GUIDED PATHWAY: ADVANCED MANUFACTURING A.A.S.

MANUFACTURING and INDUSTRIAL TECHNOLOGY CAREER PATH

For more information, visit the Dallas College Manufacturing Technology webpage [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	2021-2022 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