



CBM125 Cabinetmaking II Syllabus

Course Information

Credits	7
Campus	Washburn Institute of Technology
Address	5724 SW Huntoon
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Instructor Contact Information

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Description

Cabinetmaking II builds on the fundamentals of Cabinetmaking I. The course introduces the fundamentals of wood joint identification, layout, cutting out cabinet components, and the procedures used for assembly of cabinet bases, wall units, and free frames. Topics include wood joints identification and application, equipment safety, frame member cutting, shelf cutting, drawer component and door cutting, material optimizing, and material estimation.

Textbooks

Instructor Supplied

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

1. Demonstrates mechanical aptitude.
2. Demonstrates ability to repair hand and power tools.
3. Demonstrates ability to maintain hand and power tools.
4. Demonstrates ability to choose appropriate tools and equipment to perform specified operations.
5. Demonstrates the ability to set up, select appropriate blades, and chooses appropriate bits and fixtures
6. Operates and safely performs routine maintenance on the following machines:

Drill Press

7. Inspects the machine and area before set-up
8. Ensures the key is never left in the chuck
9. Uses a backing board when appropriate
10. Secures stock securely
11. Stops the machine to make any adjustments
12. Accurately adjusts the depth stop
13. Uses the appropriate procedures to clear debris
14. Uses jigs to perform multiple operations
15. Uses a variety of bits and cutters

Table Saw

16. Inspects the machine and area before set-up
17. Selects and installs correct blade for the job
18. Selects the appropriate guard
19. Properly positions and secures the fence
20. Adjust the blade for height and tilt accurately
21. Uses a stop block or push stick
22. Uses a face shield when necessary
23. Uses the saw efficiently and effectively
24. Uses the appropriate procedures to clear debris
25. Checks the stock for grain and knots before cutting
26. Accurately completes angle, bevel, and blind cuts
27. Accurately cuts various cabinetry joints
28. Uses the table saw to cut sheets and panels

Radial Arm Saw

29. Inspects the machine and area before set-up
30. Selects and Installs correct blade for the job
31. Accurately adjust saw for depth and angle
32. Uses and adjusts all guards properly
33. Checks the stock for knots or defects
34. Positions the anti-kickback device properly
35. Positions hands for safe controlled operation
36. Uses a push stick or other support device
37. Keeps hands clear until the blade stops
38. Uses appropriate procedures to clear debris
39. Make clear, clean and accurate cuts

Shaper

40. Inspects the machine and area before set-up
41. Ensure all required guards are set and used
42. Feeds stock appropriate to cutter rotation
43. Selects the correct cutter

Wide-Belt Sander

44. Inspects the machine and area before set-up,
45. Ensures adequate dust collection is active
46. Adjusts the feed speed and pressure correctly
47. Uses the appropriate abrasive material

Edge Sander

48. Inspects the machine and area before set-up
49. Ensures adequate dust collection is active
50. Adjusts the feed speed and pressure correctly
51. Uses the appropriate abrasive material

Planer

52. Inspects the machine and area before set-up
53. Adjusts the feed speed and pressure correctly
54. Checks the stock for knots and defects and grain direction
55. Uses a push stick or block as required
56. Feeds the stock from a side position
57. Feeds the stock with the grain
58. Planes the stock on both faces
59. Observes minimum size length and thickness rules for the planer

Jointer

60. Inspects the machine and area before set-up
61. Ensures all required guards are set and used
62. Uses a push stick or block as required
63. Keeps hands away from the cutter head
64. Checks the stock for knots, defects, and grain direction
65. Cuts a rabbit according to specifications
66. Adjusts the fence to cut a bevel
67. Stops the machine to make any adjustments
68. Observes the minimum length rule for the jointer
69. Leaves the jointer set at 1/16" at completion of use

32MM Boring Machine

70. Inspects the machine and area before set-up
71. Correctly installs boring bit for door hinges
72. Sets up the machine to bore hinges
73. Correctly installs drill bits for drilling shelf peg holes
74. Sets up the machine to drill shelf holes
75. Leaves area clean after usage

Stock Feeder

76. Correctly sets speed on stock feeder for shapers

Band Saw

77. Inspects the machine and area before set-up

78. Uses the correct blade for the job
79. Sets guard height appropriate for the stock
80. Maintains proper clearance on blade guides
81. Keeps hands clear of the saw path
82. Uses a fence and push stick as appropriate
83. Uses appropriate procedures to clear debris
84. Stops the machine to make any adjustments
85. Changes, aligns and adjusts the blade tension to specifications

Router

86. Assesses the condition of the router before use
87. Checks the condition of the cord before use
88. Selects the appropriate bit for the job
89. Uses the correct tools to change the bit
90. Adjusts the router accurately
91. Selects clear stock
92. Secures stock securely
93. Moves the router in the correct direction

Saber Saw

94. Evaluate the condition of the saw before use
95. Checks the cord for damage before use
96. Selects the correct blade for the task
97. Cuts curved shapes cut accurately and safely
98. Complete plunge cuts accurately and safely

Drill

99. Evaluates the condition of the drill before use
100. Checks the condition of the cord before use
101. Selects the appropriate type and size of bit
102. Secures the stock to be drilled
103. Lays out hole position accurately
104. Uses an awl to center holes
105. Drills holes accurately and safely

Circular Saw

106. Evaluates the condition of the saw before use
107. Selects the correct blade for the task
108. Ensures all guards are in place and working
109. Looks for evidence of burn, scoring, and chipping
110. Cuts a straight line

Pneumatic Staplers & Nailers

111. Checks condition and operation of compressor
112. Correctly connects and disconnects air tools
113. Safely uses trigger mechanisms on air tools
114. Uses air nailer safely avoiding inherent dangers
115. Uses air stapler safely avoiding inherent dangers

Power Miter Box

116. Inspects the machine and area before set-up
117. Selects and Installs correct blade for the job

- 118. Accurately adjust saw for depth and angle
- 119. Uses and adjusts all guards properly
- 120. Checks the stock for knots or defects
- 121. Positions hands for safe controlled operation
- 122. Keeps hands clear until the blade stops
- 123. Uses appropriate procedures to clear debris
- 124. Make clear, clean and accurate cuts

Palm Sander

- 125. Selects the appropriate type of sander
- 126. Assesses the condition of the sander before use
- 127. Checks the condition of the cord before use
- 128. Selects the correct abrasive sheet or belt
- 129. Ensures correct installation of the abrasive
- 130. Uses the sander appropriately for roughing
- 131. Uses the sander appropriately for finishing
- 132. Uses dust collectors when appropriate

Portable Belt Sander

- 133. Select the appropriate type of sander
- 134. Assesses the condition of the sander before use
- 135. Checks the condition of the cord before use
- 136. Selects the correct abrasive sheet or belt
- 137. Ensures correct installation of the abrasive
- 138. Uses the sander appropriately for roughing
- 139. Uses the sander appropriately for finishing
- 140. Uses dust collectors when appropriate

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% - 90% = A

89% - 80% = B

79% - 70% = C

69% - 0% = class must be retaken for credit towards certificate

25% - Attendance, Safety, Quality/Productivity, Team Work, Initiative & Energy, Problem Solving

75% - Daily Quizzes & Assignments, Performance Assessments (Individual Evaluations and Projects), NCCER Certification Exams, Mid-terms and Final Exams

It is possible to pass this course without gaining the NCCER certification. NCCER requires a pass/fail on all performance profiles and a minimum of 70% to pass exam for certification.

Attendance

Your course instructor recognizes the correlation between attendance and both student retention and achievement. Students must be enrolled before they can attend class. Students are expected to attend all class sessions and activities for which they are registered. Any class session or activity missed, regardless of cause, reduces the opportunity of learning and may adversely affect a student's achievement in the course.

A student who has to be absent because of jury duty or court-mandated appearance needs to contact the instructor in advance of the absence in order that a plan for making up work missed can be made. When observance of religious holidays of students' own faith interferes with attendance in class, class activities, examinations and official ceremonies; and with class work assignments, students are required to notify the instructor or other appropriate personnel within the department in advance of such absences.

Students are held responsible for material covered during their absences, with reasonable time provided to complete make-up assignments. The Instructor will devise a plan for making up work missed. When practical, major class assignments, major examinations and official ceremonies shall be scheduled on other than major religious holidays. Students who believe they have been unreasonably denied educational benefits due to their religious beliefs or practices may seek redress through the student appeal procedures.

Disability

The Americans with Disabilities Act (ADA) 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 self-identify by completing an application. In addition students must provide appropriate medical documentation to the ADA coordinator to be eligible for accommodations. New requests for accommodations should be submitted at least two months or more prior to the date the accommodations are needed. However, please contact the ADA office as soon as a need may arise. Depending on the accommodation request, four to eight weeks lead time may be needed for timely and effective provision of accommodations.

The ADA Office coordinates and assists in arranging accommodations it deems appropriate for 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 any of our classes and you believe that you will need accommodations, it is your responsibility to contact: ADA Coordinator, Phone: 785.670.3365, email: gloria.christian@washburn.edu.

Washburn University prohibits discrimination on the basis of race, color, religion, age, national origin, ancestry, disability, sex, sexual orientation, gender identity, genetic information, veteran status, or marital or parental status. The following person has been designated to handle inquiries regarding the non-discrimination policies: Dr. Pamela Foster, Equal Opportunity Director/Title IX Coordinator, Washburn University, 1700 SW College Ave, Topeka, Kansas 66621, 785.670.1509, eodirector@washburn.edu