MURRAY STATE UNIVERSITY

DEPARTMENT OF INDUSTRIAL AND ENGINEERING TECHNOLOGY

COURSE NUMBER: ITD 107 CREDIT HOURS: 4

I. TITLE: Introduction to Technical Drawing and Computer Aided Drafting.

II. CATALOG DESCRIPTION:
A survey course in conventional and computer aided drafting theory and practice. The application of design principles, multi-view drawing techniques and precision use of conventional drafting equipment will be complimented by an introduction to computer aided drawing software, including: setting up, drawing, editing, saving, and plotting drawings. Lecture/Laboratory: 6 contact hours. This course does not apply towards a major in drafting and design.

III. PURPOSE:
Introduction to technical drawing and CAD is a no-prerequisite survey course for students needing introductory knowledge of drafting theory and practice. The course is primarily intended to meet the needs of students who are able to take only one drafting course in their curriculum.

IV. COURSE OBJECTIVES:
To develop an understanding of design principles, visualization techniques, and projection theories. Gain competencies in conventional and computer aided drafting.

V. CONTENT OUTLINE:
A. Graphics as a design language: Engineering, Architectural, Mechanical
B. Scales and Instruments
C. Lines and Lettering Techniques
D. Visualization with Multi-view and Pictorial Representation
E. Orthographic projection – Sketching and Mechanical
F. Dimensioning Techniques and Tolerancing
G. Introduction to AutoCAD
H. Executing AutoCAD drawings

VI. INSTRUCTIONAL ACTIVITIES:
A. Assigned readings
B. Participation in class discussions, demonstrations, and presentations
C. Completing class assignments in both Conventional and CAD Media

VII. FIELD, CLINICAL AND/OR LABORATORY EXPERIENCES:

VIII. RESOURCES:

A. Geisecke, Mitchell, Spencer, Hill, and Dygdon. Technical Drawing. 1986.

B. Kent, D. AutoCAD Reference Guide. 1989. New Riders Publishing. Thousand Oaks, CA.

C. Raker, D. and Rich, H. Inside AutoCAD. 1989. New Riders Publishing. Thousand Oaks, CA.

D. Shumaker, T. and Madsen D. AutoCAD and Its Application, 1992. Goodheart-Willcox Company, South Holland, IL.

E. Americans With Disabilities Accessibility Guidelines. Available online at: http://www.access-board.gov/adaag/html/adaag.htm

F. Equipment needed:

1. Sketch Book
2. Mechanical Pencils: .5, & .7
3. HB, F, and 6H Lead Pencils
4. Triangles: 45/45/90 and 30/60/90
5. Scales: Architectural and Engineering
6. Compass
7. Circle Template, 1/4" Scale and 1/8" Scale Residential Layout Templates
8. Eraser
9. Erasing Shield
10. Drafting Tape or Drafting Dots
11. Drafting Brush
12. Flash Drive (optional)

IX. GRADING PROCEDURES:

Grades will be calculated based on the following criteria:

A.	Board Drafting Assignments	40%
B.	CAD Assignments	40%
C.	Mid-term and Final Exams	10%
D.	Participation and Attendance	10%

Grade Scale:

A: 100-90% Outstanding work and effort in and out of class. Technically proficient. Creative and helpful participation in class.

B: 80-89% Very good work and effort (above average). Above the minimum requirements for assignments and homework.

C: 70-79% Good, average work and effort. Meeting all due dates and requirements.

D: 60-69% Below average, contributing less than the required effort: Poor craftsmanship. Late work. Poor attendance.

E: 0-59% Failure

X. ATTENDANCE POLICY:

This course will adhere to the policy published in the MSU Undergraduate Bulletin. Attendance in this class is important for the student to complete his or her work and to receive design consultation and instruction. For necessary absences, the student must make prior arrangements with the instructor, or make-up work or exams WILL NOT be provided or accepted. With the third unexcused absence, the student grade will be decreased by one letter grade and further absences will result in a drop of one-half letter grade each. For the purpose of attendance, three tardies equal one absence. Attendance is recorded at the beginning and sometimes at the end of each class period.

XI. ACADEMIC HONESTY POLICY:

This course will adhere to the policy published in the MSU Undergraduate Bulletin. Cheating, plagiarism (submitting another person's material as one's own), or doing work for another person which will receive academic credit are all impermissible. This includes the use of unauthorized books, notebooks or other sources in order to secure or give help during an examination; the unauthorized copying of examinations, assignments, reports or term papers; or the presentation of unacknowledged material as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

XII. TEXT AND REFERENCES:

A. Zirbel, Jay. AutoCAD Skills Pack. , Copy Center.

XIII. PREREQUISITES:

None

XIV. STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY:

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or other provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For information regarding nondiscrimination policies contact the Office of Equal Opportunity 270-809-3155.

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