



Cabinet-Millwork Technology

Organization Washburn Institute of Technology

Program Number 48.0703

Instructional Level Certificate

Target Population

Grades 11 & 12
Post-secondary

Description

The Cabinetmaking/Millwork program provides the student with the knowledge and skills necessary to plan and complete cabinetry, furniture, and millwork. Students learn to work with prints, specifications and shop drawings, power tools, equipment in design, layout, and construction of projects. Emphasis is placed on selecting proper materials, determining the best procedures, manufacturing parts to specification, assembling, and finishing. Students work individually and in teams to plan, estimate, and execute these projects.

Entry Requirements

| | | |
|-----------|-------------------------|---------|
| WorkKeys® | Applied Math | Level 4 |
| WorkKeys® | Reading for Information | Level 4 |

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.

Student Learning Outcomes

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

Program Outcomes

- A. Learn and apply safe work habits in the classroom and laboratory.
- B. Learn and apply basic knowledge of the use and care of hand and power tools related to this field.
- C. Maintain 90% or better attendance.
- D. Demonstrate professional and quality workmanship in the classroom and laboratory assignments.
- E. Apply essential math skills for all areas in building trades.

| Course # | Course Title | Credit Hours | Required |
|----------|-----------------------------|--------------|----------|
| CBM110 | Shop Procedures I | 6 | Yes |
| CBM120 | Cabinetmaking I | 6 | Yes |
| CBM125 | Cabinetmaking II | 7 | Yes |
| CBM130 | Workplace Skills I | 1 | Yes |
| CBM140 | Millwork I | 4 | Yes |
| CBM220 | Cabinetmaking III | 6 | Yes |
| CBM210 | Shop Procedures II | 6 | Yes |
| CBM225 | Cabinetmaking IV | 7 | Yes |
| CBM230 | Workplace Skills II | 1 | Yes |
| CBM240 | Millwork II | 4 | Yes |
| CBM250 | Cabinet/Mill OJT (optional) | 3 | No |

Program Course Descriptions

CBM110 Shop Procedures I (6 credits)

This course includes a review of general shop safety rules and practices in cabinet/millwork, information, and instruction in the use of professional tools for the woodworking trades. Emphasis will be placed on the safe use of each tool covered. Topics include layout and measuring tools, sawing tools, shaping and cutting tools, fastening tools, drilling and boring tools, finishing tools, job site set-up, and shop tool use.

CBM120 Cabinetmaking I (6 credits)

Cabinetmaking I introduces the fundamentals of residential and commercial cabinet construction. Topics include fasteners, wood products, finishing materials, manufactured products for cabinet making, and introduction to estimation of products and services. Instruction is also provided in the planning, design, and layout of cabinet units. Topics include parts identification cabinet styles and floor plan arrangements, estimation procedures, layout to specifications, shop working sketches, scale mock-ups, drafting, blueprint, reading, furniture styles, and specifications.

CBM125 Cabinetmaking II (7 credits)

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.

CBM130 Workplace Skills I (1 credit)

This course utilizes Key Train Software to assist in advancement of knowledge in Applied Math, Reading for Information, and Locating Information WorkKeys assessments that are required prior to exiting the program. Students will also be required to attend seminars provided through the Career Resource Center. Seminar topics include interview techniques, developing and preparing a resume, completing job applications, ethics, and teamwork.

CBM140 Millwork I (4 credits)

Millwork I introduces procedures for the installation of assembled drawers, doors, and related hardware. Emphasis will be placed on the safe use of hand tools. Topics include nail types, screw types, staples and equipment, special metal fasteners type, adhesives, and RTA fasteners.

CBM220 Cabinetmaking III (6 credits)

Cabinetmaking III provides introduction in the assembly of cabinet components and emphasizing door and drawer assembly. Industry standards for safety, quality, and production will be goals in this course. This course introduces procedures for the application of plastic, laminates, and wood veneers. Topics include door and drawer fabrication, laminate, veneer, and glue, cutting and fitting procedures, gluing procedures, trimming and edge banding, special tool use, safety precautions, and counter top cutting and assembly.

CBM210 Shop Procedures II (6 credits)

This course will introduce the students to principles and practices required in the operation of a custom cabinet and architectural millwork shop. Topics include health and safety regulations, work flow, shop organization, job estimation, equipment maintenance, and shop safety.

CBM225 Cabinetmaking IV (7 credits)

Cabinetmaking IV provides further instruction in the assembly of base cabinets and wall cabinets. Industry standards for quality, safety, production assembly, back assembly, bracing, and joint assembly.

CBM240 Millwork II (4 credits)

Millwork II provides instruction in surface preparation, wood finishing procedures, transporting and installation of cabinets, trim and interior doors. Finishing procedures will emphasize the use of spray equipment. Topics include abrasives, finishing materials, surface preparation, cabinet transporting and installation, trim profiles and installation, coping techniques, and door installation.

CBM230 Workplace Skills II (1 credits)

This course is the final preparation for the exit assessment by using Key Train software for Applied Math, Reading for Information, and Locating Information. A student will be required to attend remaining seminars that were not attended in Workplace Skills I through the Career Resource Center.

CBM250 Cabinet/Mill OJT (3 credits) OPTIONAL

Cabinet/Mill On-the-Job Training (OJT) is available to students upon completion of all program course competencies. OJT is an opportunity for students to apply learned cabinet/millwork skills in an on-site work experience. The experience could include cabinet making skills, appropriate employability skills, problem-solving, adaptability to job equipment and technology, progressive productivity, and acceptable job performance.

ADA Notification Statement and Disability Services:

The Testing/ADA Coordinator office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Tech 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 by contacting the Testing/ADA Coordinator's 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 services. Testing/ADA Coordinator coordinates and assists in arranging services 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 this class and believe you will need accommodations, it is your responsibility to contact:

Testing/ADA Coordinator

Phone: 785-228-6356

E-Mail: ssscoordinator@washburn.edu

