BROWARD COMMUNITY COLLEGE
COURSE OUTLINE

LAST REVIEW: 2004-2005 **NEXT REVIEW:** 2009-2010 **STATUS:** A

COURSE TITLE: ARCHITECTURAL DRAWING

COMMON COURSE NUMBER: ARC 1126C

CREDIT HOURS: 4 **CONTACT HOUR BREAKDOWN**
(per 16 week term)

CLOCK HOURS:
(Voc. Course ONLY)

Lecture: 16 Lab: 48

Clinic: 00 Other: **00**

PREREQISITE(S): None

COREQUISITE(S): None

PRE/COREQUISITE(S): None

COURSE DESCRIPTION: An introduction to principles, methods and applications of architectural drawing. Basic drafting tools will be used to learn orthographic projection to draw multi-view drawings including architectural design floor plans, elevations and sections, single-view drawings including paraline axonometric drawings and perspective drawings including one- and two- point. *(750 characters, maximum)*

UNIT TITLES

1. Basic tools of drafting
2. Freehand Sketching
3. Orthographic projection
4. Line types, line quality, line weight and line density
5. Drafting conventions and symbols
6. Architectural and Engineering Scales
7. Architectural lettering
8. Architectural design floor plans
9. Architectural design sections
10. Architectural design elevations
11. Architectural design axonometrics: plan obliques and isometrics
12. One-Point Perspective
13. Two-Point Perspective

Common Course Number: ARC 1126C

UNITS

Unit 1 Basic tools of drafting.

General Outcome:

1.0 The student shall: become familiar with the use of t-squares, parallel bars, triangles, adjustable triangles, mechanical pencils, lead holders, leads, technical pens, drafting paper, Mylar, erasing shields, erasers, electric erasers, drafting machines, templates, etc.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

1.1 Know what equipment is used for drafting.

1.2 Know how to use the basic drafting tools.

1.3 Know the best applications for the different drafting tools.

Common Course Number: ARC 1126C

Unit 2 Freehand Sketching

General Outcome:

2.0 **The student shall** be able to draw freehand sketches of plans, sections, elevations, and perspectives of buildings.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

2.1 Use pencil, markers and other media in sketches to study building design.

2.2 Use pencil, markers and other media in sketches to do visual thinking.

2.3 Use pencil, markers and other media in sketches to record building design ideas.

2.4 Use various media to improve sketching techniques.

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Unit 3 Orthographic Projection

General Outcome:

3.0 The student shall: be able to understand and use the principles of orthographic projection.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

3.1 Understand the principles of orthographic projection to draw architectural drawings.

3.2 Apply the principles of orthographic projection to draw a plan view.

3.3 Apply the principles of orthographic projection to draw a section view.

3.4 Apply the principles of orthographic projection to draw an elevation view.

3.5 Apply the principles of orthographic projection to draw an axonometric view.

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Unit 4 Line types, line quality, line weight and line density

General Outcome:

4.0 The student shall: be able to identify, understand and use different line types, the difference between the quality of a line, the weight of a line and the density of a line.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

4.1 Understand line weight in reference to line quality.

4.2 Understand line density in reference to line quality.

4.3 Understand the difference between line types.

4.4 Know how to draw different line types.

4.2 Draw lines in architectural drawings with the appropriate expression.

4.3 Draw lines in architectural drawings that create emphasis.

4.4 Draw lines in architectural drawings that create texture.

4.5 Draw lines in architectural drawings that create drawing hierarchy.

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Unit 5 Drafting conventions and symbols

General Outcome:

5.0 The student shall: be able to read and use architectural conventions for lines and symbols for walls, doors, windows, bathrooms, roofs, stairs, elevators, automobile parking and others.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

5.1 Understand how line conventions are used in creating architectural drawings.

5.2 Read architectural symbols in architectural orthographic drawings.

5.3 Use architectural symbols in architectural orthographic drawings.

5.4 Draw stairs in plan, section and elevation.

5.5 Draw doors in plan, section and elevation.

5.6 Draw windows in plan, section and elevation.

5.7 Draw bathrooms in plan, section and elevation.

5.8 Draw roofs in plan, section and elevation.

5.9 Draw elevators in plan, section and elevation.

5.10 Draw parking spaces in plans.

5.11 Draw driveways in plan.

5.12 Draw landscape in plan and elevation.

5.13 Draw people in plan, section and elevation.

Common Course Number: ARC 1126C

Unit 6 Architectural and Engineering Scales

General Outcome:

6.0 The student shall: be able to identify and use an architectural and an engineering scale.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

6.1 Know the principles of an architectural scale.

6.2 Be able to use an architectural scale to draw.

6.3 Be able to use an architectural scale to measure drawings.

6.4 Know the principles of an engineering scale.

6.5 Be able to use an engineering scale to draw.

6.6 Be able to use an engineering scale to measure drawings.

Common Course Number: ARC 1126C

Unit 7 Architectural lettering

General Outcome:

7.0 The student shall: be able to identify and draw basic architectural lettering.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

7.1 Know the principles of architectural lettering.

7.2 Use a lettering guide.

7.3 Draw freehand architectural lettering.

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Unit 8 Architectural design floor plans

General Outcome:

8.0 The student shall: be able to identify, read and draw architectural design floor plans.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

8.1 Draw horizontal relationships in plan view.

8.2 Draw architectural design floor plan drawings.

Common Course Number: ARC 1126C

Unit 9 Architectural design sections

General Outcome:

9.0 The student shall: be able to identify, read and draw architectural design sections.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

9.1 Draw vertical relationships in sectional view.

9.2 Draw horizontal relationships in sectional view.

9.3 Draw architectural design section drawings.

Common Course Number: ARC 1126C

Unit 10 Architectural design elevations

General Outcome:

10.0 The student shall: be able to identify, read and draw architectural design elevations.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

10.1 Draw vertical relationships in elevation view.

10.2 Draw horizontal relationships in elevation view.

10.3 Draw architectural design elevation drawings.

Common Course Number: 1126C

Unit 11 Architectural design axonometrics: plan obliques and isometrics

General Outcome:

11.0 The student shall: be able to understand what an axonometric is, the different types of axonometrics, and to draw axonometric drawings, including plan obliques and isometrics.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

11.1 Identify the different types of axonometric.

11.2 Understand the constructive process of an axonometric.

11.3 Accurately draw a plan oblique axonometric.

11.4 Accurately draw an isometric.

11.5 Accurately draw shadows and lighting as it affects space and mass definition, perception and articulation of form.

11.6 Accurately draw collisions and alignments of form.

Common Course Number: 1126C

Unit 12 One-Point Perspective

General Outcome:

12.0 The student shall: be able to understand and apply the principles of one-point perspective.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

12.1 Understand and apply the principles of one-point perspective, including foreshortening, picture plane, horizon line, vanishing point, station point and perspective measuring vs. actual measuring, convergence and angle of view.

12.2 Understand and apply the principles of one-point perspective to create proportionally correct one-point perspectives.

12.3 Understand and create a proportionally correct one-point perspective grid through the diagonals method.

12.4 Draw proportionally correct forms and objects within a one-point perspective grid.

12.5 Be able to measure proportionally within a one-point perspective grid through the use of diagonals.

12.6 Draw building spaces in a one-point perspective.

Common Course Number: 1126C

Unit 13 Two-Point Perspective

General Outcome:

1.0 The student shall: be able to understand and apply the principles of two-point perspective.

Specific Measurable Learning Outcomes:
Upon successful completion of this unit, the student shall be able to:

12.1 Understand and apply the principles of two-point perspective, including foreshortening, picture plane, horizon line, vanishing point and perspective measuring vs. actual measuring, convergence and angle of view.

12.2 Understand and apply the principles of station point, horizon line, vanishing points, picture plane and view angle to create proportionally correct one-point perspectives.

12.3 Understand and create a proportionally correct one-point perspective grid through the diagonals method.

12.4 Be able to measure proportionally within a two-point perspective grid through the diagonals method.

12.5 Draw proportionally correct forms and objects within an exterior two-point perspective grid through the diagonals method.

12.6 Draw proportionally correct forms and objects within an interior two-point perspective grid through the diagonals method.