



## MASTER COURSE OUTLINE

A. CMBT 1500 Construction Planning and Scheduling

B. COURSE DESCRIPTION:

Analyze a sequence of construction tasks using network diagrams, Gantt charts, and the critical path method to create a project schedule. Understanding project planning, scheduling and control models with emphasis on the critical path method. Introduction to the techniques used in industry utilizing commercial software on personal computers, highlighting the importance of analysis of schedules; considering and understanding schedule alternatives will be stressed. **(3 cr. – 3 lect, 0 lab)**

C. \*\* Core Theme: Critical Thinking

D. MAJOR CONTENT AREAS:

- Identify changes that may occur throughout a construction project
- Various type of scheduling: SIS, CPM, Linear and Network
- Convert construction estimate to scheduling tasks
- Project manager's roles and responsibilities

E. GOAL TYPE, OBJECTIVES, AND OUTCOMES:

<u>GOAL TYPE</u>	<u>OBJECTIVES</u> Students will be able to	<u>OUTCOMES</u> The student will successfully
<u>**Critical Thinking</u>	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 planning method for a construction project.
<u>CS</u>	identify various scheduling types and their uses.	1. demonstrate an understanding of short interval scheduling (SIS). 2. demonstrate an understanding of critical path method (CPM). 3. demonstrate an understanding of linear scheduling. 4. demonstrate an understanding of precedence diagram method (PDM) network scheduling.
<u>CS</u>	identify changes that may occur through the construction project.	1. explain the impact of construction changes on the schedule costs and resources. 2. demonstrate an understanding of construction changes and how the

		changes impact the construction schedule.
<u>CS</u>	recognize the project managers role and responsibilities.	1. demonstrate an understanding of roles and responsibilities in relation to construction planning, scheduling and administration.
<u>CS</u>	demonstrate ability to prepare construction schedules.	1. demonstrate how the aspect of labor effects construction schedule. 2. demonstrate scheduling techniques applied to an actual construction project. 3. demonstrate the use of computer technology in scheduling. 4. develop and prepare cpm and pdm networks.

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

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

Revision date: 03/01/2021

AASC Approval date:

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

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

\*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.

Riverland