

**STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK**



MASTER SYLLABUS

**COURSE NUMBER – COURSE NAME
CMGT 200 - Building Codes and Commercial Print Reading**

Created by: Robert F. Burnett

Updated by:

Canino School of Engineering Technology

Department: Civil and Construction Technology

Semester/Year: Fall 2020

- A. **TITLE:** Building Codes and Commercial Print Reading
- B. **COURSE NUMBER:** CMGT 200
- C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 3
Lecture Hours: 2 per week
Lab Hours: 2 per week
Other: per week

Course Length: 15 Weeks

- D. **WRITING INTENSIVE COURSE:** Yes No
- E. **GER CATEGORY:** None: Yes: GER
If course satisfies more than one: GER
- F. **SEMESTER(S) OFFERED:** Fall Spring Fall & Spring

G. **COURSE DESCRIPTION:**

This course reviews the structure of building codes and the way that they are enforced. Students learn about the origin of codes and how they have changed over time, from early fire codes to today's green codes. It also provides more specific information on ICC's (International Code Council) family of codes and the consensus code development process used to create and update them. The construction related print reading portion of the course is designed to assist students in reading and understanding commercial prints. Students learn how to navigate efficiently through a complex set of commercial prints, interpret symbols, read schedules, learn abbreviations, and use plans to work on construction related projects for all of the various trades in a commercial building.

- H. **PRE-REQUISITES:** None Yes If yes, list below:

CO-REQUISITES: None Yes If yes, list below:

I. STUDENT LEARNING OUTCOMES: (see key below)

By the end of this course, the student will be able to:

<u>Course Student Learning Outcome</u> <u>[SLO]</u>	<u>Program Student Learning Outcome</u> <u>[PSLO]</u>	<u>GER</u> <u>[If Applicable]</u>	<u>ISLO & SUBSETS</u>	
1. Explain the role of the International Code Council (ICC) and explain how codes are developed, updated, and changed	SO 5		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
2. Demonstrate an understanding of how and why codes are used for residential and commercial applications	SO5		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
3. Demonstrate an understanding of fire protection codes and green codes,	SO5		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
4. Read, navigate through, and utilize commercial prints.	SO7		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
5. Demonstate an understanding of symbols, abbreviations, and schedules used in a set of commercial prints	SO7		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
6. Effectively communicate verbally and in writing the process of print reading	SO1		1-Comm Skills ISLO ISLO	W Subsets Subsets Subsets
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			ISLO ISLO ISLO	Subsets Subsets Subsets Subsets

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			ISLO ISLO ISLO	Subsets Subsets Subsets Subsets

KEY	<u>Institutional Student Learning Outcomes [ISLO 1 – 5]</u>
ISLO #	ISLO & Subsets
1	Communication Skills Oral [O], Written [W]
2	Critical Thinking <i>Critical Analysis [CA], Inquiry & Analysis [IA], Problem Solving [PS]</i>
3	Foundational Skills <i>Information Management [IM], Quantitative Lit./Reasoning [QTR]</i>
4	Social Responsibility <i>Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</i>
5	Industry, Professional, Discipline Specific Knowledge and Skills

*Include program objectives if applicable. Please consult with Program Coordinator

J. **APPLIED LEARNING COMPONENT:** Yes No

If YES, select one or more of the following categories:

- Classroom/Lab
- Internship
- Clinical Placement
- Practicum
- Service Learning
- Community Service

- Civic Engagement
- Creative Works/Senior Project
- Research
- Entrepreneurship
(program, class, project)

K. TEXTS:

Russell, Rob (2003). "Print and Specifications Reading for Construction". 1st Edition. Wiley. 240 p.
ISBN-13: 978-0470879412.

L. REFERENCES:

<https://www.nypl.org/> New York Public Library
<https://www.dos.ny.gov/dcea/> Division of Building Standards and Codes (BSC)

M. EQUIPMENT: None Needed: Mechanical (automatic) pencil, engineering computation paper, Flash drive/Memory Stick, Architects and engineers scales,

N. GRADING METHOD: A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS:

quizzes, exams, drawing assignments, projects

P. DETAILED COURSE OUTLINE:

-I. The purpose of codes

- a. the original of codes based on disasters
- b. How code become legal
- c. Difference between code, standards, and regulations
- d. Permit issuance, inspections, records and paperwork,

II. Fire safe designs

- a. Basic building components that prevent fire spread
- b. Life safety issues based on fire egress
- c. Potential hazards and preventions
- d. Construction technique, suppression equipment
- e. Review of architectural plans

III. General Construction Principles

- a. Systems and Equipment
- b. Content of the Mechanical Code of New York State,
- c. Content of Fuel Gas Code of New York State,
- d. Plumbing Code of New York State,
- e. Energy Conservation Construction Code of New York State
- f. Residential Code of New York State

IV. Prints for the Commercial Building

- a. Architectural Plans
- b. Mechanical Plans
- c. Plumbing plans
- d. Electrical plans
- e. Structural plans
- f. Methods of navigating complex prints
- g. Symbols, abbreviations, and schedules

V. Term Project

- a. Review of code required based on commercial prints
- b. Written report of the codes that apply to this project

Q. LABORATORY OUTLINE: None Yes

- I. Introduction to Print reading for code compliance
- II. Fire equipment for protecting people
- III. Review of prints for egress routes
- IV. Determine the fire breaks necessary to reduce fire spread
- IV. Identifying suppression equipment from prints
- V. Mechanical codes reviews
- VI. Mechanical room code requirements
- VII. Smoke detectors in ductwork
- VIII. Review of Plumbing codes
- IX. Defining plumbing requirements for various types of buildings
- X. Review of codes for structural plans
- XI. Lab practical for reading prints (2 weeks)
- XII. Project work for term project