chemical

From the medicines we take and the fuel that powers our cars to the foods we eat and the environment in which we live, chemical engineering touches every part of our lives. Chemical engineers develop, design and control processes and products that involve molecular change.

[eng.auburn.edu/chen](http://eng.auburn.edu/chen)

### Civil

Civil engineers conceive, plan, design, construct, operate and maintain facilities and systems that serve the basic needs of our society. From buildings, bridges and transportation systems to power and water systems, civil engineers provide the foundation of our infrastructure while also protecting the environment.

[eng.auburn.edu/civil](http://eng.auburn.edu/civil)

### Computer Science and Software

*Degrees: Computer Science, Software*

Computer scientists and software engineers design, analyze and develop software for the computer systems and networks that drive today's world, from personal computing and entertainment systems to critical applications such as medical, flight and space systems.

[eng.auburn.edu/csse](http://eng.auburn.edu/csse)



## Electrical and Computer

**Degrees:** *Electrical, Computer*

Electrical and computer engineers design the complex systems and electronic circuits that power today's world and improve communications, from wireless systems and computers to energy management systems and national defense.

[eng.auburn.edu/ece](http://eng.auburn.edu/ece)

## Industrial and Systems

Industrial and systems engineers look at the big picture of what makes organizations run most efficiently: the right combination of human and natural resources, technology and equipment, as well as information and finance to design and refine processes that improve quality, safety, profitability and productivity.

[eng.auburn.edu/insy](http://eng.auburn.edu/insy)

## Materials

Materials engineers address the science and technology of producing materials, including metals, ceramics, plastics, semiconductors and composites that have properties for expanding capabilities and improving performance in a wide range of applications such as aerospace, transportation, electronics, energy conversion and biomedical systems.

[eng.auburn.edu/matl](http://eng.auburn.edu/matl)

## Mechanical

Mechanical engineers are involved in the conceptualization, design, manufacture, testing, marketing and maintenance of the systems that make our lives easier, including construction, transportation, energy, water, waste and computers.

[eng.auburn.edu/mech](http://eng.auburn.edu/mech)

## Wireless

Wireless engineers design and build wireless communication systems with embedded radio frequency circuits and network hardware and software for use in consumer products such as cell phones, computers and smart phones, as well as medical, emergency, military and security systems.

[eng.auburn.edu/wireless](http://eng.auburn.edu/wireless)





# ENGINEERED EDUCATION.

## MINORS

**“ Auburn has instilled a work ethic in me and a desire to learn and better myself that I hope will translate to the study of medicine. It is a great place to learn and to grow. The faculty are knowledgeable and helpful and have gone out of their way to help me achieve my goals. ”**

*Tyler Compher '19  
Chemical Engineering*

### **Automotive Engineering and Manufacturing**

Prepares students for jobs in the automotive industry

[eng.auburn.edu/autominor](http://eng.auburn.edu/autominor)

### **Business-Engineering-Technology**

A curriculum designed to bridge the gap between engineering and business cultures

[eng.auburn.edu/bet](http://eng.auburn.edu/bet)

### **Computer Science**

Provides students with fundamental programming and theory for further study in the field of computing

[eng.auburn.edu/compminor](http://eng.auburn.edu/compminor)

### **Materials Engineering**

Provides basic knowledge of the structure, processing and properties of materials, with an emphasis on materials performance in engineering applications

[eng.auburn.edu/matlminor](http://eng.auburn.edu/matlminor)

### **Materials Science**

Provides basic knowledge of the structure, processing and properties of materials, with an emphasis on the solid state sciences that control materials properties

[eng.auburn.edu/matlminor](http://eng.auburn.edu/matlminor)

### **Nuclear Power Generation Systems**

Readies students for careers specializing in the support and service of America's nuclear power generation industry

[eng.auburn.edu/nuclear](http://eng.auburn.edu/nuclear)

### **Tribology and Lubrication Science**

Prepares students for careers that require specialized knowledge of friction, wear and lubrication

[eng.auburn.edu/tribology](http://eng.auburn.edu/tribology)





**" Auburn offers a truly student-centered experience. I've felt like my success after college has been the main mission of the faculty and staff. They've prepared me for what to expect when I graduate. I've felt welcomed by both the professors and the students. It's just been an incredibly supportive environment to learn in. "**

*Lexey Blakley '20  
Mechanical Engineering*



# ACHIEVE YOUR DREAMS.

Our graduates move directly into lucrative engineering positions in both the private and public sector, or they pursue graduate studies that lead to a career in research and academia. **The options are limitless.**



**"When you come here, you think of Auburn as a place, as a location. You might think of it as a football team, but somewhere along the line I think for many people, it certainly clicked for me, you realize Auburn is not a location at all. It's not a place. It's a spirit that you take with you for the rest of your life. That's the magic of the place."**

Tim Cook '82  
Industrial Engineering

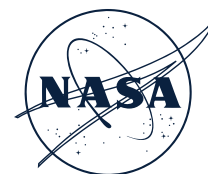


Mercedes-Benz



ExxonMobil

Google







## The Office of Career Development and Corporate Relations

We are here for you, the Auburn Engineering student. We can provide you with professional development skills, experiential education opportunities and valuable information regarding career options available in each engineering field.

We'll also offer you access to some of the most powerful companies and organizations in the nation, all eager to hire Auburn engineers.

We'll give you the resources you need to become one of the more than two million engineers working in the U.S. today – in fields ranging from defense infrastructure to telecommunications, consumer electronics and beyond – who are making the world a better place.

For more information about Career Development and Corporate Relations, email [engineeringcareers@auburn.edu](mailto:engineeringcareers@auburn.edu).

[eng.auburn.edu/career](http://eng.auburn.edu/career) | [career.auburn.edu](http://career.auburn.edu)



# DISCOVER OPPORTUNITY.

**If you're happy and you know it, you might be an Auburn Engineer. The Princeton Review recently ranked Auburn University students as the happiest in the country. Auburn Engineering's fantastic opportunities for hands-on experience are just some of the many reasons why.**

**"One thing I think every freshman should know is that there are so many opportunities and so much assistance available to help students with their course load. It's easy to start college feeling like you're all alone, but that just isn't the case at Auburn. There are Study Partners at the library that help students understand course material, and also tutors available just for engineering majors. It's really, really beneficial."**

*Tyler Kynard '22  
Electrical Engineering*

## College of Engineering Scholarships

Incoming freshmen and transfer students accepted for admission to Auburn University must complete the scholarship application (AUSOM) to receive consideration for Samuel Ginn College of Engineering scholarships. General engineering scholarships are not restricted according to major, but may be restricted according to state or county of residency, as well as financial need. Departmental engineering scholarships are awarded to those students who have declared that major on his or her admissions application. More information including important dates and deadlines can be found on the Office of University Scholarships website.

Students are encouraged to complete the Free Application for Federal Student Aid to receive financial aid. FAFSA is available online at [fafsa.ed.gov](https://fafsa.ed.gov) and should be received for consideration of financial aid, including need-based scholarships. [eng.auburn.edu/scholarships](https://eng.auburn.edu/scholarships) | [auburn.edu/scholarships](https://auburn.edu/scholarships) | [auburn.edu/finaid](https://auburn.edu/finaid)

## Cooperative Education (co-op) and Internships

Enrich your résumé by gaining real engineering work experience before graduation. Students can visit the Office of Career Development and Corporate Relations in the Brown-Kopel Center to review their résumé, enhance their interviewing skills or secure an internship or job.


[eng.auburn.edu/career](https://eng.auburn.edu/career) | [auburn.edu/co-op](https://auburn.edu/co-op)

## Student Competition Teams

Students gain hands-on experience in competition teams that include Baja SAE all-terrain vehicles, Formula SAE race cars and unmanned aerial vehicles as well as fuel cell-powered cars, robotics, DBF, theme park, concrete canoes, steel bridge and computer programming.

[eng.auburn.edu/organizations](https://eng.auburn.edu/organizations)





## Undergraduate Research

Opportunities abound to gain experience in one of our many cutting-edge research facilities. Students are able to conduct undergraduate research while collaboratively working with faculty, graduate students and fellow undergraduate students. Students in some departments can also take advantage of the National Science Foundation's undergraduate research programs.

[eng.auburn.edu/research](http://eng.auburn.edu/research)

## Academic Excellence Program

The Academic Excellence Program, sponsored by Alabama Power, is an academic support and professional development program for engineering students. This program works toward increasing the recruitment and enhancing the retention of underrepresented engineering students.

[eng.auburn.edu/ap-ae-pgm](http://eng.auburn.edu/ap-ae-pgm)

## Student Organizations

Student organizations offer a wide variety of fun and educational opportunities — from student chapters of professional groups and honor societies to student competition teams and campus-wide organizations such as band, intramural sports and student government.

[auburn.edu/involve](http://auburn.edu/involve)





**"What I enjoyed about the trip was that it incorporated philosophical elements that you typically don't find in engineering classes, from whether creating robotics is creating art to discussions about the intent of muscle movement. Those kinds of conversations are super cool to me. I would definitely do it again. It was a great experience."**

*Will Leitner '19  
Mechanical Engineering*



## Engineering Global Programs

Given our global economy, Auburn Engineering offers a wide range of faculty-led service, study abroad and exchange programs, including opportunities with Engineers Without Borders. One recent example? The Biomechanics and Engineering in the Arts program in Florence, Italy, where Auburn Engineers are learning about the biomechanical roots of ballet, the symphony, opera and even painting by exploring the lives and engineering influence of Leonardo Da Vinci and Giovanni Borelli, the Father of Biomechanics. If you're going to learn about the foundational relationship between art and science, why not do it in the cradle of the Renaissance?

[eng.auburn.edu/global](http://eng.auburn.edu/global)





## 100+ Women Strong

### Women in Engineering

The college supports the advancement and success of female engineers in a variety of ways. The Society of Women Engineers and Alpha Omega Epsilon are organizations that empower women to succeed and advance in the field by offering speakers and networking opportunities at monthly meetings. In addition, the college's 100+ Women Strong program seeks to recruit, retain and reward female engineering students. The 100+ Women Strong program is made up of alumni and friends of the college who recognize the importance of connecting with the next generation of female engineers.

[eng.auburn.edu/organizations](https://eng.auburn.edu/organizations) | [eng.auburn.edu/100womenstrong](https://eng.auburn.edu/100womenstrong)



# COME SEE US.

## Join Us for E-Day

One of the most exciting times to visit Auburn Engineering is on E-Day, our annual engineering open house. 7th-12th graders, along with their family and friends, are invited to this free event to view departmental displays, talk with representatives from each engineering department, take tours of our facilities and gain an inside look at life on the Auburn campus. E-Day is always the last Friday in February — mark your calendar.

[eng.auburn.edu/eday](http://eng.auburn.edu/eday)

## Engage with Engineering Outreach

Hands-on activities and summer camps expose K-12 students to the world of engineering.

[eng.auburn.edu/outreach](http://eng.auburn.edu/outreach)

[eng.auburn.edu/summercamps](http://eng.auburn.edu/summercamps)

## Participate in Engineering Tours and Information Sessions

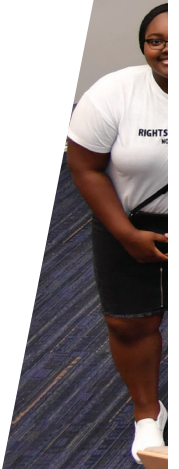
We offer engineering tours and information sessions throughout the year, with the exception of holidays and weekends. The best time to schedule your visit is during the academic calendar year when you can interact with our students.

[eng.auburn.edu/visit](http://eng.auburn.edu/visit)

## Explore the City

Known for its friendly community and strong sense of family, Auburn University is located at the center of a lively downtown with a variety of restaurants and numerous entertainment, arts and recreational opportunities. Auburn is an easy drive to Atlanta, Montgomery, Birmingham and the Gulf Coast.

[aotourism.com](http://aotourism.com)











AUBURN UNIVERSITY

SAMUEL GINN  
COLLEGE OF ENGINEERING

**Office of Engineering Student Services**

1161 Brown-Kopel Center | Auburn, Alabama 36849

334.844.7897 | [futureengineer@eng.auburn.edu](mailto:futureengineer@eng.auburn.edu)

[eng.auburn.edu](http://eng.auburn.edu)



*Join our mailing list*



*find your admissions  
advisor*

*Get Social!*

[eng.auburn.edu/facebook](http://eng.auburn.edu/facebook)



[@auburnengineers](https://twitter.com/auburnengineers)



[@auburnengineers](https://www.instagram.com/auburnengineers)



[eng.auburn.edu/youtube](http://eng.auburn.edu/youtube)



[eng.auburn.edu/flickr](http://eng.auburn.edu/flickr)

