



University of New Haven

BACHELOR OF SCIENCE

# ELECTRICAL & COMPUTER ENGINEERING



**BEST COLLEGES**

**U.S. News**

ENGINEERING PROGRAMS

2022



Our B.S. in Electrical & Computer Engineering is STEM (science, technology, engineering, and math)

-designated by the federal

government and is designed to instill in our students the technical expertise that employers are looking for in future hires.

## Program Description

This degree program joins two mighty disciplines. Electrical engineers are experts in the transmission, conversion, and generation of electric energy and in communication and signal processing. Computer engineers are the hardware warriors, designing and building computers and components and developing and integrating the software that goes into them. Bring the two programs together and you unite the power behind the "brains," opening up myriad ways in which to make the world a safer, healthier, cleaner, more efficient place to live.

Our program pulls in electrical engineering and computer engineering as well as computer science and cybersecurity, for those who choose that concentration. Because of the breadth of knowledge you gain in this program, you will be able to problem solve and pioneer, envision and invent beyond the boundaries that engineers in the past were limited to with their narrower focus.

Your career opportunities will push back earlier boundaries as well. This is one degree with unlimited possibilities.

And, since the 21st century engineer must also be able to communicate innovative ideas to other engineers and to the public, our program helps you gain the written and oral communications skills that will capture your audience's attention and imagination.



University of New Haven

CONNECTICUT INSTITUTE OF TECHNOLOGY

The University of New Haven's on-campus technology hub, the Connecticut Institute of Technology, fosters collaboration and interdisciplinary research

across the University and is a destination in the Northeast for technology education and research.

## Build and power the systems that change lives for the better

How are such professionals changing the world? With expertise fired by imagination. Here are some examples of the trail-blazing work taking place:

- Using cutting-edge sensors, satellites and drones
- Improving early cancer detection with ultra-sensitive cameras
- Creating unhackable power to thwart cyber attacks
- Researching implantable electrical devices that stimulate areas of the nervous system to relieve symptoms of neurological disorders such as epilepsy and Parkinson's Disease
- Using technology and algorithms to keep the power on during hurricanes

## The Design Experience is Wired into the Program

A rigorous laboratory course sequence gives you the hands-on experience that prepares you for the professional world. Through this high-impact practical learning experience, you will:

- develop the ability to analyze appropriate models
- conduct empirical tests and interpret them
- gather relevant information
- develop appropriate models and alternative solutions
- formulate problems
- synthesize

You will also have the opportunity (relatively rare for undergraduate engineering students) to engage in faculty-mentored research in the areas of human-computer interaction, nano-technology, wireless communication, wireless networking, smart grid, and cybersecurity.

## A Heavy-Duty Internship Will Add Power to your Résumé

A 200-hour (minimum) internship is required for graduation, and students undertake this experience after completing 60 credits toward the B.S. There are several ways to fulfill the internship requirement – co-op positions, summer employment, and part-time or full-time positions. There simply is no substitute for the rugged professionalism that a relevant, challenging internship will develop in you.

## The Cybersecurity Concentration: For the Field That Needs All Hands on Deck

The field of cybersecurity is growing so fast that it has created 3.5 million jobs that are unfilled. This field is no longer about just keeping internet data safe. It's about protecting the power grid from attack as well as other critical hot spots that have to do with national security. We are one of the first schools in the nation to integrate cybersecurity into an electrical and computer engineering program.



*“The Electrical Engineering program gave me the fundamental building blocks for understanding power generation, transformation and transmission. It also exposed me to concepts such as load flow analysis, which I use when conducting power systems studies at work. My favorite classes were my circuits and power systems classes because each concept you learn is continuously being used to support new concepts, and the topics progress in a logical and predictive manner. It doesn't matter how large or complicated a circuit becomes – the core analysis concepts you learn do not change.”*

### **JONATHAN STANFORD**

Consulting Engineer, Centek Engineering  
B.S. in Electrical Engineering '20



## About Us

The University of New Haven, founded on the Yale campus in 1920, is a private, coeducational university situated on the coast of southern New England. It's a diverse and vibrant community of more than 7,000 students with campuses across the country and around the world.

Within our colleges and schools, students immerse themselves in a transformative, career-focused education across the liberal arts and sciences, fine arts, business, healthcare and health sciences, engineering, public safety, and public service. More than 100 academic programs are offered, all grounded in a long-standing commitment to collaborative, interdisciplinary, project-based learning.

At the University of New Haven, the experience of learning is both personal and pragmatic, guided by a distinguished faculty who care deeply about individual student success. As leaders in their fields, faculty provide the inspiration and recognition needed for students to fulfill their potential and succeed at whatever they choose to do.

## Degree Programs: Your Bachelor's and Master's in 5 Years

For those who want to jump into the field with a graduate degree already in hand, we offer several accelerated bachelor's/master's programs, which will provide you with direct entry into a graduate program:

**B.S. in Electrical and Computer Engineering/  
M.S. in Electrical Engineering**

**B.S. in Electrical and Computer Engineering/  
M.S. in Biomedical Engineering**

**B.S. in Electrical and Computer Engineering/  
M.S. in Computer Science**

**B.S. in Electrical and Computer Engineering/  
M.S. in Data Science**

In the not-too-distant future, we will also offer a B.S. in Electrical and Computer Engineering with an M.S. in Cybersecurity.

These dual-degree programs will not only give your career a stronger jumpstart, but they will also save the extra year's tuition connected with traditional graduate programs.

For more details visit [newhaven.edu/dualdegree](http://newhaven.edu/dualdegree).

## Did You Know?

**76%** of employers indicate their primary purpose for sponsoring interns is to recruit entry-level talent.

**83%** of employers report higher retention rates for new hires with internship experience versus those with no experience.



## Your Success Starts Here

**For more information or to arrange a visit, contact**

**Office of Undergraduate Admissions**

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🖱 [newhaven.edu](http://newhaven.edu)