



Wayne County Community College District

COURSE SYLLABUS

DRT 102 Fundamentals of Mechanical Drawing

CREDIT HOURS: 4.00

CONTACT HOURS: 90.00

COURSE DESCRIPTION:

Fundamentals of Mechanical Drawing Basic course of students with minimal high school experience. Emphasizes use of instruments, introduction to drafting, introduction to drafting practices, geometric construction, lettering, line work, orthographic projection and three-dimensional visualization from two-view drawings, section cutting, auxiliary views and dimensioning systems.

PREREQUISITES: DRT 101

EXPECTED COMPETENCIES:

Upon completion of this course, the student will be familiar with:

- Describe and demonstrate the use of various manual drafting tools
- Read Engineers, Architects and Metric Scales
- Do freehand lettering
- Sketch lines, circles, arcs and multi-views
- Draw parallel and perpendicular lines
- Construct bisectors and divide lines and spaces into equal parts
- Draw polygons, tangency, and ellipses
- Explain the difference between first and third angle projection
- Prepare single and multi-view drawings
- Prepare formal multi-view drawings
- Describe the purpose of auxiliary views
- Explain and demonstrate projected Auxiliary views
- Draw proper section cutting plane lines
- Draw sectional views including full, half, aligned, broken out auxiliary and removed sections
- Make a sectional drawing from sketches
- Construct objects using isometric and oblique drawing methods

ASSESSMENT METHODS:

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:

90%-100% = A
80%-89.9%= B
70%-79.9%= C
60%-69.9%= D
<60% = E