# Bachelor’s Degree Program

## Biomedical Engineering Technology

### ABOUT THIS DEGREE PROGRAM

Biomedical engineering technologists install, improve, develop, adjust, repair and maintain devices and systems that diagnose and treat injuries and illnesses. These devices and systems include equipment, such as CAT scanners, MRI machines, patient monitoring devices, prosthetics, surgical devices and medical information systems.

As a student, you can study human anatomy and physiology, and combine these disciplines with engineering principles and practices. Our curriculum introduces you to quality assurance testing and troubleshooting of common equipment used in today’s leading hospitals and surgery centers. You can focus on real-world problems and solutions.

The Biomedical 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 at [http://www.devry.edu/academics/accreditation.html](http://www.devry.edu/academics/accreditation.html).

### GENERAL EDUCATION COURSEWORK

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### CORE-DEGREE COURSEWORK

#### Electronic Circuits and Devices
- CEES100 Introduction to Engineering Technology and Information Sciences
- ECET105 Digital Fundamentals with Lab
- ECET110 Electronic Circuits and Devices I with Lab
- ECET210 Electronic Circuits and Devices II with Lab
- ECET220 Electronic Circuits and Devices III with Lab
- ECET380 Signal Processing with Lab

#### Digital Circuits and Microprocessors
- ECET320 Digital Circuits and Systems with Lab
- ECET330 Microprocessor Architecture with Lab
- ECET340 Microprocessor Interfacing with Lab

#### Computer Programming and Networking
- CISI170C Programming with Lab
- CISI247C Object-Oriented Programming with Lab
- CISI355A Business Application Programming with Lab
- ECET375 Data Communications and Networking with Lab
- NETW310 Wired, Optical and Wireless Communications with Lab

### ACCREDITATION MATTERS

The Biomedical Engineering Technology (BMET) degree program is accredited by the 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 of Engineering Technology. To learn more visit www.abet.org.
Bachelor's Degree Program
Biomedical Engineering Technology

CAREERS IN ELECTRONICS & COMPUTER TECHNOLOGY

The biomedical engineering industry is experiencing exciting progress. The prospects for improving human health and extending human lifespan offer students many opportunities in the workplace today.

DeVry University's Biomedical Engineering Technology degree program can provide students a broad range of applicable coursework, including medical devices, biomedical instrumentation systems, computer techniques in medical imaging systems, and telemedicine and biomedical networking.

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

- Applications Engineer
- Biomedical Equipment Technician
- Biomedical Sales Engineer
- Computer Automated Teller and Office Machine Technician
- Computer Support Specialist
- Customer Service Engineer
- Electronics Technician
- Energy Technical Project Manager
- Engineering Technician

In New York, DeVry University operates as DeVry College of New York.

Important information about the education debt, earnings and completion rates of students who attended this program can be found at devry.edu/bbet-ge.

For additional program information, visit devry.edu/bbet.

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KNOWLEDGE AND SKILLS

BIOENGINEERING TECHNOLOGY — Analyze biological and biomedical problems using fundamental concepts and tools, including electrodes, biopotential measurements, electrocardiogram equipment, pacemakers, defibrillators and ultrasonics. Apply engineering principles to acquire, monitor and analyze biological signals.

BIOMEDICAL INSTRUMENTATION SYSTEMS — Study the principles of medical instrumentation, including diagnostics and techniques for measuring physiological variables in living systems. Understand product liability and safety issues.

COMPUTER TECHNIQUES IN MEDICAL IMAGING — Use computer tools to design and implement data and image acquisition and analysis in biomedical environments. Understand the physics of producing images in applications such as X-ray, computerized tomography (CT), magnetic resonance imaging (MRI) and ultrasonic imaging.

MICROPROCESSOR INTERFACING — Learn how microprocessors interface with peripheral devices, including A/Ds, D/As, keyboards, displays, and serial and parallel communication channels. Develop software (high-level and assembly) and hardware aspects of these devices.

Computers and Electronics — Understand circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

PHYSICS — Predict and apply physical principles and laws to fluid, material and atmospheric dynamics, as well as mechanical, electrical, atomic and sub-atomic structures and processes.

BIOLOGY — Understand plant and animal organisms along with their tissues, cells, functions, interdependencies and interactions with each other and the environment.

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

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