



# Broward Community College

## Course Outline

STATUS:   A  

COMMON COURSE NUMBER:   BCN 2253C  

COURSE TITLE:   Building Construction Drawing II  

CREDIT HOURS:           4          

**CONTACT HOURS BREAKDOWN:**

Lecture/Discussion	<u>          48          </u>
Lab	<u>          48          </u>
Other	<u>                          </u>
Contact Hours/Week	<u>          6          </u>

**CATALOG COURSE DESCRIPTION:**

Prerequisite: BCN 1252C

Co requisite: None

This is the second in a two-course sequence of building construction drafting courses. The focus of this course will be on the development of advanced drafting techniques while gaining an understanding of more complex construction procedures for commercial and institutional buildings. Advanced AutoCAD techniques will be used extensively as one of the tools for preparing drawings.

General Education Requirements - Associate of Arts Degree, meets Area(s):  
 General Education Requirements - Associate in Science Degree, meets Area(s):

**UNIT TITLES:**

1. Advanced Topics in AutoCAD
2. Construction Documents
3. Working Drawings and Symbols
4. Advanced Dimensioning Techniques
5. Organization of a Set of Working Drawings
6. Applying AutoCAD to Architectural and Building Construction Plans
7. Advanced Drawing Techniques

## **I. Course Overview:**

Upon successful completion of this course, the students should be able to use advanced features in AutoCAD and read and draw commercial and institutional building construction documents.

## **II. Units:**

### **Unit 1. Advanced Topics in AutoCAD**

#### General Outcome:

- 1.0 The students should be able to use the advanced features in AutoCAD to develop 3D drawings.

#### Specific Learning Outcomes:

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

- 1.1 Use the pline command with all its symbols.
- 1.2 Use the pedit command with all the submenus.
- 1.3 Use the block and wblock commands.
- 1.4 Use the attribute command.
- 1.5 Draw isometrics.
- 1.6 Use the 3D view commands.
- 1.7 Draw wire frames.

## Unit 2. Construction Documents

### General Outcome:

2.0 The students should be able to read and organize construction documents for commercial and institutional buildings.

### Specific Learning Outcomes:

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

2.1 Organize commercial and institutional building drawings by sequences of construction.

2.2 Organize commercial and institutional buildings drawings by discipline.

2.3 Read commercial and institutional architectural drawings.

### Unit 3. Working Drawings and Symbols

#### General Outcome:

3.0 The students should be able to draw and use working drawings and symbols in commercial and institutional projects.

#### Specific Learning Outcomes:

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

3.1 Draw and use linetypes used in commercial and institutional buildings.

3.2 Draw and use material symbols used in commercial and institutional buildings.

3.3 Draw and use object symbols used in commercial and institutional buildings.

3.4 Draw and use reference symbols used in commercial and institutional buildings.

3.5 Draw and use miscellaneous symbols used in commercial and institutional buildings.

## Unit 4. Advanced Dimensioning Techniques

### General Outcome:

4.0 The students should be able to dimension and annotate architectural and structural plans, elevations, sections and details for commercial and institutional drawings.

### Specific Learning Outcomes:

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

- 4.1 Dimension and annotate structural and architectural plans for commercial and institutional buildings.
- 4.2 Dimension and annotate structural and architectural drawings and sections for commercial and institutional buildings.
- 4.3 Dimension and annotate elevations for structural and architectural drawings in commercial and institutional buildings.
- 4.4 Dimension and annotate details for structural and architectural drawings in commercial and institutional buildings.

## Unit 5. Organization of a Set of Working Drawings

### General Outcome:

5.0 The students should be able to organize working construction documents into a natural order that follows the specialty divisions.

### Specific Learning Outcomes:

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

5.1 Organize the architectural division of the construction documents.

5.2 Organize the structural division of the construction documents.

5.3 Organize the electrical division of the construction documents.

5.4 Organize the plumbing division of the construction documents.

5.5 Organize the mechanical division of the construction documents.

**Unit 6. Applying AutoCAD to Architectural and Building Construction Plans**

General Outcome:

6.0 The students should be able to use all the commands required to draw a set of construction documents for commercial and institutional buildings.

Specific Learning Outcomes:

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

6.1 Draw construction document plan views using AutoCAD for commercial and institutional buildings.

6.2 Draw construction document section views using AutoCAD for commercial and institutional buildings.

6.3 Draw construction document elevation views using AutoCAD for commercial and institutional buildings.

6.4 Draw construction document details using AutoCAD for commercial and institutional buildings.

## Unit 7. Advanced Drawing Techniques

### General Outcome:

7.0 The students should be able to use advanced techniques in AutoCAD to draw construction documents.

### Specific Learning Outcomes:

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

- 7.1 Organize the projects in the computer.
- 7.2 Organize the different layers in the files.
- 7.3 Create different fonts in the AutoCAD drawings.
- 7.4 Create special linetypes in the AutoCAD files.
- 7.5 Create slide files within the AutoCAD drawing files.