

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

Specialization: **Renewable Energy**

PROGRAM AVAILABILITY

The Engineering Technology – Electronics with Renewable Energy specialization degree program is only offered online. For students interested in an onsite degree program, please refer to the Electronics Engineering Technology with Renewable Energy specialization program guide for more information.

ABOUT THIS DEGREE PROGRAM

Electronics are the core of everything from personal communication devices to sophisticated medical equipment to the cars and trucks we drive. The Engineering Technology – Electronics (ET-E) degree program at DeVry University can help you launch a successful career designing, building and improving tomorrow's electronic products and systems. 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.

As a student, you can work with the latest technologies and designs, plus test new ones, providing you with real-world insight that is valuable to employers. You can learn key troubleshooting skills and become immersed in today's engineering hardware and software technologies. You can also learn how to lead and/or be part of a technical team. The skills you develop can prepare you for a 21st century career in Engineering Technology.

In addition, students may take the Engineering Technology – Electronics degree program without a specialization.

The Engineering Technology – Electronics degree program is offered *online only* and is currently not accredited by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET). TAC of ABET requires separate reviews of each engineering technology program, both online and at each physical location. DeVry will seek accreditation for this program as soon as appropriate, in accordance with TAC of ABET procedures. Future accreditation is not guaranteed.

GENERAL EDUCATION COURSEWORK

At DeVry University, we believe in the value of a comprehensive education. This means broadening your knowledge and skill sets beyond the area of your degree program, to help prepare you to succeed in today's diverse and evolving workplace.

From day one, you can learn important analytical and communication skills, such as problem-solving, reasoning and analysis, academic and professional writing, plus mathematics and statistics skills. These skills can better equip you to work across cultures and understand a wide range of concepts that influence your area of study.

General Education Coursework:

- Communication Skills
- Humanities
- Mathematics and Analytical Methods
- Natural Sciences
- Personal and Professional Development
- Social Sciences

CORE-DEGREE COURSEWORK

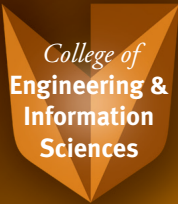
all
of these
courses

COMP-122	Structured Programming with Lab
COMP-220	Object-Oriented Programming with Lab
ECET-100	Introduction to Electronics and Computer Engineering Technology with Lab
ECET-110	Electronic Circuits and Devices I with Lab
ECET-210	Electronic Circuits and Devices II with Lab
ECET-220	Electronic Circuits and Devices III with Lab
ECET-230	Digital Circuits and Systems with Lab
ECET-299	Technology Integration I

General Education Coursework (credit hours)	61
Core-Degree Coursework (credit hours)	+ 28
Career-Focused Coursework (credit hours)	+ 50
Approximate Credit Hours Required for Graduation (Nine Full-Time Semesters to Complete)	139

did you know?

DeVry University provides highly interactive coursework and several innovative resources to help ensure your success when taking engineering technology courses online. This includes test equipment, hardware kits and access to a dedicated home lab manager to assist students with software and hardware configuration, in their own home lab environment.



Bachelor's Degree Program Online Engineering Technology – Electronics

Specialization: *Renewable Energy*

CAREERS IN ENGINEERING TECHNOLOGY

DeVry University's Renewable Energy specialization provides a strong engineering technology and electronics background with an emphasis on green technologies, such as wind, solar, geothermal and biomass power. As a graduate, you can be well-versed in alternative energy generation, as well as the impact of environmental science, economics and sociology on green technology.

Graduates can also obtain the knowledge needed to understand how engineering design, planning and project management can utilize renewable sources of energy, along with the production, transmission and storage of sustainable energy sources. Our specialization in Renewable Energy can better prepare you for success in Engineering Technology positions that are increasingly being affected by green technologies and initiatives.

Graduates of DeVry University's Engineering Technology – Electronics degree program with a specialization in Renewable Energy may consider careers including:

- Energy Systems Technician
- Energy Engineering Specialist
- Energy Technical Project Manager
- Power Electronics Technician or Engineering Specialist

According to the Bureau of Labor Statistics, employment for environmental engineering technicians is expected to have 30 percent employment growth between 2008 to 2018.¹

KNOWLEDGE AND SKILLS

CONSERVATION PRINCIPLES IN ENGINEERING AND TECHNOLOGY² – Examine conservation laws of mass, energy, charge and momentum and apply fundamental engineering concepts to problems in statics, dynamics, fluid mechanics, electrical circuits and thermodynamics.

FUNDAMENTALS OF POWER AND ALTERNATIVE ENERGY SOURCES² – Exposure to power switching circuits including simulation and construction of systems needed to convert power derived from both conventional systems and alternative energy sources such as solar and wind.

ENVIRONMENTAL SCIENCE AND SOCIAL STUDY² – Learn to identify causes of environmental problems and apply practical solutions. This includes exploring cultural norms, ideologies, beliefs, and economic and gender-related factors that affect finding and providing sustainable solutions to environmental problems.

SCIENCE, TECHNOLOGY AND MANAGEMENT² – Learn the science and technology behind renewable energy while considering business decisions required for investing in and managing systems using this technology. Explore renewable energies including solar technologies, fuels synthesized from biomass, hydrogen, wind and others.

ENGINEERING AND TECHNOLOGY³ – Gain knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures and equipment to the design and production of various goods and services.

COMPUTERS AND ELECTRONICS³ – Learn about circuit boards, processors, chips, electronic equipment and computer hardware and software, including applications and programming.

MECHANICAL³ – Understand machines and tools, including their designs, uses, repair and maintenance.

MAINTENANCE AND REPAIR³ – Service, repair, calibrate, regulate, fine-tune or test machines, devices, and equipment that operate primarily on the basis of electrical or electronic (not mechanical) principles.

ANALYZE DATA OR INFORMATION³ – Identify the underlying principles, reasons or facts and break down information or data into separate parts.

DESIGN³ – Use the knowledge of design techniques, tools and principles involved in the production of precision technical plans, blueprints, drawings, and models.

COMPLEX PROBLEM SOLVING³ – Identify complex problems and review related information to develop and evaluate options and implement solutions.

CAREER-FOCUSED COURSEWORK

*all
of these
courses*

COMP-328	Programming Environments and Java with Lab
ECET-301	Conservation Principles in Engineering and Technology with Lab
ECET-330	Microprocessor Architecture with Lab
ECET-340	Microprocessor Interfacing with Lab
ECET-350	Signal Processing with Lab
ECET-375	Data Communications and Networking with Lab
ECET-390	Product Development
ECET-492L	Senior Project Development Lab I
ECET-493L	Senior Project Development Lab II
ECET-494L	Senior Project Development Lab III
REET-300	Introduction to Alternative Energy Technologies with Lab
REET-499	Technology Integration II - REET
SUST-310	Renewable Energy: Science, Technology and Management

*8
semester
hours from
these
courses*

INTP-491	Internship I
INTP-492	Internship II
REET-420	Power Electronics and Alternative Energy Applications with Lab
REET-425	Electric Machines and Power Systems with Lab
REET-430	Instrumentation for Energy Technologies with Lab

¹Bureau 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 February 1, 2011).

²DeVry University, on the Internet at www.devry.edu/degree-programs/college-engineering-information-sciences/renewable-energy-about.jsp.

³O*NET OnLine, Summary Report for Electronics Engineering Technologists, on the Internet at www.online.onetcenter.org/link/summary/17-3029.04 (visited February 1, 2011).

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/thecc. Nashville Campus – 3343 Perimeter Hill Dr., Nashville, TN 37211. ©2011 DeVry Educational Development Corp. All rights reserved. Version 7/1/11

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