



**“Electricity is
really just
organized lightning”**

—George Carlin

Electricity is power—and that’s no joke. The modern world runs on it. Can you imagine what your world would be like without electricity or batteries?

Have you taken apart a radio or computer, just for fun? Are you fascinated by the secret worlds inside black boxes? Then you could be wired for a high-powered career in electrical or computer engineering.

Our program will challenge your inquisitive mind and prepare you to succeed. We emphasize innovation, real-world applications, and evolving technologies. Learn the technical and people skills employers are looking for in our innovative and award-winning **Design4Practice Program**. Develop your tech-savvy by using industry caliber design, simulation, and analysis tools. Build your teamwork, communication, and thinking skills by collaborating on student design projects.

For three years running, *U.S. News & World Report* has ranked the university in the top third of national engineering programs that terminate in a bachelor’s or master’s degree. Our new state-of-the-art learning facility is equipped with a 24/7 study lounge and other learning-friendly amenities. In our information and data-driven world filled with lucrative and productive career paths, our accredited program will wire you for success.

Career Opportunities

Study to become a . . .	Begin your career in . . .
Design engineer	Aerospace
Systems engineer	Communications
Project engineer	Computers
Research engineer	Consumer products
Test engineer	Electromagnetics
	Medical products
	Power industry
	Semiconductors

“Here your teachers know you by name, even in your freshman year. You can build a rapport with them, which is really valuable for getting recommendations for jobs and internships. You will have plenty of research opportunities, which is especially valuable if you want to go to graduate school. The weather is rarely bad, and the mountain backdrop is beautiful.”

Steve Ruiz, Electrical Engineering alumnus

Degree Programs

- **Bachelor of Science in Engineering, major in Electrical Engineering**
Emphases in electrical engineering or computer engineering
- **Minor in Electrical Engineering**

Explore Courses that Jump-start Your Career

Design your engineering future

Not even Thomas Edison worked alone. Advances in design and engineering take plenty of cooperation. Employers are looking for new graduates who can operate effectively in the team environment. Our **Design4Practice Program** shows you how and will give you hands-on engineering experience from day one. Created with help from industry and agency partners, **Design4Practice** teaches the technical skills you'll need, plus the people skills traditionally left out of engineering curricula. In cross-disciplinary design courses that span the freshman to senior years, you'll collaborate with students from the university's other engineering programs to solve problems in a simulated corporate environment. You'll gain a broad set of technical, managerial, and professional skills, including design and build, communication, teamwork, leadership, and ethics. This required sequence culminates with your capstone senior project, which is sponsored by an industrial client. You'll leave college ready to step into the professional engineering world—and succeed.

Understanding electronic messages

Modern life without electronic messaging is practically unimaginable. In **Communications Systems**, you are introduced to the theory and applications of electronic communications that pervade our lives: spectral analysis, modulation and demodulation techniques, transmitting and receiving systems.

Getting the picture

You'll hone in on the fine details in our **Image Processing** course. This overview of digital image-processing techniques covers image representation, contrast manipulation, spatial filtering, edge detection, shape description, texture, noise suppression, warping, clustering, classification, and color image processing.

Participate!

Institute for Electrical and Electronics Engineers (IEEE)

Get connected with other students, work on projects, enter competitions, learn from alumni and industry representatives, and eat pizza! The IEEE has dozens of publications and conferences held around the world sharing knowledge gained by its members.

Meet friends and find support in the **Society of Women Engineers**, which seeks to break down barriers that discourage women in the engineering professions. The campus chapter is open to all engineering students and hosts study groups, fundraisers and social events, while also providing mentoring for local high school students.

Connect with new friends in campus chapters of the **National Society of Black Engineers** and **Society of Hispanic Professional Engineers**, which foster professionalism, academic excellence, and social equity among all engineering students.

Experience the Work World

Want to design a scientific payload for a high-altitude weather balloon for NASA? Or the electronics for a wind-powered water pump for a rural homestead? Or the software that automates testing of medical stents? Our engineering students already have. That's because in our program, the campus is the real world.

In **Design4Practice**, you will complete five project-learning courses in a team setting. Industry executives and seasoned engineers take part, teaching engineering concepts and practices, sponsoring projects and evaluating coursework.

The senior design course is the culminating experience in the engineering design sequence. These projects span two semesters, are sponsored by an industrial client, and presented at a conference open to the public. Can you think of a better bullet on your résumé?

Study Abroad

Study for a summer, a semester, or an academic year in universities around the globe. We provide international education opportunities to all academically qualified students. The university has cooperative agreements with institutions in Australia, Canada, France, Germany, Malta, Sweden, United Arab Emirates, and the United Kingdom. Start your travel planning with a visit to nau.edu/international.