

*career*tech

Architectural Computer Aided Drafting and Design

Career Cluster: Architectural & Construction

ODCTE
Division: Trade and Industrial Education

Course Number: TBA

Locations: Oklahoma *Career*Tech locations

Length: 120 Hours

Course Description: This course is a basic Architectural Drafting course utilizing Computer-Aided Drafting and Design (CADD) software that develops computer skills and electronic skills and applications within the field of architectural drafting. Topics covered are advanced computer operations, introduction to residential architecture drafting, CAD application software, site conditions/plot plans, lettering and tools, residential design/room layout, structural systems and building materials, working drawings/floor plans and details, dimensioning, foundations, electrical/mechanical/plumbing, presentation drawings, interior and exterior elevations, roof plans, commercial architectural drafting, structural steel framing plans, pre-cast concrete, framing plans, foundations and walls and structural wood

Knowledge and Skills:

Advanced Computer Operations – 35 hrs	
Advanced Computer Configuration	Advanced Computer Properties
Desktop and Taskbar Customization	Plot parameters
Advanced Hardware	Integrate other software with CAD applications
Networking	Advanced Media Reproduction
Configure CAD workstation	Customize application software
Utilities Development	Online Development
Storage devices	Media Reproduction
System Configuration	Software Customization
Drawing management	CAD system variables

standards	
Fonts	Symbols, text based information, and libraries
Manipulate CAD drawings	
Computer Aided Residential Architectural Drafting – 60 hrs	
Computer Application Software	Types of drawings
Measuring instruments	English and Metric Conversion
Site Conditions	Plot Plans
Preliminary presentation sketches	Calibration
Site layouts	Interior and Exterior Elevations
Sections	Blueprints
Interpret drawings	Interpret symbols
Design/Room Layout	Structural Systems
Building Materials	Lettering and Tools
Working Drawings/Floor Plans and Details	Dimensioning
Residential Foundations	Electrical/Mechanical/Plumbing
Presentation Drawings	Roof Plans
Computer Aided Commercial Architectural Drafting 25 hrs	
Structural Steel Framing Plans	Structural Steel Details
Pre-cast Concrete Framing Plans	Pre-cast Concrete Details
Foundations and Walls	Floors and Stairs
Structural Wood	

Required
Certifications: None

Course Standards: American Design Drafting Association (ADDA) Standards—
<http://www.adda.org/>
American Institute of Architects <http://www.aia.org>

Resources: Software
AutoCAD
Solidworks
Architectural Desktop
AutoCAD and its Applications-Basics and Advanced by Terence M. Shumaker and David A. Madison
Practical Problems in Mathematics by Larkin

Basic Technical Drafting by Dygdon
Solidworks Training Manual
Architecture: Residential Design