

Mechatronics Technology

Mechatronics Technology Associate in Applied Science

Mission Statement:

The Industrial Maintenance Technology program combines the technologies areas of Mechatronics Certificates I and II with additional general educational requirements to ensure a well-rounded graduate. The student will develop basic foundational skills and understanding in electronics, electrical control systems, hydraulics and pneumatics, mechanical power systems, AC/DC motors and drive systems, programmable logic controllers, robotics, and troubleshooting strategies.

Entrance Requirements:

Acceptable placement test score(s); plus high school diploma or GED

Type of Program:

Day or evening

- This program is designed to teach the skills required by mechatronics technicians for the 21st century's high-tech world of automated manufacturing. This is an inter-disciplinary field involving control systems, electronic systems, computers, robotics, and mechanical systems. Students who successfully complete this course of study may be employed by national and international high-tech industries throughout the Upstate and globally.
- Courses taken under the Mechatronics I and Mechatronics II certificates may be applied toward the associate degree program
- This program requires a minimum grade of "C" in all concentration courses.

Recommended Program Schedule

First Semester - Fall

IMT	112	Hand Tool Operations	3.0
		or	
MTT	121	Machine Tool Theory I (3.0)	
EEM	117	AC /DC Circuits I	4.0
IMT	104	Schematics	2.0
MAT	170	Algebra, Geometry, and Trigonometry I */t	3.0

Second Semester - Spring

AMT	105	Robotics & Automated Controls I	3.0
EEM	118	AC / DC Circuits II	4.0
EEM	271	Sensors and System Interfacing	2.0
IMT	131	Hydraulics and Pneumatics	4.0

Third Semester - Summer

EEM	151	Motor Controls I	4.0
IMT	161	Mechanical Power Applications	4.0
ENG	165	Professional Communications*/**	3.0

Fourth Semester - Fall

AMT	205	Robotics and Automated Controls II	3.0
EEM	221	DC/AC Drives	3.0
EEM	251	Programmable Controllers	3.0
		Humanities Elective*	3.0

Fifth Semester - Spring

EEM	252	Programmable Controllers Applications	3.0
IMT	105	Mechanical Sketching	2.0
IMT	170	Statistical Process Control	3.0
PHS	111	Conceptual Physics*	3.0

Sixth Semester - Summer

EEM	274	Technical/Systems Troubleshooting	4.0
		or	
MEC	299	Research in Advanced Mechatronics (4.0)	
WLD	108	Gas Metal Arc Welding I	4.0
		Social Sciences Elective*	3.0

Total Required Credit Hours: 70.0

*General education course

†Recommend MAT 110 in lieu of MAT 170, if placement allows. A minimum grade of "C" is required.

**Recommend ENG 101 and SPC 205 in lieu of ENG 165, if placement allows.

Note: Please contact your faculty advisor for recommended evening schedules.

Visit <https://www.gvltec.edu/gainful-employment/> for important information about the educational debt, earnings and graduation rates of students who attended programs.