

7 THINGS YOU DIDN'T KNOW ABOUT ENGINEERING TECHNOLOGY

BY DEVRY UNIVERSITY

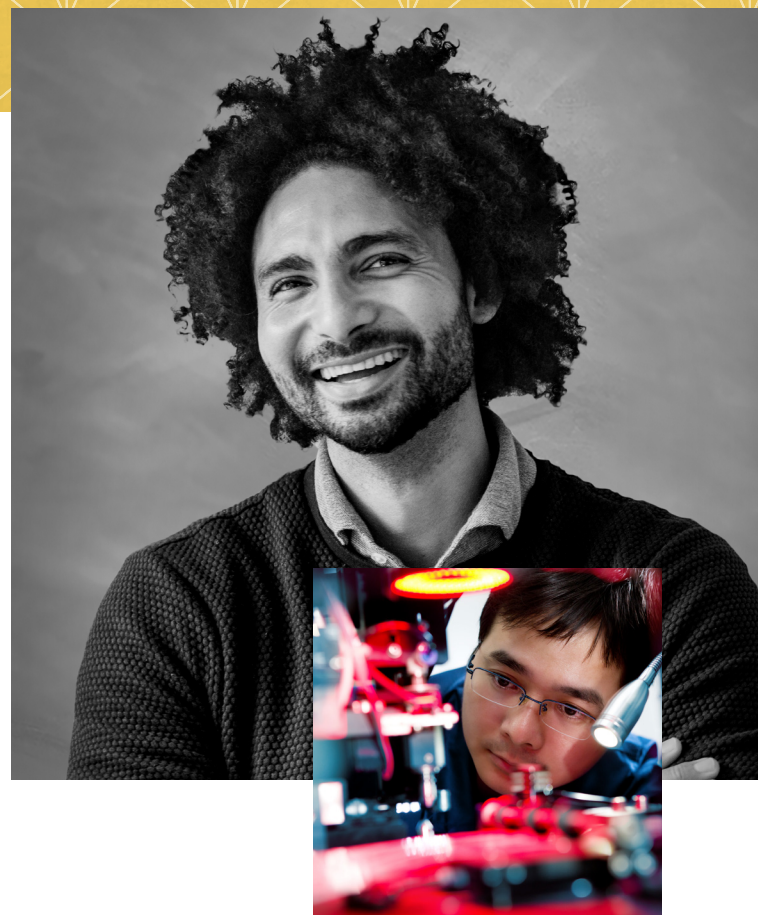
Engineering technology is an exciting discipline embedded in many industries—from automotive and mechanical to biomedical and the IoT. Yet, few people fully understand what engineering technology means or the kind of work it entails. If you're considering advancing your education to pursue new roles at work, you might want to think about the field of engineering technology. Here are seven things you'll want to know to help plan your future.

1. ENGINEERING TECHNOLOGY INVOLVES MATH, BUT NOT IN THE WAY MOST PEOPLE THINK.

When people think of engineers, the image of a brainy professor scrawling calculations, diagrams and formulas on a whiteboard usually comes to mind – but the way technicians use math in engineering technology operates differently.

“Engineering technicians use math but not at the same intense, high level as an engineer,” explained Suga N. Suganthan, National Faculty Chair in the College of Engineering and Information Sciences at DeVry University. “For example, in a traditional engineering program, a student may take calculus one, two, three and other courses focusing on rigorous calculation whereas someone studying engineering technology may take two courses in applied calculus, so even though they're learning the calculus concepts, they're mostly only applying them to a system.”

Engineering technology also requires students to study conceptual physics. “You'll have to understand the concepts but only in terms of how they can be applied to engineering technologies,” Suganthan said. “As long as you keep an open mind and you're willing to learn, it can be done.”



2. ENGINEERING TECHNICIANS AND ENGINEERS WORK HAND-IN-HAND.

“One of the most common misconceptions is that engineering technology is inferior to an engineering degree,” said Natalie Waksanski-Krynski, Professor and Faculty Chair in the College of Engineering and Information Sciences at DeVry University. But from her own personal and professional experience, she says that couldn't be further from the truth.

“An engineering degree emphasizes theory and design, while an engineering technology degree emphasizes hands-on application and implementation. In the engineering process, an engineer is responsible for the research, analysis and design while the engineering technician brings the concept to life.”

Suganthan agrees, noting that engineering technology can actually offer the “best of both worlds” for someone who wants to learn high-level theory but still enjoy building, troubleshooting and working with hands-on technologies.

“Engineering technicians work side by side with engineers,” he said. “So you're a core part of their team and processes. You'll have a chance to learn all the theory but won't have to spend hours researching. You'll learn in real time and through practice—and it's fun.”

3. YOU DON'T HAVE TO SPECIALIZE RIGHT AWAY.

If you're considering educational growth in engineering technology, and you don't know which specialization you want to pursue, try not to put too much pressure on yourself. The industry is constantly changing and there are often opportunities to transition from one set of responsibilities to the other.

Certain companies, he adds, may even help employees who have an engineering technology degree transition from one field of engineering to another, especially if you've already performed well in your current field and have proven to be skilled in a different engineering specialty.

4. YOU MAY NEED CERTIFICATIONS.

Your path to a position in engineering technology may require industry-wide certifications. These are certifications that companies recognize within engineering technology and its related specializations such as computer engineering technology and electronics engineering technology.

DeVry helps make it easy for students in certain programs to pursue these certifications because preparation is built into the curriculum for select engineering technology courses.

Plus an added bonus: DeVry may help cover some of the costs for certification exams. Qualified students in select programs may receive up to a \$300 reimbursement for the cost of one exam attempt across a wide range of certifications such as Cisco Certified Network Associate (CCNA), CompTIA A+ Technician, Network+, Security+, IT Fundamentals+ and Microsoft Technology Associate.

5. YOUR EMPLOYER MAY ASK FOR A PORTFOLIO—EVEN FOR INTERNAL, ENTRY-LEVEL POSITIONS.

Because engineering technology is such a hands-on field, many companies desire applicants who can showcase their technical knowledge and understanding of engineering principles in a project portfolio.

That's why DeVry's engineering technology programs dive deeply into labs and project assignments from the moment students begin a new course.

The goal: to prepare DeVry students as much as possible for real-world problem solving, so by the time they graduate, they have the skills, preparation for industry certifications and project samples to pursue their career goals.

6. GET READY TO EXPLORE HARDWARE AND THE IOT.

"Right now, one of our popular specialized programs focuses on electronics engineering technology, and I think that has a lot to do with the growth of the IoT," Suganthan said. "Regardless of the industry, IoT devices are everywhere."

From biomedical fields to automotive and manufacturing, if you plan to work in engineering technology, particularly within electronics engineering, then prepare to tinker with IoT hardware and a range of connected technologies.

The IoT is so prominent that DeVry has integrated IoT kits into the curriculum for select programs. The kits, provide students in the engineering technology program with microprocessors, sensors, lights and even a travel router for networking. Students can take the kits home to work on lab assignments or their own portfolio projects outside of their coursework.

7. TALK TO A MENTOR IN YOUR INDUSTRY.

Before selecting your degree program, be sure to at least speak to one professor, advisor or expert from the engineering technology field to make sure you have a chance to ask questions that specifically pertain to your engineering technology goals and interests, Karagiannes advises.

This kind of one-on-one advising is beneficial to students studying at DeVry. "In our programs, students will meet faculty and professionals who come into their classes to give talks about their work in the industry, so those are opportunities for them to learn the basics and get a feel for what areas of engineering technology they might be interested in," he said.

Want to learn more about engineering technology? Ask your employer about available partnership benefits today.

Through the education partnership between your organization and in conjunction with DeVry University, you have access to education benefits in support of your professional and life goals. To learn about transferring credits, tuition rate savings and more, contact your benefits manager or HR department for more details.

