SAN JUAN COLLEGE
Success Matters

DRFT-115-TECHNICAL DRAFTING II 4 CREDITS

SYLLABUS

CATALOG DESCRIPTION

This course comprises the use of auxiliary views, geometric tolerancing, threads, fasteners and springs, dimensioning, axonometric projection, oblique projection and perspective drawing in the production of drawings.

Prerequisites: DRFT-110 and DRFT 150

Semester Offered: Spring

Common Student Learning Outcomes

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in…

BROAD AND SPECIALIZED LEARNING
Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING
Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT
Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION
Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY
Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES
Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

Course Learning Outcomes

Upon successful completion of the course, the student will be able to…

1. To gain a working knowledge of drafting fundamentals involving auxiliary views, threaded fasteners, sections, the multi-view and pictorial projections, dimensioning and application of geometric tolerances.
2. To gain a working knowledge of production techniques and control of drawings.

Specific Learning Objectives

Upon successful completion of the course, the student will be able to…

1. Draw complex mechanical objects using: (B,C,E,I,CC)
   A. Auxiliary views
   B. Section views
   C. Pictorial projections
   D. Geometric tolerances
   E. Threaded fasteners
   F. Finish marks
   G. Complex multi-view drawings
   H. Assembly drawings
   I. Developments and pattern drawings
2. Understand the need for tolerances and the differences between limits of size and bilateral and unilateral tolerances. (B,C,E,I,CC)
3. Calculate the limits and tolerances for clearance, transitional, and interference fits. (B,E,I,CC)
4. Dimension and apply size and geometric tolerances according to good drafting practices and ANSI Y 14.5 1994. (B,C,I,CC)
5. Apply principles of drafting technology for assembly drawing and parts list preparation as used in industry practice. (B,C,E,I,CC)
6. Understand and apply both general notes and local notes to drawings as needed. (B,C,E,I,CC)
7. Explain reproduction and control of drawings in accordance with industrial standards (B,C,E,I,CC)