



# Course Outcome Summary

## Required Program Core Course

### CONM 105 - Mechanical Building Systems and Equipment

#### Course Information

Division	ASET
Contact Hours	90
Theory	60
Lab Hours	30
Total Credits	4

**Prerequisites** CONM 110 or MDTC 160

#### Course Description

The course is designed to give students the skills required to be familiar with and understand the workings of building structural, mechanical and electrical systems This includes different types of structural elements, building heating, ventilation, and air conditioning (HVAC) systems. Other building systems will include electrical, lighting, communications, plumbing, fire protection, and vibration control systems. The focus of the course is on water distribution and waste systems, air handling comfort systems, including air conditioning, electrical power and lighting. Mechanical and electrical layouts are developed.

**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. Interpret construction documents to accurately predict project costs and assign resources.
- H. Interpret and apply applicable building codes and regulations in construction processes

#### Course Outcomes

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

1. **Identify and discuss the basic processes of designing and constructing a building and the role of design professionals**
  - 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.
- 2. Identify and compare building structural systems; foundation systems, floor systems, wall and roof systems**
  - A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
  - D. Employ the methods, materials, used in the design and construction of buildings and civil works.
  - E. Interpret construction documents to accurately predict project costs and assign resources.
  - H. Interpret and apply applicable building codes and regulations in construction processes
- 3. Identify and compare types of building mechanical systems and equipment**
  - A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
  - D. Employ the methods, materials, used in the design and construction of buildings and civil works.
  - E. Interpret construction documents to accurately predict project costs and assign resources.
  - H. Interpret and apply applicable building codes and regulations in construction processes
- 4. Identify and compare types of building electrical systems and equipment**
  - A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
  - D. Employ the methods, materials, used in the design and construction of buildings and civil works.
  - E. Interpret construction documents to accurately predict project costs and assign resources.
  - H. Interpret and apply applicable building codes and regulations in construction processes
- 5. Identify and compare types of building plumbing systems and equipment**
  - A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
  - D. Employ the methods, materials, used in the design and construction of buildings and civil works.
  - E. Interpret construction documents to accurately predict project costs and assign resources.
  - H. Interpret and apply applicable building codes and regulations in construction processes
- 6. Interpret and classify various types of plans and specifications as it relates to construction projects and create an oral presentation based upon project documents**
  - A. Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
  - E. Interpret construction documents to accurately predict project costs and assign resources.
  - H. Interpret and apply applicable building codes and regulations in construction processes