

Advance Design for Manufacturing Certificate 798
Requirements Effective Fall 2014
Program Planning Guide

Program Description: This program has been designed for the student that wants to pursue a career in Mechanical Engineering as a Mechanical Drafter or Commercial/Industrial Designer. The student will use computer programs that relate to CAD (Computer Aided Design) including SolidWorks and CATIA to construct rapid prototypes from basic 3D part creation to advanced surfacing models used in industries such as Aerospace.

Prerequisites: Many classes have prerequisites. Prerequisites are those classes that prove eligibility for entry-level classes by testing or by having satisfied prior course work. Course work earned at other institutions must be unofficially evaluated or approved by a program advisor before registering. Courses in this degree with prerequisites are marked with an asterisk (*). See catalog for more information.

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

Program Requirements		
Course Number	Certificate Requirements (15 credits)	Credit Hours
TDR 200	Introduction to SolidWorks	5
TDR 201	Introduction to CATIA	5
TDR 202*	Intermediate CATIA	5
		Total Credits: 15 (excluding prerequisites)

Program Outcomes:

- Demonstrate the ability to identify, formulate and solve engineering problems.
- Complete a comprehensive design project using advanced engineering design programs as required by industry standards.
- Describe the role and purpose of codes and standards as they pertain to the life, health, and safety of the public.
- Perform the necessary steps to transform an idea or need into a completed project.
- Perform and support design and estimating functions, including, costs, labor requirements, equipment, and scheduling functions.

What Skills do I need to be successful in this field (www.onetonline.org)?

- Mechanical Drafter- <http://www.onetonline.org/link/summary/17-3013.00>
- Commercial and Industrial Designers- <http://www.onetonline.org/link/summary/27-1021.00>
- Engineering Drafters – <http://www.onetonline.org/link/summary/17-3019.00>

What are some potential job titles?

- Mechanical Drafter
- Commercial and Industrial Designers
- Engineering Drafters

Wages, employment trends and pathways

- Mechanical Drafter- <http://www.onetonline.org/link/summary/17-3013.00>
- Commercial and Industrial Designers- <http://www.onetonline.org/link/summary/27-1021.00>
- Engineering Drafters- <http://www.onetonline.org/link/summary/17-3019.00>

Suggested Course Sequence: This program of study is outlined by quarter, and the CATIA courses should be taken in the indicated sequence. However, it should not be concluded that students will always proceed through their program of study exactly as prescribed here. Not all courses are offered every quarter. Individual student experiences, educational and training background, and personal schedules and demands all may affect the time it takes to finish this program. Also, in general, summer quarter is not considered one of the full-time quarters in the program.

1st quarter: TDR 200 (Summer) Introduction to SolidWorks

2nd quarter: TDR 201 (Fall) Introduction to CATIA

3rd quarter: TDR 202 (Winter) Intermediate CATIA

Program Contact: Stephen Simmons (206) 934-0085 stephen.simmons@seattlecolleges.edu

NSC Advising Office: (206) 934-3658 <https://northseattle.edu/advising>

Program Website: <https://northseattle.edu/career/degrees/architectural-engineering-drafting-aas>