

## CAD for Construction & Design Certificate – 602E

Requirements Effective Spring 2015

Program Planning Guide

**Program Description:** This certificate prepares students for a growing number of entry-level jobs in engineering, construction, and architectural firms. Our laboratory is equipped with industry-standard computer-aided design (CAD) systems to provide state-of-the-art graphics training. Course work includes instruction and hands-on training in basic engineering, architectural, and drafting practices.

**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 pre-requisites are marked with an asterisk (\*). See catalog for more information.

**CAD for Construction & Design Certificate Prerequisites:** None

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

<b>Program Requirements</b>		
<b>Course Number</b>	<b>Certificate Requirements (19 credits)</b>	<b>Credit Hours</b>
TDR 111	Basic CAD Drafting for Construction & Design	5
TDR 112	Intermediate Drafting for Construction & Design	5
TDR 176	Advanced AutoCAD for Architectural Engineering Drafting	4
		Total Credits: 14 (excluding prerequisites)

**Program Outcomes:**

- Demonstrate knowledge of drafting conventions including symbols, line types, line weights and dimension styles as applicable to the design discipline.
- Read architectural prints, solve common architectural problems, and produce 2-D and 3-D drawings by hand and using CAD software.
- Complete a comprehensive design project using architectural drawings suitable for planning division approval and structural drawing to industry standards.
- Describe the role and purpose of building codes and standards as they pertain to the life, health and safety of the public.
- Illustrate the construction process from the transformation of an idea or need into a completed project.
- Perform and support estimating functions, including national quantity, types, costs, labor requirements, equipment, and scheduling functions.

### What Skills do I need to be successful in this field?

- <http://www.onetonline.org/find/quick?s=cad+drafter>

### What are some potential job titles?

- Mechanical Drafter
- Architectural Drafter
- Drafter

### Wages, employment trends and pathways:

- <http://www.onetonline.org/find/quick?s=cad+drafter>

**Course Sequence:** This program of study is outlined by quarter, and 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. The number of quarters listed here is minimal. 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.

**1<sup>st</sup> quarter:** TDR 111

**2<sup>nd</sup> quarter:** TDR 112

**3<sup>rd</sup> quarter:** TDR 176

**Program Contact:** Thomas Veith (206) 934-3790 [Thomas.Veith@seattlecolleges.edu](mailto:Thomas.Veith@seattlecolleges.edu)

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

**Program Website:** <https://northseattle.edu/programs/architecture-engineering-technology>