

ELECTRONIC SYSTEMS TECHNOLOGY

Overview

Electronic Systems Technology Associate of Applied Science Degree

Program Code 10-663-4

For more information: wctc.edu/electronics (<http://www.wctc.edu/electronics/>)

Electricity powers our daily lives, and when there's an electrical issue, those trained in electronics possess the knowledge to identify the problem. In this program, focus on setting up, troubleshooting, repairing and programming of electronic devices/systems. Refine skills for specialized areas of electronics, such as industrial controls and automation, research and development, production and field service.

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. Apply electronic theory to practice.
2. Operate test equipment.
3. Build electronic circuits and systems.
4. Evaluate the operation of electronic circuits or systems.
5. Communicate technical information.

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).

Code	Title	Credits
Core Courses		
462-151	Mechanical Power Trans 1	3
Approved Substitute: 462-350 OR 462-100		
605-118	Digital Electronics I	2
605-129	Elect Pwr Ctrl & Motors	3
605-148	Data Acquisition	3
605-182	Microcontrollers	3
605-188	PLC 1	2
605-187	Electronic Data Communications	3
605-189	PLC 2	2
605-198	Power Electronics	3
663-100	Embedded Systems	3
663-101	Internship - Electronics	1
663-102	DC/AC Electronics	5
663-103	Electronics for Industry	4
663-104	Programming for Electronics	1
663-105	Electronics Troubleshooting	2
663-106	Electronic Fabrication I	1
Approved Substitute: 605-127		
663-107	Electronic Fabrication II	1
664-165	Fabrication-Automation Systems	2
890-108	Employment Success	1
General Studies		
801-136	English Composition 1	3
Approved Substitute: 801-223		
801-196	Oral/Interpersonal Comm	3
Approved Substitute: 801-198		
804-107	College Mathematics	3
Approved Substitutes: 804-115 OR 804-116 OR 804-118 OR 804-195 OR 804-198 OR (804-304 AND 804-305)		
809-166	Intro to Ethics: Theory & App	3
809-199	Psychology of Human Relations	3
Approved Substitute: 809-198		
Total Credits		60

Full-time Plan

First Year

Fall Term 1		Credits
663-102	DC/AC Electronics <small>This course will run 16 weeks.</small>	5
663-106	Electronic Fabrication I	1
804-107	College Mathematics	3
Credits		9

Fall Term 2

605-188	PLC 1	2
663-107	Electronic Fabrication II	1
801-196	Oral/Interpersonal Comm	3
Credits		6

Winter Interim

890-108	Employment Success	1
Credits		1

Spring Term 1

663-103	Electronics for Industry	4
663-104	Programming for Electronics	1
801-136	English Composition 1	3
Credits		8

Spring Term 2

462-151	Mechanical Power Trans 1	3
605-118	Digital Electronics I	2
605-189	PLC 2	2
Credits		7

Second Year**Summer Term**

663-101	Internship - Electronics	1
Credits		1

Fall Term 1

605-182	Microcontrollers	3
664-165	Fabrication-Automation Systems	2
809-166	Intro to Ethics: Theory & App	3
Credits		8

Fall Term 2

605-198	Power Electronics	3
663-100	Embedded Systems	3
Credits		6

Spring Term 1

605-129	Elect Pwr Ctrl & Motors	3
605-187	Electronic Data Communications	3
Credits		6

Spring Term 2

605-148	Data Acquisition	3
663-105	Electronics Troubleshooting	2
809-199	Psychology of Human Relations	3
Credits		8
Total Credits		60