

GUIDED PATHWAY: ADVANCED MANUFACTURING A.A.S.

MANUFACTURING and INDUSTRIAL TECHNOLOGY CAREER PATH



For more information, visit the [Dallas College Advanced Manufacturing 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 Associate Degree. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn an Associate of Applied Science (A.A.S.) degree in Advanced Manufacturing. Students must earn at least 25% of the credit hours (15 hours) required for graduation through instruction by Dallas College. See catalog for [official degree requirements](#).

Design skills are required of today's CAD professionals. Knowledge of FEA, material analysis, applied mechanics, design for manufacture and CAD/CAM provides a strong base of information needed in design development. This program stresses the entire product development process, using the parametric approach and integrating the computer as a true instrument of design - not a drafting tool. Courses that complete the degree are noted below.

Visit the [NTCCC Transfer Consortium](#) to view guided pathways created for students who complete an A.A.S. degree and the options for transfer to complete a Bachelor of Applied Arts and Science. Speak with an academic advisor at your campus to choose courses that will help you to transfer to a specific university.

Catalog Year	2020-2021	You may use this pathway if you entered Dallas College on or before this date.
Degree Type	Associate of Applied Science	
GPA Requirement	Student must earn a GPA of 2.0 or higher	
TSI	Must be Complete	

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 degree requirements](#).

AAS DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS

SEMESTER 1

Total Hours: 15

[INMT 1319](#) – Manufacturing Processes

[MCHN 1320](#) – Precision Tools and Measurement

[DFTG 1309](#) – Basic Computer-Aided Drafting

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

CHOOSE ONE: [SPCH 1311](#) – Introduction to Speech Communication *This is a Core course.* **OR**
[SPCH 1315](#) – Public Speaking *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: 15

[MCHN 1326](#) – Introduction to Computer-Aided Manufacturing (CAM)

[MCHN 1338](#) – Basic Machine Shop I

[DFTG 2332](#) – Advanced Computer-Aided Drafting

[HUMANITIES/FINE ARTS ELECTIVE*](#) *This is a Core course.*

CHOOSE ONE: [MATH 1316](#) – Plane Trigonometry *This is a Core course. You must earn a grade of "C" or better.* **OR**
[TECM 1317](#) – Technical Trigonometry *You must earn a grade of "C" or better.*

* There are several options to fulfill this requirement. See your academic advisor for a specific list.

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.

SEMESTER 3

Total Hours: 13

[MCHN 1352](#) – Intermediate Machining I

[MCHN 2331](#) – Operation of CNC Turning Centers

CHOOSE ONE: [DFTG 1345](#) – Parametric Modeling and Design **OR**

[DFTG 2335](#) – Advanced Technologies in Mechanical Design and Drafting

CHOOSE ONE: [PHYS 1401](#) – College Physics I *This is a Core course.* **OR**

[PHYS 1405](#) – Elementary Physics I *This is a Core course.*

SEMESTER 3 ACTION ITEMS

1. Meet with a career advisor or coach for assistance in preparing for job search.
2. Meet with a faculty or career advisor regarding placement for the Cooperative Education course in semester 4.

SEMESTER 4

Total Hours: 17

[MCHN 2447](#) – Specialized Tools and Fixtures *This is the capstone course for this award.*

[MCHN 2435](#) – Advanced CNC Machining

[ENGL 1301](#) – Composition I *This is a Core course. You must earn a grade of "C" or better.*

[SOCIAL/BEHAVIORAL SCIENCE ELECTIVE*](#) *This is a Core course.*

CHOOSE ONE: [INMT 2381](#) – Cooperative Education-Manufacturing Technology/Technician **OR**

[MCHN 1393](#) – Special Topics in Tool and Die Maker/Technologist and Drafting

* There are several options to fulfill this requirement. See your academic advisor for a specific list.

SEMESTER 4 ACTION ITEMS

1. After reviewing your program of study, meet with your advisor to apply for the Advanced Manufacturing A.A.S.
2. Sign up for Commencement.
3. Join the [Alumni Network!](#)

PATHWAY TOTAL: 60 SEMESTER CREDIT HOURS