



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 fulfil 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>.

GENERAL EDUCATION COURSEWORK¹

Communication Skills

ENGL112 ²	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

Mathematics and Analytical Methods

ECET345	Signals and Systems with Lab
MATH114	Algebra for College Students
MATH190	Pre-Calculus
MATH260	Applied Calculus I
MATH270	Applied Calculus II

Natural Sciences

BIOS135	Foundations in Biology and Chemistry with Lab
BIOS195	Anatomy and Physiology for Health Sciences with Lab
PHYS204	Applied Physics with Lab

Personal and Professional Development

CARD405	Career Development
COLL148	Critical Thinking and Problem-Solving

¹ Most courses with the designator ECET 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

CEIS100	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
ECET350	Signal Processing with Lab

Digital Circuits and Microprocessors

ECET230	Digital Circuits and Systems with Lab
ECET330	Microprocessor Architecture with Lab
ECET340	Microprocessor Interfacing with Lab

Computer Programming and Networking

CIS170C	Programming with Lab
CIS247C	Object-Oriented Programming with Lab
CIS355A	Business Application Programming with Lab
ECET375	Data Communications and Networking with Lab
NETW310	Wired, Optical and Wireless Communications with Lab

Biomedical Engineering Technology

BMET313	Biomedical Equipment and Instrumentation I with Lab
BMET323	Biomedical Equipment and Instrumentation II with Lab
BMET433	Medical Imaging Technology with Lab
BMET436	Telemedicine and Medical Informatics 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 Biomedical Engineering Technology (BMET) 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.





Bachelor's Degree Program Biomedical Engineering Technology

COLLEGE OF
ENGINEERING & INFORMATION SCIENCES

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
- Field Service Technician
- Image Processing and Archiving
- Manufacturing Technician
- Medical Equipment Repairer
- Sales Engineer
- Test Engineer/Technologist

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

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. 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. 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. ©2016 DeVry Educational Development Corp. All rights reserved. Version 08/14/17

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.