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CSTN 205.01: Advanced Carpentry Lecture

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THE UNIVERSITY OF MONTANA COLLEGE OF TECHNOLOGY DEPARTMENT OF INDUSTRIAL TECHNOLOGY

COURSE SYLLABUS

COURSE NUMBER AND TITLE: CSTN 205 Advanced Carpentry

DATE REVISED: December 2014

SEMESTER CREDITS: 6

CONTACT HOURS PER SEMESTER:

Lecture hours per week 4 Lab hours per week 4

PREREQUISITES: CSTN 102 Concrete Carpentry; 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, Instructor **E-Mail:** john.freer@mso.umt.edu

Phone: 243-7668 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 Association of Applied Science (AAS) Carpentry Degree program.

COURSE DESCRIPTION:

This course covers the process of angular measurement, using transits, theodolites, electronic distance measuring devices, lasers, and trigonometric calculating to lay out foundations and determine elevations. It also, includes installation of standing seam, lap seam, and built-up roofing systems; concrete, vinyl, wooden, tile, and carpeted floors as well as radiant heating; paneling, wainscoting, movable partitions, curtain walls and fire-rated commercial wall construction. Also, covered are advanced stair systems, including shop built and prefabricated stairs, balustrades, mitered risers and treads, and layout of elliptical fastening methods, and assembly techniques. Project planning, scheduling, estimating, and management skills included. This course includes a two-credit lab.

STUDENT PERFORMANCE OUTCOMES:

Occupational Performance Objectives

Upon completion of this course, the student will demonstrate:

- 1. Evidence of a thorough understanding of how to use angular measurement to layout a building site.
- 2. Evidence of a thorough understanding of how to use lasers, transits, theodolites and electronic measurement instruments.
- 3. Evidence of a thorough understanding of how to install standing seam, lap seam, and builtup roofs.

- 4. Evidence of a thorough understanding of how to install hardwood, vinyl, tile, and carpeted floor systems.
- 5. Evidence of a thorough understanding of how to install paneling, wainscoting, movable partitions, and curtain walls.

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:

Lecture: Tests 90%

Attendance 10%

Lab: Performance 80%

Tests

Tool handling Participation Work quality

Safety 20%

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

ATTENDANCE POLICY:

REQUIRED TEXT:

CARPENTRY & BUILDING CONSTRUCTION by Feirer & Feirer Glencoe, 2004 **CONSTRUCTION SURVEYING AND LAYOUT** by Wesley G. Crawford, Creative Construction, 2003

CARPENTRY by Leonard Koel, American Technical Publishers, Inc., 2004.

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. Site Layout
 - a. Right Triangle Trigonometry and the Pythagorean Theorem
 - b. Lasers, Transits, Theodolites, and Electronic Measurement Instruments
- 2. Advanced Roof Systems
 - a. Installation Procedures for a Lap Seam Roof
 - b. Installation Procedures for a Standing Seam Roof
 - c. Installation Procedures for a Built-up Roof
- 3. Advanced Floor System
 - a. Installation Procedures for a Hardwood Floor
 - b. Installation Procedures for a Vinyl Floor
 - c. Installation Procedures for a Tile Floor
 - d. Installation Procedures for a Carpeted Floor
- 4. Advanced Wall Systems
 - a. Installation Procedures for Paneling
 - b. Installation Procedures for Wainscoting
 - c. Installation Procedures for Movable Partitions
 - d. Installation Procedures for Curtain Walls