

Bachelor's Degree Program *Electronics Engineering Technology*

Specialization: **Renewable Energy**

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 Electronics Engineering Technology (EET) degree program at DeVry University can help you launch a successful career designing, building and improving tomorrow's electronic products and systems. DeVry has a long history in educating some of the industry's strongest Engineering Technology professionals.

As a student, you'll 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 conversant in today's engineering hardware and software technologies. You can also learn how to lead and 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 Electronics Engineering Technology degree program without a specialization.

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:

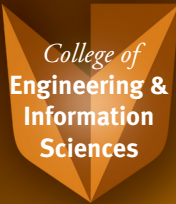
- Communications
- Humanities
- Mathematics and Analytical Methods
- Natural Sciences
- Personal and Professional Development
- Social Sciences

CORE-DEGREE COURSEWORK

all
of these
courses

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
COMP-122	Structured Programming with Lab
COMP-220	Object-Oriented Programming with Lab

General Education Coursework (credit hours)	44
Core-Degree Coursework (credit hours)	+ 51
Career-Focused Coursework (credit hours)	+ 44
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Approximate Credit Hours Required for Graduation (Nine Full-Time Semesters to Complete)	139



Bachelor's Degree Program Electronics Engineering Technology

Specialization: *Renewable Energy*

ABOUT THIS SPECIALIZATION

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. DeVry's 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 Electronic Engineering Technology degree program with a specialization in Renewable Energy may consider careers such as:

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

According to O*NET OnLine, using data from the Bureau of Labor Statistics, employment in energy engineering is expected to grow between 7 and 13 percent from 2008 to 2018.¹

¹Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, 2010-11 Edition, Engineering Technicians, on the Internet at <http://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 of Electronics Engineering Technologists, on the Internet at http://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/thec. Nashville Campus – 3343 Perimeter Hill Dr., Nashville, TN 37211. ©2011 DeVry Educational Development Corp. All rights reserved. Version 2/28/11

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 technology while considering business decisions required 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 design and production of various good 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 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

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