



## BCCM 2660

**Division:** Career and Technical Education

**Department:** Building Construction and Construction Management

**Course:** BCCM 2660

**Title:** Entry and Passage Door Construction

**Catalog Description:**

This course provides hands on technical training on how to build raised panel entry and passage doors for residential homes. During the course students will build the doors for the Snow College project house.

**General Education Requirements:** N/A

**Semesters Offered:** Fall

**Credit/Time Requirement:** Credit: 4; Lecture: 2; Lab: 4

**Clock/Hour Requirements:** 0

**Offered for Non-Credit:** No

**Prerequisites:** BCCM 2150 Cabinet Construction or consent of instructor

**Justification:**

Raised panel entry and passage doors have become very popular in the residential housing market. In this course students will build the doors for the Snow College project house. Students will gain experience in many woodworking operations including laminating, machine setup, millwork, and finishing techniques. These skills are essential in carpentry, cabinetry, millwork, finishing and other woodworking fields.

**Student Learning Outcomes:**

Upon successful completion of this course, students will be able to:

- calculate the quantity and cost of the materials needed to build the project house doors
- properly glue together rails, styles and panels to produce a flat, stable doors
- safely and correctly set up the shaper and shaper cutters to perform the necessary milling operations
- cut and mill rails, styles and panels to correct sizes
- glue and assemble doors to build an aesthetically pleasing and functional product
- sand assembled doors and prepare them for finish
- mortise doors for hinges and bore for knobs and strikes
-

- build appropriate door frames
- stain, glaze and spray finish on doors
- enjoy the beauty of their finished products.

### **Content:**

This course will include the study of the following topics:

- machine and hand tool safety
- calculating the quantity and cost of the materials needed to build the doors
- squaring and dimensioning the rails, styles and panels of the doors
- setup and adjustment of the shapers and shaper cutters
- millwork operations
- door assembly
- prep work for hinges and knobs
- building door frames
- sanding techniques
- finishing operations.

### **General Education Outcomes:**

6) Apply computational skills to a variety of contexts.

Students will learn to calculate the quantity and cost of the materials needed to build the doors for the project house. They will also calculate the sizes of individual door parts to make an accurately sized finished product with allowances for expansion and contraction. These calculations will be reviewed to assure quality in the final product and ultimately assessed at installation.

### **Applied Education Outcomes:**

1) Students will acquire entry-level skills specific to and appropriate for employment in their chosen field of study.

Students will be able to build rails, styles and panels, mill and assemble doors, and perform the necessary finishing operations needed for skilled employment. Students who go into Construction Management jobs will have a well rounded knowledge of door manufacturing and will be able to evaluate door quality and value. Instructor critiques of doors built by students allow for assessment of skills.

3) Students will demonstrate safe practices and awareness of potential hazards in their field of expertise.

Students will demonstrate safe practices and an awareness of the potential hazards related to the materials, tools and machinery used in door construction. Instructor observations and critiques assure that students understand

safety in the workshop.

**Key Performance Indicators:**

Each student will be evaluated by the following means (percentages are approximate):

- assigned projects (20% of grade)
- class participation and ability to follow instructions (50% of grade)
- written tests and a final exam (30% of grade).

**Representative Text and/or Supplies:**

- Safety glasses
- Pencil
- Tape measure
- Current instructional articles will be used at the instructor's discretion

**Optimum Class Size:** 12

**Maximum Class Size:** 16

**Signatures:**

I hereby submit this course syllabus:

---

Marlin Christensen, M. Ed., Instructor

I hereby find this course consistent with the goals and resources of the Building Construction and Construction Management Department:

---

Marlin Christensen, M. Ed., Instructor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

---

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

---

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

---

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)