



# Broward Community College

## Course Outline

STATUS:   A  

COMMON COURSE NUMBER:   TAR 2154  

COURSE TITLE:   Multi-Story Architectural Drafting  

CREDIT HOURS:       3      

**CONTACT HOURS BREAKDOWN:**

Lecture/Discussion	<u>      16      </u>
Lab	<u>      48      </u>
Other	<u>      00      </u>
Contact Hours/Week	<u>      4      </u>

**CATALOG COURSE DESCRIPTION:**

Prerequisite:   TAR 2122

Corequisite:   None

This course enables the student to provide architectural drawings and study construction methods and techniques used in high rise buildings. Special attention is directed to the practice of prestressed/precast concrete beams and structural steel members.

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

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

**UNIT TITLES:**

1. Typical Structural Framing Systems
2. South Florida Building Code
3. Site Plan
4. Floor Plan, Elevations, Wall Sections
5. Door, Finish Schedule, Store Front
6. Foundation Plan, Roof Framing Plan

## I. Course Overview:

Upon successful completion of this course, the students should be able to prepare plans for a typical medium size commercial building, including site and floor plans, elevations, wall sections, roof framing plan, foundation plan, door and finish schedules, store front details.

## II. Units:

### Unit 1. **Typical Structural Framing Systems**

#### General Outcome:

- 1.0 The students should be able to recognize and draw the basic structural framing systems used in modern commercial buildings.

#### Specific Learning Outcomes:

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

- 1.1 Describe the basic elements of framing systems
- 1.2 Draw wall sections and framing plans, of typical bays in a commercial building.
- 1.3 Perform basic structural calculations previous to selection of framing members from tables.

## Unit 2. South Florida Building Code

### General Outcome:

- 2.0 The students should be able to interpret compliance with the South Florida Building Code, especially on masonry construction.

### Specific Learning Outcomes:

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

- 2.1 Describe requirements of masonry construction by South Florida Building Code, in particular, with concrete block.
- 2.2 Name and draw typical concrete tie columns and tie beam sections showing dimensions reinforcing and spacing and/or location in buildings.
- 2.3 Differentiate between use of tie columns and beams and use of structural columns and beams.

### Unit 3. Site Plan

#### General Outcome:

- 3.0 The students should be able to draw a site plan working drawings of a typical medium-size commercial building.

#### Specific Learning Outcomes:

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

- 3.1 Identify and describe all basic elements of a site plan drawing as it refers to architectural working drawings.
- 3.2 Name and recognize other elements complementing an architectural site plan as provided by consultants such as civil, mechanical and electrical engineers and landscape architects.
- 3.3 Describe typical zoning requirements, such as setbacks, landscape open areas, finish floor elevations, etc.

## Unit 4. Floor Plan, Elevations, Wall Sections

### General Outcome:

- 4.0 The students should be able to draw typical floor plan, elevation and wall section of medium size commercial building.

### Specific Learning Outcomes:

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

- 4.1 Describe all important information that should be provided in typical floor plan, wall sections and elevating.
- 4.2 Draw typical basic working drawings of a floor plan, elevation and wall sections.
- 4.3 Correlate information on above described drawings with those in the form of schedules, store fronts, etc.

## Unit 5. Door, Finish Schedule, Store Front

### General Outcome:

- 5.0 The students should be able to enumerate and describe door and finish schedules. Also detailing of store front.

### Specific Learning Outcomes:

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

- 5.1 Complete a door schedule. Coordination with floor plan symbols. Understand typical door widths and weights; construction of doors; door materials and finishes.
- 5.2 Complete a finish schedule. Coordination with floor plan symbols. Understand typical wall, floor and ceiling materials and finishes.
- 5.3 Complete a basic detailing of a store front key elevation. Design of sections used for aluminum frames. Understand the process to arrive at door sections thru the use of manufacturers catalogs and typical conditions.

## Unit 6. Foundation Plan, Roof Framing Plan

### General Outcome:

- 6.0 The students should be able to draw a typical foundation plan and roof framing plan for a commercial building.

### Specific Learning Outcomes:

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

- 6.1 Draw a foundation plan. Prepare a typical foundation schedule, column schedule. Complete dimensions on a typical foundation plan.
- 6.2 Draw a roof framing plan. Prepare a typical beam schedule. Select typical steel joists and beams.