

**Departmental Syllabus**

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**Prepared by the Department of Engineering Sciences and Applied Technology**

**Date of Departmental Approval: February 10, 2017**

**Date approved by Curriculum and Programs: March 29, 2017**

**Effective: Fall 2017**

**1. Course Number: CON122**

**Course Title: MA State Building Code - Unrestricted**

**2. Description:**

Students develop an in-depth working knowledge of the Massachusetts State Building Code for commercial properties and learn to interpret and apply the code requirements. This course is designed for the general building contractor, for persons engaged in the design and construction of buildings, and for code enforcement officials and firefighters. This course is helpful in obtaining information and skills necessary to pass the Massachusetts Unrestricted Construction Supervisors Exam.

**3. Student Learning Outcomes (instructional objectives, intellectual skills):**

Upon successful completion of this course, students are able to do the following.

- Recognize the purpose of commercial building codes and standards.
- Explain how commercial building codes are adopted and enforced.
- Identify the difference between prescriptive and performance based codes and standards.
- Communicate how commercial building codes relate to the performance of a structure.
- Justify the benefits of building to code and beyond-code.

**4. Credit(s): 3**

**5. Satisfies General Education Requirement: No**

**6. Prerequisite(s): None**

**7. Semester(s) Offered: Varies**

**8. Suggested General Guidelines for Evaluation:**

Course grading procedures and make-up policies are detailed in a student handout. Grades will be based on homework; class work and participation; in class tests/quizzes; laboratory work and reports; and a final examination.

**9. General Topical Outline (Optional):**

Topics include the administration, application and use of the MA State Building Codes to include Use Groups, wood, masonry, concrete, energy efficiency, and means of egress.

Topic outline:

- Unrestricted Construction Supervisor Administrative Responsibilities
- General Building Construction Knowledge s
- Energy Efficiency s
- Accessibility
- Sitework and Foundations
- Concrete and Masonry
- Moisture Intrusion/Protection
- Structural Framing (Steel and Wood)
- Roofing/Exterior Walls
- Doors/Windows
- Interior Environment (mechanical and Ventilation)
- Fire Protection (Mechanical)
- Safety (Construction Safety and Lead Remediation)

Review of applicable reference documents:

- Code of Federal Regulations (CFR 1926)
- International Building Code, 2009
- International Energy Conservation Code, 2009
- International Residential code For One- and Two-Family Dwellings 2009
- Massachusetts State Building Code Amendments to the IRC for One- and Two-Family Dwellings (780 CMR)
- Massachusetts State Building Code Base Volume Amendments (Commercial) + Architectural Access Board Rules and Regulations (521 CMR)