

Electronics and Engineering Technology

College of Engineering & Information Sciences

Careers That Fit You



Turn your interests **into a career**

Do you find a challenge in developing new applications for technology, such as personal communication devices, medical equipment, power sources, or even the vehicles we use in our everyday lives? Do you enjoy applying hardware and software solutions to technical problems? Or do you want to engage in renewable energy and alternative power technology projects? With a career in electronics and engineering technology, you can help design, build and improve tomorrow's electronic products and systems, including renewable energy sources. And you can find career opportunities in many industries around the world.

Let nothing stand in the way of pursuing a career in electronics and engineering technology

New opportunities emerge every day in this field. Consider these facts from respected sources:

- Overall **engineering employment is expected to grow by 11 percent** over the 2008–2018 decade. Electronics engineers in service-providing areas are expected to be the fastest growing of all sectors of the industry.¹
- Electronic engineering has contributed to advanced telecommunications technology. **Jobs in electronics engineering are increasing** due to a greater demand for electronic devices, area specialization and a wide array of jobs in electronic engineering.²
- **Environmental engineering technicians are expected to have 30 percent employment growth by 2018** to help businesses comply with environmental regulations and to develop methods of cleaning up existing hazards. Increasing public health concerns resulting from population growth also will spur demand.³
- Clean energy, energy efficiency and **environmentally friendly production represent the jobs of tomorrow** as businesses develop renewable, efficient energy sources and technologies.⁴

¹ Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2010-11 Edition, Engineers, on the Internet at www.bls.gov/oco/ocos027.htm (visited June 06, 2011).

² Baughman, D. (2010, August 7). Future of Jobs in Electronics Engineering Suite 101.com. Retrieved June 1, 2011, from Suite 101: www.suite101.com/content/future-of-jobs-in-electronics-engineering-a271271#ixzz10XLS56ih

³ Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2010-11 Edition, Engineering Technicians, on the Internet at www.bls.gov/oco/ocos112.htm (visited June 06, 2011).

⁴ "The Clean Energy Economy," The Pew Charitable Trusts, June 2009. www.pewglobalwarming.org/cleanenergyeconomy/index.html

Find a career path that's right for you

If you've thought about building or maintaining high-tech equipment – from hand-held personal communication devices to highly specialized electronic equipment for a variety of industries – you can turn your interests into a career of your dreams. We can help you build on your natural curiosity to understand current technologies first-hand, and help develop the skills you need to succeed. With the right education, you can be prepared to pursue any of these careers in engineering technology.

Application Engineers design electronic circuits and components that control actions like propulsion and acoustics. These professionals may work in the commercial, industrial, medical or military arenas. They are highly skilled with their hands and have a strong background in math and electronics.

Biomedical Equipment Technicians test, adjust and repair equipment such as CAT scanners, MRI machines, patient monitoring devices and many others. They may work for a large manufacturer traveling from client to client, or work for a hospital system.

Computer, Automated Teller and Office Machine Technicians install, maintain and fix electronic equipment. They travel to stores, offices and locations to provide emergency repair services. Successful professionals will combine customer service skills with their technical know-how.

Computer Support Specialists provide technical assistance, support and advice to customers and other users. These troubleshooters analyze problems and guide people to solutions, often remotely. They have strong interpersonal and communication skills, as well as advanced technical knowledge.

Customer Service Engineers provide corrective and preventative maintenance support for electronic products after they've been sold. These individuals may help train customers on using the products, as well as evaluate and resolve problems. Important skills include interpersonal skills and mechanical abilities.

Electronic Technicians may work either at the equipment site or in a repair shop fixing components of electronic equipment used in factories and other businesses. They run diagnostic checks on self-monitoring equipment and review schematics to help troubleshoot. Special certification within the industry may be required.

Energy Engineers design, develop and evaluate energy-related projects and programs to reduce energy costs or improve energy efficiencies. They apply their skills to new building and remodeling projects in residential and commercial construction sectors.

Energy Engineering Specialists work in industries, such as medical equipment manufacturing, geographical surveying, wastewater management and many others. They may require specialized knowledge of green manufacturing techniques, sustainable systems and processes or environmental effects of certain components and materials.

Energy Technical Project Managers coordinate and supervise power engineering projects related to renewable energy management, as well as keep track of the needs of clients. They combine excellent organizational skills along with their technical knowledge to manage projects, timelines and details.

Engineering Technicians help design, develop and test electronic and electrical equipment. They may work in product evaluation testing, adjusting or making repairs and improvements. Knowledge of computer-aided design and drafting software is often required.

Field Service Technicians visit customers' places of work to install and service equipment. They run diagnostic tests and replace or repair broken parts. They may help train customers on how to operate equipment and may need special training on the brand or type of electronic equipment they are servicing.

Manufacturing Technicians apply engineering theory and principles to solve manufacturing or industrial design problems. They seek to improve production and efficiency rates within the manufacturing environment. They help plan work assignments for other workers to optimize production and delivery times of finished goods.

Sales Engineers consult to businesses and governments on various technologies and products. They help determine how products can be customized to meet specific client needs. They develop proposals and negotiate pricing in the promotion of their companies' products.

Software Engineers work with hardware engineers to design and develop software systems that meet customer or end-user needs. They develop installation and upgrade plans, test systems and incorporate customer feedback to deliver improved features and functionality. They have strong communication skills to match their knowledge of computer systems.

Test Engineers/Technologists use standard test equipment to measure electronic components' performance. They determine the rationale for modifications and perform preventative maintenance, calibrating equipment and systems for optimal performance. This is a hands-on career field that requires the practical application of broad electronics concepts.



Resources

Make an educated decision about your career. You can learn more about the careers we've featured by visiting these websites.

American Design Drafting Association
www.adda.org

American Solar Energy Association
www.ases.org

American Wind Energy Association
www.awea.org

Association for Computing Machinery
www.acm.org

Association for Operations Management, APICS
www.apics.org

Association for the Advancement
of Medical Instrumentation
www.aami.org

Biomass Power Association
www.usabiomass.org

Sustainable Business
www.sustainablebusiness.com

InfoComm International
www.infocomm.org

Institute for Supply Management
www.ism.ws

Institute of Electrical and Electronics Engineers
www.ieeeusa.org

IEEE Computer Society
www.computer.org

Institute of Industrial Engineers
www.iienet.org

JETS (Junior Engineering Technical Society)
www.jets.org

Manufacturers' Agents National Association
www.manaonline.org

Manufacturers' Representatives Educational
Research Foundation
www.mrerf.org

Nuclear Energy Institute
www.nei.org

National Institute for Certification
in Engineering Technologies
www.nicet.org

National Institute of Governmental Purchasing, Inc.
www.nigp.org

National Workforce Center for Emerging Technologies
www.nwcet.org

Society for Technical Communication
www.stc.org

Society of Broadcast Engineers
www.sbe.org

Solar Energy Industries Associations
www.seia.org

Bureau of Labor Statistics
www.bls.gov

Salary Information
www.salary.com

Websites current at time of publication.

Earn an education
that can work
for a lifetime

**We can help you every step of the way at
DeVry University**

At DeVry University, you can find what you need to succeed – flexible schedules, personal attention, hands-on learning and professors with real, practical experience. Plus, you can obtain the ongoing support you need to pursue a career path that's right for you.

You can learn the technical skills that can give you an edge in your career. And you can get the critical business skills that can help you succeed in any work environment. Our career-focused learning can prepare you with hands-on training in a real-world environment. Coursework in our bachelor's degree programs culminates with the completion of a Senior Project, which addresses real business needs.

As a student, you can use up-to-date equipment while learning from instructors with industry experience. DeVry University has a long history of preparing individuals to work in the electronics industry and we continue to be a leader in this area of education. When you land your dream career, you can be prepared with the knowledge and skills that employers are looking for – and an education they respect.

A DeVry University diploma also means you can earn a degree from an institution that is accredited by The Higher Learning Commission of the North Central Association (ncahlc.org), a significant mark of institutional quality and integrity.

Intrigued by the possibilities? Learn as much and make an

Begin your path to a successful career at DeVry University

DeVry University offers a variety of degree programs* and areas of specialization through the college of Engineering & Information Sciences, to help start you on the right path to a successful career in Electronics and Engineering Technology.

Electronics & Computer Technology Associate Degree Program

Concentrate on the hands-on aspects of computer electronics, including electrical and electronic circuits and systems, digital microprocessor and computer systems, computer applications for business, and networking applications. Learn how to inspect products and processes, conduct tests, collect data and build your own prototype versions of new equipment designs.

Biomedical Engineering Technology Bachelor's Degree Program**

Learn to use cutting-edge engineering principles to analyze and facilitate biological and medical technology advances to enhance today's healthcare practice. Design, build and maintain a wide range of devices, from pacemakers to lasers to patient-monitoring devices and X-ray tools.



Computer Engineering Technology Bachelor's Degree Program** – Onsite

Online degree program is Engineering Technology–Computers. See academic catalog for additional information.

Focus on the skills needed to research, design, develop and test computer hardware and learn the software needed for product development. Also learn to test, monitor and maintain a variety of advanced electronic products and industrial equipment, including chips, semiconductor fabrications and electronic Internet applications.

Electronics Engineering Technology Bachelor's Degree Program** – Onsite

Online degree program is Engineering Technology–Electronics. See academic catalog for additional information.

Research, design and test computer-based hardware and learn to supervise its manufacture and/or installation. Work with advanced electronic products and industrial equipment to design, test and troubleshoot new technologies.

• Renewable Energy Specialization

Online degree program is Engineering Technology–Electronics with a Renewable Energy Specialization. See academic catalog for additional information.

Focus your Engineering Technology degree with our Renewable Energy Specialization. Combine a strong engineering technology and electronics background with knowledge of renewable technologies and alternative power sources. Focus on the production, transmission and storage of sustainable energy sources, such as wind, solar, geothermal, hydroelectric and biomass power. Advance your knowledge in alternative energy generation, as well as the impact of environmental science, economics and sociology on technology.

*Program availability varies by location.
Some coursework may be available online only.

**The Electronics Engineering Technology (EET), Computer Engineering Technology (CET), and Biomedical Engineering Technology (BMET) degree programs are accredited, by location, by the Technology Accreditation Commission of ABET (TAC of ABET). ABET is the recognized accreditor for college and university programs in applied science, computing, engineering and technology that has provided quality assurance in higher education for over 75 years.

TAC of ABET requires separate review of each engineering technology program both online and at each physical location. The Engineering Technology – Computers, as well as the Engineering Technology – Electronics programs are offered online only and are currently not accredited by TAC of ABET. DeVry will seek accreditation for these programs as soon as appropriate, in accordance with TAC of ABET procedures. Future accreditation is not guaranteed. The CET and EET programs at DeVry Calgary are not eligible for this accreditation.

as you can, informed decision *about your career path.*

Choose the area of study that's right for your career goals

DeVry University offers a variety of degree programs* and areas of specialization through the college of Engineering & Information Sciences, to help start you on the right path to a successful career in the electronics and engineering technology field.

		Degree Programs				
		Electronics & Computer Technology	Computer Engineering Technology*	Electronic Engineering Technology*		Biomedical Engineering Technology
				Specializations		
			Renewable Energy			
Career Opportunities	Application Engineer		●		●	●
	Biomedical Equipment Technician				●	●
	Computer, Automated Teller and Office Machine Technician	●				
	Computer Support Specialist	●				
	Customer Service Engineer	●	●		●	●
	Electronic Technician	●	●		●	
	Energy Engineers			●		
	Engineering Specialist		●		●	●
	Engineering Technician	●				
	Field Service Technician	●				
	Manufacturing Technician	●	●		●	●
	Sales Engineer		●		●	●
	Software Engineer		●			
	Technical Project Managers			●		
Test Engineer/Technologist		●		●	●	

* Online degree program is Engineering Technology – Computers

* Online degree program is Engineering Technology – Electronics with an optional Renewable Energy Specialization

See academic catalog for more information

Ready to build a career in electronics and engineering technology?

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Visit devry.edu or call 888.DEVRY.04

For comprehensive consumer information, visit devry.edu/studentconsumerinfo

In New York, DeVry University operates as DeVry College of New York. Program and course requirements and availability vary by location. Some courses may be available online only. Refer to the current academic catalog for more detailed information. DeVry University operates as DeVry Institute of Technology in Calgary, Alberta. DeVry is certified to operate by the State Council of Higher Education for Virginia, AC0060. DeVry University is authorized for operation by the THEC, www.state.tn.us/thec. Nashville Campus – 3343 Perimeter Hill Dr., Nashville, TN 37211.

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