



Broward Community College

Course Outline

STATUS: A

COMMON COURSE NUMBER: ARC 2461

COURSE TITLE: Materials and Methods of Construction

CREDIT HOURS: 4

CONTACT HOURS BREAKDOWN:

Lecture/Discussion	<u> 64 </u>
Lab	<u> 00 </u>
Other	<u> 00 </u>
Contact Hours/Week	<u> 4 </u>

CATALOG COURSE DESCRIPTION:

Prerequisite: None

Co requisite: None

Introduction to materials and methods of construction with emphasis on wood, masonry, concrete, and steel; the evaluation of materials, functional applications, and code requirement are stressed.

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

UNIT TITLES:

1. Overview
2. Wood
3. Concrete
4. Metals
5. Manufactured Building Assemblies
6. Finishes

I. Course Overview:

Upon successful completion of this course, the students should be able to express the overall potential uses of various building materials as they may apply in specific architectural contexts.

II. Units:

Unit 1. Overview

General Outcome:

- 1.0 The students should be able to understand the role of materials in buildings.

Specific Learning Outcomes:

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

- 1.1 Understand material's structural use.
- 1.2 Understand material's environmental use.
- 1.3 Understand material's physical use.

Unit 2. Wood

General Outcome:

2.0 The students should be able to recognize wood products, their use and origins.

Specific Learning Outcomes:

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

2.1 Identify and classify wood.

2.2 Identify wood products.

2.3 Sketch, photograph, and know use of wood products.

Unit 3. Concrete

General Outcome:

3.0 The students should be able to recognize concrete products, their use and origins.

Specific Learning Outcomes:

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

3.1 Understand how concrete is produced.

3.2 Identify concrete products.

3.3 Sketch, photograph and know use of concrete products.

Unit 4. Metals

General Outcome:

- 4.0 The students should be able to recognize metal products, their use and origins.

Specific Learning Outcomes:

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

- 4.1 Understand how steel is produced.
- 4.2 Identify steel products.
- 4.3 Sketch, photograph and know use of steel products.

Unit 5. **Manufactured Building Assemblies**

General Outcome:

5.0 The students should be able to recognize manufactured building components, their use and design.

Specific Learning Outcomes:

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

- 5.1 Identify and incorporate door assemblies.
- 5.2 Identify and incorporate window assemblies.
- 5.3 Identify and incorporate roof assemblies.

Unit 6. Finishes

General Outcome:

6.0 The students should be able to recognize basic finishes, their use and tolerances.

Specific Learning Outcomes:

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

- 6.1 Identify and incorporate wall assemblies.
- 6.2 Identify and incorporate floor assemblies.
- 6.3 Identify and incorporate ceiling assemblies.