

Bachelor's Degree Programs

# COMPUTER ENGINEERING TECHNOLOGY (CAMPUS) ENGINEERING TECHNOLOGY - COMPUTERS (BALLINE)

## ABOUT THESE DEGREE PROGRAMS

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 Computer Engineering Technology and 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 Computer Engineering Technology and Engineering Technology - Computers degree programs are 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 <a href="http://www.devry.edu/academics/accreditation.html">http://www.devry.edu/academics/accreditation.html</a>.

#### **OUICK FACTS**

140 CREDIT HOURS

YEARS
minimum length
to graduation<sup>1</sup>

<sup>1</sup>Not including breaks. Assumes year-round, full-time enrollment. Additional program information may be found at https://www.devry.edu/degree-programs.html

## GENERAL EDUCATION COURSEWORK<sup>1</sup>

#### **Communication Skills**

ENGL112 Composition
ENGL135 Advanced Composition
ENGL216 Technical Writing
SPCH275 Public Speaking

#### Humanities

HUMN303 Introduction to the Humanities ETHC445 Principles of Ethics

LAS432 Technology, Society, and Culture

#### Social Sciences

ECON312 Principles of Economics SOCS185 Culture and Society SOCS325<sup>2</sup> Environmental Sociology

## Mathematics, Analytical Methods and Natural Sciences

ECET345 Signals and Systems with Lab
MATH114 Algebra for College Students

MATH190 Pre-Calculus

MATH260 Applied Calculus I

MATH270 Applied Calculus II

PHYS204 Applied Physics with Lab

Personal and Professional Development

CARD405 Career Development
COLL148 Critical Thinking and
Problem-Solving

- <sup>1</sup> Most courses with the designator ECET may not be applied to this program if the courses are taken online.
- <sup>2</sup> Students enrolled at a Nevada location must take POLI332 in lieu of this requirement.

# 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

ECET365 Embedded Microprocessor Systems with Lab

#### **Computer Programming and Networking**

CEIS295 Data Structures and Algorithms
CIS170C Programming with Lab

CIS247C Object-Oriented Programming with Lab
CIS336 Introduction to Database with Lab

CIS355A Business Application Programming with Lab ECET360 Operating Systems with Lab

ECET375 Data Communications and Networking

ECET465 Advanced Networks with Lab

ECET490 Distributed Computing System Design

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 Computer Engineering Technology and Engineering Technology - Computers degree programs are accredited, by location, by

ABET

Engineering Technology Accreditation

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

employers and professional associations within the field Engineering Technology. To learn more visit <u>www.abet.org</u>.

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 <a href="devry.edu/catalogs">devry.edu/catalogs</a>, contains the most current and detailed program information, including admission, progression and graduation requirements. Information contained herein is effective as of date of publishing.





# COLLEGE OF ENGINEERING & INFORMATION SCIENCES

### CAREERS IN COMPUTER ENGINEERING TECHNOLOGY AND ENGINEERING TECHNOLOGY - COMPUTERS

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 Computer Engineering Technology and Engineering Technology - Computers degree programs 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 Computer Engineering Technology and Engineering Technology - Computers programs 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
- Electronics Technician
- · Electronics Engineering Technician

- · Engineering Specialist
- · Engineering Technician
- Field Service Technician
- · Manufacturing Technician
- · Sales Engineer
- Test Engineer

## 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.

 $\label{eq:QUALITY CONTROL ANALYSIS-Conduct tests and inspections of products, services or processes to evaluate quality or performance.$ 

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.

For comprehensive consumer information, visit 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. For additional program information, visit 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), http://www.hlcommission.org. Keller

Graduate School of Management is included in this accreditation. 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 as a postsecondary educational institution by the Tennessee Higher Education Commission. www.tn.gov/

thec Nashville Campus: 3343 Perimeter Hill Dr., Nashville, TN 37211. Program availability varies by location. In site-based
programs, students will be required to take a substantial amount of coursework online to complete their program.

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