Course Information Form (CIF)

Course Code: CIT 212

Course Title: Commercial Building Systems

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 46.0201
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-2-3
Credit Hour Distribution:

Lecture: 2	Lab: 2	Clinical: 0	**Total: 3**

General Course Information

Catalog Description

Introduction to commercial facility construction with focus on foundations, structural systems, exterior finishes, interior finishes, and MEP systems. Students gain hands-on experience through plan and specification interpretation, Trimble SketchUp modeling, code review, and site visits to active construction projects.

General Course Objectives

Students will gain foundational knowledge of commercial facility construction, including major building systems and code considerations. The lab component emphasizes hands-on learning with Trimble SketchUp and field trips to active construction sites to observe methods, equipment, and supervision.

Minimum Placement Levels

English	Reading	Math
Placement into ENG 098	Placement into CCS 098	Placement into MAT 059

Prerequisites

Credit or concurrent enrollment in CIT 118 and CIT 130

Recommended before enrolling (not required):
Credit in CIT 111 and CIT 135

Methods of Evaluation

At least 10 written assignments and at least 2 objective exams.

Instructional Materials and Additional Supplies

Building Construction

Author: Mehta

ISBN: 9780134454177

Copyright: 18

Publisher: Ph

Edition: 3

Course Content

General Learning Outcomes (GLOs)

- Critical Thinking and Information Literacy: Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Building Codes	1. Explain and apply fundamental building code requirements for commercial buildings. 2. Interpret relevant code provisions in relation to construction documents. 3. Evaluate projects for basic compliance with applicable codes.	5	2.5	0
Commercial Facility Construction Plans	1. Read and interpret site plans to gather essential construction information, and apply that information to create drawings in Trimble SketchUp. 2. Prepare accurate material estimates. 3. Evaluate project compliance with contract documents.	5	2.5	0
Construction Specifications	1. Demonstrate the ability to interpret specifications for resolving contract issues, preparing construction estimates, and organizing job site inspections.	5	2.5	0
Construction Terminology	1. Recognize and interpret commonly used technical and contractual language typical to the commercial construction field.	5	0	0
Construction Site Visits	1. Recognize and explain construction materials, methods, and equipment used in major phases of commercial site work and facility construction. 2. Discuss project organization as well as interaction of contractors, owners, suppliers, inspectors, and project managers. 3. Discuss job site inspection processes and requirements.	2.5	5	0
Trimble Sketchup	1. Apply Trimble SketchUp in developing conceptual designs and modeling building systems and components, and demonstrate proficiency in its basic architectural and construction functions.	5	7.5	0
Commercial Construction Hands-on Labs	1. Demonstrate competency in commercial construction practices by designing and installing steel stud walls, basic MEP systems, and interior finish assemblies.	2.5	10	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0