

Print Reading

Course Outcome Summary

Course Information

Total Credits 3

Description

Students will learn to identify basic lines, views and abbreviations used in blueprints, interpret basic 3D sketches using orthographic projections and blueprints, determine dimensions of features of simple parts, sketch simple parts with dimensional measurements, determine dimensions of a multi-feature part, interpret GDT symbols, frames and datums.

Exit Learning Outcomes

Program Outcomes

- A. Operate machine tool equipment commonly found in industry including manual and computer controlled lathes, milling machines, drill presses and cutting machines
- B. Manufacture parts from various materials in accordance with specifications from blueprints, electronic drawings and shop sketches
- C. Solve quality problems using process planning, technical knowledge, teamwork, mathematics, and critical thinking
- D. Apply safety principles in a work environment to minimize hazards and prevent losses to productivity
- E. Demonstrate employability skills needed to obtain and retain employment in machine tool and related fields
- F. Use CAD and CAM programs to design parts and program manufacturing machines

Competencies

1. Determine dimensions of features of simple parts

Properties

Domain: Cognitive Level: Evaluation

Linked Program Outcomes

Solve quality problems using process planning, technical knowledge, teamwork, mathematics, and critical thinking

Demonstrate employability skills needed to obtain and retain employment in machine tool and related fields

2. Sketch simple parts with dimensional measurements

Properties

Domain: Psychomotor Level:

Linked Program Outcomes

Solve quality problems using process planning, technical knowledge, teamwork, mathematics, and critical thinking

Demonstrate employability skills needed to obtain and retain employment in machine tool and related fields

3. Determine dimensions of a multi-feature part

Properties

Domain: Cognitive Level: Evaluation

Linked Program Outcomes

Solve quality problems using process planning, technical knowledge, teamwork, mathematics, and critical thinking

Demonstrate employability skills needed to obtain and retain employment in machine tool and related fields

4. Interpret GDT symbols, frames and DATUMs

Properties

Domain: Cognitive Level: Evaluation

Linked Program Outcomes

Solve quality problems using process planning, technical knowledge, teamwork, mathematics, and critical thinking

Demonstrate employability skills needed to obtain and retain employment in machine tool and related fields

5. Generate basic drawings using CAD software

Linked Program Outcomes

Solve quality problems using process planning, technical knowledge, teamwork, mathematics, and critical thinking

Use CAD and CAM programs to design parts and program manufacturing machines