NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
FST 220 - BUILDING CONSTRUCTION FOR FIRE PROTECTION (3 CR.)

Course Description

Provides the components of building construction that relate to fire and life safety. Focuses on firefighter safety. Covers the elements of construction and design of structures and how they are key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. Lecture 3 hours per week.

General Course Purpose

The purpose of this course is to introduce the student to the way buildings are constructed so that they will better understand the forces, including fire, that tend to destroy buildings and the results of these forces.

Prerequisites/Corequisites

None

Course Objectives

Upon completion of this course, a successful student will be able to:

- Describe building construction as it relates to firefighter safety, buildings codes, fire prevention, code inspection, firefighting strategy, and tactics
- Classify major types of building construction in accordance with a local/model building code
- Analyze the hazards and tactical considerations associated with the various types of building construction
- Explain the different loads and stresses that are placed on a building and their interrelationships
- Identify the function of each principle structural component in typical building design
- Differentiate between fire resistance, flame spread, and describe the testing procedures used to establish ratings for each
- Classify occupancy designations of the building code
- Identify the indicators of potential structural failure as they relate to firefighter safety
- Identify the role of GIS as it relates to building construction

Major Topics to be Included

- Why firefighters should study building construction
- Various loads on structures
- Characteristics of building materials
- Common types of construction
- Principles of fire resistance in structures
- Principles of fire growth
- Principles of fire and smoke containment
- Installed fire protection