

DRFT-114-MATERIALS AND PROCESSES LAB 1 CREDIT

SYLLABUS

CATALOG DESCRIPTION

Exposes the drafting student to the theory and application of commonly employed manufacturing methods through experiences in a manufacturing environment.

Prerequisites: None

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. Understand the processes to machine a simple mechanical part on commonly used machine tools and produce a manufacturing study of the experience.
2. Learn simple heat-treating procedures.

3. Experience use of a Rockwell hardness tester.

Specific Learning Objectives

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

1. Practice shop safety. (B,C,CC)
2. Utilize micrometers and calipers. (B,C,CC)
3. Face with a lathe. (B,C,CC)
4. Center drill with a lathe. (B,C,CC)
5. Hold diameters and lengths with a lathe. (B,C,CC)
6. Machine grooves, square shoulders, chamfers and threads. (B,C,CC)