MASTER COURSE OUTLINE

A. CMBT 1300 Estimating I

B. COURSE DESCRIPTION:

This course covers principles of quantity takeoffs, identification of symbols, and computation of materials from a set of commercial construction working drawings utilizing the Construction Specifications Institute (CSI) divisions. (**3Cr – 2 lect, 1 lab)**

C. **Core Theme: Critical Thinking

D. MAJOR CONTENT AREAS:

- Quantity takeoffs
- Blueprint reading
- Understanding CSI Master Format
- Demonstrate math skills
- Commercial construction principles

E. GOAL TYPE, OBJECTIVES, AND OUTCOMES:

GOAL TYPE	**OBJECTIVES** **Students will be able to**	**OUTCOMES** **The student will successfully**
**Critical Thinking	gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.	1. apply an effective quantity takeoff methodology to a proposed construction project.
CS	apply an understanding of print reading principles to quantity takeoffs.	1. demonstrate basic procedures in completing quantity takeoffs 2. demonstrate ability to read construction documents.
CS	read and interpret architectural, MEP and structural blueprints in commercial construction drawings.	1. extract print specific information for estimating. 2. apply an understanding of drawing annotation. 3. demonstrate an ability to read construction documents.
CS	demonstrate organizational skills.	1. organize quantity takeoffs using the CSI Master Format.

CS	Demonstrate math skills to effectively complete quantity takeoffs.	1. Apply mathematical concepts. 2. Execute mathematical operations with accuracy.

F. SPECIAL INFORMATION:

This course may require use of the Internet, the submission of electronically prepared documents and the use of a course management software program. Students who have a disability and need accommodations should contact the instructor or the Student Success Center at the beginning of the semester. This information will be made available in alternative format, such as Braille, large print, or current media, upon request.

- Laptop
- Measure-Master Calculator

G. COURSE CODING INFORMATION: Course Code A/Class Maximum 48; Letter Grade

Revision date: 03/01/2021
AASC Approval date:

***Riverland Community College Disciplines**	**MnTC Goal Number**
Communication (CM)	**1**
Natural Sciences (NS)	**3**
Mathematics/Logical Reasoning (MA)	**4**
History and the Social & Behavioral Sciences (SS)	**5**
Humanities and Fine Arts (HU)	**6**

****Riverland Community College Core Themes**	**MnTC Goal Number**
Critical Thinking (CT)	**2**
Human Diversity (HD)	**7**
Global Perspective (GP)	**8**
Ethical and Civic Responsibility (EC)	**9**
People and the Environment (PE)	**10**

*These five MnTC Goals have been identified as Riverland Community College Disciplines.
** These five MnTC Goals have been identified as Riverland Community College Core Themes.
NOTE: The Minnesota Transfer Curriculum "10 Goal Areas of Emphasis" are reflected in the five required discipline areas and five core themes noted in the Riverland Community College program of study guide and/or college catalog.