

GUIDED PATHWAY: CNC/CAD/CAM CERTIFICATE

MANUFACTURING and INDUSTRIAL TECHNOLOGY CAREER PATH



For more information, visit the [Dallas College Computer-Aided Design and Drafting webpage](http://www.dcccd.edu/CADD) [www.dcccd.edu/CADD] and your academic advisor at the Richland Campus.

This is an example course sequence for students interested in pursuing a Computer-Aided Design and Drafting certificate. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn a Certificate in CNC/CAD/CAM. 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 CNC/CAD/CAM Certificate program in Computer-Aided Design and Drafting has been developed to provide skills for entry level CAD positions as well as the manufacturing specialists who requires training necessary for the integration of CAD and the CNC machines. Courses that complete the Certificate are noted below.

Catalog Year	2021-2022	You may use this pathway if you entered Dallas College on or before this date.
Degree Type	Level II Certificate	
GPA Requirement	Student must earn a GPA of 2.0 or higher	
TSI	Must be Met	

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: 43 SEMESTER CREDIT HOURS

SEMESTER 1

Total Hours: 22

[INMT 1319](#) – Manufacturing Processes
[MCHN 1338](#) – Basic Machine Shop I
[DFTG 1309](#) – Basic Computer-Aided Drafting
[PHYS 1401](#) – College Physics I *This is a Core course.*
[MCHN 1326](#) – Introduction to Computer-Aided Manufacturing (CAM)
CHOOSE ONE: [SPCH 1311](#) – Introduction to Speech Communication *This is a Core course.*
[SPCH 1315](#) – Public Speaking *This is a Core course.*
CHOOSE ONE: [TECM 1341](#) – Technical Algebra *Must earn a grade of "C" or higher.*
[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: 21

[MCHN 1352](#) – Intermediate Machining I
[DFTG 2332](#) – Advanced Computer-Aided Drafting
[DFTG 1345](#) – Parametric Modeling and Design
[MCHN 2338](#) – Advanced Computer-Aided Manufacturing (CAM)
[MCHN 2335](#) – Advanced CNC Machining
CHOOSE ONE: [HYDR 1345](#) – Hydraulics and Pneumatics
[ENTC 1391](#) – Special Topics in Engineering Technology, General
CHOOSE ONE: [MATH 1316](#) – Plane Trigonometry *This is a Core course. Must earn a grade of "C" or higher.*
[TECM 1317](#) – Technical Trigonometry *Must earn a grade of "C" or higher.*

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, apply for graduation. Meet with your advisor to apply for the CNC/CAD/CAM Certificate.
3. Sign up for commencement-- Join the [Alumni Network](#)!

PATHWAY TOTAL: 43 SEMESTER CREDIT HOURS