

**INDUSTRY, MANUFACTURING AND CONSTRUCTION**

**GUIDED PATHWAY: ADVANCED MANUFACTURING/ MECHATRONICS TECHNOLOGY–ADVANCED MANUFACTURING/ MECHATRONICS TECHNOLOGY CERTIFICATE**

For more information, visit [www.dcccd.edu/Mechatronics](http://www.dcccd.edu/Mechatronics) and your academic advisor at your college.

This is an example course sequence for students interested in pursuing the Advanced Manufacturing/ Mechatronics Technology Certificate. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn a certificate in Advanced Manufacturing/ Mechatronics Technology<sup>2</sup>. Courses from this certificate may apply to the related AAS degree. Gainful employment information for this certificate can be found at [www1.dcccd.edu/catalog/programs/degree\\_gei.cfm?a=393](http://www1.dcccd.edu/catalog/programs/degree_gei.cfm?a=393). For official certificate requirements, [click here](#).

Advanced manufacturing/mechatronics technology merges electronics, mechanics, fluid power, PLC and computer controls with sensors, transducers and actuators to manufacture a product or perform a task with minimal human intervention. This frees people from the routine tasks and allows them to focus on solving problems, fixing equipment breakdowns or changing processes for better operation. A person with these diverse skill sets has a wider range of employment opportunities and is prepared to adapt to changes in industry. The technician with training in advanced manufacturing/mechatronics will be ready to take advantage of the new developments in industry and realize their potential to grow with changes in the global economy. Courses that complete the Advanced Manufacturing/Mechatronics Technology (AC1) Certificate are noted below.

Students pursuing this certificate are waived from the [Texas Success Initiative \(TSI\)](#) standards, but must meet course prerequisites.



  
ONLY Offered at  
EFC and MVC

THIS PATHWAY WAS LAST UPDATED ON APRIL 15, 2019

**SEMESTER-BY-SEMESTER MAP<sup>3</sup>**

*All maps can be modified to fit the needs of part-time students*

AC1	SEMESTER 1	ACTION ITEMS
◆	<b>ELPT 2419</b> – Programmable Logic Controllers I	<input type="checkbox"/> Meet with your advisor to confirm academic and career goals before the end of the semester. <input type="checkbox"/> Meet with a career advisor or coach to research your career options and opportunities for job shadowing.
◆	<b>MFGT 1406</b> – Mechanical Principles in Automated Manufacturing	

**TOTAL SEMESTER CREDIT HOURS: 8**

AC1	SEMESTER 2	ACTION ITEMS
◆	<b>MFGT 1404</b> – Automated Manufacturing	<input type="checkbox"/> Meet with your advisor to request an official program of study audit, confirm or update your academic/career path and program of study. <input type="checkbox"/> Meet with your advisor to apply for the Advanced Manufacturing/Mechatronics Technology Certificate (AC1) Completion.
◆	<b>ELMT 1405</b> – Basic Fluid Power* <b>OR</b> <b>MFGT 2459</b> – Industrial Automation II*	

**TOTAL SEMESTER CREDIT HOURS: 8**

**CERTIFICATE MINIMUM: 16 SEMESTER CREDIT HOURS | PATHWAY TOTAL: 16 SEMESTER CREDIT HOURS**

<sup>1</sup> Degree plans may change in later catalogs. You may use this pathway if you entered one of the seven colleges on or before this date.

<sup>2</sup> Students must earn at least 25% of the credit hours (15 hours) required for graduation through instruction by the DCCCD college awarding the certificate.

<sup>3</sup> This is not an official degree plan. For official certificate requirements, [click here](#).

\* ELMT 1405 or MFGT 2459 is the capstone course for this award.