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CSTN 279.01: Commercial Construction

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**THE UNIVERSITY OF MONTANA
COLLEGE OF TECHNOLOGY
DEPARTMENT OF INDUSTRIAL TECHNOLOGY**

COURSE SYLLABUS

COURSE NUMBER AND TITLE: CSTN 279 Commercial Construction

DATE REVISED: August 2018

SEMESTER CREDITS: 3

CONTACT HOURS PER SEMESTER:

Lecture hours per week 3

Lab hours per week Imbedded within offsite learning

2015 Schedule: 10/23/2018-12/7/18

Tuesday, Thurs. 9:00AM-11:50AM TT11

Thursday 1:00PM-3:50PM TT11

PREREQUISITES: CSTN 120 Carpentry Basic & Rough In Framing; CSTN 122 Beginning Carpentry Lab; CSTN 142 Interior and Exterior Finish Carpentry; CSTN 143 Intermediate Carpentry Lab.

FACULTY: John Freer, Master CGP, LEED AP BD&C

E-Mail: john.freer@mso.umt.edu

Phone: 243-7668

Cell: 370-1660

Office: West Campus

Office Hours: By appointment or as posted on Faculty office door

RELATIONSHIP TO PROGRAM(S):

This course is in the second year of the two-year AAS Sustainable Construction Technology Degree program.

COURSE DESCRIPTION:

This course provides an overview of the principles, equipment, materials, and methods applied in the construction of commercial buildings. Each phase of the construction process is covered, beginning with site evaluation and layout to interior design and building finishes. This course includes a one-credit imbedded lab.

STUDENT PERFORMANCE OUTCOMES:

Occupational Performance Objectives

Upon completion of this course, the student will demonstrate:

1. Evidence of a thorough understanding of the materials used in the construction of commercial buildings.
2. Discusses materials, their properties, and the tests performed on them to ensure suitable performance of the final product.

3. the reasons for the methods, equipment, and structural details that are used in the various situations encountered on a building site.
4. Established by both the American Society for Testing Materials ASTM and the American Concrete Institute ACI.
5. Demonstrates for readers the methods that are used in estimating excavation quantities, pile capacities, concrete pressures, and more

STUDENT PERFORMANCE ASSESSMENT METHODS AND GRADING PROCEDURES:

Grading Scale:

90 - 100%	= A
80 - 89%	= B
70 - 79%	= C
60 - 69%	= D
0 - 59%	= F

NOTE: Courses must be passed with a 'C minus (C-)' or greater to count toward degree/certificate requirements.

Grade Breakdown:

Tests and reports	80%
Attendance	10%
Participation	10%

Note:

1. Tests will be as required.
2. Safety glasses are required when in the lab.
3. Hearing protection is required in lab.

HOW VARIOUS ASSESSMENT METHODS WILL BE USED TO IMPROVE THE COURSE:

1. Student course evaluations
2. Peer feedback
3. Advisory committee feedback

**REQUIRED TEXT: "Gypsum Construction Handbook" Sixth Edition 2011,
Downloadable at:**

https://www.usq.com/content/usqcom/en_CA_east/resource-center/gypsum-construction-handbook.html

Other handouts as provided by course Instructor.

REQUIRED SUPPLIES: Calculator

ACADEMIC INTEGRITY: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at <http://www.umt.edu/SA/VPSA/index.cfm/page/1321>.

DISABILITY ACCOMMODATION: Eligible students with disabilities will receive appropriate accommodations in this course when requested in a timely way. Please contact me after class

or in my office. Please be prepared to provide a letter from your DSS Coordinator. For more information, visit the Disability Services website at <http://www.umt.edu/dss/> or call 406.243.2243 (Voice/Text).

NOTE: Faculty reserves the right to modify syllabi and assignments as needed based on faculty, student, and/or environmental circumstances.

COURSE OUTLINE:

1. Introduction to Commercial Construction
 - a. Primary Types of Commercial Projects
 - b. Differences between Residential and Commercial Construction
 - c. Career Fields in Commercial Construction
2. Principles of Commercial Framing
 - a. Wood Framing Details and Design
 - b. Steel Framing Details and Design
 - c. Firewalls and Separations
3. Interior Finishes
 - a. Drywall and Plaster Products
 - b. Installation and Finishing of Drywall Products
 - c. Acoustical Ceiling Products and Install
 - d. Spray Applied Finishes
4. Exterior Finishes
 - a. Cladding and Metal Siding
 - b. EIFS and Stucco Finishes
 - c. Concrete, Brick, Cementitious Sidings
 - d. Glazing
5. Practical Application
 - a. Drywall Install and Finish
 - b. Acoustical Ceiling Tile Install
 - c. Drywall Finishing