

Principles of Architecture and Construction, Semester A

Course Overview

The Principles of Architecture and Construction Semester A course is intended to help familiarize you with basic concepts of architecture and construction and a wide range of careers available in this field. Principles of Architecture and Construction Semester A begins by introducing foundational concepts of architecture and construction. This course covers architectural drawings, structure and loads, materials, and equipment used in architecture and construction. In this course, you will also review career opportunities in the field of Architecture and Construction. Finally, this course will explain the important workplace ethics required in this field.

Course Goals

By the end of this course, you will:

- Explain contemporary architectural styles and analyze architectural drawings.
- Identify physical properties of architectural structures and materials and equipment used in the construction industry.
- Identify career options in architecture, construction management, and interior design.
- Explain job acquisition and advancement skills required to apply for a job and seek promotion.
- Explain lifelong-learning skills to continually acquire new industry-related information and improve professional skills.
- Explain the importance of positive work ethics and integrity in a workplace.
- Explain the importance of self-representation, creative resourcefulness, and teamwork at the workplace.

General Skills

To participate in this course, you should be able to do the following:

- Complete basic operations with word-processing software such as Microsoft Word or Google Docs.
- Perform online research using various search engines and library databases.
- Communicate through email and participate in discussion boards.

For a complete list of the general skills required for participation in online courses, refer to the Prerequisites section of the Plato Student Orientation document, found at the beginning of this course.

Credit Value

PLATO Course Principles of Architecture and Construction, Semester A is a 0.5-credit course.

Course Materials

- notebook
- computer with an Internet connection and speakers or headphones
- Microsoft Word or equivalent

Course Pacing Guide

This course description and pacing guide is intended to help you stay on schedule with your work. Note that your course teacher may modify the schedule to meet the specific needs of your class.

Course Components and Grading Rubric

The table gives a breakdown of the weight for each component in the course. Weight represents the percentage of the total score coming from each activity.

Course Components	Count	Weight
<i>Pretest. Pretests are optional assessments, typically designed for credit recovery use. If a student shows mastery of a lesson's objective, the student may be automatically exempted from that lesson in the upcoming unit. Typically, teachers do not choose to employ exemptive pretests for first-time credit courses. Pretests are not included as a component of the student's final grade.</i>	3	0%

Course Components	Count	Weight
Module. <i>Each module in this course contains an interactive tutorial and an associated mastery test. Tutorials may include one or more Lesson Activities that constitute tasks associated with the tutorial. The module score comes from a student's score on the mastery test.</i>	15	20%
Discussion. <i>Online discussions allow for higher-order thinking about terminal objectives. An online threaded discussion mirrors the educational experience of a classroom discussion. Teachers can initiate a discussion by asking a complex, open-ended question. Students can engage in the discussion by responding both to the question and to the thoughts of others. Each unit in a course has one predefined discussion topic; teachers may add more discussion topics.</i>	3	20%
Unit Activity. <i>Unit Activities are at the end a unit and constitute one or more small tasks. Their purpose is to deepen understanding of key unit concepts and tie them together. Each Unit Activity includes a simple rubric. The teacher versions include both a rubric and modeled sample answers. Unit Activities are teacher graded.</i>	3	20%
Posttest. <i>The posttest appears at the end of the unit and mirrors the pretest in structure, content, and complexity.</i>	3	20%
End of Semester Test. <i>The end of semester test (EOS) appears at the end of the course. Students are delivered a few items from every tutorial in the course in order to assess the major course objectives.</i>	1	20%
Total	28	100%

**Teachers may manually adjust these weights if desired, per district grading requirements.*

Unit 1: Introduction to Architecture and Construction

Summary

In this unit, you will identify architectural designs, styles, and drawings. You will also identify the physical properties of architectural structures and familiarize yourself with materials used in architecture and the costs involved. Finally, you will explain the tools and equipment used in construction.

Day	Activity/Objective	Type
1 day: 1	Syllabus and Plato Student Orientation <i>Review the Plato Student Orientation and Course Syllabus at the beginning of this course.</i>	Course Orientation

Day	Activity/Objective	Type
5 days: 2–6	Concepts of Architecture <i>Explain concepts of architecture and contemporary architectural styles.</i>	Lesson
4 days: 7–10	Architectural Drawings <i>Explain architectural drawings.</i>	Lesson
4 days: 11–14	Structure and Loads <i>Identify physical properties of architectural structures.</i>	Lesson
5 days: 15–19	Material and Costs <i>Describe materials used in architecture and estimate costs.</i>	Lesson
5 days: 20–24	Construction Equipment <i>Describe various types of equipment used in the construction industry.</i>	Lesson
1 day: 25	Space Jumble	Game
4 days: 26–29	Unit Activity/ Threaded Discussion—Unit 1	Unit Activity
1 day: 30	Posttest—Unit 1	Assessment

Unit 2: Careers in Architecture and Construction

Summary

In this unit, you will identify career opportunities in architecture, construction management, and interior design. You will also describe the skills and qualifications required to pursue these careers. In addition, you will explain how to acquire jobs and advance in your career. Finally, you will analyze the importance of life-long learning skills in improving professional skills.

Day	Activity/Objective	Type
5 days: 31–35	Career of an Architect <i>Explain career options in architecture.</i>	Lesson

Day	Activity/Objective	Type
5 days: 36–40	Careers in Construction Management <i>Describe construction management roles and responsibilities.</i>	Lesson
5 days: 41–45	Careers in Interior Design <i>Describe career options in interior design and explain concepts related to interior design.</i>	Lesson
5 days: 46–50	Job Acquisition and Career Advancement <i>Identify job acquisition and advancement skills needed to apply for a job and seek promotion.</i>	Lesson
4 days: 51–54	Life-Long Learning <i>Explain how lifelong-learning skills help in improving professional skills.</i>	Lesson
1 day: 55	Para Jumble	Game
4 days: 56–59	Unit Activity/Threaded Discussion—Unit 2	Unit Activity
1 day: 60	Posttest—Unit 2	Assessment

Unit 3: Workplace Skills

Summary

In this unit, you will explain the importance of positive work ethics and integrity in the workplace. You will also explain how to present yourself as a dependable and reliable employee. Finally, you will describe how to contribute new ideas and work as part of a team.

Day	Activity/Objective	Type
5 days: 61–65	Positive Work Ethics <i>Explain the importance of positive work ethics.</i>	Lesson
4 days: 66–69	Integrity <i>Explain the importance of integrity in a workplace.</i>	Lesson

Day	Activity/Objective	Type
4 days: 70–73	Self-Representation <i>Explain why positive self-representation skills are employment requirements for the workplace.</i>	Lesson
4 days: 74–77	Creative Resourcefulness <i>Explain how to demonstrate creativity and resourcefulness by contributing new ideas and working with initiative.</i>	Lesson
5 days: 78–82	Teamwork <i>Explain how to demonstrate teamwork skills by contributing to the success of the team, assisting others, and requesting help when needed.</i>	Lesson
1 day: 83	Thwack-A- Mole	Game
4 days: 84–87	Unit Activity/Threaded Discussion—Unit 3	Unit Activity
1 day: 88	Posttest—Unit 3	Assessment
1 day: 89	Semester Review	
1 day: 90	End-of-Semester Test	Assessment

Course Map

You will achieve course level objectives by completing each lesson’s instruction, assignments, and assessments. For a detailed look at how the materials meet these objectives, review the [course map for Semester A](#).