



**Mechanical Engineering Technology**  
**Credential: Certificate in Computer Aided Manufacturing**  
**C4032002**

The rapidly developing age of high technology has brought about a need for people in the fields of manufacturing, CNC programming, tool and mold making, and engineering and design to develop skills in interfacing CAD/CAM with CNC equipment.

This certificate is intended for persons with some manufacturing experience who wish to attend class at night. (Enrollment is by approval of advisor.)

Program Length: 2 semesters  
 Career Pathway Options: Associate in Applied Science in Mechanical Engineering Technology (Higher entrance standards required); Diploma in Mechanical Engineering Technology; Certificate in Computer Aided Drafting, Certificate in Computer Aided Manufacturing  
 Program Sites: Lee Campus - Evening Program

Course Requirements for Computer Aided Manufacturing Certificate

A. Required Major Core Courses (9 SHC)	C-L-SHC
DFT 151 CAD I	2-3-3
DFT 152 CAD II	2-3-3
MEC 231 CAM I	1-4-3

B. Other Major Hours Required for Graduation (3 SHC)	
MEC 232 CAM II	1-4-3

Total Semester Hours Credit required for graduation: 12

Semester Curriculum for Computer Aided Manufacturing Certificate

1st Semester (Fall)	C-L-SHC
DFT 151 CAD I	2-3-3
MEC 231 CAM I	<u>1-4-3</u>
	3-7-6
2nd Semester (Spring)	
DFT 152 CAD II	2-3-3
MEC 232 CAM II	<u>1-4-3</u>
	3-7-6

Total Semester Hours Credit: 12

**COURSE DESCRIPTIONS**

**DFT 151 CAD I** 2-3-3  
 This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

**DFT 152 CAD II** 2-3-3  
 This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents.

**MEC 231 Comp-Aided Manufact I** 1-4-3  
 This course introduces computer-aided design / manufacturing (CAD / CAM) applications and concepts. Topics include software, programming, data transfer and verification, and equipment setup. Upon completion, students should be able to produce parts using CAD / CAM applications.

**MEC 232 Comp-Aided Manufact. II** 1-4-3  
*Prerequisites: MEC 231*  
 This course provides an in-depth study of CAM applications and concepts. Emphasis is placed on the manufacturing of complex parts using computer-aided manufacturing software. Upon completion, students should be able to manufacture complex parts using CAM software.