



# Bachelor's Degree Program ENGINEERING TECHNOLOGY – COMPUTERS

## ABOUT THIS DEGREE PROGRAM

Computer software enables everything from basic functions like email and word processing, to complex programs that drive today's mobile devices. DeVry University's bachelor's degree program in Engineering Technology – Computers can prepare you with the skills for writing, implementing and testing software programs that drive modern electronic devices.

As a student, you can learn programming languages, operating systems environments, microprocessor fundamentals and how to decipher user needs. You can focus on real-world problems and solutions, gaining the experience that today's employers value.

The Engineering Technology – Computers 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/academics/accreditation.html>.

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

<b>ENGL112</b>	Composition
<b>ENGL135</b>	Advanced Composition
<b>ENGL216</b>	Technical Writing
<b>SPCH275</b>	Public Speaking

### Humanities

<b>HUMN303</b>	Introduction to the Humanities
<b>ETHC445</b>	Principles of Ethics
<b>LAS432</b>	Technology, Society, and Culture

### Social Sciences

<b>ECON312</b>	Principles of Economics
<b>SOCS185</b>	Culture and Society
<b>SOCS325</b>	Environmental Sociology

### Mathematics, Analytical Methods and Natural Sciences

<b>ECET345</b>	Signals and Systems with Lab
<b>MATH190</b>	Pre-Calculus
<b>MATH260</b>	Applied Calculus I
<b>MATH270</b>	Applied Calculus II
<b>PHYS310</b>	College Physics I with Lab
<b>PHYS320</b>	College Physics II with Lab

### Personal and Professional Development

<b>CARD405</b>	Career Development
<b>COLL148</b>	Critical Thinking and Problem-Solving

## CORE-DEGREE COURSEWORK

### Electronic Circuits and Devices

<b>ECET110</b>	Electronic Circuits and Devices I with Lab
<b>ECET210</b>	Electronic Circuits and Devices II with Lab
<b>ECET220</b>	Electronic Circuits and Devices III with Lab
<b>ECET350</b>	Signal Processing with Lab

### Digital Circuits and Microprocessors

<b>CEIS100</b>	Introduction to Engineering Technology and Information Sciences
<b>ECET105</b>	Digital Fundamentals with Lab
<b>ECET230</b>	Digital Circuits and Systems with Lab
<b>ECET330</b>	Microprocessor Architecture with Lab
<b>ECET340</b>	Microprocessor Interfacing with Lab
<b>ECET365</b>	Embedded Microprocessor Systems with Lab

### Computer Programming and Networking

<b>CEIS295</b>	Data Structures and Algorithms
<b>CIS170C</b>	Programming with Lab
<b>CIS247C</b>	Object-Oriented Programming with Lab
<b>CIS336</b>	Introduction to Database with Lab
<b>CIS355A</b>	Business Application Programming with Lab
<b>ECET360</b>	Operating Systems with Lab
<b>ECET375</b>	Data Communications and Networking with Lab
<b>ECET465</b>	Advanced Networks with Lab
<b>ECET490</b>	Distributed Computing System Design with Lab

### Senior Project Design and Development

<b>ECET390</b>	Product Development
<b>ECET492L</b>	Senior Project Development Lab I
<b>ECET493L</b>	Senior Project Development Lab II
<b>ECET494L</b>	Senior Project Development Lab III

### Technology Integration

<b>ECET299</b>	Technology Integration I
<b>ECET497</b>	Technology Integration II

## ACCREDITATION MATTERS

The Engineering Technology – Computers (ET-C) degree program is accredited, by location, by The Engineering Technology Accreditation Commission of ABET (ETAC of ABET) [www.abet.org](http://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](http://www.abet.org).



Programs, course requirements and availability vary by location. Some courses may be available online only. All students enrolled in site-based programs will be required to take some coursework online and, for some programs and locations, a substantial portion of the program may be required to be completed online. DeVry's academic catalog, available via [devry.edu/catalogs](http://devry.edu/catalogs), contains the most current and detailed program information, including admission, progression and graduation requirements. Information contained herein is effective as of date of publishing.

Courses in blue are part of the DeVry Tech Path



## Bachelor's Degree Program Engineering Technology – Computers

COLLEGE OF  
ENGINEERING & INFORMATION SCIENCES

### CAREERS IN COMPUTER ENGINEERING TECHNOLOGY

The field of engineering technology has changed the way we live, play and work. It's difficult to imagine our world without cell phones, electronic gaming and the Internet.

DeVry University's Engineering Technology – Computers degree program provides students a broad range of applicable coursework, including programming, microprocessors, operating systems, product development, database system design and technology integration.

Graduates of DeVry University's Engineering Technology – Computers program may consider careers including, but not limited to, the following:

- Application Engineer
- Computer Automated Teller and Office
- Machine Technician
- Computer Support Specialist
- Customer Service Engineer
- Electrical Engineering Technician
- Electronic Technician
- Electronics Engineering Technician
- Engineering Specialist
- Engineering Technician
- Field Service Technician
- Manufacturing Technician
- Sales Engineer
- Test Engineer

For comprehensive consumer information, visit [devry.edu/studentconsumerinfo](http://devry.edu/studentconsumerinfo). Important information about the education debt, earnings and completion rates of students who attended this program can be found at [devry.edu/bcet-ge](http://devry.edu/bcet-ge). For additional program information, visit [devry.edu/bcet](http://devry.edu/bcet).

In New York, DeVry University operates as DeVry College of New York. DeVry University is accredited by The Higher Learning Commission (HLC), [www.hlcommission.org](http://www.hlcommission.org). DeVry is certified to operate by the State Council of Higher Education for Virginia. Arlington Campus – 2450 Crystal Dr., Arlington, VA 22202. DeVry University is authorized for operation by the THEC, [www.tn.gov/thecc](http://www.tn.gov/thecc) Nashville Campus - 3343 Perimeter Hill Dr., Nashville, TN 37211. To report unresolved complaints to the Illinois Board of Higher Education, visit their webpage at <http://complaints.ibhe.org/> or by mail to the Illinois Board of Higher Education, 1 N. Old State Capitol Plaza, Suite 333, Springfield, IL 62701-1377. Program availability varies by location. ©2017 DeVry Educational Development Corp. All rights reserved. Version 08/14/17

### KNOWLEDGE AND SKILLS

**MICROPROCESSOR ARCHITECTURE** — Explore the internal architecture of the microprocessor, the basic building block of current electronic systems. Use assembly language and/or high-level language to program the microprocessor and develop simple algorithms.

**DATA COMMUNICATIONS AND NETWORKING** — Learn principles of data communications, including noise effects, multiplexing and transmission methods, as well as the protocols, architecture and performance analysis of local and wide area networks.

**OPERATING SYSTEMS** — Explore basic operating system concepts such as process states and synchronization, multiprocessing, multiprogramming, processor scheduling, virtual memory, logical and physical input/output, device allocation and file management.

**DATABASE FUNDAMENTALS** — Concepts and methods fundamental to database development are developed including data analysis and modeling, as well as structured query language (SQL). Explore basic functions and features of a database management system (DBMS), with emphasis on the relational model.

**BUSINESS APPLICATION PROGRAMMING** — Programming and database skills to develop programs that support typical business processing activities and needs such as transaction processing and report generation. Business-oriented programs are developed that deal with error handling, data validation and file handling. Java is the primary programming language used. .

**COMPUTERS AND ELECTRONICS** — Understand circuit boards, processors, chips, electronic equipment and computer hardware and software, including applications and programming.

**QUALITY CONTROL ANALYSIS** — Conduct tests and inspections of products, services or processes to evaluate quality or performance.

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

**MATHEMATICS** — Understand and apply arithmetic, algebra, geometry, calculus and statistics.