

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY

ARC 134 – CONSTRUCTION METHODOLOGY & PROCEDURES II (3 CR)

Course Description

Studies materials used in construction of buildings, covering foundations to structural framing systems. Includes appropriate use of materials for various construction types. Includes specification of materials and installation procedures; types of specifications and writing procedures; bidding procedures and, contract documents. Part II of II. Lecture 3 hours per week.

General Course Purpose

The purpose is to introduce non-structural and finish materials for buildings and methods of installation. It will also develop an understanding of purpose and principles of specifications, methods of writing, associated with contract documents.

Course Prerequisites/Corequisites

Prerequisite: ARC 133

Course Objectives

Upon completing the course, the student will be able to:

- Use Construction Specification Information (CSI) Divisions 7-14
- Identify critical issues and develop general knowledge of non-structural building materials and details included in CSI divisions 7-13
- Specify the three parts of specifications format and methods of writing specifications. Evaluate online available specifications, edit with critical thinking, and implement into the standard specification format traditionally or by use of Building Information Modeling (BIM) through a small and simple exercise
- Identify phases of AIA contract documents and building process
- Locate Building Code information and requirements of local municipalities by navigating their websites
- Develop general knowledge of International Building Code (IBC) sufficiently to understand the impact on preliminary building design, selection of materials, and methodology

Major Topics to be Included

- a) Critical issues with moisture, water, insulation, and ventilation – CSI division 7
- b) Openings – CSI Division 8
- c) Interior finish materials for buildings, CSI Division 9
- d) Introduction to CSI Divisions 10, 11, 12, 13, and 14
- e) Specification concepts, research, and Building Information Modeling application (BIM)
- f) AIA contract Documents and Bidding
- g) Introduction to International Building Code (IBC) with focus on fire and means of egress, Chapters 1, 3, 5, 7, and 10