



## MASTER COURSE OUTLINE

A. CARP 1110 Construction Materials/Tool Safety

B. COURSE DESCRIPTION:

This course prepares the student to safely use power and hand tools in the construction trades. The study of construction materials and fastening procedures are covered. A series of required hand and power tool projects are completed in the carpentry lab. This course is part of the Carpentry program which is accredited by the Home Builders Institute (HBI) and the National Association of Home Builders (NAHB).

**(3 Cr – 1 lect, 2 lab)**

C. \*Core Theme: Critical Thinking

D. RIVERLAND INSTITUTIONAL LEARNING OUTCOMES:

This course addresses the following Riverland Institutional Learning Outcome(s):

- ILO 1: critical thinking (*Core Theme Goal 2*)
- ILO 2: awareness of the larger global community (*Core Theme Goal 7 or 8*)
- ILO 3: ethical, engaged citizenship (*Core Theme Goal 9 or Goal 10*)
- ILO 4: communication and collaboration (*Discipline Goal 1 and by any learning outcome(s) involving communication or collaboration*)

E. MAJOR CONTENT AREAS:

- Construction materials
- Construction fasteners
- Construction hand tools
- Construction power tools
- Shop safety and hazardous materials
- Basic carpentry mathematics
- Eye, hearing protection and respiratory fit testing

F. GOAL TYPE, OBJECTIVES, AND OUTCOMES:

<u>GOAL TYPE</u>	<u>OBJECTIVES</u>	<u>OUTCOMES</u>
* <u>Critical Thinking</u>	Students will be able to 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.	The student will successfully <ol style="list-style-type: none"> <li>1. identify construction materials and safety practices.</li> <li>2. complete hand tool and power tool projects with a variety of construction materials and practices.</li> </ol>

<u>CS</u>	identify construction materials, sheet goods, cabinet lumber, and dimensional lumber.	<ol style="list-style-type: none"> <li>1. describe differences between types of sheet goods, solid lumber, and dimensional lumber material.</li> <li>2. describe how construction materials are used in a construction project both residential and commercial.</li> </ol>
<u>CS</u>	identify construction fasteners, nails, screws, hangers, and bolts.	<ol style="list-style-type: none"> <li>1. apply proper use of each fastener covered in the unit.</li> <li>2. apply fastening procedures for hardware related to the construction industry.</li> <li>3. demonstrate the ability to properly use construction fasteners.</li> </ol>
<u>CS</u>	identify construction hand tools to be used in all residential construction areas safely and accurately.	<ol style="list-style-type: none"> <li>1. complete hand tool projects.</li> <li>2. demonstrate and describe the proper use of cutting tools, layout tools, and miscellaneous tools.</li> </ol>
<u>CS</u>	identify construction power tools and clamping procedures safely and accurately.	<ol style="list-style-type: none"> <li>1. complete power tool projects.</li> <li>2. demonstrate safe use of power tools to construct a jamb bench.</li> <li>3. demonstrate the correct procedure of gluing and clamping wood panels.</li> </ol>
<u>CS</u>	recognize basic shop safety and hazardous materials.	<ol style="list-style-type: none"> <li>1. complete Material Safety Data Sheets (MSDS).</li> <li>2. describe hazardous material numbering and color codes.</li> <li>3. demonstrate shop safety.</li> <li>4. explain employer Right to Know outline and MSDS.</li> </ol>
<u>CS</u>	demonstrate an understanding of carpentry math.	<ol style="list-style-type: none"> <li>1. demonstrate use of board foot formula.</li> <li>2. differentiate between linear foot, square foot, and cubic foot.</li> <li>3. complete real life word problems to calculate simulated construction estimates and figures.</li> </ol>

#### G. 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 Accessibility Services 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.

#### H. COURSE CODING INFORMATION:

Course Code S/Class Maximum 28; Letter Grade

Revision date: 02/17/11; 04/02/24

AASC Approval date: 03/24/15; 04/16/24

\*These five MnTC Goals have been identified as Riverland Community College Core Themes. Every course in the Riverland Community College curriculum shall meet outcomes from one of these themes.

\*\*These five MnTC Goals have been identified as Riverland Community College Disciplines. Riverland’s MnTC courses also shall meet outcomes from a Discipline Area.

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.

<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>

<b>**Riverland Community College Discipline Areas</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>