

# Advanced Manufacturing Tech - Technical Design (CAD) Certificate

## GENERAL INFORMATION

The Advanced Manufacturing –Technical Design (CAD) Certificate is designed to provide students that already have a 2 year associate degree or a 4 year bachelor degree with the necessary skills to gain employment as a technical designer familiar with several design software packages in common use in industry.

This certificate may be considered a stand-alone credential for people seeking to gain entry level CAD employment, or as a part of a stackable set of certificates and degrees in the EvCC Advanced Manufacturing program. Candidates should be aware that many businesses require a 2 year associate degree for employment in this field, and that this certificate by itself may not be sufficient to meet this goal.

## GETTING STARTED AT EVCC

Enrollment Services provides information about application, advising, orientation and registration for new and continuing students. If students have questions about applying or getting started they may contact Enrollment Services. Contact:

- ◆ Enrollment Services, Parks Student Union, 425-388-9219  
admissions@everettcc.edu
- ◆ Counseling, Advising & Career Center, Third Floor, Parks Student Union, 425-388-9263

## CERTIFICATE & COURSE INFORMATION

This certificate contains modules on 3D design modeling, 2D geometric constructions, and 2D production drawings. Traditional orthographic view placements as well as dimensioning and tolerance standards are examined. Specific protocols like fastener applications, flat pattern development, weldments, machinings and so on are explored. The CAD software packages used include AutoCAD, Solid Works, CATIA v5, and Mastercam.

The classes contained in this certificate are a subset of the classes contained in the two year degree program.

## CERTIFICATE OUTCOMES

(these outcomes are a subset of the program outcomes)

- Utilize basic engineering graphics with 2D CAD
- Create multi-view drawings using 2D and 3D CAD
- Create assembly drawings from 3D models
- Create complex surfaced part models using 3D CAD

## PROGRAM ADVISORS

For specific guidance about this certificate, contact:

- ◆ Robert Osnes, 425-388-9383, [rosnes@everettcc.edu](mailto:rosnes@everettcc.edu)
- ◆ David Primacio, 425-267-0160, [dprimacio@everettcc.edu](mailto:dprimacio@everettcc.edu)

## Certificate: Advanced Manufacturing Tech – Technical Design (CAD) (37 Credits)

This checklist is targeted at students with an interest in CAD technical design. Courses have prerequisites. 12 weeks before expected completion, this checklist should be submitted with a diploma application to the Enrollment Services Office. Note that EvCC does not offer every course each quarter, so please consult a class schedule and an advisor to plan course selections. Further, note that to earn this degree, each of these courses must be completed with a grade of 2.0 or higher.

Student: \_\_\_\_\_ Advisor: \_\_\_\_\_ Date: \_\_\_\_\_

Course Number	Course Title	Credits	Quarter Planned	Quarter Done	Grade
ENG T 101 (or MATH 080 OR +)	Intro to Graphics and Measurements	5	_____	_____	_____
ENG T 100	Intro to Engineering Graphics and 2D AutoCAD	4	_____	_____	_____
ENG T 105	Dimensions, Tolerances and GD&T (CAD based)	4	_____	_____	_____
ENGR& 114 or ENG T 108	Engineering Graphics (Solid Works I)	4	_____	_____	_____
ENG T 185	Introduction to CAD with CATIA v5	4	_____	_____	_____
ENG T 193	Intermediate CAD with CATIA v5	4	_____	_____	_____
ENG T 203	Computer Aided Design: AutoCAD II	4	_____	_____	_____
ENG T 217	CAD Design Project	4	_____	_____	_____
ENG T 259	Engr Graphics: 3D CAD-CAM (Solid Works II)	4	_____	_____	_____

**TOTAL: 37 credits**

**Minimum 2.0 cum GPA**

### Provisional approval EVPISS June 2014

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