CCET 1504 - Drafting and Plan Reading

Fall 2026 Syllabus, Section 01, CRN 41514,

Credit hours: 2

Instructor

Robert Kirkpatrick

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Public Instructor Information

Instructor Title: **Adjunct Professor**
Instructor Professional Qualifications:
Master of Applied Science, University of Denver, 2008
BSAS, Civil Engineering Technology, Youngstown State University, 1999
Instructor Office Location: **Moser Hall #4120**
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Course Description

1504. Drafting and Plan Reading. Drafting basics including plan, section, and elevation views; orthographic projections; line types and weights; drafting scales; dimensioning; tolerances; grading and contours, and construction layout for the civil, mechanical, and electrical technology disciplines. Development of skills in the interpretation and preparation of plans used for civil, mechanical, and electrical construction and fabrication. One and one-half hours lecture, one and one-half hours laboratory per week. Grading is A, B, C, NC. Prereq.: C or better in MATH 1510 or MATH 1510C. Coreq.: MATH 1513 or MATH 1511 or MATH 1511C or at least level 45 on Mathematics Placement Test. 2 s.h.

Course Readings

Group	Title	Author	ISBN
Required	A series of reference materials		

A series of reference materials will be provided depending on the lesson of the week. A hard copy (in most cases) will be distributed in class with the digital versions available on Blackboard.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Thu	8/27	Supplied reference materials	Drafting standards and brief history. Review of format and style of modern measured drawings in industry	NASA Drafting Standards worksheet Orthographic visulization exercises
Thu	9/3	Supplied refernce materials	Visulization of 3D to 2D measured drawings for manufacturing	Orthographic visulization and notation exercises
Thu	9/10	Supplied reference material, chart of threaded fasteners (American Standard/Metric)	Threaded mechanical connections and notations Research into selecting threaded connectors based on noted requirements	Exercise of threaded conncetions, online research exercises
Thu	9/17	Supplied References	Dimensioning tolerances and Geometric Tolerancing and Dimensioning (GD&T) introduction	Worksheets on tolerances and GD&T notations
Thu	9/24	Supplied References	Assembly and sub assembly drawing structure and standards Review for Exam 1	Worksheets on reverse engineering and drawing notations

Thu	10/1	Supplied references Exam 1	Exam 1 with provided reference material for exam questions	Exam 1 - Comprehensive on mechanical/ manufacturing
Thu	10/8	Supplied References - Electronics Electronic component primer handout	Review of electronics fundimentals, common symbology Component research characteristics online	Worksheets on component identification/ values Price research on components of given schematics
Thu	10/15	Supplied reference	Digital electronics, introduction to logic gates	Worksheets using truth tables to determine output of a set of given circuits
Thu	10/22	Supplies references	Complete electronics circuitry topics. Review for Exam 2	Complete remaining electronic assignments
Thu	10/29	Supplies references - Construction	Review basics of residential construction, property research Exam 2	Worksheets on construction basics and calculations Worksheet on online property research
Thu	11/5	Supplies references	Residential construction plans	Worksheets on Floor plans, Section plans, schedules
Thu	11/12	Supplied references - Building Codes Video of Architect's complete set of residential drawings	Typical building code details	Workksheets identification of code details Worksheet on Architect's set of drawings for construction
Thu	11/19	Supplied references - Civil roadway specifications Video: Architect vs. Engineer Final Project introduction	Roadway design and drawing references Engineer's role in architecture	WorkSheet on Roadway construction specifications Worksheet on video - Architect vs. Engineer
Thu	11/26		Fall Break, no assignments	
Thu	12/3	Supplied References - Civil Plan and Profile Final Project criteria	Cover Plan and Profile drawings Review for Final Exam	Worksheet on Plan and Profile Complete any outstanding assignments Final Project work
Thu	12/10	Final Exam Final Project	Final Exam in class Final Project due	Complete any outstanding assignments/ projects

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.