

Architecture Engineering Drafting Certificate – 783D

Requirements Effective Fall 2008

Program Planning Guide

Program Description: The Architectural Engineering Drafting Certificate prepares students for the 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. Coursework includes instruction and hands-on training in: computer and conventional drafting, construction materials and processes, basic engineering mechanics, and architectural cost estimating

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

Architecture Engineering Drafting Certificate Prerequisites: placement into ENGL 97/ENGL 98 or higher, placement into MATH 084 or higher, and completion of BUS 169 or IT 101.

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

Program Requirements		
Course Number	General Education/Related Instruction Requirements (15 credits)	Credit Hours
EET 109* or MATH 102*	Mathematical Applications for Circuit Analysis or College Algebra	5
BUS 236	Interpersonal Communications for the Workplace	5
ENGL&101*	Composition	5
Course Number	Certificate Requirements (34 credits)	Credit Hours
TDR 113	Basic Drafting	5
TDR 124	Materials and Methods of Construction	5
TDR 134	Systems in Buildings	5
TDR 144	Design and Construction Environments	5
TDR 111	Basic CAD Drafting for Construction and Design	5
TDR 112	Intermediate CAD Drafting for Construction and Design	5
TDR 176	Advanced AutoCAD for Architectural Engineering Drafting	4
		Total Credits: 49 (excluding prerequisites)

Program Outcomes:

- Demonstrate knowledge of construction materials and methods as well as their building systems.
- Utilize building codes and standards appropriately in the design environment.
- Perform data management and communicate ideas clearly.
- Demonstrate the ability to produce accurate as-built drawings from measurements.
- Clearly produce construction drawings using 2D CAD software.
- Demonstrate ability to analyze structural effects of a building on the surrounding community.
- Demonstrate knowledge of building types.
- Demonstrate knowledge of infrastructure; i.e. HVAC, Electrical, and Plumbing

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

- <http://www.onetonline.org/link/summary/17-3011.01>

What are some potential job titles?

- CAD Technician
- CAD Specialist I, II & III
- CAD Designer

Wages, employment trends and pathways:

- <http://www.onetonline.org/link/summary/17-3011.01#WagesEmployment>

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.

1st quarter: TDR 124, TDR 113, TDR 111

2nd quarter: TDR 134, TDR 112

3rd quarter: TDR 144, TDR 176

Any quarter: BUS 236, EET 109 or MATH 102, ENGL&101

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

Program Website: <https://northseattle.edu/certificates/architectural-engineering-drafting-certificate>