

COURSE TITLE AND NUMBER: TDT 132 Master.doc

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# North Central Michigan College

NCMC MASTER COURSE SYLLABUS

Last Date Revised: 10/05

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DIVISION/AREA: Business and Technology

DEPARTMENT:

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

ORIGINATOR:

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DEAN OF INSTRUCTION: Timothy Dykstra, Ph.D.

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

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CREDIT HOURS: 3

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COURSE TITLE: CAD III (Advance AutoCAD)

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TRANSFERABLE

YES:

NO: X

TO:

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PREREQUISITE(S)/COREQUISITE(S)/ADVISORY: TDT 130 or equivalent AutoCAD experience

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## CATALOG DESCRIPTION:

An advance course in the training and use of Computer Aided Drafting and Design software (CAD). The primary focus will be on producing two-dimensional (2D) and three-dimensional (3D) drawings. The latest version of Autodesk's AutoCAD software is used in this class. You will generate a variety of drawing types and will gain experience with most AutoCAD features, including printing to a full size plotter.

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## GENERAL EDUCATION OUTCOMES:

- Think critically and analytically
  - Independently acquire knowledge
  - Select and use mathematical tools for problem solving and decision making
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## COURSE OBJECTIVES &amp; OUTCOMES:

- Operate the AutoCAD 2004 Software.
- Operate the CAD workstation components (i.e. computer, input/pointing device, and output/hard copy device).
- Explain the features, limitations and considerations associated with the commands and characteristics of "2D" and "3D" AutoCAD.
- Organize and manage AutoCAD related files using the computer operation system.
- Utilize AutoCAD's "2D" and "3D" mode settings, drawings, and shortcuts.
- Produce accurately scaled drawings using the printer/plotter.
- Identify CAD hardware components and systems configurations.

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- Construction techniques.
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METHODS OF INSTRUCTION: Lecture and in class demonstration. Hands on lab exercises in class.

METHODS OF EVALUATION: Homework and quizzes plus three projects.

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REQUIRED TEXTS: AutoCAD 2004 by James A. Leach

OPTIONAL SUPPLEMENTARY MATERIALS:

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

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TIME ALLOWANCE AND SEQUENCE OF INSTRUCTION:

Week	Topic
1	Course overview, Introduction, Book purchase, Review of skills
2	Chapters 2-3, Working with Files, Draw Command Concepts. <b>Homework 1 – Chapter 3 exercises</b>
3	Chapters 4-5, Selection Sets, Helpful Commands <b>Homework 2 – Work sheet</b>
4	<b>QUIZ 1</b> Chapters 6-7, Basic Drawing Setup, Object Snap and Object Tracking
5	<b>Project 1</b>
6	Chapters 10-11, Viewing Commands, Layers and Object Properties <b>Homework 4 – Chapter 11 exercise #2</b>
7	Chapter 18, Creating and Editing Text <b>Homework 5 – Chapter 9 exercises #11, 15-17</b>
8	<b>Quiz 2</b>
9	Chapter 16, Modify Commands 2 <b>Homework 6 – Chapter 9 exercises #19-22</b>
10	<b>Project 2</b>
11	<b>Quiz 3</b> Chapter 13, Layouts and Viewports <b>Homework 8 – Make 10 new blocks for your final project</b>
12	Chapter 13, Layout and Viewports <b>Homework 9 – Chapter 13 exercise #8 A-I</b>
13	Chapter 14, Printing and Plotting <b>Homework 6 – Sketch of final project and title block</b>
14	<b>Quiz 4</b> Review and project set up
15	<b>Project 3 (in class)</b>
16	<b>Project 3 (in class)</b>

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