

# GUIDED PATHWAY: ADVANCED MANUFACTURING AND DESIGN CERTIFICATE

MANUFACTURING and INDUSTRIAL TECHNOLOGY CAREER PATH



For more information, visit the [Dallas College Manufacturing Technology 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 the Advanced Manufacturing and Design Certificate. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn an Advanced Manufacturing and Design Certificate. Students must earn at least 25% of the credit hours required for graduation through instruction by Dallas College. See catalog for [official certificate requirements](#).

This certificate teaches students to design products using relevant engineering concepts and computer-aided design (CAD) technologies. The award prepares students to use the latest CAD technologies to produce two- and three-dimensional assembly, solid construction, parametric construction and tooling drawings and to provide engineering specifications. Students learn to build scale models, communicate technical information, and solve mechanical engineering problems. Courses that complete the certificate are noted below.

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

Catalog Year	2021-2022	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	
<a href="#">TSI</a>	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: 16 SEMESTER CREDIT HOURS

#### SEMESTER 1 Total Hours: 9

[DFTG 1309](#) – Basic Computer-Aided Drafting  
[DFTG 1345](#) – Parametric Modeling and Design  
[DFTG 2332](#) – Advanced Computer-Aided Drafting

#### 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 career options and opportunities for job shadowing.

#### SEMESTER 2 Total Hours: 7

[DFTG 2440](#) – Solid Modeling/Design *This is the capstone course for this award.*  
[DFTG 2335](#) – Advanced Technologies in Mechanical Design and Drafting

#### SEMESTER 2 ACTION ITEMS

1. Meet with your advisor to request an official program of study audit and confirm or update your academic and career path and program of study.
2. Meet with your advisor to apply for the Advanced Manufacturing and Design Certificate.
3. Sign up for Commencement.

**PATHWAY TOTAL: 16 SEMESTER CREDIT HOURS**