

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



MASTER SYLLABUS

**COURSE NUMBER – COURSE NAME
CMGT 323 – Commercial Estimating 2**

Created by: J. Reilly

Updated by:

Canino School of Engineering Technology

Department: Civil and Construction Technology

Semester/Year: Fall 2020

A. **TITLE:** Commercial Estimating 2

B. **COURSE NUMBER:** CGMT 323

C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 3

Lecture Hours: 1 per week

Lab Hours: 4 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:**

The student who is already familiar with estimating is challenged to perform more sophisticated work. Electronic Takeoff and Pricing software is employed extensively in the estimate of costs for complex commercial projects. In addition to material, labor and equipment, estimation of indirect costs are included. A large scale estimating project is required as part of this course.

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

CMGT 322 Commercial Estimating 1; or permission of instructor

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> <i>[If Applicable]</i>	<u>ISLO & SUBSETS</u>	
1. Demonstrate the ability to perform takeoffs from a variety of construction divisions associated with a complex project	SO 8		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
2. Employ estimating software efficiently to perform “e-takeoffs”	SO6 and 8		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
3. Employ estimating software to complete the extension (pricing) and compute costs.	SO 6 and 8		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
4. Determine the indirect costs (overhead) and include in cost estimates	SO 8		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
5. Submit a facsimile bid for a complex project	SO 7		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
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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:
None

L. REFERENCES:

Construction Estimating 2nd Edition by Leonard P. Toenjes ISBN-13: 978-0826905451
ISBN-10: 0826905455

Estimating in Building Construction 8th edition Steven J Peterson, PE, ISBN:013343110X, ISBN-13:9780133431100

RS Means Cost Data, Student edition, Wiley, 2012

Peterson, S.J., Construction Estimating using Excel, 2nd Edition, Pearson-Prentice Hall, 2012.

M. EQUIPMENT: None Needed:

N. GRADING METHOD: A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS:

Exams

Quizzes

projects

Homework

P. DETAILED COURSE OUTLINE:

1. Review of Takeoffs
2. Practice Project(s)
3. Use of software databases to obtain prices
4. Extension using software
5. Use of software to perform Takeoffs
6. Concrete e-takeoff and pricing
7. Masonry e-takeoff and pricing
8. Interior walls and finish e-takeoff and pricing
9. Profit and overhead costs
10. Completing the Bid
11. Project

Q. LABORATORY OUTLINE: None Yes

The lab outline will follow the topical outline. During the lab, students will perform estimating activities, ie; do “take-offs” from construction drawings and extensions using computer software) to agree with the material being covered in the lecture.