



Course Information

Division	ASET
Contact Hours	60
Theory	40
Lab Hours	20
Total Credits	3

Prerequisites RDG 090 or qualifying score on accepted placement tests or Instructor Consent

Course Description

This course develops those supporting skills essential to the organization and management of construction projects, including bidding procedures, organization and interpretation of specifications, function preparation and use of the various construction documents, scheduling of construction operations and familiarization with building codes and zoning regulations.

This course is a required core course for students pursuing a(n) AAS in Construction Management Technology

Program Outcomes Addressed by this Course:

Upon successful completion of this course, students should be able to meet the program outcomes listed below:

- A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
- B. Define the roles, relationships and responsibilities of the participants in the design and construction process.
- C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.
- D. Employ the methods, materials, used in the design and construction of buildings and civil works.
- E. Accurately quantify materials required for project construction.
- F. Interpret construction documents to accurately predict project costs and assign resources.
- G. Utilize construction operations planning methods to create accurate project schedules and monitor productivity.
- H. Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.
- I. Utilize a working knowledge of safety, health, and environmental issues related to construction activities.

Course Outcomes

In order to evidence success in this course, the students will be able to:

1. **Explain the principal characteristics of the construction industry and its major sectors and current trends within the industry through research and discussion in the classroom**



B. Define the roles, relationships and responsibilities of the participants in the design and construction process.

I. Utilize a working knowledge of safety, health, and environmental issues related to construction activities.

2. Categorize the roles and responsibilities of construction project participants; primary project delivery method systems with their advantages and disadvantages as well as major types of contracts

A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.

B. Define the roles, relationships and responsibilities of the participants in the design and construction process.

C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.

D. Employ the methods, materials, used in the design and construction of buildings and civil works.

F. Interpret construction documents to accurately predict project costs and assign resources.

3. Explain the processes involved in the project bidding phase; dissect the project scope into work packages; prepare bids analysis and alternates as a construction manager

A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.

B. Define the roles, relationships and responsibilities of the participants in the design and construction process.

C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.

E. Accurately quantify materials required for project construction.

F. Interpret construction documents to accurately predict project costs and assign resources.

G. Utilize construction operations planning methods to create accurate project schedules and monitor productivity.

H. Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.

4. Discuss the administrative work necessary to properly execute and close-out as well as turn over a construction project

A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.

B. Define the roles, relationships and responsibilities of the participants in the design and construction process.

C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.

F. Interpret construction documents to accurately predict project costs and assign resources.



H. Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.

5. Describe knowledge of how different cost estimating types evolve over the life of a construction project, how to identify cost estimating items, and conduct a complete cost estimating,

A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.

C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.

D. Employ the methods, materials, used in the design and construction of buildings and civil works.

E. Accurately quantify materials required for project construction.

F. Interpret construction documents to accurately predict project costs and assign resources.

H. Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.

6. Evaluate the use of schedules; perform basic network calculations

A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.

C. Use clear and effective written and oral communication methods to facilitate interaction with all project team participants.

D. Employ the methods, materials, used in the design and construction of buildings and civil works.

E. Accurately quantify materials required for project construction.

F. Interpret construction documents to accurately predict project costs and assign resources.

G. Utilize construction operations planning methods to create accurate project schedules and monitor productivity.

H. Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.

Date Updated: 10/17/23

By: Emrah Kazan, Ph.D.