

# Mechanical/Electro-Mechanical Designer Certificate

Full-Time, Fall Start

[www.pima.edu/mech-electro-cert](http://www.pima.edu/mech-electro-cert)

Learn mechanical and electro-mechanical design and modeling fundamentals using AutoCAD and SolidWorks computer-aided design (CAD).

**Title IV Financial Aid eligibility:** Yes

## What can I do with this certificate?

**Career options:** Work as an entry-level modeler/designer in mechanical and electro-mechanical engineering and manufacturing.

**Academic options:** Continue your studies by completing the Computer-Aided Design associate's degree.

## CHOOSE YOUR COURSES WITH YOUR COLLEGE ADVISOR

## Placement

Students must meet prerequisite standards before taking GTM 105, required in the pathway below. If you are not prepared for this course based on placement results you will need to take courses to build your skills prior to taking them. The sequence of courses follows.

Math: ICS 081 or MAT 089 through Mod 15 > GTM 105

If MAT 188 is chosen, additional coursework may be needed.

## Semester Pathway

This pathway is a suggested sequence of courses for your program of study. Work with an advisor to develop a unique pathway for you based on your placement recommendations, any prior college courses, and your specific situation.

### Fall 1 (Semester Total: 16-17 credits)

**CAD 101:** Computer Aided Drafting (4 credits)

**CAD 117:** Print Reading with CAD for Manufacturing (4 credits)

**CAD 142:** Introduction to Parametric Modeling: SolidWorks (4 credits)

**MAT 188:** Precalculus I (4 credits)

or **GTM 105:** Applied Technical Mathematics (3 credits)

**STU 100:** College Success and Career Planning (1 credit)

### Spring 1 (Semester Total: 15 credits)

**CAD 153:** Electro-Mechanical Drafting and Design (4 credits)

**CAD 172:** Geometric Dimensioning and Tolerancing (3 credits)

**CAD 242:** Advanced Parametric Modeling: SolidWorks (4 credits)

**CAD 203:** Advanced Electro-Mechanical Drafting and Design (4 credits)

**PROGRAM TOTAL: 31-32 credits**

Program/Major/Concentration Codes: CRTMEM/MEM1

Find more information about this program at:  
[www.pima.edu/mech-electro-cert](http://www.pima.edu/mech-electro-cert)

