



Associate of  
Applied Science  
with an option in

### BIOMEDICAL EQUIPMENT

#### CAREER OPPORTUNITIES

Electronic engineering technologists and technicians work on teams with electrical engineers. They may work in offices, laboratories, or factories in the following jobs. According to the U.S. Bureau of Labor, the median annual wage for electrical and electronic engineering technologists and technicians in 2021 was \$63,640.

- Clinical Operations Manager
- Control Automation/Technician
- Controls Engineer
- Engineering Technician
- Health Technology Management
- Information Technology Manager
- Quality Engineer
- Senior Technical Support Engineer

#### WHAT YOU WILL LEARN

The Electronics Engineering Technology Program at CCM prepares students for positions in electronics industries and related electronics services. Job activities center on technical problem solving and the practical application of engineering. The Electronics Engineering Technology Program produces graduates that are employed and operate effectively in the positions of Electrical Technicians, Equipment Managers, Information Technology Developers and Quality Control Operators. It also produces graduates that can successfully transfer and complete a baccalaureate degree in electronics engineering technology.

#### WHY STUDY ELECTRONICS ENGINEERING TECHNOLOGY AT CCM?

The faculty in the Electronics Engineering Program at CCM have many years of teaching and industry experience. The program has core electronic courses sequenced along with applied mathematics and science to develop a broad background in the technology. Each electronics course contains a laboratory which utilizes modern test instruments and applies classroom theory to practical applications.

*continued on back...*

Curriculum Checklist: [www.ccm.edu/checksheets](http://www.ccm.edu/checksheets)

Revised 08/22

214 Center Grove Road, Randolph, NJ 07869 • 973-328-5000 • [www.ccm.edu](http://www.ccm.edu)

#### CONTACT INFORMATION

##### Engineering Technology and Engineering Science Department

Advanced Manufacturing and  
Engineering Center, Room 104

[engtech.ccm.edu](http://engtech.ccm.edu)

973-328-5760



In the second year of study, students interested in health-related fields may select Biomedical Equipment options. In this option, students develop a specialization in equipment used in the healthcare industry, learning how to maintain and repair the equipment.

This program is through on campus learning between lectures and laboratory for students on high-end computers and equipment.

## ACCREDITATION

This program is accredited by the Engineering Technology Accreditation Commission of ABET.

[www.abet.org](http://www.abet.org)

## SCHOLARSHIP OPPORTUNITIES

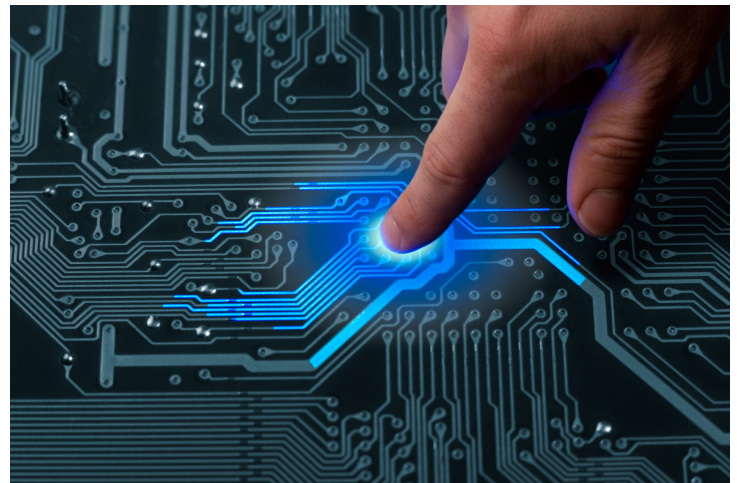
In addition to the general scholarships available at the college, Glenbrook Technologies, NDIA John Amerspek, NDIA Rodney Frelinghuysen, NDIA Dean Gallo, offer scholarships.

Please contact the Department of Engineering Technology and Engineering Science for more information.



## WHERE YOU CAN GO!

CCM offers cooperative education, a work-study program, with local electronic firms for students in the biomedical option. Other cooperative education opportunities are available with Atlantic Health System. Internships are available with Mecca Electronics, BASF, Honeywell, and Siemens.



## ELECTRONICS ENGINEERING TECHNOLOGY CURRICULUM

### General Education Foundation (20/21 CR)

#### COMMUNICATION (6 CR)

English Composition I	ENG 111	3
English Composition II	ENG 112	3

#### MATH/SCIENCE/TECHNOLOGY (3 CR)

Computer Science I	CMP 128	3
--------------------	---------	---

#### SOCIAL SCIENCE OR HUMANITIES (3 CR)

Choose a Humanities or Social Science elective from the General Education Course list (This course must also appear on the Diversity list)		3
--	--	---

#### GENERAL EDUCATION (8 CR)

Precalculus	MAT 123	4
Mathematics Elective		4

### ELECTRONICS CORE (40 CR)

Circuit Analysis DC/AC	ELT 100	3
Circuit Measurement	ELT 102	1
Active Circuit Components	ELT 115	3
Digital Principles	ELT 110	3
Advanced Digital and Microprocessors	ELT 209	4
Electronic Fabrication	ELT 210	1
Active Circuit Design	ELT 213	4
Industrial Electronics	ELT 215	4
Electronic Communications Systems	ELT 231	4
Computer-Aided Drafting I	ENR 117	2
Intro to Exp and Design	ENR 132	3
Technical Physics I	PHY 111	4
Technical Physics II	PHY 112	4

**TOTAL** **60**

## BIOMEDICAL EQUIPMENT OPTION CURRICULUM

### General Education Foundation (20 CR)

#### COMMUNICATION (6 CR)

English Composition I	ENG 111	3
English Composition II	ENG 112	3

#### MATH/SCIENCE/TECHNOLOGY (3 CR)

Computer Science I	CMP 128	3
--------------------	---------	---

#### SOCIAL SCIENCE OR HUMANITIES (3 CR)

Choose a Humanities or Social Science elective from the General Education Course list. (This course must also appear on the Diversity list)		3
---	--	---

#### GENERAL EDUCATION (8 CR)

Human Biology	BIO 133	4
Precalculus	MAT 123	4

### ELECTRONICS ENGINEERING TECHNOLOGY Biomedical Equipment Option Core (40 CR)

Circuit Analysis DC/AC	ELT 100	3
Circuit Measurement	ELT 102	1
Active Circuit Components	ELT 115	3
Biomedical Electronics	ELT 200	3
Advanced Digital and Microprocessors	ELT 209	4
Electronic Fabrication	ELT 210	1
Active Circuit Design	ELT 213	4
Industrial Electronics	ELT 215	4
Digital Principles	ELT 110	3
Biomedical Clinical Experience	ELT 227	3
Electronic Communications Systems	ELT 231	4
Intro to Exp[ and Design	ENR 132	3
Technical Physics I	PHY 111	4

**TOTAL** **60**

Note: You must see a faculty advisor to plan your sequence of courses. For the most up-to-date listing of courses, see the Curriculum Checklist for this program on the CCM website at [www.ccm.edu/checksheets](http://www.ccm.edu/checksheets).