

Drafting and Design II

Career Cluster	Architecture & Construction
Course Code	21103
Prerequisite(s)	Drafting and Design I
Credit	.5
Program of Study and Sequence	Foundation Courses, Introduction to Architecture and Construction, Introduction to Drafting and Design, Drafting and Design II, Capstone Course
Student Organization	SkillsUSA
Coordinating Work-Based Learning	Job Shadowing, Mentorships, Service Learning, Internships, Apprenticeship
Industry Certifications	ADDA Architectural Apprentice certification http://www.adda.org
Dual Credit or Dual Enrollment	TBD
Teacher Certification	Architecture & Construction Cluster Endorsement; Construction Pathway Endorsement; Design & Pre-Construction Pathway Endorsement; STEM Cluster Endorsement; Engineering & Robotics Pathway Endorsement; Drafting Endorsement;
Resources	None

Course Description:

People with careers in design and pre-construction create our future. They turn a concept into a set of plans whether for a component, a system or a building. The plans guide other construction or manufacturing professionals as they continue the building process. These standards, combined with the knowledge and skills students master in the Drafting and Design I course, will provide students the basis to sit for the ADDA (American Drafting and Design Association) Architectural Apprentice certification. Details of the ADDA competencies addressed in each standard can be found at <http://www.adda.org>.

Program of Study Application

This is the fourth course in the suggested sequence of the Architectural & Construction career cluster. It is recommended that it is preceded by (1) Foundation Courses, (2) Introduction to Architecture and Construction, and (3) Drafting and Design I; and followed by (5) Capstone Experience.

Course Standards

Indicator # DDII 1 Understand architectural design fundamentals and history.

<i>Webb Level</i>	<i>Sub-indicator</i>	<i>Integrated Content</i>
Level 1 Recall	DDII 1.1 Identify architectural products and styles.	
Level 2 Skill/ Concept	DDII 1.2 Interpret the fundamentals of framing plans.	
Level 2 Skill/ Concept	DDII 1.3 Identify building codes and governing bodies	
Level 1 Recall	DDII 1.4 Identify residential building materials	

Indicator # DDII 2 Understand drawing management, dimensioning, and notations.

<i>Webb Level</i>	<i>Sub-indicator</i>	<i>Integrated Content</i>
Level 2 Skill/ Concept	DDII 2.1 Examine drawing identification and management techniques used in architectural drafting.	
Level 3 Strategic Thinking	DDII 2.2 Illustrate proper dimensioning and notation practices used in architectural drafting.	

Indicator # DDII 3 Develop a residential plot and foundation system plan.

<i>Webb Level</i>	<i>Sub-indicator</i>	<i>Integrated Content</i>
Level 4 Extended Thinking	DDII 3.1 Create a plot/site plan for a residence.	
Level 3	DDII 3.2 Design footings and foundation for a residence.	•

Strategic Thinking		
--------------------	--	--

Indicator # DDII 4 Generate the necessary construction plans to build a residence.

<i>Webb Level</i>	<i>Sub-indicator</i>	<i>Integrated Content</i>
Level 3 Strategic Thinking	DDII 4.1 Develop a floor plan using accepted symbols and techniques.	
Level 3 Strategic Thinking	DDII 4.2 Prepare a working drawing of the residence HVAC, lights and electrical needs.	
Level 3 Strategic Thinking	DDII 4.3 Design a residential roof plan.	
Level 2 Skill/ Concept	DDII 4.4 Understand the use of elevations in the design of a residence.	
Level 3 Strategic Thinking	DDII 4.5 Draw interior and exterior stair details appropriate to those found in a residence.	
Level 3 Strategic Thinking	DDII 4.6 Develop door, window, and finishing schedules.	
Level 2 Skill/ Concept	DDII 4.7 Understand basic estimating practices used in the construction industry.	
Level 4 Extended Thinking	DDII 4.8 Generate final presentation drawings and three dimensional computer model.	