SYLLABUS

DATE OF LAST REVIEW: 02/2013
CIP CODE: 46.0201
SEMESTER: Departmental Syllabus
COURSE TITLE: Floors, Walls & Ceiling Framing
COURSE NUMBER: CONS0109
CREDIT HOURS: 4
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: KCKCC issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: KBOR approved Core Curriculum. OSHA 10. Math Level 3 Recommended

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, http://www.kckccbookstore.com for the required text for your particular class.

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 and Property Maintenance program. The course topics include: Environmental sustainability, Hand and Power Tools, Floor Systems, Wall and Ceiling Framing, Thermal and Moisture Protection, and Exterior Finishing.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. They may include but are not limited to lecture, multimedia, cooperative/collaborative learning, demonstrations, labs, on-the-job, internships, performance tests, and other learning experiences outside the classroom. Methodology will be selected to best meet student needs.
COURSE OUTLINE:

I. MODULE 27103-06 – 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. MODULE 27105-06 – FLOOR SYSTEMS (CORE)
   A. Types of framing systems.
   B. Drawings and specifications of floor systems.
   C. Floor and sill framing and support members.
   D. Methods used to fasten sills.
   E. Girder/beam size.
   F. Types of floor joists.
   G. Proper joist size.
   H. Different types of bridging.
   I. Different types of flooring materials.
   J. Subflooring and underlayment.
   K. Fasteners in floor framing.
   L. Material needed to frame a floor.
   M. Floors:
      1. Floor assembly
      2. Bridging
      3. Joists for a cantilever floor
      4. Subfloors.
      5. Single floor systems.

III. MODULE 27106-06 – WALL AND CEILING FRAMING (CORE)
   A. Components of a wall and ceiling.
   B. Laying out a wood frame wall.
   C. Assembling an exterior wall.
   D. Common materials for installing sheathing.
   E. Exterior walls.
   F. Wall framing techniques in masonry construction.
   G. Metal studs framing.
   H. Procedures for laying out joists.
   I. Ceiling joists on wood frame building.
   J. Materials required for framing.
IV. MODULE 27203-07 – THERMAL AND MOISTURE PROTECTION
   A. Requirements for insulation.
   B. Types of insulation material.
   C. Calculating insulation.
   D. Insulation materials.
   E. Moisture control and ventilation.
   F. Vapor barriers.
   G. Methods of waterproofing.
   H. Air infiltration control.
   I. Building wraps.

V. MODULE 27204-07 – EXTERIOR FINISHING
   A. Wall insulation and flashing.
   B. Common cornices.
   C. Lap and panel siding.
   D. Types of common wood siding.
   E. Fiber-cement siding.
   F. Types and styles of vinyl and metal siding.
   G. Types and applications of stucco and masonry.
   H. Types of special exterior finish systems.
   I. Types of siding commonly used in your area.

VI. 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.

EXPECTED LEARNER OUTCOMES:
   A. Module 27103-06 - The student will be able to identify and describe the types of hand and power tools, safety, and tool usage.
   B. Module 27105-06 - The student will be able to identify and describe types of floor systems, framing sizing, fastening, and flooring materials.
   C. Module 27106-06 - The student will be able to identify and describe types of wall and ceiling framing, assembly, procedures and materials.
   D. Module 27203-07 - The student will be able to identify and describe the types of insulation, thermal and moisture protection, and wraps.
   E. Module 27204-07 - The student will be able to identify and describe the types of siding and exterior finishing, and flashing.
COURSE COMPETENCIES:

Module 27103-06 - The student will be able to identify and describe the types of hand and power tools, safety, and tool usage.

1. The student will be able to identify the hand tools commonly used by carpenters and describe their uses.
2. The student will be able to use hand tools in a safe and appropriate manner.
3. The student will be able to state the general safety rules for operating all power tools, regardless of type.
4. The student will be able to state the general rules for properly maintaining all power tools, regardless of type.
5. The student will be able to identify the portable power tools commonly used by carpenters and describe their uses.
6. The student will be able to use portable power tools in a safe and appropriate manner.

Module 27105-06 - The student will be able to identify and describe types of floor systems, framing sizing, fastening, and flooring materials.

7. The student will be able to identify the different types of framing systems.
8. The student will be able to read and interpret drawings and specifications to determine floor system requirements.
9. The student will be able to identify floor and sill framing and support members.
10. The student will be able to name the methods used to fasten sills to the foundation.
11. The student will be able to give specific floor load and span data, select the proper girder/beam size from a list of available girders/beams.
12. The student will be able to list and recognize different types of floor joists.
13. The student will be able to give specific floor load and span data, select the proper joist size from a list of available joists.
14. The student will be able to list and recognize different types of bridging.
15. The student will be able to list and recognize different types of flooring materials.
16. The student will be able to explain the purposes of subflooring and underlayment.
17. The student will be able to match selected fasteners used in floor framing to their correct uses.
18. The student will be able to estimate the amount of material needed to frame a floor assembly.
19. The student will be able to demonstrate the ability to:
   a. Lay out and construct a floor assembly
   b. Install bridging
   c. Install joists for a cantilever floor
   d. Install a subfloor using butt-joint plywood/OSB panels
   e. Install a single floor system using tongue-and-groove plywood/OSB panels
Module 27106-06 - The student will be able to identify and describe types of wall and ceiling framing, assembly, procedures and materials.

20. The student will be able to identify the components of a wall and ceiling layout.
21. The student will be able to describe the procedure for laying out a wood frame wall, including plates, corner posts, door and window openings, partition Ts, bracing, and firestops.
22. The student will be able to describe the correct procedure for assembling and erecting an exterior wall.
23. The student will be able to identify the common materials and methods used for installing sheathing on walls.
24. The student will be able to lay out, assemble, erect, and brace exterior walls for a frame building.
25. The student will be able to describe wall framing techniques used in masonry construction.
26. The student will be able to explain the use of metal studs in wall framing.
27. The student will be able to describe the correct procedure for laying out ceiling joists.
28. The student will be able to cut and install ceiling joists on a wood frame building.
29. The student will be able to estimate the materials required to frame walls and ceilings.

Module 27203-07 - The student will be able to identify and describe the types of insulation, thermal and moisture protection, and wraps.

30. The student will be able to describe the requirements for insulation.
31. The student will be able to describe the characteristics of various types of insulation material.
32. The student will be able to calculate the required amounts of insulation for a structure.
33. The student will be able to install selected insulation materials.
34. The student will be able to describe the requirements for moisture control and ventilation.
35. The student will be able to install selected vapor barriers.
36. The student will be able to describe various methods of waterproofing.
37. The student will be able to describe air infiltration control requirements.
38. The student will be able to install selected building wraps.

Module 27204-07 - The student will be able to identify and describe the types of siding and exterior finishing, and flashing.

39. The student will be able to describe the purpose of wall insulation and flashing.
40. The student will be able to install selected common cornices.
41. The student will be able to identify, describe and demonstrate lap and panel siding estimating methods.
42. The student will be able to identify and describe the types and applications of common wood siding.
43. The student will be able to identify and describe fiber-cement siding and its uses.
44. The student will be able to identify and describe the types and styles of vinyl and metal siding.
45. The student will be able to identify and describe the types and applications of stucco and masonry veneer finishes.
46. The student will be able to identify and describe the types and applications of special exterior finish systems.
47. The student will be able to identify and explain the term “low Impact” as it relates to the environment.

**ASSESSMENT OF LEARNER OUTCOMES:** Student progress is evaluated by means that include, but not limited to, exams, written assignments, performance tests, and class participation.

**SPECIAL NOTES:**
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center, in Rm. 3354 or call (913) 288-7670.