BCT 120 Floor Framing
BCT 121 Wall Framing

Instructor: Bob Steele       Credits: 6
Phone: 503-614-7328       Time: 7:00 am-12:50 pm
email: rsteele@pcc.edu       Days: Mon - Thur.
Office: Bldg 7/202       Office Hours: Fri 8:00 -11:00 ar
CRN #'s BCT 120       1:00 - 4:00 pm. BCT 121

COURSE DESCRIPTION: Expands on the materials, tools, outsourcing alternatives, terminology and techniques necessary to produce industry standard floor and wall framing. Students will learn and demonstrate the safe use of hand, portable and stationary power tools. Includes floor framing construction using current industry standards, terminology, blue print reading, related codes, joist and beam lay-out and assembly procedures. Wall framing includes terminology, lay-out, assembly, codes, print reading, openings, radius and rake walls and stair framing. Both Floor and Wall Framing courses will evaluate materials and framing methods covered as to their impact on sustainable construction. Wall framing will cover both conventional and advanced framing techniques.

REQUIRED LAB TOOLS:
Minimum Tool List:
Safety Glasses, Tool belt, Tape measure, Framing hammer, Speed or combination square, Carpentry pencil, Lumber crayon, Nobloc ink pen, Chalk line, Dry line, Utility knife, 3/4" or 1" chisel, Framing square, Scientific calculator

CLASSROOM SUPPLIES:
Pencil / pen, Scientific calculator, Notebook, Architect scale, Tape measure

TEXT: Carpentry by Leonard Koel
atp Publication. ISBN# 0-8269-0738-5

SPECIAL NEEDS:
PCC is committed to supporting all students. If you have an accommodation form from the Office for Students with Disabilities (OSD), please make arrangements to meet with me privately to discuss your needs. Accommodations are not retroactive, but begin when the instructor receives the OSD Approved Academic Accommodations form from the student. To request academic accommodations due to a disability, please contact OSD at 503-614-7300

CODE OF STUDENT CONDUCT: It is assumed that students are taking classes to further their education and careers. Any conduct that may prevent other students from reaching their goal will not be tolerated.

ACADEMIC INTEGRITY POLICY: PCC students are expected to behave honest and ethical in their academic work. To copy another students work or cheat on exams corrupts the essential process of higher education.

FLEXIBILITY STATEMENT: Assignments /exams posted in the Scheduled Learning Experiences are estimated and may need to be changed due to external factors.

EVALUATION: Will conform to the Grading Guidelines in the PCC Academic Policy Handbook. At the end of this term students will be assigned a letter grade (A, B, C, D or F) based on the following criteria.

Grading Policy
A = 90% to 100%
B = 80% to 89%
C = 70% to 79%
D = 60% to 69%
F = 0% to 59%

Grading Criteria
Students may be awarded a total of 100 possible points. The total point accumulation at the end of the term will be expressed as a percentage of possible points and given a letter grade as per grading policy above.

**Attendance**
- 10 points
- 1 Excused absence no points deducted
- 2 Unexcused absences will result in point deduction

**Classroom Participation & assignments**
- 20 points
- Students will work cooperatively with other students, take part in discussions and complete written classroom assignments.

**Completion of lab assignments**
- 30 points
- Students will work cooperatively with other students and demonstrate framing practices prescribed by both text book and instructor while demonstrating proper and safe tool use. Points will be awarded for quality and accuracy of workmanship.

**Shop / work area clean-up**
- 5 points
- Work area is to be keep clear of wood scraps or trash. Nails are to be flattened or removed from any material when projects are disassembled. Students are to sweep clean the shop or work site area at the end of each lab. Unused material shall be returned to proper storage and scrap wood placed in wood recycle boxes.

**Exams**
- 35 points
- A written exam will be given at the end of the floor framing section and Wall framing section.

**FLOOR FRAMING LINKS:**
- floor/wall codes
- codes worksheet
- sill plates
- floor material costs
- more floor codes

**POWER POINT LINKS:**
- framing intro
- framing tools
- foundation check
- sill plate
- post & beam
- t&g subfloor
- estimate post & beam
- exam review
- floor problems
- floor joists
- joist sheathing

**WALL FRAMING LINKS:**
- wall procedure
- wall corner
- wall terms
- stair procedure

**POWER POINT LINKS:**
- intro wall framing
- procedure sequence
- basic details
- special details
- arch framing
- backing blocking
- leveling walls
- framing stairs

**Scheduled Learning Experiences**
# Week 1

**session 1**

**Lecture:** Introduction to Floor Framing class content and objectives. Syllabus and Learning Experiences Web pages, Textbook.

**Class/homework:** Read text pages: 324 to 350. Copy all links, All written homework and classroom assignments due at final exam.

**Lab:** Orientation to BCT work site and garage storage. Use the remaining lab time to copy the syllabus, homework links, and obtain the tools and supplies required for the course.

**session 2**

**Lecture:** Floor framing systems in general. Installing pressure treated sill plate. Floor framing codes and terms. Keep homework copies in your notebook for class review and discussion.

**Class/homework:** Work on assignments

Link to: for reference only

http://www.strongtie.com

**Lab:** Students will break into teams. Each team will check a foundation for the conditions covered in lecture. Begin sill plate installation: Level and to proper building dimensions.

**session 3**

**Lecture:** Post and beam floor construction. Openings. Hangers. Layout, connections,

**Class/homework:** Work on assignments

**Lab:** Begin installation of the post and beam floor system.

Install T&G subfloor decking

**session 4**

**Lecture:** Joist floor construction, terms, layout, openings. T & G plywood vs. OSB sub-floors

**Class/homework:** Work on assignments

**Lab:** Continue floor system assembly, T&G crawl space access.

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# Week 2

**session 5**

**Lecture** Floor systems comparison

**Class/homework:** Work on assignments

**Lab:** Continue floor framing lab assignments

**session 6**

**Lecture:** Guest speaker Mike Herrema from i Level Weyerhaeuser TJI floor Systems and related framing products. Reference link: [http://www.ilevel.com/](http://www.ilevel.com/)

**Class/homework:** Work on assignments

**Lab:** Install TJI joist and sheathing

**session 7**

**Lecture:** Estimating floor framing materials,
<table>
<thead>
<tr>
<th>Session</th>
<th>Class/homework</th>
<th>Lecture</th>
<th>Lab</th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>Work on assignments</td>
<td>Floor systems material and labor cost comparison. Comparison of floor systems relating to sustainable construction.</td>
<td>Continue floor framing lab assignments</td>
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<tr>
<td></td>
<td>Lecture: Floor systems material and labor cost comparison. Comparison of floor systems relating to sustainable construction. Class/homework: Work on assignments Lab: Continue sub-floor Installation</td>
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<td>Week 3</td>
<td>Lecture: Review material to be covered on Exam. Wood Deck framing Class/homework: Study for Floor Framing Exam Lab: Continue sub-floors</td>
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<td>9</td>
<td>Lecture: Floor Framing Exam. 4/14/09 Class/homework: Read text pgs. 351 to 381 Lab: General site clean up</td>
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<td>10</td>
<td>Lecture: (BCT 121) General Wall Framing parts function and terminology. Framing job breakdown. Wall lay-out Class/homework: Copy all wall framing links and begin working on the written assignments due at final exam. Lab: Wall lay-out project. Prep floor areas for wall framing.</td>
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<td>Lecture: More wall framing parts function and terminology, Framing plan reading, wall lay-out using conventional and advanced framing, bracing, openings, assembly sequence procedure. Class/homework: Work on assignments Lab: Temporary install wall plates to sub-floor for wall layout. Index to floor location and wall direction.</td>
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<td>4</td>
<td>Lecture: Wall sheathing. Rough opening and headers. Wall framing sequence. Class/homework: Work on assignments Lab: Begin project wall framing using conventional and advanced framing as designated by instructor.</td>
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<td>5</td>
<td>Lecture: Squaring, plumbing, temporary bracing Class/homework: Work on assignments</td>
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<td>Session</td>
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<tr>
<td>Session 6</td>
<td>Solutions to wall framing problem areas.</td>
<td>Work on assignments</td>
<td>Continue lab projects.</td>
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<td>Week 5</td>
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<td>Session 7</td>
<td>Wall bracing let in, Fire blocking.</td>
<td>Work on assignments</td>
<td>Framing lab project stairs.</td>
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<td>Session 8</td>
<td>Stair framing</td>
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<td>Continue lab project.</td>
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<td>Session 9</td>
<td>Wall framing material estimating. Plumbing and bracing walls for ceiling joist and rafter installation</td>
<td>Plumb and brace all framed walls.</td>
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<td>Session 10</td>
<td>Review material to be covered on Exam.</td>
<td>Study for Exam</td>
<td>Break down projects,</td>
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<td>Week 6</td>
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<tr>
<td>Session 11</td>
<td>Wall Framing Exam. 5/4/09</td>
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<td>no lab</td>
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