

MURRAY STATE UNIVERSITY

DEPARTMENT OF INDUSTRIAL AND ENGINEERING TECHNOLOGY

COURSE NUMBER: ITD 202

CREDIT HOURS: 4

I. TITLE: Applied Technical Drawing

II. CATALOG DESCRIPTION:

Drawing and problem solving techniques, principles and conventional practices as applied to selected industrial fields; mechanical engineering product design, fasteners, piping, welding and sheet metal developments. This course emphasizes technical/engineering sketching and CAD. Lecture and laboratory: 6 contact hours. Prerequisites: ITD 101 and ITD 104

III. PURPOSE:

To develop competencies, particularly pertinent to graphic communication, needed by persons in several industrial fields. As a survey of several fields of graphic communication, the course provides an introduction to the concepts, principles, knowledge of procedure and drafting skills critical to the industrial and AEC fields.

IV. COURSE OBJECTIVES:

Provide drafting and design students further development in drafting skills and techniques critical to career success.

V. CONTENT OUTLINE:

- A. The design process
 - 1. Product design – mechanical
 - 2. AEC design – architectural
- B. Design Communication
 - 1. Media
 - 2. Basic Concepts
 - 3. Drawing Mechanics
- C. Survey of selected field of drafting and design
 - 1. Mechanical engineering design communication: projections, dimensioning detail drawings and sets of drawings
 - 2. Mechanical fasteners/threads and thread drawings
 - 3. Welding and weldment drawings
 - 4. Developments for sheet metal intersections
 - 5. Process piping drawings

VI. INSTRUCTIONAL ACTIVITIES:

- A. Lectures/discussions
- B. Demonstrations
- C. Group and individualized instruction
- D. Laboratory drawing
 - 1. Exercise sheets
 - 2. Applied problems

VII. FIELD, CLINICAL, AND/OR LABORATORY EXPERIENCES:

None

VIII. RESOURCES:

Industrial models and drawings will be used to exemplify industrial practice.

IX. GRADING PROCEDURES:

Daily assignments	40%
Performance exams (4@ 5%)	20%
Midterm exam	10%
Final exam	20%
Class participation	10%

Grading Scale:	92 or better	= A
	84 - 91	= B
	76 - 83	= C
	68 - 75	= D
	Less than 67	= E

X. ATTENDANCE POLICY:

This course will adhere to the policy published in the current MSU Undergraduate Bulletin. Attendance in this class is important for the student to complete his or her work and to receive consultation and instruction. For excused absences, the student must make arrangements with the instructor beforehand or make-up work or exams WILL NOT be provided/accepted. Excused absences are defined in the MSU Attendance Policy and except for death in the immediate family and medical emergencies require prior instructor approval. All other absences are personal/unexcused. With the third unexcused absence the student's grade will be decreased by one letter grade and further absences will result in a drop of one-half letter grade each. For the purposes of attendance, three tardies equal one absence. Attendance is recorded from 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 current 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:

Bertolin, Wiebe, Hartman, & Ross. Technical Graphics Communication, 4th Edition, 2009.

XIII. PREREQUISITES: ITD 101 and ITD 104

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.

Equipment Needed:

.5, .7mm mechanical pencil with HB lead

6H lead pencil

Eraser

45/45/90 or 30/60/90 triangle

Compass or circle template

Architect's scale, civil engineer's scale

Metric ruler

B. Siebold, 8/11