

COURSE TITLE AND NUMBER: TDT 30 CAD I

North Central Michigan College

NCMC MASTER COURSE SYLLABUS

Last Date Revised: 10/05

DIVISION/AREA: Business and Technology

DEPARTMENT: Business

DIVISION DIRECTOR: Robert J. Marsh, Ph.D., P.E.

ORIGINATOR: Robert Marsh

DEAN OF INSTRUCTION: Timothy Dykstra, Ph.D.

TOTAL HOURS OF INSTRUCTION: 3 LECTURE: 3 LAB: 0 TOTAL CONTACT HOURS: 52.8

COURSE NUMBER: TDT 130

CREDIT HOURS: 3

COURSE TITLE: CAD I

TRANSFERABLE YES: NO: X TO:

PREREQUISITE(S)/COREQUISITE(S)/ADVISORY:

CATALOG DESCRIPTION:

An introduction to the use of Computer Aided Drafting and Design software (CAD), focusing primarily on two-dimensional (2D) drawings. The latest version of Autodesk's AutoCAD software is used in this class. A variety of drawing types will be explored, providing experience with most AutoCAD features, including printing to a full size plotter.

GENERAL EDUCATION OUTCOMES:

- Think critically and analytically
 - Select and use mathematical tools for problem solving and decision making
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COURSE OBJECTIVES & OUTCOMES:

To gain basic CAD skills and learn about the following:

1. Operate the AutoCAD 2002 Software.
2. Operate the CAD workstation components (i.e. computer, input/pointing device, and output / hard copy device.)
3. Explain the features, limitations, and considerations associated with the commands and Characteristics of "2D" AutoCAD.
4. Organize and manage AutoCAD related files using the computer operation system.
5. Utilize AutoCAD's "2D" Mode settings, drawings, and shortcuts.
6. Produce accurately scaled drawings using the printer/plotter.
7. Identify CAD hardware components and system configurations.

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8. Construction Techniques.

METHODS OF INSTRUCTION: Lecture and in class hand on AutoCAD assignments

METHODS OF EVALUATION:

GRADING BREAKDOWN

Homework	60%
Tests	25%
Attendance	15%
Total	100%

REQUIRED TEXTS:

James A Leach, "AutoCAD 2002 Instructor: A Student Guide to Complete Coverage of AutoCAD's Commands and Features."

OPTIONAL SUPPLEMENTARY MATERIALS:

Reasonable accommodations may be provided for students with documented physical, sensory, cognitive, systemic, and/or psychiatric disabilities. Please contact Learning Support Services (LSS) at (231) 348-6687 to arrange services for this course.

TIME ALLOWANCE AND SEQUENCE OF INSTRUCTION:

COURSE MATERIAL

Week	Chapter	Description
1	1	Review of drawing skills acquired, course overview, book purchase, Introduction, Coordinate review
2	2-3	Starting AutoCAD, Setting up drawings Saving and opening drawings, intro to drawing
3	4,11	Drawing and Erasing Lines, Layers
4	5,8	Helpful commands, Drawing Basic Shapes
5	6-7	Drawing Setup, Object Snap
6	9-10	Modify Commands, viewing commands
7	18	Placing Text on Drawings Midterm Review
8	Test #1	Midterm Exam
9	23	Midterm Discussion, Grips
10	17	Obtaining Information About the Drawing, Discuss Paper Space vs. Model Space
11	13	Multi-view Drawing and Layers
12	13	Printing, Plotting, and Multi-view Drawing Layout

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13	13	Printing, Plotting, and Multi-view Drawing Layout
14	16	Intro to Polylines and Multilines Drawing and Editing Polylines and Splines
15	28-29	Basic Dimensioning, Final Review
16	Test #2	Final Exam

APPROVED FOR ADOPTION BY THE CRD/AP COMMITTEE ON 10/19/05