BIOMEDICAL ELECTRONICS TECHNOLOGY

Overview

Biomedical Electronics Technology Associate of Applied Science Degree

Program Code: 10-605-6

For more information: wctc.edu/bio-medical (http://www.wctc.edu/bio-medical/)

This is a partnership program with Milwaukee Area Technical College (MATC). . You will ultimately complete your program and graduate from the partnership school, MATC.

With a reliance on technology to test and monitor patients, biomedical electronics technicians ensure medical equipment is safe, functional and properly set up. In this program, gain skills to work with technical equipment, including bedside monitor systems, electrocardiogram (EKG) machines and other devices related to patient care. Learn to install, test, calibrate and repair biomedical equipment.

The minimum required course grades and program grade point average (GPA) for students under this catalog are:

Core Courses = C
General Studies Courses = C
Program GPA = 2.0

Learning Outcomes

Program Outcomes

1. Manage medical equipment and systems.
2. Identify the function and operation various types of imaging equipment.
3. Problem-solve electronic circuits and systems.
4. Demonstrate a competency with computers and networks used in medical equipment.
5. Apply principles of anatomy, physiology, and medical terminology.
6. Demonstrate safety precautions and practices with medical equipment.

Critical Life Skills

To help our students prepare for success in a workplace and society that is **increasingly global, multi-cultural, and collaborative,** all students are given opportunities to develop and demonstrate Critical Life Skills, both in and out of the classroom. The following Critical Life Skills are learning outcomes for WCTC students.

- **Communication:** Demonstrate appropriate communication.
- **Critical Thinking/Problem Solving:** Demonstrate critical thinking skills to analyze situations and solve problems.
- **Relationships:** Demonstrate effective interpersonal skills.
- **Self-management:** Demonstrate responsible and respectful behavior.

Required Courses

Listed below are the required courses for the program. To view the recommended sequence for taking courses click on the plan of study tab(s) above. Work with your Academic Advisor to design a program plan!

View your **Program Matrix** to find out when each course will be offered (term and time of day).

This is a partnership program and only a portion of the classes are offered at WCTC; the other courses are offered at the partnership school.

Code	Title	Credits
Core Courses		
605-118	Digital Electronics I	2
605-182	Microcontrollers	3
605-187	Electronic Data Communications	3
605-188	PLC 1	2
605-198	Power Electronics	3
663-100	Embedded Systems	3
663-102	DC/AC Electronics	5
663-103	Electronics for Industry	4
663-104	Programming for Electronics	1
663-106	Electronic Fabrication I	1
General Studies		
801-136	English Composition 1	3
Approved Substitute: 801-223		
801-196	Oral/Interpersonal Comm	3
Approved Substitute: 801-198		
804-113	College Technical Math 1A	3
Approved Substitute: 804-115		
804-114	College Technical Math 1B	2
Approved Substitute: 804-115		
804-116	College Technical Math 2	4
806-177	Gen Anatomy & Physiology	4
809-166	Intro to Ethics: Theory & App	3
809-199	Psychology of Human Relations	3
Approved Substitute: 809-198		

Full-time Plan

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First Year		
Fall Term 1		**Credits**
663-102	DC/AC Electronics This course will run 16 weeks.	5
804-113	College Technical Math 1A	3
	Credits	**8**
Fall Term 2		
605-188	PLC 1	2
804-114	College Technical Math 1B	2
	Credits	**4**
Spring Term 1		
663-103	Electronics for Industry	4

809-199	Psychology of Human Relations	3
	Credits	**7**
Spring Term 2		
605-118	Digital Electronics I	2
801-136	English Composition 1	3
	Credits	**5**
Second Year		
Summer Term		
663-104	Programming for Electronics	1
	Credits	**1**
Fall Term 1		
605-182	Microcontrollers	3
663-106	Electronic Fabrication I	1
801-196	Oral/Interpersonal Comm	3
	Credits	**7**
Fall Term 2		
605-198	Power Electronics	3
663-100	Embedded Systems	3
	Credits	**6**
Spring Term 1		
605-187	Electronic Data Communications	3
809-166	Intro to Ethics: Theory & App	3
	Credits	**6**
Spring Term 2		
806-177	Gen Anatomy & Physiology	4
804-116	College Technical Math 2	4
	Credits	**8**
	Total Credits	**52**