

# Minnesota State College Southeast

## CARP 1205: Residential Construction 2

### A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: 1

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers materials, methods and techniques used to frame various roof styles and designs. Ridges, common rafters, hip and valley rafters and jack rafters will be designed, constructed, and installed. (Prerequisite: none) (1 credit: 1 lecture/0 lab)

**B. COURSE EFFECTIVE DATES:** 02/06/2018 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Understanding Terms Connected with Roof Framing
2. Mock Layout of Roof Parts
3. Investigate a Variety of Framing methods
4. Understand Safety as It Relates to Roofs

## **D. LEARNING OUTCOMES (General)**

1. Identify basic roof types
2. Identify roof framing members
3. Demonstrate rafter-length step-off method
4. Demonstrate rafter-table use
5. Determine rafter and jack length
6. Lay out/cut common rafters
7. Lay out/cut hip and valley rafters
8. Lay out/cut valley jack rafters
9. Identify truss components
10. Identify roof truss types
11. Describe truss jigs
12. Demonstrate truss layout
13. Demonstrate scissors truss layout
14. Demonstrate king post truss layout
15. Demonstrate plywood box beam construction
16. Lay out/cut gable end studs
17. Identify shed, gable, hip, gambrel, and mansard roof components
18. Install ridge boards
19. Install common rafters
20. Cut and install collar beams
21. Install hip and valley rafters
22. Install valley jack rafters
23. Identify roof-sheathing types
24. Lay out roof sheathing
25. Install roof sheathing
26. Describe roof dormers
27. Construct shed roof
28. Construct gambrel roof
29. Identify cornice styles
30. Lay out close cornice
31. Lay out boxed cornice
32. Install close cornice
33. Install box cornice
34. Demonstrate roof-opening layout
35. Frame unequal-pitch gable roof
36. Frame unequal-pitch hip roof
37. Demonstrate ladder jack installation and use
38. Demonstrate roof jack installation and use

## **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted