STANDARDIZED COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER: ARC 108
COURSE TITLE: BUILDING MATERIALS

COURSE CATALOG DESCRIPTION: This course is a study of building materials and methods of construction. Attention is paid to varied materials in use in the building industry, through the outline format as developed by the American Institute of Architects (AIA) and the Standard Specification System for the Construction Specification Institute(CSI). This course requires the student to understand the basic techniques used in determining the appropriateness of specific construction methods and details and research sections of specification in class as exercises and in form of quizzes and exams.

LECTURE HOURS: 3
CREDIT HOURS: 3

PREREQUISITE: none
CO-REQUISITE: none

SECTION II

A. SCOPE: Investigations will focus on the students' ability and understanding of the role of building materials and methods with regard to an architect's contract documents as well as the entire construction project from Design Development phase through Construction Documents phase, bidding and construction phases**.** These construction phases and related text documents will be studied and reviewed in the form of lectures, discussions and class exercises. Current articles relating to the building industry will be read and discussed in class. Commercial and residential construction methods are explored.

B. REQUIRED WORK:
Students will be expected to identify the different basic local construction techniques and materials. Student will use text to identify properties of materials, commercial sizes and availability of materials through research of regional construction material suppliers and studying actual construction documents. Student will use a specification with reference to AIA Contracts and Contract Documents. Students will use textbook samples of specifications and AIA Documents as well as actual specifications for reference and exercises. Research will be required by student on current products on the market found in Building Industry Magazines and the Internet,as well as research on local firms and their projects current and past.

C. ATTENDANCE AND PARTICIPATION:
Regular attendance, assignment submissions, timeliness, promptness and class participation are expected.

D. METHODS OF INSTRUCTION

Methods of instruction include any of the following: lecture, demonstrations , group discussion, field-trips and use of classroom audiovisual and computer – based presentation materials.

E. OBJECTIVES, OUTCOMES AND ASESSMENTS

1. COURSE OBJECTIVES/COMPETENCIES

LEARNING OBJECTIVES	**LEARNING OUTCOMES**	**ASSESSMENT METHODS**
To demonstrate an understanding of:	Student will:	As measured by:
the different CSI specification sections and their relation to materials	Use textbook examples as well as actual project examples from the field	Class exercises, homework, quizzes and exams
Basic Wood frame construction for residential and commercial construction	Solve construction detail using textbook for reference and applying knowledge from actual construction Documents	Class exercises , quizzes and exams.
Basic techniques used in determining the appropriateness of specific construction methods and details	Use text book examples and applied knowledge to solve construction problems and establish appropriate construction details.	Class exercises, homework quizzes and exams
the organization and purpose of the specification format	Identify and apply information found in a specification section and division	Class Exercises, homework quizzes and exams
Contract Documents in relation to the specification and their importance during the different Construction phases	Understand and identify different materials and methods explained in text and discussed in class lectures.	Class exercises, homework, quizzes and exams
Knowledge of current products available in industry	Research products in ARCAT, internet and magazines	Class exercise and homework
Knowledge of local architectural firms and their work	Research firms on internet and local building industry sites and organizations.	Class exercises and homework, Research paper

F. TEXT (S) AND MATERIALS

Construction Methods Illustrated by F. Ching, Wiley and Sons, 2005 edition

G. **INFORMATION TECHNOLOGY**- Microsoft Word for Research paper