



South Central College

## **CARP 1226 Stairway Technology**

### **Course Outcome Summary**

#### **Course Information**

<b>Description</b>	This course covers all the aspects of stairway installation in residential construction. Students will learn the many code requirements involved with stairways. Students will layout, cut, and install a set of stairs. Stairs will also be constructed on the class residential building project. These stairways may be installed in the residence, off decks, or in the main entry. Skirt board, treads, risers, and handrails will be installed to finish a stairway to meet code requirements. (Prerequisites: CARP 1110; CARP 1121; CARP 2023)
<b>Total Credits</b>	2
<b>Total Hours</b>	48

#### **Types of Instruction**

<b>Instruction Type</b>	<b>Credits/Hours</b>
Lecture	1/16
Lab	1/32

#### **Pre/Corequisites**

CARP 1110 Carpentry Tools and Safety  
CARP 1121 Print Reading  
CARP 2023 Advanced Principles I

#### **Institutional Core Competencies**

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

#### **Course Competencies**

##### **1. Describe components of basic stair design.**

###### **Learning Objectives**

Describe maximum height of a standard single flight of stairs.

Identify the range of degrees for a safely sloped stairway.  
Identify headroom requirements on stairways.

**2. Identify code requirements.**

**Learning Objectives**

Identify maximum riser height.  
Determine total rise and run of stairs based on allowable code requirements.  
Determine heights and sizes of components.  
Determine maximum and minimum stairway width.  
Identify heights and locations in conjunction with code requirements.

**3. Perform necessary stairway calculations.**

**Learning Objectives**

Explain the importance of rise and run.  
Calculate unit rise and total rise.  
Determine unit run and total run.

**4. Develop plans for a variety of railings.**

**Learning Objectives**

Identify hand rail heights.  
Describe guard railing and stair railing creation process.

**5. Describe methods of laying out a carriage.**

**Learning Objectives**

Explain the housed stringer and job-built staircases.  
Identify the possibility of using cleats, treads, and stringer to make stairs.

**6. Demonstrate knowledge and skills by building a model stairway.**

**Learning Objectives**

Interpret prints and plan construction.  
Demonstrate the use of hand tools.  
Apply learned code requirements.  
Demonstrate rough framing and hanging methods.  
Show skill in finishing techniques.

**SCC Accessibility Statement**

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: [www.southcentral.edu/disability](http://www.southcentral.edu/disability)

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.