



Western Technical College

## 31410322 Interior Trim

### Course Outcome Summary

#### Course Information

**Description** This course introduces the materials and techniques used to install interior cabinetry and trim work. Students will practice installation of interior doors, casing, base, crown molding, and complete the finish of a stair balustrade in the framing lab. Students will complete the interior finishing aspects of a residential structure to include pre-hung door installation, door and window casing, base board, stair finishes, and cabinet and countertop installation. Students will perform these finishing operations by completing the interior trim work for a newly constructed home.

**Career Cluster** Architecture and Construction

**Instructional Level** Technical Diploma Courses

**Total Credits** 4

**Total Hours** 144

#### Pre/Corequisites

Prerequisite 31410333 Framing Techniques

#### Textbooks

*Carpentry and Building Construction (Student Edition)*. Copyright 2016. McGraw-Hill Education. Publisher: McGraw-Hill Publishing Company. **ISBN-13:** 978-0-02-140244-1. Required.

#### Learner Supplies

Safety glasses with side eye protection that meet Z87 OSHA guidelines. **Vendor:** Campus Shop. Required.

Tools: Tool belt, 25' - 1" tape measure, 16 or 20 oz. hammer, speed square, chalk line, utility knife, wood chisels (1/4, 1/2, 3/4, 1"). **Vendor:** To be discussed in class. Required.

Scientific Calculator - \$20. **Vendor:** Campus Shop. Required.

Proper work boots - \$35.00-75.00. **Vendor:** To be discussed in class. Required.

Cold weather workwear: wool socks, work gloves, hat, insulated bibs/coveralls, insulated winter boots. **Vendor:** To be discussed in class. Required.

## Success Abilities

1. Cultivate Passion: Expand a Growth-Mindset
2. Cultivate Passion: Increase Self-Awareness
3. Live Responsibly: Foster Accountability
4. Refine Professionalism: Improve Critical Thinking

## High Impact Practices

1. Community Based Learning Project: a key learning outcome of this course is to connect academic learning and civic development while simultaneously addressing a community partner's needs, interests, or problems.
2. Learning Community: these courses are designed to enhance your learning experience in which a cohort of peers complete two or more courses that are linked through projects, themes, or program emphasis.
3. Work-Based Learning: this course applies your learning to your desired profession by working in industry placements such as internships, practicums, clinicals, or co-ops.

## Program Outcomes

1. Use hand and power tools and equipment
2. Apply industry recognized safety practices and procedures
3. Analyze sustainable building practices
4. Demonstrate industry building practices and material application
5. Recommend a plan of procedure to eliminate wasted time and materials
6. Demonstrate industry cabinetmaking practices and material application

## Course Competencies

### 1. Install wall cabinets

#### Assessment Strategies

- 1.1. On-the-job Performance
- 1.2. Self Assessment

#### Criteria

*Criteria - Performance will be satisfactory when:*

- 1.1. you install cabinets in the proper locations as indicated on the architectural drawings
- 1.2. you securely fasten cabinets to the wall at the proper height, plumb, level, and square

- 1.3. you fasten wall cabinets together, maintaining a flush connection between the face frames
- 1.4. you align all cabinet doors maintaining proper reveals and overlay
- 1.5. you install door knobs at a consistent location on each door without damaging the doors
- 1.6. you evaluate the fit and finish of the installed product

#### **Learning Objectives**

- 1.a. Locate the position of the wall cabinets as illustrated on the architectural drawings
- 1.b. Fasten wall cabinets to the wall
- 1.c. Fasten wall cabinets to each other
- 1.d. Align cabinet doors
- 1.e. Install cabinet door knobs

## **2. Install base and vanity cabinets**

#### **Assessment Strategies**

- 2.1. On-the-job Performance
- 2.2. Self Assessment

#### **Criteria**

*You will know you are successful when*

- 2.1. you position each base cabinet in the correct location as illustrated on the architectural drawings
- 2.2. you determine the high spot in the floor and establish a level line on the wall to ensure a level finished elevation throughout the kitchen
- 2.3. you fasten the base and vanity cabinets securely to the wall maintaining a level cabinet elevation
- 2.4. you fasten the base cabinets together maintaining a flush connection between the face frames
- 2.5. you align all cabinet doors and drawer fronts maintaining proper reveals and overlay
- 2.6. you install finish toe-kick materials maintaining a tight tolerance to the floor
- 2.7. you install cabinet door knobs and drawer pulls at a consistent location without damaging the doors and drawer fronts
- 2.8. you evaluate the fit and finish of the installed product

#### **Learning Objectives**

- 2.a. Install base cabinets
- 2.b. Install vanity cabinets

## **3. Install an interior door.**

#### **Assessment Strategies**

- 3.1. Skill Demonstration

#### **Criteria**

*You will know you are successful when:*

- 3.1. you bevel and sand the strike side of the door to the proper angle to allow the door to close without binding.
- 3.2. you calculate the correct dimensions, assemble, and install the jamb assembly within the rough opening plumb and square.
- 3.3. you correctly assemble and position a hinge-butt template on the door and jamb and use a router to mortise the door edge and jamb at the proper depth to receive hinges.
- 3.4. you apply the hinges to the door and jamb using correct pre-drilling and fastening methods and hang the door on the jamb.
- 3.5. you install door stop molding on the jamb maintaining correct door position within the jamb and clearance on the hinge side to prevent door binding.
- 3.6. you position a lockset boring jig properly to allow for the correct height and backset of the door hardware, and bore holes to receive the door and jamb hardware without damaging the door or jamb.
- 3.7. you install the door hardware maintaining proper fit and finishing techniques.

#### **Learning Objectives**

- 3.a. Use a belt sander and an electric door plane to bevel the strike side of a door.
- 3.b. Assemble a door jamb.
- 3.c. Install a door jamb within a rough opening.
- 3.d. Use a hinge-butt template and router to create hinge mortises.
- 3.e. Apply hinges to a door and door jamb to provide installation of door.

- 3.f. Install door stop molding
- 3.g. Use a lockset boring kit to prepare a door for hardware installation.
- 3.h. Install door hardware.

#### **4. Install a closed stringer balustrade.**

##### **Assessment Strategies**

- 4.1. Skill Demonstration

##### **Criteria**

*You will know you are successful when:*

- 4.1. you cut treads and risers within 1/8" accuracy and properly fasten them to the stair stringers.
- 4.2. you install skirtboards to rest on the intermediate landing and floor while matching the angle of the steps.
- 4.3. you correctly measure, cut, and install all trim components to include newel posts, knee wall cap and trim, hand and shoe rail, and ballusters and fillet strip.
- 4.4. you produce a functional and attractive finished product with minimal defects in accordance with the uniform dwelling code.

##### **Learning Objectives**

- 4.a. Install treads and risers.
- 4.b. Install skirtboards.
- 4.c. Install knee wall trim to include knee wall cap and casing.
- 4.d. Install newel posts.
- 4.e. Install handrail and shoerail.
- 4.f. Install ballusters and fillet strip.

#### **5. Fit an object to an irregular surface using scribing techniques.**

##### **Assessment Strategies**

- 5.1. Skill Demonstration

##### **Criteria**

*You will know you are successful when*

- 5.1. the counter top rests on the surface with an even overhang on both exposed edges
- 5.2. the counter top rests on the surface with two edges fitting tight against the irregular wall

##### **Learning Objectives**

- 5.a. Set the counter top edge overhang even along two edges
- 5.b. Adjust the scribe to the greatest gap along the wall on both edges
- 5.c. Transfer the shape of the wall to the counter top
- 5.d. Sand the counter top to fit the shape of the wall

#### **6. Install a pre-hung interior door**

##### **Assessment Strategies**

- 6.1. On-the-job Performance
- 6.2. Self Assessment

##### **Criteria**

*You will know you are successful when*

- 6.1. you fasten the door jamb within the rough opening square, plumb, and level, keeping both side jambs tight to the finish floor
- 6.2. you hang the door on the installed jamb, keeping a consistent margin between the door and the jamb on all three sides, ensuring a proper door swing without binding.
- 6.3. you install the proper door hardware, privacy or passage, maintaining proper door seating when latched
- 6.4. you evaluate the fit and finish of the installed product

##### **Learning Objectives**

- 6.a. Install a pre-hung door jamb
- 6.b. Align a door within a pre-hung jamb
- 6.c. Install door hardware

## **7. Install door and window casing**

### **Assessment Strategies**

- 7.1. On-the-job Performance
- 7.2. Self Assessment

### **Criteria**

*You will know you are successful when*

- 7.1. you apply door casing to door jamb and wall, maintaining tight miters at the corners and a tight fit to finish flooring materials
- 7.2. you apply window casing to window extension jambs and wall, maintaining tight miters at all four corners
- 7.3. you glue and nail all mitered joints and maintains a consistent nailing pattern on the face of casing
- 7.4. you evaluate the fit and finish of the installed product

### **Learning Objectives**

- 7.a. Install door casing
- 7.b. Install window casing

## **8. Install base board molding**

### **Assessment Strategies**

- 8.1. On-the-job Performance
- 8.2. Self Assessment

### **Criteria**

*Performance will be satisfactory when:*

- 8.1. you create a cope joint at all inside corners and a miter joint at outside corners to ensure a tight connection
- 8.2. you splice long runs of baseboard together maintaining similar color and grain pattern
- 8.3. you scribe base board to hard surface floors where needed
- 8.4. you maintain a consistent nail pattern on the face of the molding
- 8.5. you evaluate the fit and finish of the installed product

### **Learning Objectives**

- 8.a. Cut a cope joint at all inside corners
- 8.b. Fit base board molding to the profile of hard surface floors
- 8.c. Apply base board to wall at floor location

## **9. Install laminate and solid surface counter tops**

### **Assessment Strategies**

- 9.1. On-the-job Performance
- 9.2. Self Assessment

### **Criteria**

*You will know you are successful when*

- 9.1. you join laminate counter tops to create a tight, permanent connection at the splice
- 9.2. you scribe laminate and solid surface tops to fit the profile of the wall to within a 1/16" tolerance
- 9.3. you properly secure laminate countertop to installed section of base cabinets utilizing proper fasteners and fastening techniques.
- 9.4. you secure solid surface vanity tops to installed vanity cabinet utilizing proper adhesives
- 9.5. you evaluate the fit and finish of the installed product

### **Learning Objectives**

- 9.a. Fit (scribe) the counter tops to the profile of the wall
- 9.b. Combine (splice) counter top sections
- 9.c. Install laminate countertops
- 9.d. Install solid surface vanity tops

## **10. Install closet shelving**

**Assessment Strategies**

- 10.1. On-the-job Performance
- 10.2. Self Assessment

**Criteria**

*You will know you are successful when*

- 10.1. you install wall cleats at the appropriate elevation in a level plane using appropriate fastening techniques
- 10.2. you fasten shelf supports and closet rod brackets in a level plane in order to provide adequate support for the shelving and closet rod
- 10.3. you cut the shelf at the correct length to fit the profile of the wall without damaging the finished surface of the shelf
- 10.4. you cut the closet rod to the correct length and fasten in to the brackets and supports
- 10.5. you evaluate the fit and finish of the installed shelving system

**Learning Objectives**

- 10.a. Install finished wall cleats
- 10.b. Install shelf supports and closet rod brackets
- 10.c. Install shelf
- 10.d. Install closet rod