

Biomedical Equipment Technology

Winona Campus

OVERVIEW

Biomedical equipment technician training at Southeast in Winona will teach you the skills and knowledge to maintain, adjust, calibrate, and repair a wide variety of electronic and electromechanical equipment, as well as computerized and networked systems used in hospitals.

You will also gain the expertise needed to work on equipment such as CT scanners, ultrasound equipment, electric wheelchairs, and sophisticated dental, optometric, and ophthalmic equipment.

Biomedical Equipment repair is an up-and-coming occupation that is in high demand. The number of job openings is expected to outnumber qualified applicants, due in part to the increased demand for health care services and the increasing complexity of the medical equipment used in hospitals and by private practitioners.

The Biomedical Equipment Technician degree is built on the foundation of the college's successful 2-year Electronics program and is taught by experienced instructors at our Winona, MN campus. As part of your studies you will complete an on-site internship at a health care facility or medical equipment repair company, so you will be well-prepared to enter the workforce when you graduate.

To be successful in Biomedical Equipment repair you:

- Must have technical skills and problem solving abilities
- Need good hand/eye coordination and show mechanical aptitude
- Must show great attention to detail, have excellent communication skills and have the ability to work as a team

MAJORS WITHIN

Biomedical Equipment Technology AAS 66 credits

Estimated costs for each major including tuition, books and supplies are posted on southeastmn.edu under Academics > Academic Programs by Degree.

PROGRAM OUTCOMES

Program graduates will be able to:

1. Use knowledge and skills to analyze, troubleshoot, measure and/or program systems and devices used in the biomedical equipment industry.
2. Work as a productive and responsible team member.
3. Repair systems and equipment by applying logic and knowledge to solve complex problems associated with biomedical equipment technology.
4. Demonstrate the use of software, programming, and interfacing to troubleshoot micro and personal computers and their applications within the biomedical equipment technology industry.
5. Apply acquired skills and learn new skills by engaging in lifelong learning.
6. Demonstrate an ability to apply knowledge of mathematics, science, and engineering to the analysis of biomedical equipment problems.
7. Demonstrate an ability to communicate effectively.
8. Function with a respect for diversity and knowledge of professional, social, and global issues.



PROGRAM HIGHLIGHTS

Learn to service and maintain medical equipment

Work in computerized and networked electronic and electromechanical environments

Instructors have experience in multiple disciplines

Learn communication skills to work in a high tech environment with other respected professionals in healthcare and medical facilities

Learn how to support medical staff in the use of technology

Job stability and satisfaction

Career growth and development opportunities

CAREER OPPORTUNITIES

Biomedical Electronics Technician
Biomedical Engineering Technician
Biomedical Equipment Specialist
Electromedical-Equipment Repairer
Medical-Equipment Repairer
Field Service Technician

Biomedical Equipment Technology

Associate of Applied Science

Sample Program Plan

Please note that this is a sample program schedule. Your schedule may vary depending upon your needs, goals, and course availability.
Please meet with your advisor to plan your schedule each semester.

Biomedical Equipment Technology - AAS

Course No.	Course Name	Credits
General Education Requirements (can be taken any semester)		
	Course from any MnTC Goal 1 - 10 [see advisor for courses]	3
	Goal 1: Written and Oral Communications	3
	Goal 4: Mathematics	3
	Goal 5: History, Social, and Behavioral Sciences	3
	Goal 6: Humanities and Fine Arts	3
	Total Gen Ed Requirements	15

First Semester

ELEC1202	Introduction to DC Electricity	2
ELEC1204	Introduction to AC Electricity	2
ELEC1209	DC Theory and Circuits	2
ELEC1212	Digital Electronics I	3
ELEC1214	Electronic Fabrication Technology	2
ELEC1330	Introduction to Instrumentation and Control	2
	Semester total	13

Second Semester

BMET2221	Introduction to Biomedical Equipment	3
BMET2222	Biomedical Equipment Safety	2
ELEC1220	Electronic Communications	2
ELEC1250	Introduction to Solid State	4
NWAT1641	Networking Fundamentals	3
	Semester total	14

Third Semester

BMET2223	Biomedical Equipment I	3
ELEC2211	Digital Electronics II	4
ELEC2227	PC Hardware & OS	4
ELEC2260	Linear Integrated Circuits - [1251 pre req not listed]	4
	Semester total	15

Fourth Semester

BMET2224	Biomedical Equipment II	3
BMET2225	Clinical Internship	3
NWAT1670	WAN Technologies	3
	Semester total	9
	Required Credits	66

Cumulative GPA must be 3.0 or higher to progress in program.