Bachelor's Degree Program

ELECTRONICS ENGINEERING TECHNOLOGY

Specialization: Renewable Energy

ABOUT THIS DEGREE PROGRAM

Every industry and individual today relies on high-tech electronic and computer devices in order to communicate, create, transport and entertain. DeVry University's associate degree program in Electronics and Computer Technology can prepare you with the skills needed to maintain and repair these vital products and systems. DeVry University has a long history of preparing individuals to work in the electronics industry.

As a student, you can work with the latest technologies and designs, plus test new ones, providing with real-world insight. 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 a part of a technical team.

The Electronics Engineering Technology degree program is accredited by The Engineering Technology Accreditation Commission (ETAC) of the Accreditation Board for Engineering and Technology (ABET). Some courses may be taken interchangeably between onsite and online to fulfill graduation requirements. The most recent information on which programs are ETAC of ABET accredited at which locations is available in the Academic Catalog and at http://www.devry.edu/catalogs.

Through our TechPath approach, we’ve put technology at the core of our programs in business, tech and health – including this program. Every TechPath class you take revolves around a unique learning rubric developed at DeVry. We call it People-Process-Data-Devices or P2D2. You’ll gain real skills in collaboration, be able to adapt to new structures, and be comfortable working with data and a wide spectrum of tech-forward tools. P2D2 is a key component of what makes TechPath a smart, new way of getting the knowledge you need to be ready to hit the ground running in the way successful companies work today.

GENERAL EDUCATION COURSEWORK

Communication Skills
ENGL12 Composition
ENGL135 Advanced Composition
ENGL216 Technical Writing
SPCH127 Public Speaking

Humanities
HUMN303 Introduction to the Humanities
ETHC445 Principles of Ethics
LAS432 Technology, Society, and Culture

Social Sciences
ECON410 Environmental Economics
SOSC328 Environmental Sociology

Mathematics and Analytical Methods
ECET345 Signals and Systems with Lab
MATH190 Pre-Calculus
MATH260 Applied Calculus I
MATH270 Applied Calculus II

Natural Sciences
BIOIS135 Foundations in Biology and Chemistry with Lab
PHYS110 College Physics I with Lab
PHYS220 College Physics II with Lab
SCI204 Environmental Science with Lab

Personal and Professional Development
CARD405 Career Development
COLL148 Critical Thinking and Problem-Solving

Courses in blue are part of the DeVry Tech Path

1 Most courses with ECET and REET designators may not be applied to this program if the courses are taken online.
2 Students enrolled at a New Jersey location take ENGL108 in lieu of this course.

CORE-DEGREE COURSEWORK

Electronic Circuits and Devices
ECET110 Electronic Circuits and Devices I with Lab
ECET210 Electronic Circuits and Devices II with Lab
ECET220 Electronic Circuits and Devices III with Lab
ECET350 Signal Processing with Lab

Digital Circuits and Microprocessors
CEIS100 Introduction to Engineering Technology and Information Sciences
ECET105 Digital Fundamentals with Lab
ECET230 Digital Circuits and Systems with Lab
ECET330 Microprocessor Architecture with Lab
ECET340 Microprocessor Interfacing with Lab

Computer Programming and Networking
CIS107C Programming with Lab
CIS247C Object-Oriented Programming with Lab
CIS355A Business Application Programming with Lab
ECET375 Data Communications and Networking with Lab

Senior Project Design and Development
ECET390 Product Development
ECET492L Senior Project Development Lab I
ECET493L Senior Project Development Lab II
ECET494L Senior Project Development Lab III

Technology Integration
ECET299 Technology Integration I
ECET497 Technology Integration II

ACCREDITATION MATTERS

The Electronics Engineering Technology degree program is accredited, by location, by The Engineering Technology Accreditation Commission of ABET (ETAC of ABET) www.abet.org. ETAC of ABET promotes technical education excellence by offering programmatic accreditation to institutions that meet their quality standards. This is a global mark of quality that is valued by employers and professional associations within the field Engineering Technology. To learn more visit www.abet.org.
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.

You 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 prepare you for Engineering Technology positions that are increasingly being affected by green technologies and initiatives.

Graduates of DeVry University's Electronics Engineering Technology degree program with a specialization in Renewable Energy may consider careers including, but not limited to, the following:

- Electronics Technician
- Energy Engineering Technician
- Technical Project Manager
- Test Engineers and Technologists

**Knowledge and Skills**

**CONSERVATION PRINCIPLES IN ENGINEERING AND TECHNOLOGY** — Examine conservation laws of mass, energy, charge and momentum, and apply fundamental engineering concepts to problems in electrical circuits.

**FUNDAMENTALS OF POWER AND ALTERNATIVE ENERGY SOURCES** — Explore 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 STUDY** — 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 MANAGEMENT** — 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 TECHNOLOGY** — 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 ELECTRONICS** — Learn about circuit boards, processors, chips, electronic equipment and computer hardware and software, including applications and programming.

**MAINTENANCE AND REPAIR** — 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 INFORMATION** — Identify the underlying principles, reasons or facts and break down information or data into separate parts.

**DESIGN** — Understand the use of design techniques, tools and principles involved in the production of electronic equipment, schematics, drawings and models.

**COMPLEX PROBLEM SOLVING** — Identify complex problems and review related information to develop and evaluate options and implement solutions.

**Program-Specific Coursework**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECET301</td>
<td>Conservation Principles in Engineering and Technology with Lab</td>
</tr>
<tr>
<td>REET300</td>
<td>Introduction to Alternative Energy Technologies with Lab</td>
</tr>
<tr>
<td>REET420</td>
<td>Power Electronics and Alternative Energy Applications with Lab</td>
</tr>
<tr>
<td>REET425</td>
<td>Electric Machines and Power Systems with Lab</td>
</tr>
<tr>
<td>SUST310</td>
<td>Renewable Energy: Science, Technology and Management</td>
</tr>
</tbody>
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