BACHELOR OF SCIENCE IN ENGINEERING TECHNOLOGY

A New Engineering Degree for Tomorrow’s In-Demand Jobs

Prepare to lead the future of manufacturing
If so, you may find your ideal academic major to be engineering technology. Manufacturers worldwide are looking for employees who combine business and leadership skills with engineering processes and technical knowledge.

The engineering technology degree from the nationally ranked Ohio State College of Engineering is available only on the university’s regional campuses and begins in autumn 2023 at Ohio State Newark. The university is pursuing ABET accreditation for the engineering technology degree.

MANUFACTURING IS HOT
A resurgence of manufacturing, Ohio’s largest economic sector, has increased the demand for employees with skills in engineering, manufacturing and technology. The number of businesses in the U.S. manufacturing industry has grown 3.8% per year on average over the five years between 2017 and 2022.1 In fact, more than one in five Americans employed in nonfarm jobs work in manufacturing.1 In 2020, Site Selection Magazine ranked Ohio number one nationally in manufacturing projects per capita for the second year in a row.1 The engineering technology program can prepare you for a variety of in-demand, well-paying jobs, including:

MANUFACTURING ENGINEER
Plant manager
Technical sales engineer

AUTOMATION ENGINEER
Quality engineer
CEO

PROJECT ENGINEER
Maintenance engineer
COO

SOFTWARE DEVELOPER
Computer/information systems manager

INDUSTRIAL ENGINEER

PROCESS ENGINEER

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1https://www.bls.gov
WHAT IS ENGINEERING TECHNOLOGY? Engineering technology is a career field that focuses on technological solutions for modern manufacturing. It encompasses engineering, business management, customer service and workflow design. You might say that engineering technology is “where the action is”—applying engineering knowledge to immediate, practical use, such as solving problems, analyzing business processes and improving efficiency. By contrast, engineers typically focus on theory and conceptual design, usually working on long-term projects.

OHIO STATE NEWARK ADVANTAGE: By pursuing your degree at Ohio State Newark, you have the advantage of a small campus and individual attention from accomplished faculty members. You receive an affordable degree from Ohio State’s College of Engineering, which is ranked #1 in Ohio and among the top 20 U.S. public universities.

FIRST-HAND EXPERIENCE: While pursuing an engineering technology degree, you gain experience working with multiple manufacturing tools and equipment, such as PLCs, industrial robots, electronic equipment and testing machines, among other leading-edge technologies. Beginning with your first semester in the program, representatives of more than a dozen local companies act as mentors, providing hands-on learning opportunities and tours of their companies. At the end of your coursework, your capstone project gives you a chance to put all you have learned into practice.

AVAILABLE SCHOLARSHIPS AND INTERNSHIPS: Students selected as Ohio Means Science (OHMS) Scholars receive up to $10,000 in OHMS STEM scholarships for up to two years. In addition, two Choose Ohio First scholarships of $3,358 are awarded annually. For more information, contact the Ohio State Newark admissions office at newark-askebuckeye@osu.edu or 740.366.9344. Students are also encouraged to review other scholarship opportunities at go.osu.edu/newarkscholarships.

DEGREE DEMAND: The engineering technology program was developed to satisfy the needs of Ohio’s manufacturing industry. Industry leaders recommended the development of this program to fill a current void and have helped shape the development of coursework. We will continue to monitor and adapt the program to satisfy industry needs.

“Engineering technology graduates can put themselves in a position to advance faster than an off-the-street hire with solid industry experience. Due to the curriculum of this program, specifically the emphasis on interpersonal communication, successful candidates with this experience will be assigned to specialized projects with a career path toward shop floor leadership.”
—Jay McCoy, vice president of manufacturing, Ariel Corporation
FREQUENTLY ASKED QUESTIONS

What courses will I need to take to earn this degree? The skills you learn in coursework during years three and four of our program help advance your career path. You learn leadership training, Lean Six Sigma, business analytics, quality control and much more.

If I apply, will I automatically be accepted into the program? Yes, there are no requirements to be accepted into the engineering technology program.

Once I am admitted to Ohio State Newark, am I automatically admitted into the engineering technology major, or is there a separate application? At this time there is not a separate application for Engineering Technology. You simply need to fulfill the university’s minimum requirements.

Is there a minimum college GPA required to be an engineering technology major? Yes, the engineering technology program encourages strong academic performance. A cumulative university GPA of 2.0 or greater should be attained for all graded courses at Ohio State. You must achieve a C- or better in Math 1154/1155 or Math 1151/1172 and all ENGRTEC courses.

What opportunities are there for internships? Internships at regional manufacturers are strongly encouraged. You will work with your academic advisors and industry partners to find appropriate summer internships and decide whether to seek course credit for the internships.

Can I transfer to the engineering technology program if I am coming from another institution? Yes, you can submit your previous college transcript and course descriptions for evaluation.

FIRST-YEAR COURSES

ENGRTEC 1200 - Introduction to Engineering Technology: Designed to help you understand potential career options, begin some professional development and networking, and help you gain a basic understanding of how technology is used in manufacturing today. You will begin to see what the road ahead may be like as you explore a career in engineering technology. You will have opportunities to work in teams to accomplish tasks and begin developing your written and verbal communication skills. Prerequisites and co-requisites: None

ENGRTEC 1500 - Manufacturing Processes 1: The history of manufacturing, tools and machines, and operation of machine shop equipment. Students will have opportunities to work individually and on teams, learning to communicate effectively to accomplish group tasks. Co-requisite: ENGR 1181

ENGRTEC 1600 - AutoCAD for Eng Tech: Practice in graphic design and visualization through creating and interpreting 2D computer-aided drawings in AutoCAD. Explore various forms of technical graphics, including facility layouts, piping and instrumentation diagrams, and electric schematics. This course emphasizes using technical graphics to solve engineering technology problems.

ENGRTEC 2500 - Manufacturing Processes 2: Modern manufacturing processes. Design, create and assemble structures or objects by combining manufacturing and graphic design knowledge. Work on projects individually and on teams. The skills gained are transferable to all areas of day-to-day professional life, making the course valuable in other contexts. Prerequisites: ENGRTEC 1500

Associate Professor of Practice Sandra Soto-Cabán, PhD, Department of Electrical and Computer Engineering, is the engineering technology program coordinator at Ohio State Newark. The former chair of the Physics and Engineering Department at Muskingum University, she was part of the founding faculty of its general engineering program.

“Employers are looking for leaders, and it usually takes a new-hire five or 10 years to grow into that capacity,” Soto-Cabán said. “Our program is designed to graduate students who are proficient in using engineering tools, such as CAD, GD&T and programming languages, but who also know how to run a business. They’ll learn business management, marketing, quality control, product testing, team leadership and other skills that make them ready to take on leadership roles right away.”

THE OHIO STATE UNIVERSITY AT NEWARK

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