



BDT122 Floors, Walls, & Ceiling Framing Syllabus

Course Information

Credits	4
Campus	Washburn Institute of Technology
Address	5724 SW Huntoon
City/State/Zip	Topeka, Kansas 66604
Office Fax	785-273-7080

Description

This course will cover laying out and erecting floor and wall and ceiling sections. The emphasis for this course is the understanding of precise layout of studs, sills, floor joist, and ceiling members. The student will learn how to layout partitions, door, and window openings. The student will perform the entire layout mentioned above, and know the correct symbols and names of all wall, floor, and ceiling components. The student will be introduced to the different methods used for framing buildings and floor framing with an emphasis on the platform, Balloon and post and beam framing method. The tools and materials used for this type of construction will be covered. The course will follow the NCCER modules for: Floor Systems, Wall and Ceiling Framing, and Introduction to Concrete, Reinforcing Materials and Forms.

Textbooks

NCCER. Carpentry Fundamentals Level 1 Trainee Guide. Prentice Hall. 2006. Edition: 4th. ISBN: 978-0-13-228592-6

Student Learning Outcomes:

- A. Communicate effectively
- B. Integrate technology
- C. Learn effectively
- D. Demonstrate cooperative teamwork skills
- E. Apply safety in the workplace
- F. Think critically and creatively
- G. Demonstrate responsible work ethics

Competencies

Floor Systems

- 1. Identify the different types of framing systems.
- 2. Read and interpret drawings and specification to determine floor system requirements.
- 3. Identify floor and sill framing and support members.

4. Name the methods used to fasten sills to the foundation.
5. Given specific floor load and span data and select the proper girder/beam size from a list of available girders/beams.
6. List and recognize different types of floor joists.
7. Given specific floor load and span data and select the proper joist size from a list of available joists.
8. List and recognize the different types of bridging.
9. List and recognize the different types of flooring materials.
10. Explain the purposes of subflooring and underlayment.
11. Match selected fasteners used in floor framing to their correct uses.
12. Estimate the amount of material needed to frame a floor assembly.
13. Demonstrate the ability to: 1) Lay out and construct a floor assembly; 2) Install bridging; 3) Install joists for a cantilever floor; 4) Install a subfloor using butt-joint plywood/OSB panels; and 5) Install a single floor system using tongue-and groove plywood/OSB panels.

Wall and Ceiling

14. Identify the components of a wall and ceiling layout.
15. Describe the procedure for laying out a wood frame wall, including plates, corner posts, door and window openings, partition T's, bracing, and fire stops.
16. Describe the correct procedure for assembling and erecting an exterior wall.
17. Identify the common materials and methods used for installing sheathing on walls.
18. Layout, assemble, erect, and brace exterior walls for a frame building.
19. Describe wall framing techniques used in masonry construction.
20. Explain the use of metal studs in wall framing.
21. Describe the correct procedure for laying out ceiling joists.
22. Cut and install ceiling joists on a wood frame building.
23. Estimate the materials required to frame walls and ceilings.
24. Introduction to Concrete, Reinforcing Materials and Forms.
25. Identify the properties of cement.
26. Describe the composition of concrete.
27. Perform volume estimates for concrete quantity requirements.
28. Identify types of concrete reinforcement materials and describe their uses.
29. Identify various types of footings and explain their uses.
30. Identify the parts of various types of forms.
31. Explain the safety procedures associated with the construction and use of concrete forms.
32. Erect plumb, and brace a simple concrete form with reinforcement.

Guidelines for Success

Assessment Plan

Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution's technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

Grading Rationale and Grading Scale

100% - 89% = A

88% - 79% = B

78% - 69% = C
68% - 59% = D
58% & Below = F

40% - Participation = Attendance, Tardies, Work Attire, Textbook, Tools, Behavior, Clean-up
30% - Daily Quizzes & Assignments
20% - Performance Assessments (Individual Evaluations)
10% - NCCER Accrediting Exams

Attendance

Classroom attendance is required. Material missed must be made up with instructor.

Disability

The Special Support Services (SSS) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the SSS Office as soon as a need may arise. Depending on the accommodation request, four to eight week lead time may be needed for timely and effective provision of services. SSS coordinates and assist in arranging services it deems appropriate of eligible students on a case-by-case basis.

If you are a student with a disability that may substantially limit your ability to participate in this class and believe you will need accommodations, it is your responsibility to contact:

Special Support Services Coordinator
Phone: 785-228-6356
E-Mail: ssscoordinator@washburn.edu

