

## STANDARDIZED COURSE OUTLINE

### SECTION I

**SUBJECT AREA AND COURSE NUMBER: ARC 227**

**COURSE TITLE: CODES AND ORDINANCES**

**COURSE CATALOG DESCRIPTION:** This course is an in-depth study of the origins, scope and administration of local, state and federal building codes with a concentration on the study and application of the International Building Code (IBC) and Connecticut amendments to them. The codes and ordinances will be studied in class in the form of class lectures and demonstrations, as well 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 establishing student's firm understanding of the building codes which will provide the student with knowledge of building codes and allow preliminary design to be accurate 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.

The understanding and integration of applicable codes and understanding of life/safety issues will be studied and reviewed in the form of class exercises. Current articles relating to the building industry will be read and discussed in class. Commercial and residential types construction are explored.

**B. REQUIRED WORK:**

Students will be expected to identify the different construction types based on construction materials and systems and understand the components that are required for their design as well as what considerations are required in choosing one system type over another. Students will use textbook examples as well as actual examples of Contract Documents and specifications for reference and exercises. Student will be required to perform calculations for building use and occupancy as well as egress. Student will further investigate types of construction and fire-resistive construction as it applies to building materials and Fire Protection codes. Student will be required to calculate sprinkler requirements and allowances based on building perimeter construction type and use. Student will be required to know and incorporate Building Code requirements for all of their own building designs.

**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 ASESMENTS**

**1. COURSE OBJECTIVES/COMPETENCIES**

<b>LEARNING OBJECTIVES</b>	<b>LEARNING OUTCOMES</b>	<b>ASSESSMENT METHODS</b>
To demonstrate an understanding of:	Student will:	As measured by:
Building use and occupancy	Calculate use and occupancy.	Research paper, Class exercises, homework, quizzes and exams
Building type and Occupancy and means of egress	Calculate the building maximum occupancy based upon the building type and maximum lengths of egress	Class exercises , quizzes and exams.
Different construction types	Determine different construction types based upon materials and system.	Class exercises, homework quizzes and exams
Fire resistive construction	Understand and identify and fire resistive construction design.	Class exercises, homework, quizzes and exams
Knowledge of current finishes and their fire-resistance	Understand and identify and fire resistive construction design.	Class exercise and homework, quizzes and exams
Zoning laws and local community ordinances	Understand and know where to look up zoning laws and ordinances.	Class exercises and homework, , quizzes and exams
State building code review and modifications	Understand procedure for review and how to write and submit modifications	Class exercises and homework, , quizzes and exams
Structural provisions and existing building provisions	Understand structural and existing building provisions and know how to implement these into the design.	

**F. TEXT (S) AND MATERIALS**

International Building Code (IBC ), Building codes Illustrated, F. Ching, Wiley and Sons, 2003.

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