



Wayne County Community College District

COURSE SYLLABUS

DRT 112 Technical Drawing Applications

CREDIT HOURS: 3.00

CONTACT HOURS: 45.00

COURSE DESCRIPTION:

This course is focused on detailed drawings of a variety of parts, based on projection techniques, sectional views, threads and fasteners, dimensional fundamentals and other conventional drawing practices. Students will execute charts and graphs for data display and analysis and practice required instrument skills to produce ink drawings.

PREREQUISITES: *DRT 102*

EXPECTED COMPETENCIES:

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

1. Discuss class organization, supplies and equipment, lines and geometric shapes, orthographic projection, dimensioning systems and threads and fasteners
2. Draw plan view, sectioned threads and detail threads with appropriate thread notes
3. Solve tolerance problems involving basic dimensions, nominal dimensions, limit tolerances, bilateral tolerances, symmetric tolerances, and tolerance stackups. Students will calculate press fits and clearance fits and identify fits
4. Make a detail gear drawing using simplified representation and gear data
5. Construct a detail drawing of a standard spur gear
6. Construct a series of three cam drawings completing displacement diagrams and profiles of uniform, harmonic and uniform accelerated and decelerated (gravity) motion of cams
7. Complete line, bar and pie charts, displaying and analyzing data
8. Begin layout of a complete set of working drawings, sketching appropriate details, blocking in views of details and organizing their final presentation
9. Draw a complete set of working drawings, showing details and assemblies involving dimensioned

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