

Department:

Construction Technology

Course Description:

While there are many similarities between residential and commercial carpentry, there are often important differences including plans, materials and procedures required to meet the needs and standards of commercial projects. In this class we will study the different types of commercial drawings, the tools and procedures used in steel framing, and study how to estimate and install suspended ceiling systems.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Commercial Drawings
 - a. Identify the types and uses of commercial construction drawings and schedules
 - b. Define the use of specifications and how they are referenced
 - c. Locate 10 items contained in a set of commercial drawings
 - d. Examine a drawing to cross-reference the accuracy of dimensions from architectural to structural drawings
 - e. Identify various criteria necessary for interpreting a schedule
 - f. Interpret key aspects of a shop drawing
2. Cold-Formed Steel Framing
 - a. Identify the tools and components of cold-formed steel framing systems and their safe use
 - b. Identify the steps to layout and install a steel stud wall
 - c. Identify other steel framing applications
 - d. Estimate the amount of materials to complete a steel framing project
 - e. Lay out a steel stud wall with openings to include bracing and blocking
 - f. Demonstrate the ability to build headers (back-to-back, box, and L-header)
3. Suspended Ceilings
 - a. Identify the components necessary to properly install a suspended ceiling system
 - b. Interpret a reflected ceiling plan
 - c. Identify the procedures to lay out and install a suspended ceiling system
 - d. Estimate the quantities of materials needed to install a lay-in suspended ceiling
 - e. Establish a level line at ceiling level
 - f. Layout and install a lay-in suspended ceiling system

Course Content:

- A. Commercial Drawings
 1. Commercial Construction Drawings & Schedules
 2. Specifications
- B. Cold Formed Steel Framing
 1. Materials & Tools
 2. Layout & Installation of Steel Framed Walls

3. Other Steel Framing Applications
- C. Suspended Ceilings
 1. Suspended Ceiling System Components
 2. Reflected Ceiling Plan
 3. Laying Out and Installing Suspended Ceiling Systems

Learning Assessments:

Competencies may be evaluated by multiple measures, including quizzes, exams, & projects.

Instructional Materials:

Textbook: NCCER. (2024). Advanced Carpentry: Frame and Finish (6th ed.). Boston, MA: Pearson. ISBN-13: 978-0138172435

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the “Disabilities Self-Identification Form” on our [Disability Services website](#).

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.

A Note on Harassment, Discrimination and Sexual Misconduct

Highland Community College seeks to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX, and College policy prohibit harassment, discrimination and sexual misconduct. Highland Community College encourages anyone experiencing harassment, discrimination or sexual misconduct to talk to report to the Vice President for Student Services, the Human Resources Director or complete an [online report](#) about what happened so that they can get the support they need and Highland Community College can respond appropriately.

There are both confidential and non-confidential resources and reporting options available to you. Highland Community College is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, please review our [Equity Grievance Policy](#).