



Broward Community College

Course Outline

STATUS: A

COMMON COURSE NUMBER: BCT2040

COURSE TITLE: Mechanical, Electrical, and Plumbing [MEP] Plans Interpretation

CREDIT HOURS: 3

CONTACT HOURS BREAKDOWN:

Lecture/Discussion 32

Lab 32

Other

Contact Hours/Week 4

CATALOG COURSE DESCRIPTION: This course is designed to develop the student's ability to quickly interpret working drawings. Emphasis is on mechanical, electrical, and plumbing plans, details, and specifications.

Prerequisite: None

Corequisite: None

UNIT TITLES:

1. Mechanical Plans Interpretation
2. Electrical Plans Interpretation
3. Plumbing Plans Interpretation
4. Interpretation of Equipment Elevations and Sections
5. Interpretation of Isometric Drawings
6. Interpretation of Details and Specifications

I. Course Overview:

Upon successful completion of this course, the students should be able to demonstrate an ability to interpret mechanical, electrical and plumbing construction drawings in accordance with accepted professional standards.

II. Units:

Unit 1. Mechanical Plans Interpretation

General Outcome:

- 1.0 The students should be able to demonstrate a proficiency and in the interpretation of mechanical construction plans.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 1.1 Identify equipment shown on mechanical plans used in residential and commercial buildings.
- 1.2 Read and interpret mechanical plans and layouts to identify the function and purpose of specific components and equipment.
- 1.3 Read and interpret mechanical plans to determine equipment sizes and generate standard equipment schedules.

Unit 2. Electrical Plans Interpretation

General Outcome:

- 2.0 The students should be able to demonstrate a proficiency in the interpretation of electrical construction plans.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 2.1 Identify equipment shown on electrical plans used in residential and commercial buildings.
- 2.2 Read and interpret electrical plans and layouts to identify the function and purpose of specific component and equipment.
- 2.3 Read and interpret electrical plans to determine equipment sizes and generate standard equipment descriptions and schedules.

Unit 3. Plumbing Plans Interpretation

General Outcome:

- 3.0 The students should be able to demonstrate a proficiency in the interpretation of plumbing construction plans.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 3.1 Identify equipment shown on plumbing plans used in residential and commercial buildings.
- 3.2 Read and interpret plumbing plans to identify the function and purpose of specific components and equipment.
- 3.3 Read and interpret plumbing plans to determine sizes of fixtures and equipment and generate standard equipment schedules.

Unit 4. Interpretation of Equipment Elevations and Sections

General Outcome:

- 4.0 The students should be able to demonstrate a proficiency in the interpretation of mechanical, electrical and plumbing equipment elevations and sections.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 4.1 Read and interpret equipment plan view and elevations. Generate simple equipment sections from plan view and elevations.
- 4.2 Utilize manufacturer's catalog data to generate expanded scale layout, elevations and sections of mechanical, electrical and plumbing equipment.

Unit 5. Interpretation of Isometric Drawings

General Outcome:

5.0 The students should be able to demonstrate proficiency in the interpretation of mechanical, electrical and plumbing isometric drawings.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

5.1 Read and interpret isometric drawings and riser drawings to identify mechanical, electrical and plumbing equipment used in residential and commercial buildings.

5.2 Read and interpret isometric drawings and riser diagrams to identify and describe the function and purpose of mechanical, electrical and plumbing equipment and systems.

Unit 6. **Interpretation of Details and Specifications**

General Outcome:

6.0 The students should be able to demonstrate proficiency in the interpretation of details, equipment and project specifications.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

6.1 Identify and interpret details on mechanical, electrical and plumbing plans and reference details to plans and layouts.

6.2 Use manufacturer's catalog data to prepare details and specifications of mechanical, electrical and plumbing equipment.