NORTH CENTRAL COLLEGE
NAPERVILLE, ILLINOIS
Founded 1861

Office of Admission
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northcentralcollege.edu

OUR MISSION

We are a diverse community of learners dedicated to preparing students to be **curious**, **engaged**, **ethical**, and **purposeful** citizens and leaders in local, national and global contexts.

NORTH CENTRAL COLLEGE

Building a Better World Begins with Building a Better Engineer

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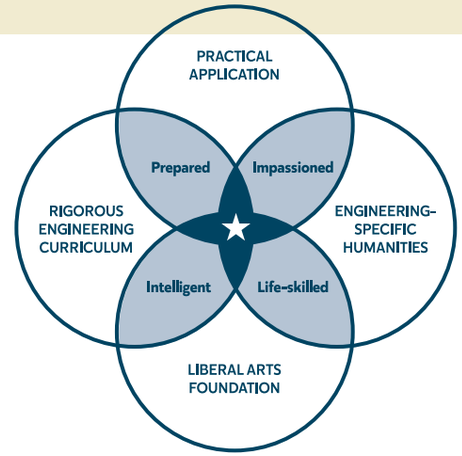
ELEVATING THE NEXT GENERATION OF ENGINEERING LEADERS

There is a call for engineers—and leaders in all fields—who are trained in more than just the technical. Their knowledge and skills are connected to their understanding of humanity, from the audiences they serve to the world in which they live.

The North Central College engineering programs fuse together the technical skills of engineering with the intentionality of the liberal arts—**equipping detailed, driven engineers to meet the needs of our ever-changing world.** In addition to skill-based labs and a strong core of general education courses, our curriculum provides meaningful engagement with other disciplines through engineering-specific courses in areas such as communication, ethics and philosophy, finance and technical writing. These courses are specifically designed to address issues engineers encounter in their career fields and are built upon insight garnered from our expert industry partners.

Here, you will join the next generation of curious, engaged and ethical problem solvers—purposeful engineers and daring entrepreneurs. You will gather the tools needed to understand complexity, thrive in chaos, communicate effectively, persuade respectfully and work well in teams—the skills needed to build not only better solutions, but a better world.

CONNECTING YOUR SKILLS TO THE NEEDS OF THE WORLD

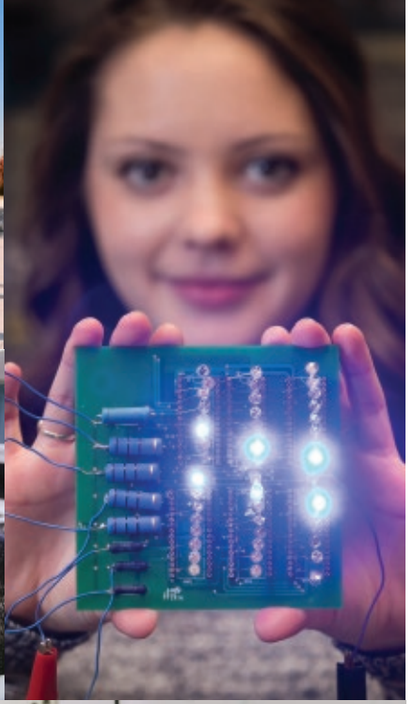


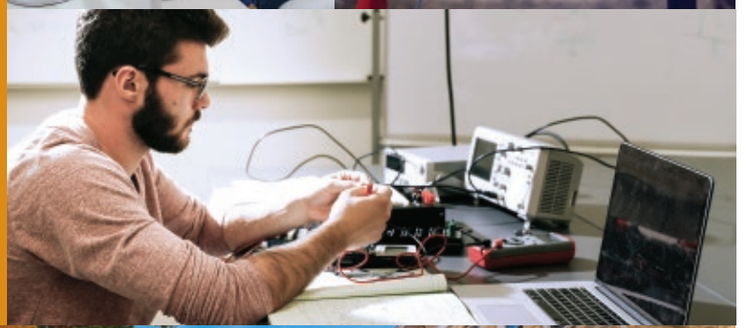
At North Central College, we are equipping engineers who are in touch with the societal issues they wish to solve, and the people who need their solutions.

Beyond a foundation built upon the liberal arts, our engineering programs focus on three invaluable social themes: access, quality of life and sustainability. These themes arise in every course as you strive to build smarter, more sustainable solutions. They culminate your senior year in the form of independent projects.

Choose from North Central College's three engineering programs—computer, electrical, or mechanical—or our dual-degree program. No matter which path you pursue, at North Central you will become a versatile engineer, equipped to serve the needs of the world and prepared to adapt to new challenges throughout your career and life.

FOUR DEGREE PATHS. ONE COMMON MISSION.





COMPUTER ENGINEERING

Technology has the potential to address many societal issues, and engineers influence how new technologies are created and applied. Computer engineering students at North Central College go through hands-on learning with a focus on design and analysis of computing systems and applications. Computer engineering coursework consists of a mix of computer science and electrical engineering topics with an emphasis on project-based experience with software and hardware design. Students are encouraged and challenged to be creative and develop an entrepreneurial mindset.

ELECTRICAL ENGINEERING

Electrical engineers influence society by designing products that produce, conduct or use electricity—working with everything from microchips to massive power generators. Using the latest technology, you'll learn the engineering method, apply the high-level programming language of Python, and make parts on 3D printers. You'll become skilled in computer circuits and architecture, FPGA design, sensors, actuators, embedded processors, power electronics and motors. If it's electronic, you'll know how it gets its information, how it's programmed and what makes it respond.

MECHANICAL ENGINEERING

From day one, mechanical engineering students get hands-on experience using the latest design tools and simulation technology, practicing engineering methods, making parts on 3D printers and programming in Python. Dive into the details of materials, manufacturing processes, sensors and actuators, embedded processors and robot control systems. Rather than concentrating on textbook examples and memorization, you'll practice skills that you'll use in your career: solving problems, working in teams, writing reports and making presentations.

DUAL-DEGREE ENGINEERING PROGRAM

Pursue our dual degree (3-2) engineering option and earn two degrees in only five years through collaborations with other universities. Get the small school experience for your first three years at North Central, where you'll complete core science, engineering and math courses and earn a bachelor of science degree in chemistry or engineering physics. Then complete a second bachelor of science degree in two years in an engineering specialty like civil, aerospace, nuclear or chemical at a partnering university.

You will study in the Dr. Myron Wentz Science Center, our state-of-the-art facility equipped to accommodate the most sophisticated hardware, software and sustainable technologies.

ENGINEERING AT NORTH CENTRAL COLLEGE

"At North Central College, we strive to create the ideal engineer: detailed where they need to be, a communicator and self-starter."

– Dr. Frank Harwath, director of engineering

At North Central College you will find a community of people driven by a love for ideas and a deep desire to make an impact—cheering each other on as they cross new finish lines and learning from one another along the way.

Collaborate with like-minded peers and gain hands-on engineering experience in the Dr. Myron Wentz Science Center. Present original research findings at local, regional and national conferences. Explore internship opportunities at nearby research labs like Argonne National Laboratory and Fermi National Accelerator Laboratory, or with our industry partners in automation and robotics, energy technologies, biotechnology, oil and gas, fiber optics, and many others. The opportunities to build on your dreams are endless.

NORTH CENTRAL ENGINEERING LABORATORIES

Computing Applications Lab hosts hands-on learning in software and hardware development using state-of-the-art computers, digital electronics and peripherals. This lab also serves to encourage and facilitate the use of computing technology to create innovative applications.

HARTING Electronics Laboratory is where both engineers and physics students are introduced to electronics and learn about basic circuit theory, component characteristics and how to operate electronic test equipment.

High Power Electronics Laboratory is a space for electrical engineers to design circuits intended to deliver large amounts of power to motors and other processing equipment. Utilize motor performance cells to monitor performance, identify problems and prevent premature failures.

Manufacturing Processes Laboratory provides hands-on learning in a real manufacturing environment. The lab also supports faculty and sponsored research, independent projects and a wide range of student extracurricular activities.

Metrology Laboratory is where students learn to make industrial measurements, evaluate material properties and perform accelerated life and stress testing. Gain additional experience diagnosing failure modes by microscopic examination of broken components.

OMRON Design & Automation Laboratory is intended to spark interest and activate student imagination. Learn the techniques needed to design and develop high quality prototypes, make parts on 3D printers, or learn about industrial control through utilizing the lab's robotic work cells and miniature automated production lines.