



Science, Technology, Engineering, and Mathematics Career and Academic Pathways (CAPs) Program Map: Certificate of Achievement for Advanced Manufacturing Engineering Technician

Total number of units: 23 units

Top Code/Academic Plan: 0924.00

Updated on November 13, 2021

Semester 1	Course Code	Course	Units	Notes	Notes for Part-time students
Program Course	ENG GEN 101	Introduction to Engineering and Engineering Technology	2		
Program Course	EGD TEK 102	Engineering Graphics with Intro to GD&T and 2 D CAD	3		
Program Course	IND TEK 106	Shop Math and Measurements	2	Co-requisite for MIT 101.	
Program Course	MIT 101	Machine Shop Training and Safety	2	Co-requisite for IND TEK 106.	

Total Units 9

Intersession	Course Code	Course	Units	Notes	Notes for Part-time students
Program Course	EGD TEK 121	3 D Computer Aided Design with SolidWorks	2	Pre-requisite EGD TEK 102	

Total Units 2

Semester 2	Course Code	Course	Units	Notes	Notes for Part-time students
Program Course	IND TEK 103	Technical Writing & Communication	2		
Program Course	IND TEK 104	Print Reading with GD&T	2	Pre-requisite EGD TEK 102.	
Program Course	MIT 201	Manufacturing Processes	3	Pre-requisite MIT 101.	
Program Course	ENG TEK 111	Additive Manufacturing I	2	Pre-requisite MIT 101 & EGD TEK 121.	
Program Course	ENG TEK 290	Engineering Technician Capstone3	3		

Total Units 12

Degree Path and Requirements:

This map is a suggested term-by-term sequence of courses to complete the program in a recommended time frame. This is an efficient and recommended plan, but actual plans may vary by individual student need. This map cannot replace a meeting with [counselors](#).

Department Advising Notes:

COA in a Career Technical Education or obtaining an A.S.degree as Engineering Technology major. See a [counselor](#) to assure that your personal map is most accurate to meeting your individual academic needs and goals.

Program Description

The Engineering Technician: Advanced Manufacturing program is designed to train the students and the workforce in high growth and high demand technologies such as; Additive Manufacturing - 3D printing of Polymers and Metals, CNC programming with Mastercam and Operator training in addition to Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM). The program offers hands-on experience to become technicians who are able not only to manufacture but analyze and design products, to communicate professionally both orally and in writing, and to work on team-based projects. The program emphasizes apprenticeship and work-based learning.

Career and Transfer Opportunities

Visit the [Transfer Center](#) for transfer information, which varies based on transfer college. Make an appointment with a [counselor](#). Students can visit [Career and Job Services](#) for career counseling and further exploration.

Transfer to a 4 year college as a Engineering Technology major. Possible careers: Manufacturing Engineering Technician.

Youtube Videos

[Careeronestop: Computer-Controlled Machine Tool Operators, Metal and Plastic Career Video](#)

[Advanced Manufacturing Career Pathways](#)

Program Map

A suggested sequence of classes to complete a degree, certificate, or program of study. Students should consult an academic counselor for variations to this plan based on part-time or full-time status, transfer plans, pre-requisites needed, etc.

Prerequisite Course

A specific course that must be completed before advancing to the next course.

Check the online catalog at elac.edu for the latest and most accurate information.

Contact

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