

Mechatronics I

Certificate in Applied Science

Mission Statement:

The Mechatronics Level 1 Certificate develops basic foundational skills and understanding in electrical, mechanical, fluid power and automation control commonly found in the industrial manufacturing environment.

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 for the mechatronics technician in the 21st century's high-tech world of automated manufacturing. The program trains students in industrial environments using electrical, electronic, and mechanical applications to identify and troubleshoot Mechatronics systems and repair automated manufacturing equipment, programmable logic controllers (PLCs), and robotics. This is a new interdisciplinary field involving control systems, electronic systems, computers, robotics, and mechanical systems. Students who successfully complete this course of study may be employed by high-tech industries.
- Courses taken under this certificate can 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

EEM	151	Motor Controls I	4.0
EEM	117	AC/DC Circuits I	4.0
IMT	112	Hand Tool Operations	3.0
MAT	170	Algebra, Geometry, and Trigonometry**/**	3.0

Second Semester - Spring

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

Third Semester - Summer

IMT	104	Schematics	2.0
IMT	105	Mechanical Sketching	2.0
IMT	161	Mechanical Power Applications	4.0

Total Required Credit Hours: **35.0**

*General education course

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

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

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