

COURSE SYLLABUS

LAST REVIEW	Fall 2022
COURSE TITLE	Tool Safety, Power, Pneumatic, Hand
COURSE NUMBER	BEMT 0102
DIVISION	Career and Technical Education
DEPARTMENT	BEMT
CIP CODE	46.0401
CREDIT HOURS	2
CONTACT HOURS/WEEK	Class: 1 Lab: 2
PREREQUISITES	OSHA 10

COURSE DESCRIPTION

This course is an intensive and purposefully hands-on type, that will require the student to use many power, pneumatic, and hand tools. The student will be fully instructed on safety methods while using all tools. This course will also cover several hand tools that are required in most trades, and the professional methods used in today's field environment.

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. Power Tools
 - A. Circular saw
 - B. Jig Saw
 - C. Reciprocating saw
 - D. Power Drills (Angle, Standard)

- E. Compound Miter Saw
- F. Table Saw
- G. Router
- H. Multi-purpose tool
- I. Hammer Drill
- J. Sanders (Belt and Orbital)
- K. Extension cords, and GFCI protection
- II. Cordless Tools
 - A. Drill
 - B. Impact Driver
- III. Pneumatic Tools
 - A. Framing Nailer
 - B. Roofing Nailer
 - C. Flush Nailer
 - D. Brad Nailer
 - E. Pin Nailer
 - F. Crown Stapler
 - G. Compressors
 - H. Pneumatic air hoses
- IV. Hand Tools
 - A. Finish and Framing Hammers
 - B. Tape Measure
 - C. Speed Square
 - D. Framing Square
 - E. Chalk Line
 - F. Pry and Crow bars (Katsklaw)
 - G. Wrenches (Crescent, Pipe, Adjustable, Box, Open ended)
 - H. Pliers (Needle nose, multipurpose)
 - I. 5 in 1 hand tool
- V. Fasteners (Nails, Screws, Bolts)

COURSE LEARNING OUTCOMES AND COMPETENCIES

Upon successful completion of this course, the student will:

- A. Demonstrate how to safely and properly use the listed power tools.
 1. Cut wood with, change blade, adjust depth and oil the circular saw.
 2. Cut wood patterns with the Jig Saw, and change the blade.
 3. Cut wood using the reciprocating saw, and change blades.
 4. Drill holes in wood using power Drills (Angle, Standard).
 5. Cut miter angles and square cuts using the compound miter saw.
 6. Rip down wood, adjust depth, and set-up the table Saw
 7. Set-up, change tips, and make edge patterns using the power router.
 8. Change blades and know the many uses of the multi-purpose tool.
 9. Drill concrete and install masonry anchors using the hammer drill.
 10. Properly use power sanders (belt and orbital).

11. Inspect, use, and roll up extension cords, and GFCI protection.
- B. Demonstrate how to safely and properly use the listed cordless tools.
12. Use the cordless drill to its entirety.
 13. Use the cordless impact drill driver.
- C. Demonstrate how to safely and properly use the listed pneumatic tools.
14. Connect, load, oil and properly nail using the framing nailer.
 15. Connect, load, oil and properly nail using the roofing nailer.
 16. Connect, load, oil and properly nail using the flush nailer.
 17. Connect, load, oil and properly nail using the brad nailer.
 18. Connect, load, oil and properly nail using the pin nailer.
 19. Connect, load, oil and properly nail using the crown stapler.
 20. Connect, load, oil and properly discharge a compressor.
 21. Connect, change connectors and roll up an air hose.
- D. Demonstrate how to safely and properly use the listed hand tools.
22. Use a finish and framing hammer.
 23. Learn to read and use a tape measure.
 24. Use a speed square.
 25. Use and read a framing square.
 26. Mark using a chalk line.
 27. Use pry and crow bars (katsklaw).
 28. Wrench using (crescent, pipe, adjustable, box, open ended).
 29. Learn different types of pliers (needle nose, multipurpose).
 30. Use a 5 in 1 hand tool.
- E. Demonstrate how to safely and properly use fasteners.
31. Learn about different types of framing nails.
 32. Learn about different types of finish nails.
 33. Learn about different types of screws.
 34. Learn about different types and uses of bolts.

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>.