Syllabus

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:

- Analyze various design principles in contemporary architectural styles and elements of architectural drawings.
- Examine the physical properties of architectural structures and the materials, tools, technologies, and equipment needed to construct them.
- Appraise various architecture programs of study and careers, as well as the role of lifelong- learning skills in career growth and resource management.
- Employ knowledge of positive work ethics, professionalism, problem-solving skills, and workplace policies in order to create an inclusive, safe, and respectful workplace.
- Demonstrate professional communication skills with regards to public relations and communicating with city government officials.
- Examine the process of creating a built environment, including legal building requirements, safety laws and regulations, and jobsite injury prevention.

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
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.*	3	0%
Module. *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.*	15	20%
Discussion. *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.*	3	20%
Unit Activity. *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.*	3	20%
Posttest. *The posttest appears at the end of the unit and mirrors the pretest in structure, content, and complexity.*	3	20%
End of Semester Test. *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.*	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** *Review the Plato Student Orientation and Course Syllabus at the beginning of this course.*	Course Orientation
5 days: 2–6	**Concepts of Architecture** *Identify concepts and design principles of architecture and contemporary architectural styles and explain how features of building designs relate to their functions.*	Lesson
4 days: 7–10	**Architectural Drawings** *Identify the characteristics of architectural drawings and the meanings of symbols and abbreviations.*	Lesson
4 days: 11–14	**Structures and Loads** *Identify physical properties of architectural structures and discuss elasticity concepts.*	Lesson
5 days: 15–19	**Material and Costs** *Identify materials used in architecture and how they meet construction needs.*	Lesson
5 days: 20–24	**Construction Equipment** *List various types of equipment and tools used in the construction industry and identify common injuries and medical conditions caused by working with this equipment.*	Lesson
1 day: 25	**Space Jumble**	Game
4 days: 26–29	**Unit Activity/ Threaded Discussion —Unit 1** *Recall a famous work of architecture from the 1800s and the architect who created it, and then practice architectural drawing techniques.*	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** *Identify architectural programs of study and careers in architecture.*	Lesson
5 days: 36–40	**Careers in Construction Management** *Recall skills, education, and work ethics important to the career of construction management as well as roles and responsibilities.*	Lesson
5 days: 41–45	**Careers in Interior Design** *Identify career options in interior design and explain concepts and design principles related to interior design.*	Lesson
5 days: 46–50	**Job Acquisition and Career Advancement** *Explain the process of applying for and securing a job in your desired industry, as well as best practices for career advancement.*	Lesson
4 days: 51–54	**Life-Long Learning** *Recall how life-long learning skills help in improving professional skills.*	Lesson
1 day: 55	**Para Jumble**	Game
4 days: 56–59	**Unit Activity/Threaded Discussion—Unit 2** *Compare continuing education institutes and gather information about them, and explain how to elect members for the student chapter of a professional organization.*	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
4 days: 61–65	**Positive Work Ethics** *Recognize the characteristics of positive work ethics and explain its importance.*	Lesson
5 days: 66–69	**Integrity** *Identify labor laws, integrity, and integrity attributes outlined by many workplace policies and laws.*	Lesson
5 days: 70–73	**Self-Representation** *Identify positive self-representation skills through dress and using language and manners suitable for the workplace.*	Lesson
5 days: 74–77	**Creative Resourcefulness** *Recognize the role of creativity and resourcefulness in problem solving and decision making; list the steps of problem solving.*	Lesson
5 days: 78–82	**Teamwork** *Identify teamwork and leadership skills needed to successfully lead a team.*	Lesson
1 day: 83	**Thwack-A- Mole**	Game
4 days: 84–87	**Unit Activity/Threaded Discussion—Unit 3** *Practice résumé writing skills to apply for the job position and identify the type of clothes you would wear to the interview for this job.*	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.