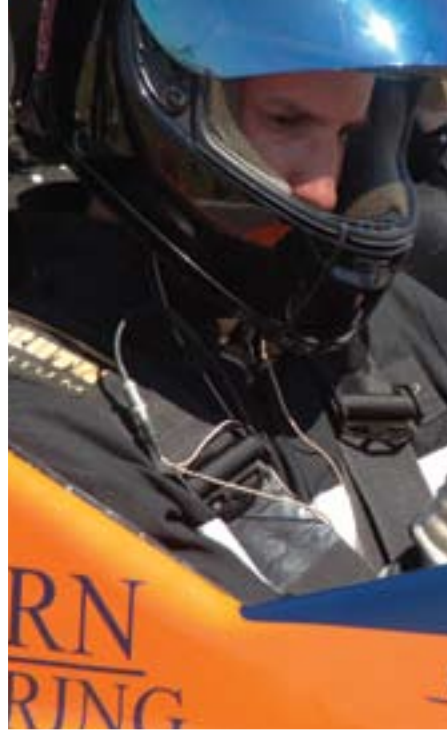
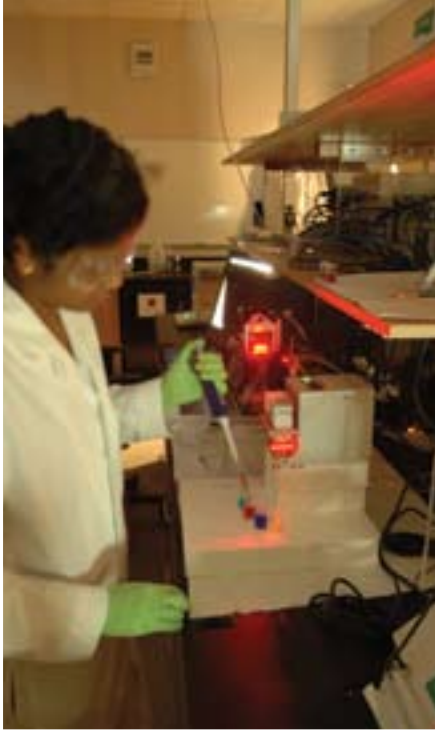




ENGINEER YOUR WORLD

SAMUEL GINN COLLEGE OF ENGINEERING





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ENGINEERING AT AUBURN

SO YOU WANT TO BE AN ENGINEER?



Some students grow up knowing that when they go to college, it will be at Auburn. Others spend months evaluating their options to find that perfect school. Whatever road you've traveled to get here, we believe you'll like what Auburn Engineering has to offer – a solid foundation in the basics and a dynamic academic environment that provides students like yourself with the tools and problem solving skills necessary for success. This hands-on, real-world approach is one of the reasons our graduates are a favorite with recruiters.

The cornerstone of our program was laid in 1869 when Auburn University offered its first engineering classes. Today, degree options range from traditional engineering areas such as civil and chemical to cutting-edge aerospace, software and wireless engineering programs. A choice of 15 majors ensures that you will find a discipline that matches your interests.

Solid academics and a campus with a strong sense of place make Auburn special. Our alumni recall a friendly, safe campus with a sense of family, caring professors, academic variety and challenge, and extracurricular activities that helped them develop both professionally and personally.

WHAT DO ENGINEERS DO?

The increasing influence and rapid advance of technology demands a skilled, highly-educated technical workforce. From defense to infrastructure to telecommunications to consumer gadgetry, engineers impact our lives every day.

Almost 1.4 million engineers are employed in the United States today, making engineering one of the nation's most popular professions. An engineering degree also opens doors to other careers, including business, law and medicine.

Career paths for engineers are as varied as the people who follow them. With a bachelor's degree, you can move directly into a lucrative engineering position in the private or public sector. Graduate study can lead to a career in research and the academic world. The options are limited only by your imagination.

YOU MIGHT BE AN ENGINEER IF...

- You're good at math and science
- You enjoy puzzles, like to solve problems and are good at it
- You enjoy academic challenge and have the discipline to schedule your time
- You're curious and want to know how things work
- You want a career that's interesting and varied
- You like to work with other creative, smart individuals
- You want to make a difference in the world

SOME POTENTIAL EMPLOYERS

Alabama Dept. of Environmental Management
 Alabama Department of Transportation
 AT&T
 Boeing Company
 ChevronTexaco
 Dow Jones & Company, Inc.
 Dynetics, Inc.
 E*Trade
 ExxonMobil
 Frito-Lay, Inc.
 General Electric
 Georgia Pacific
 Honda
 International Paper

Jet Propulsion Laboratory
 John Deere
 Lockheed Martin
 Michelin
 Milliken & Company
 Northrup Grumman
 Radiance Technologies
 Raytheon Company
 Shell Chemicals
 Southern Company
 Tennessee Valley Authority
 U.S. Space and Missile Defense
 USDA Forest Service
 Westinghouse

COLLEGE AT A GLANCE

Student enrollment fall 06

Total: 3,496

Undergraduate: 2,843

Female: 550

Minority: 323

Graduate: 653

Average high school GPA: 3.61

Average entrance exam scores: 25.5 ACT/1192.8 SAT

Students ranked in the top 25 percent
of their high school: 65 percent

Tenure-track teaching faculty: 158

Degrees offered: 14



GRADUATE STARTING SALARY range:
\$40,000s TO \$60,000s



Academics

At Auburn you will have unparalleled freedom to pursue your interests, including a choice of several engineering majors. Many entering freshmen are still deciding on their major, so our a pre-engineering program helps you identify your interests and strengths and become informed about the disciplines available.

• AEROSPACE

Aerospace engineers are involved in the conception, design, development and production of vehicles for flight both in and beyond the atmosphere. Throughout the military, government and private sector, they apply their knowledge of aerodynamics,astrodynamics, propulsion, structures, dynamics, control and performance to a wide variety of challenges in the design and analysis of aerospace vehicles and systems. www.eng.auburn.edu/ae

• BIOSYSTEMS

Combining biology with engineering to meet challenges presented by living organisms and the natural environment, biosystems engineers work to ensure a safe and plentiful supply of food and fiber, clean water, renewable fuel and energy sources, and a safe and healthy environment. Careers include design engineer, sales engineer, project manager, engineering manager, and research and development engineer. www.eng.auburn.edu/bio

• CHEMICAL

Chemical engineers use chemistry, physics, biology and engineering in areas such as biotechnology and bio-resource processes, advanced energy resources and systems, molecularly- and chemically-engineered materials, and sustainable engineering and green chemistry. They work in industries such as pharmaceuticals, biotechnology, biomedical, energy, petrochemicals, specialty chemicals, environmental health and safety, pulp and paper, food processing, microelectronics, nanotechnology, and advanced materials. www.eng.auburn.edu/che

• CIVIL

Civil engineers conceive, plan, design, construct, operate and maintain facilities and systems that serve the basic needs of our society, including buildings, bridges, water tanks, transmission lines, pipelines, highways, railways, airports, harbors, water and wastewater systems, dams and power plants. They also work to prevent pollution of our air, land and water. Employers include construction companies, government, consulting firms and industries such as oil, aircraft, shipbuilding, electric utility, communications, chemical and paper. www.eng.auburn.edu/ce

• COMPUTER SCIENCE AND SOFTWARE

Computer scientists and software engineers design, analyze, and develop software for the computer systems and networks that power today's world. Ranging from personal computing to entertainment systems to life-critical applications such as medical, flight and space systems, their expertise is essential to ensure that software is engineered to demanding performance, reliability, and safety standards. www.eng.auburn.edu/csse

• ELECTRICAL AND COMPUTER

Electrical and computer engineers design digital communications equipment such as cell phones; embed computers in products including video games and automobiles; develop data compression and transmission technology used on the Internet; design computer-controlled energy management systems; develop robotic manufacturing systems; and design antennas for satellite and cellular systems. They are involved in almost every industry, including microelectronics, computers and wireless technology. www.eng.auburn.edu/ece

• INDUSTRIAL AND SYSTEMS

Industrial and systems engineers look at the big picture of what makes organizations work best – the right combination of human and natural resources, technology and equipment, and information and finance. Employed in all business and governmental sectors, they solve critical and complex problems in manufacturing, logistics, health care, utilities, transportation, entertainment and the environment – designing and refining processes to improve quality, safety, profitability and productivity. www.eng.auburn.edu/ise

• MATERIALS

Materials engineers address the science and technology of producing materials – including metals, ceramics, plastics, semiconductors and composites – that have properties and shapes suitable for practical use in applications including aerospace, transportation, electronics, energy conversion and biomedical systems. Since materials-related challenges exist in virtually every technological field, materials engineers find employment in a variety of disciplines, from aerospace to electronics to transportation to energy conversion to biomedical systems. www.eng.auburn.edu/matl

• MECHANICAL

Mechanical engineers are involved in the conceptualization, design, manufacture, testing, marketing and maintenance of everything from jet aircraft to automobiles, power plants to hydroelectric dams, and computers to robots. Job opportunities exist in areas including business, public utilities, teaching, the armed services, the space program, and industries such as power, chemical, petroleum, automotive, biomedical, pharmaceutical, food, textile, computer, metal casting, electronics, paper, wood, rubber and glass. www.eng.auburn.edu/me

• POLYMER AND FIBER

Polymer and fiber engineers use scientific and engineering principles to design, develop, fabricate and evaluate fibers and fibrous materials for use in a variety of applications. Involved in developing and producing high performance materials that rely on structural polymers and other fibrous materials, they work in areas such as research and development, environmental protection, manufacturing, product development, process engineering and quality engineering in industries ranging from aerospace to automotive to chemical to power to textile. www.eng.auburn.edu/pfe

• WIRELESS

Wireless engineers design radio frequency wireless circuits and system and network hardware and software for use in consumer products such as cell phones, computers, and personal digital assistants as well as medical, emergency, data, and security systems. Employment includes research and development, manufacturing, and sales and service for the communications industry as well as for companies that utilize wireless technology in their products and businesses. www.eng.auburn.edu/wireless





WHAT TO EXPECT

FRESHMAN

During your freshman year, you will take the first of the science and math courses at the foundation of all engineering curriculums. Additional classes provide exposure to engineering principles as well as the basics of computer programming and computer-aided design. You will also take courses in the university's core curriculum, providing background and context for your technical studies.

This year will also provide an overview of engineering majors offered at Auburn. We work hard to help make your transition to college smooth and ensure that every student has the opportunity to become a successful graduate.

MODEL FIRST SEMESTER SCHEDULE

Classes	Semester hours
Engineering orientation	0
Calculus 1	4
Physics 1	4
Computer science	2
English composition	3
One core class	3
History	
Social science	
Fine arts	
Total hours	16

SOPHOMORE

You'll continue to strengthen and build on your foundation in science and math. If you haven't already, you will choose your major and begin course work that will introduce you to engineering basics such as thermodynamics, statics and electrical circuits.

JUNIOR

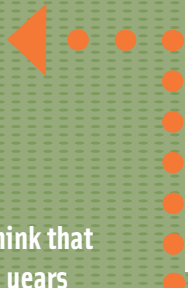
As you complete the basics, you will begin applying the principles you have learned. Engineering design courses teach you the process of devising a system, component or process to meet a desired outcome. You will also complete the required university core classes and broaden your horizons through electives.

SENIOR

The foundation is laid and you're ready to delve into the hands-on world of engineering. Course work designed to integrate what you've learned culminates with a senior project working with a team to solve real-world problems. When you leave Auburn you will be well prepared – whether you plan to continue your education or join the workforce.

and president of his social fraternity on campus. He also had plenty of time to spending hanging out with his friends on nights and weekends. "The truth is you can be an engineer and still have fun."

As an engineering senior, you might think that Bryan Myers spent most of his college years in the library solving equations. "Actually," he says, "though engineering is a challenging program, there is plenty of time to have fun and be involved on campus." Bryan served as the head drum major of the Auburn University Band



SPECIAL OPPORTUNITIES



Auburn offers numerous opportunities – on both sides of the classroom door – to make you a well-rounded, competitive engineer.

STUDY ABROAD

It's a global economy. An understanding of other cultures is an important part of preparing for the workplace. Auburn offers a variety of options for students to travel abroad.

AU Study Abroad – There are more than 20 unique AU Study Abroad programs organized by Auburn's colleges and departments, as well as many non-AU programs. Most programs are open to all AU and often non-AU students regardless of major. The College of Engineering is developing partnerships with universities that offer engineering courses that our students can take for credit at Auburn University.

www.auburn.edu/academic/international/oie/auburnabroad

Birdsong Study Abroad Scholarship – This program is designed to broaden the education of engineering students. Students submit a proposal for a semester of international study in a non-engineering major.

www.eng.auburn.edu/birdsong

COOPERATIVE EDUCATION PROGRAM AND INTERNSHIPS

Hands-on learning opportunities enable students to experience the challenge and excitement of life as an engineer. Enrich your résumé and establish contacts while putting money in your pocket. Many students alternate one semester in the workplace with one in the classroom. Summer internships are another excellent option. Statistics show that students with practical work experience are hired faster and command higher salaries.

www.auburn.edu/co-op

BUSINESS-ENGINEERING-TECHNOLOGY MINOR

This program is designed to provide skills that bridge the communication gap that often exists between engineers and business managers. Students from the College of Engineering and the College of Business work together in cross-functional, multidisciplinary teams to solve real-world case study and design problems.

www.eng.auburn.edu/BET

AT&T MINORITY ENGINEERING PROGRAM

Auburn's minority engineering program works to increase recruitment and enhance retention of minority engineering students at Auburn University. The program assists engineering students – first and second year and transfer – with the transition to a university environment and with entry-level math, chemistry and physics. One-on-one and peer group tutorials are led by a team of volunteer upperclassmen.

www.eng.auburn.edu/at&tmep

ACADEMIC TUTORING

Free tutoring services are available for all engineering students through the Office of Engineering Student Services.

www.eng.auburn.edu/ess

AUBURN UNIVERSITY WOMEN'S CENTER

The program provides Auburn's female students, staff and faculty with a variety of opportunities for leadership and professional growth.

STUDENT ORGANIZATIONS

Beyond the classroom, engineering students can join in a wide variety of educational activities such as student chapters of professional organizations, honor societies, engineering student ambassadors, student competition teams, and campus-wide organizations such as band, choir and student government.
www.eng.auburn.edu/orgs



RESEARCH

The power of new ideas is evident every day in Auburn's research labs.

We encourage students interested in research to get involved as early as your freshman year. For many students, the best way to start is to learn about the research of our faculty members and identify an area the student finds interesting. Our researchers are happy to discuss their work and many offer opportunities for undergraduates to participate.

Part-time lab jobs and co-op programs offer other ways to gain experience in the lab. Students in some departments can also take advantage of the National Science Foundation's undergraduate research program.



Senior in aerospace engineering, Brooke Hill, believes Auburn has given her the chance to do things that four years ago she would not have even dreamed of—including interning in Indianapolis with Rolls Royce. “Without Auburn I would have never had the chance to work for them. Auburn’s aerospace program can help you go anywhere and build connections with people across the country. Who would have thought that I would be working on the design, manufacturing and failure analysis of Rolls Royce jet engines. It was an incredible experience!”

ADMISSIONS



Applications to the university must be made through the Office of Admissions. Online and hard copy applications are accepted. For minimum requirements, visit www.auburn.edu/admissions

FIRST-YEAR STUDENTS

Engineering is a challenging curriculum so it's best to have a solid set of skills in place before coming to Auburn. Admission is based on a combination of high school GPA and standardized test score (ACT/SAT).

But what if your grades aren't quite what they need to be or if you don't have the recommended math and science classes? Consider taking a few math and science classes prior to enrolling at Auburn. For information on admission contact the Office of Admissions at www.auburn.edu/administration/admissions

TRANSFER STUDENTS

A third of our graduating class transferred from junior colleges or other universities and can be highly successful at Auburn Engineering. For detailed information on transferring check out www.auburn.edu/transfer

INTERNATIONAL STUDENTS

Our engineering student body includes students from almost 100 countries, bringing with them contributions to the institution's diversity of academic thought, languages and cultures.
www.auburn.edu/academic/international/oie

ADVANCED PLACEMENT AND CREDIT PROGRAMS

The College of Engineering recognizes advanced standing and credit for university courses through advanced placement, international baccalaureate and other credit programs.
www.auburn.edu/administration/registrar

SCHOLARSHIPS AND FINANCIAL AID

Scholarships, grants, loans and work-study opportunities are available. Your application to Auburn automatically places you in a pool for most university and college scholarships, but a few require a separate application and/or a free application for federal student aid (FAFSA). Within the College of Engineering, both general and departmental scholarships are available. Students seeking scholarships should apply early.
www.eng.auburn.edu/admin/ess/schfi

Auburn's Office of Financial Aid works closely with students to put together financial aid packages. In addition to your application for admission, you must complete the FAFSA.
www.auburn.edu/student_info/student_affairs/finaid

HONORS COLLEGE

Students who demonstrate the potential for academic excellence are eligible for admission to the university's Honors College, providing qualified students with the advantages of a small college within the diverse opportunities of a large university. Invitations are sent to all admitted freshmen who meet the minimum requirements – high school GPA of 3.5, 29 ACT/1280 SAT.
www.auburn.edu/honors/college

COMPUTERS

Computers are an essential part of engineering and Auburn's network is one of the finest in the nation, including wireless access in many areas of campus. Dominant systems in the College of Engineering are IBM-compatible PCs and Sun Workstations. Computers are available for lease through the university or students can use our 24-hour student computer labs. Although you are not required to own a personal computer, it is strongly recommended. For minimum recommendations, visit www.eng.auburn.edu/fcn



VISIT AUBURN UNIVERSITY

JOIN US FOR E-DAY

One of the most rewarding times to visit the College of Engineering is on E-Day. Guests can view departmental displays, talk with representatives from each department, take tours of engineering facilities and gain an overall look at life on the Auburn campus. E-Day is always the last Friday in February – mark your calendar.



PERSONAL TOURS

If you can't make it to E-Day, we offer personal tours of the engineering complex throughout the year, with the exception of holidays and weekends. The best time to schedule your visit is during the academic calendar year, when students are on campus.



TALK TO STUDENTS

Our students can tell you about life on and off campus and about the warm, supportive environment that comes with joining the Auburn family.

EXPLORE THE CITY

Warm and friendly, the campus is located at the center of a lively downtown with a variety of restaurants and numerous entertainment, arts and recreational opportunities. And if you need an infusion of big city or beach, we are an easy drive to Atlanta, Montgomery, Birmingham and the Gulf Coast.



VISIT WITH US

Our student services staff is here to help you and provide answers about admissions, scholarships and what sets Auburn apart. To arrange a visit, please contact the Office of Engineering Student Services at 334.844.4310 or ess@eng.auburn.edu.



"One of our educational priorities is social, ethical and financial responsibility in engineering," says Chris Roberts, chemical engineering department chair. **"We're teaching our students to take care of the world we live in."**

Attracting top students and faculty from around the world is Auburn Engineering's guiding vision. "Auburn has the strong building blocks to create one of the best engineering programs in the country," he adds, **"and that's where we're headed!"**



FROM THE DEAN

There has never been a better time than today to experience the benefits of higher education. As a student, you have many opportunities before you, and a number of avenues you can take in making your college career a meaningful, challenging, and enjoyable time in your life. You may have already decided to attend Auburn, or you may be in the process of narrowing your choices down from a handful of finalists.

If you are a member of the latter group, let me assure you that Auburn Engineering offers a wonderful experience. I know this because I am an Auburn engineer, with undergraduate and graduate degrees in civil engineering. I still remember the professors who taught me, the many new experiences that I encountered, and that hard-earned walk across the graduation stage. It was an exhilarating experience, and one that opened many, many doors for me.

As a student, I never imagined that I would return to Auburn as dean of engineering – but I did graduate with the certainty that my degree could take me anywhere and my preparation would equal that of any engineer. That’s because Auburn faculty and staff are committed to the kind of hands-on, focused undergraduate curriculum that has made Auburn Engineering the choice of so many students who have become leaders in a wide variety of careers spanning the globe.

We are now on the path of an aggressive campaign to advance the Samuel Ginn College of Engineering to the level of the nation’s engineering elite, and we invite you to be a part of this future. Engineering represents a challenging and rigorous course of study – but many have gone before you and succeeded in creating deeply satisfying careers. Join us on this exciting road . . . we believe it is a choice you will never regret.

Larry Benefield
Dean, Samuel Ginn College of Engineering

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





AUBURN

UNIVERSITY

SAMUEL GINN
COLLEGE OF ENGINEERING

www.auburn.edu

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Auburn University is an equal opportunity educational institution/employer.