

COURSE SYLLABUS

LAST REVIEW	Fall 2022
COURSE TITLE	Windows, Doors, & Stairs
COURSE NUMBER	BEMT 0113
DIVISION	Career and Technical Education
DEPARTMENT	BEMT
CIP CODE	46.0401
CREDIT HOURS	2
CONTACT HOURS/WEEK	Class: 1 Lab: 2
PREREQUISITES	BEMT 0101

COURSE DESCRIPTION

This course is the basic carpentry course. It is in alignment with NCCER and the Kansas Board of Regents. It is (in part) a component of the Core Curriculum for the KCKCC Construction Technology program and the KCKCC Building Engineering and Maintenance Technology program. The course topics include: Environmental sustainability, Hand and Power Tools, Windows and Exterior Doors, and Basic Stair Layout..

PROGRAM LEARNING OUTCOMES

Students will demonstrate an adherence to safety standards and proficiency in the skills necessary for carpentry basics, and both the construction of new or evaluation/repair of existing framing structures, floors, walls, dry wall, painting, windows, doors, stairs, wood joints, and moldings.

TEXTBOOKS

<http://kckccbookstore.com/>

METHODS OF INSTRUCTION

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE

- I. Hand and Power Tools (Core)
 - A. Hand tools.
 - B. Safety.
 - C. General safety rules.

- D. General rules for properly maintaining power tools.
- E. Portable power tools.
- F. Using power tools in a safe manner.
- II. Windows and Exterior Doors (Core)
 - A. Types of windows.
 - B. Parts of a window.
 - C. Proper window installation.
 - D. Pre-hung window.
 - E. Types of exterior doors.
 - F. Door installation.
 - G. Types of thresholds.
 - H. Pre-hung exterior doors.
 - I. Types of locksets.
- III. Basic Stair Layout (Core)
 - A. Types of stairs.
 - B. Parts of stairs.
 - C. Materials used in stairs.
 - D. Construction drawings of stairs.
 - E. Risers and treads required.
 - F. Stringers, risers, and treads.
- IV. Environmental Sustainability
 - A. Environmentally safe waste disposal.
 - B. Life cycle analysis.
 - C. Recycled material.
 - D. Low VOC emissions.
 - E. New “green” materials.
 - F. New “green” methods and practices.
 - G. “Low impact” designs.

COURSE LEARNING OUTCOMES AND COMPETENCIES

Upon successful completion of this course, the student will:

- A. Identify and describe the types of hand and power tools, safety, and tool usage.
 1. Identify the hand tools commonly used by carpenters and describe their uses.
 2. Use hand tools in a safe and appropriate manner.
 3. State the general safety rules for operating all power tools, regardless of type.
 4. State the general rules for properly maintaining all power tools, regardless of type.
 5. Identify the portable power tools commonly used by carpenters and describe their uses.
 6. Use portable power tools in a safe and appropriate manner.
- B. Identify and describe the types of windows and exterior doors, installation, and locksets.
 7. Identify various types of fixed, sliding, and swinging windows.

8. Identify the parts of a window installation.
9. State the requirements for a proper window installation.
10. Install a pre-hung window.
11. Identify the common types of exterior doors and explain how they are constructed.
12. Identify the parts of a door installation.
13. Identify the types of thresholds used with exterior doors.
14. Install a pre-hung exterior door.
15. Identify the various types of locksets used on exterior doors and explain how they are installed.
16. Install a lockset.

C. Identify and describe basic stair layout, construction and materials.

17. Identify the various types of stairs.
18. Identify the various parts of stairs.
19. Identify the materials used in the construction of stairs.
20. Interpret construction drawings of stairs.
21. Calculate the total rise, number and size of risers, and number and size of treads required for a stairway.
22. Lay out and cut stringers, risers, and treads.
23. Build a small stair unit with a temporary handrail.

D. Identify and describe sound environmental practices for carpentry including waste disposal, life cycle analysis, green practices and low impact.

24. Describe waste disposal methods for this industry according to EPA and industry guidelines.
25. Describe the process of life cycle analysis in this industry based on industry guidelines.
26. Identify recycled materials by label and industry practice.
27. Define "low emission" and give two examples.
28. Identify new "green" materials now being introduced or currently used in this industry.
29. Describe new "green" practices and methods being instituted or currently employed within this industry.
30. Identify and explain the term "low Impact" as it relates to the environment.

ASSESSMENT OF COURSE LEARNING OUTCOMES AND COMPETENCIES

Student progress is evaluated through both formative and summative assessment methods. Specific details may be found in the instructor's course information document.

COLLEGE POLICIES AND PROCEDURES

Student Handbook

<https://www.kckcc.edu/files/docs/student-resources/student-handbook-and-code-of-conduct.pdf>

College Catalog

<https://www.kckcc.edu/academics/catalog/index.html>

College Policies and Statements

<https://www.kckcc.edu/about/policies-statements/index.html>

Accessibility and Accommodations

<https://www.kckcc.edu/academics/resources/student-accessibility-support-services/index.html>.