

GUIDED PATHWAY: MECHANICAL AND ELECTRICAL MAINTENANCE CERTIFICATE

MANUFACTURING and INDUSTRIAL TECHNOLOGY CAREER PATH



For more information, visit the [Dallas College Mechatronics webpage](http://www.dcccd.edu/Mechatronics) [www.dcccd.edu/Mechatronics] and your academic advisor at the Richland Campus.

This is an example course sequence for students interested in pursuing an Engineering Technology Certificate. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn a Level 1 Certificate in Mechanical and Electrical Maintenance. Students must earn at least 25% of the credit hours required for graduation through instruction by Dallas College. See catalog for [official certificate requirements](#).

The Mechanical and Electrical Maintenance Certificate program in Engineering Technology prepares students for installation, troubleshooting and repair of equipment and machinery in various types of manufacturing operations. The maintenance technician must be a multi-talented individual with a specific skill set that can keep equipment and machinery operating at peak performance; must be able to perform preventative maintenance to keep machines running and minimize downtime. The courses focus on the fundamental industrial skills into mechanical maintenance principles and applications, fluid power and hydraulic systems, pneumatic systems, programmable logic controllers and industrial robotics systems.

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

Catalog Year	2020-2021	You may use this pathway if you entered Dallas College on or before this date.
Degree Type	Level I Certificate	
GPA Requirement	Student must earn a GPA of 2.0 or higher	
TSI	May be Exempt	

SEMESTER-BY-SEMESTER MAP FOR FULL-TIME STUDENTS

All plans can be modified to fit the needs of part-time students. This is not an official degree plan. See catalog for [official certificate requirements](#).

CERTIFICATE MINIMUM: 32 SEMESTER CREDIT HOURS

SEMESTER 1 Total Hours: 14

[CETT 1403](#) – DC CIRCUITS

[HYDR 1345](#) – Hydraulics and Pneumatics

[INMT 1417](#) – Industrial Automation

CHOOSE ONE: [TECM 1341](#)– Technical Algebra *Must earn a grade of "C" or higher.* **OR**
[MATH 1314](#)– College Algebra *Must earn a grade of "C" or higher. This is a Core course.*

SEMESTER 1 ACTION ITEMS

1. Meet with your advisor to confirm academic and career goals before the end of the semester.
2. Meet with a career advisor or coach to research your career options and opportunities for job shadowing.

SEMESTER 2 Total Hours: 18

[INTC 1457](#) – AC/DC Motor Control

[CETT 1405](#) – AC Circuits

[MFGT 2459](#) – Industrial Automation II

[INTC 1343](#) – Application of Industrial Automatic Controls

[INMT 2345](#) – Industrial Troubleshooting

SEMESTER 2 ACTION ITEMS

1. Meet with your advisor to request an official program of study audit and confirm or update your academic/career path and program of study.

2. After reviewing your degree plan and program of study, meet with your advisor to apply for the Engineering Technology– Mechanical and Electrical Maintenance Certificate.
3. Sign up for commencement-- Join the [Alumni Network](#)!

PATHWAY TOTAL: 32 SEMESTER CREDIT HOURS