

INDUSTRY, MANUFACTURING AND CONSTRUCTION

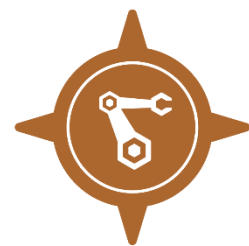
GUIDED PATHWAY: ADVANCED MANUFACTURING/ MECHATRONICS TECHNOLOGY

For more information, visit www.dcccd.edu/Mechatronics and your academic advisor at Eastfield College.

This is an example course sequence for students interested in pursuing Advanced Manufacturing/Mechatronics Technology. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn an Associate of Applied Science (AAS) degree in Advanced Manufacturing/Mechatronics Technology². For official degree requirements, [click here](#).

Advanced manufacturing/mechatronics technology merges electronics, mechanics, fluid power, PLC and computer controls with sensors, transducers and actuators to manufacture a product or perform a task with minimal human intervention. This frees people from the routine tasks and allows them to focus on solving problems, fixing equipment breakdowns or changing processes for better operation. A person with these diverse skill sets has a wider range of employment opportunities and is prepared to adapt to changes in industry. The technician with training in advanced manufacturing/mechatronics will be ready to take advantage of the new developments in industry and realize their potential to grow with changes in the global economy. Gainful employment information for this degree can be found at www.dcccd.edu/gainfulemp. Courses that complete the Degree (D) and the Advanced Manufacturing/Mechatronics Technology^A (AC1) Certificate are noted below.

Visit www.ntxccc.org/pathways to view guided pathways created for students who complete an AAS degree and the options for transfer. Speak with an academic advisor at Eastfield College to choose courses that will help you to transfer to a specific university.



ONLY Offered at EFC

COLLEGE READINESS REQUIREMENTS (only for the AAS)

Enrolling in one or more courses may be necessary if assessment activities and previous academic experiences indicate a need for additional knowledge and skills:

READING & WRITING PLACEMENT

TSI MET: YES NO

IF NO, ADVISOR INSERT COURSE(S) NEEDED

- DREA / DWRI / DIRW (CIRCLE ONE) _____
 OTHER: _____

MATH PLACEMENT

TSI MET: YES NO

IF NO, ADVISOR INSERT COURSE(S) NEEDED

- DMAT _____
 OTHER: _____

ENGLISH LANGUAGE PROFICIENCY

PROFICIENCY MET: YES NO

IF NO, ADVISOR INSERT COURSE(S) NEEDED

- ESOL _____
 OTHER: _____

Exemptions/waivers may exist. Speak with an academic advisor regarding placement in college readiness courses and your ability to enroll in core academic coursework.

SEMESTER-BY-SEMESTER MAP FOR FULL-TIME STUDENTS³

All maps can be modified to fit the needs of part-time students

D	AC1 ^A	SEMESTER 1	ACTION ITEMS
◆		CETT 1403 – DC Circuits	<input type="checkbox"/> Meet with your advisor to confirm academic and career goals before the end of the semester. <input type="checkbox"/> Meet with a career advisor or coach to research your career options and opportunities for job shadowing.
◆	◆	ELMT 1405 – Basic Fluid Power#	
◆		ENGL 1301 – Composition I	
◆		MATH 1314 – College Algebra <u>OR</u> MATH 1332 – Contemporary Mathematics	
◆		EECT 1104 – Electronic Soldering <u>OR</u> EECT 1191 – Special Topics in Electrical, Electronic and Communications Engineering Technology/Technician	

TOTAL SEMESTER CREDIT HOURS: 15

D	AC1	SEMESTER 2	ACTION ITEMS
◆	◆	MFGT 1404 – Automated Manufacturing	<input type="checkbox"/> Meet with your advisor to file an official program of study audit, confirm or update your academic/career path and program of study. <input type="checkbox"/> If you are interested in completing a Cooperative Education course (CETT 2480 or 2481) as a Technical Elective+ in Semester 4, meet with a faculty or career advisor regarding placement.
◆		CETT 1405 – AC Circuits	
◆		CETT 1429 – Solid State Devices	
◆		SPCH 1311 – Introduction to Speech Communication <u>OR</u> SPCH 1315 – Public Speaking	

TOTAL SEMESTER CREDIT HOURS: 15

D	AC1	SEMESTER 3	ACTION ITEMS
◆	◆	MFGT 1406 – Mechanical Principles in Automated Manufacturing	<input type="checkbox"/> Meet with your advisor to apply for the Advanced Manufacturing/Mechatronics Technology Certificate ^A (AC1) Completion. <input type="checkbox"/> Meet with a career advisor or coach for assistance in preparing for job search.
◆		CETT 1425 – Digital Fundamentals	
◆	◆	ELPT 2419 – Programmable Logic Controllers I	
◆		Humanities/Fine Arts Elective*	

TOTAL SEMESTER CREDIT HOURS: 15

D	AC1	SEMESTER 4	ACTION ITEMS
◆		MFGT 2459 – Industrial Automation II#	<input type="checkbox"/> Apply for Graduation <ul style="list-style-type: none"> ○ Meet with your advisor to apply for the Advanced Manufacturing/Mechatronics Technology AAS. ○ Sign up for commencement. <input type="checkbox"/> Join the Alumni Network!
◆		Technical Elective+ (one course)	
◆		CETT 1441 – Solid State Circuits# <u>OR</u> CETT 2480 – Cooperative Education-Computer Engineering Technology/Technician#	
◆		Social/Behavioral Science Elective*	

TOTAL SEMESTER CREDIT HOURS: 15

AAS DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS | PATHWAY TOTAL: 60 SEMESTER CREDIT HOURS

¹ Degree plans may change in later catalogs. You may use this pathway if you entered one of the seven colleges on or before this date.
² Students must earn at least 25% of the credit hours (15 hours) required for graduation through instruction by the DCCCD college awarding the degree.
³ This is not an official degree plan. For official degree requirements, [click here](#).
^A There are several options to fulfill this requirement. See your academic advisor for a specific list.
[#] This course counts for the Core Curriculum at any public college or university in Texas.
[^] The Advanced Manufacturing/Mechatronics Technology Certificate is offered at Eastfield College and Mountain View College.
⁺ ELMT 1405 (or MFGT 2459) is the capstone course for the certificate. CETT 1441 or CETT 2480 is the capstone course for the degree.
^{*} Technical elective must be selected from the following: CETT 1407, CETT 1449, CETT 2480, CETT 2481, CPMT 1403, EECT 1491, HART 1407, MCHN 1454, WLDG 1471. Only one cooperative education course can be taken in any one semester.
 You must earn a grade of "C" or better in English 1301 and the selected college-level mathematics course.

THIS PATHWAY WAS LAST UPDATED ON APRIL 16, 2019