

# MECHATRONICS II CERTIFICATE IN APPLIED SCIENCE

## Program Description

This certificate further develops students completing Mechatronics I as well as advanced students already working in the industry in areas such as, but not limited to, robotics, PLC and applications, sensors and controllers, troubleshooting and process controls.

This is a new interdisciplinary field involving control systems, electronic systems, computers, robotics and mechanical systems.

Courses taken in this certificate can be applied toward the associate degree program. The Mechatronics Level 2 Certificate builds on the Level 1 Certificate. The program will provide students with knowledge in the industrial automated manufacturing technology area. The student will develop basic foundational skills and understanding in electronics, robotics, motors, motor drives and programmable logic controllers. In addition, basic troubleshooting strategies will be developed on an automated manufacturing line.

## Mission Statement

The Mechatronics program mission, to produce students who are ready for today's advanced manufacturing jobs, furthers the college's mission to transform students' lives through world-class education in a field that has seen significant growth in our community.

## Entrance Requirements

High school diploma or GED

## Type of Program

Day or evening

## Requirements for Completion

This program requires a minimum grade of "C" in all concentration courses.

## Employment Opportunities

Students who successfully complete this course of study may be employed by high-tech industries.

Visit our web page at <https://www.gvltec.edu/mechatronics/>.

## Recommended Program Schedule

Listed below is the ideal grouping of courses in order by semester. This plan assumes a full-time schedule. Note, however, that many variables can affect this plan, and not every course is offered every semester. Please see your advisor to map out your own personalized progression toward graduation.

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

EEM 251	Programmable Controllers	3
<b>Total Semester Hours</b>		<b>9</b>
<b>Second Semester</b>		
EEM 252	Programmable Controllers Applications	3
IMT 170	Statistical Process Control	3
WLD 240	Robotic Welding and Manufacturing	4
<b>Total Semester Hours</b>		<b>10</b>
<b>Third Semester</b>		
EEM 274	Technical/Systems Troubleshooting	4
or MEC 299	Research in Advanced Mechatronics	
<b>Total Semester Hours</b>		<b>4</b>
<b>Total Required Credit Hours</b>		<b>23</b>

First Semester		Hours
AMT 205	Robotics & Automated Control II	3
EEM 221	DC/AC Drives	3