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DDSN 113.01: Technical Drafting

Troy Savage

University of Montana - Missoula, troy.savage@umontana.edu

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Technical Drafting

Syllabus

COURSE: DDSN 113 Technical Drafting
SEMESTER CREDITS: 3
MEETING TIMES: TR 1540-1700 August 26 to December 13.
               Final Project due Thursday, Dec. 12 17:30-19:30
FACULTY: Troy Savage, PE
CONTACT: Email: troy.savage@umontana.edu, Phone: 406-243-7920
OFFICE: Griz House B, Office D (right and then left)
OFFICE HOURS: M 1-2pm, T 2-3pm, W 3-4pm

Prerequisites: There are no course requirements to participate in Technical Drafting. A background in technical drawing or engineering is not required either. As an introductory course, it will cover all aspects of technical graphics and drawing. A working knowledge or past introduction to principles of trigonometry will be extremely useful, though not necessary, to effectively understand certain aspects of technical drawing.

Course Description:
An introduction to the techniques and standard practices of communicating technical graphics through effective design. The class studies and practices drawing skills and learns the drawing standards that support the needs of the design team in advancing ideas. It also provides the foundation for successful drawing communication in the CAD environment. Topics covered include; drawing media and tools, hand drawing skills, perspectives, views, sketching, standard scales, geometric construction, sections, dimensioning, and tolerances.

Course Objectives:
- Understand to role of graphics in the development of ideas and in the communication of information.
- Demonstrate dexterity in the use of drawing instruments, templates etc. as reflected in neatness and accuracy.
- Produce accurate drawings according to recognized standards, conventions and illustration techniques.
- Use graphical methods to solve basic descriptive geometry problems.
- Learn to select appropriate methods of graphic representation in expressing spatial ideas and concepts
- Produce orthographic sketches and projections with basic drawing instruments.
- Understand and use basic sectioning techniques.
- Understand and practice basic dimensioning standards and styles.
- Understand the role and standards of tolerances in the drawing practice.
- Apply technical Drafting principles to many engineering disciplines.
Required Materials:

**Modern Graphics Communications, 4/E**
- Frederick E. Giesecke, *Virginia Commonwealth University*
- Alva E. Mitchell, *Texas A&M University*

©2010 • Peachpit Press • Paper, 784 pp

**Alvin BDK-1E Engineers Drafting Kit** available in the COT Bookstore.

The kit includes:
- 12" engineers' fully divided triangular scale
- Lettering guide pad
- 6" compass
- 6" divider
- 10" 30°/60° triangle
- 8" 45°/90° triangle
- 6" protractor
- 6 3/4" french curve
- Soft pencil eraser
- Lead holder
- Mini lead pointer
- Erasing shield
- Three pack 2.0 mm lead

**Evaluation Procedures:**

**Assessment Grading Scale**
- Exercises (40%)
- Quizzes (30%)
- Final Project (30%)

100% - 90% A
90% - 80% B
80% - 70% C
70% - 60% D

**Participation:**

Assignments are to be submitted due by the assigned time on the assigned date. Late assignments receive a score of 0; late assignments will be accepted only in extraordinary circumstances, and at the instructor's discretion. Quizzes are to be taken during the assigned times. Missed quizzes receive a score of 0; there is no makeup for missed quizzes unless previous arrangements are made. The final project, in place of a final exam, is to demonstrate the students' capabilities in technical Drafting.
Late Work: Late assignments and missed Quizzes or Exams will receive a score of zero. If you have an extenuating circumstance that will prohibit you from meeting a deadline, please contact me well in advance of the deadline and I will make reasonable accommodations.

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://life.umt.edu/vpsa/student Conduct.php

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).

CHANGES TO SYLLABI:
NOTE: Instructor reserves the right to modify syllabi and assignments as needed based on faculty, student, and/or environmental circumstances. If changes are made to the syllabus, amended copies will be dated and made available to the class.

Last Syllabus Update: 8/6/2013