



Western Technical College

10420204 Blueprint Reading (CBE)

Course Outcome Summary

Course Information

Description	Requires the learner to interpret prints and industrial drawings relative to manufacturing processes. Students are encouraged to take this course concurrently with Fundamentals of Machining and Measurement and Inspection.
Career Cluster	Manufacturing
Instructional Level	One-Year Technical Diploma
Total Credits	1
Total Hours	36

Textbooks

Blueprint Reading for Machine Trades. 7th Edition. Copyright 2012. Schultz, Russ. Publisher: Pearson. **ISBN-13:978-0-13-217220-2**. Required.

Learner Supplies

Safety glasses with side eye protection that meet Z87 OSHA guidelines. **Vendor:** Campus Shop. Required.

Proper footwear - \$35.00-75.00. **Vendor:** To be discussed in class. Required.

Scientific calculator (recommend T1-36x Solar). **Vendor:** Campus Shop. Required.

Three-ring binder. **Vendor:** Campus Shop. Required.

Clipboard. **Vendor:** Campus Shop. Required.

Pens/Pencils/Black Sharpie Marker. **Vendor:** Campus Shop. Required.

Minimum 4GB USB Flash Drive. **Vendor:** Campus Shop. Required.

Success Abilities

1. Refine Professionalism: Improve Critical Thinking
2. Refine Professionalism: Practice Effective Communication

Program Outcomes

1. Interpret industrial/engineering drawings.

Course Competencies

1. Analyze Engineering drawings.

Assessment Strategies

- 1.1. Written Product

Criteria

You will know you are successful when

- 1.1. you review an engineering drawing.
- 1.2. you identify what is meant by the drawings, different views.
- 1.3. you indicate what the title block information is for a drawing.
- 1.4. you list different views of an engineering drawing.
- 1.5. you identify correct symbols, terms and abbreviations for a drawing.

Learning Objectives

- 1.a. Analyze engineering drawings.
- 1.b. Interpret title block information.
- 1.c. Differentiate the different views of an engineering drawing.
- 1.d. Distinguish the different symbols, terms, and abbreviations on a print.

2. Sketch objects into accurate Engineered drawings.

Assessment Strategies

- 2.1. Written Product

Criteria

You will know you are successful when

- 2.1. you sketch two objects using the correct types of lines to represent features.
- 2.2. you sketch two objects using correct view placement.
- 2.3. you complete missing views of two orthographic drawings by viewing the isometric view.
- 2.4. you complete two sketches to isometric view from orthographic drawings.
- 2.5. you prepare a written product which is free from spelling and grammar errors.

Learning Objectives

- 2.a. Sketch objects using the Alphabet of Lines.
- 2.b. Draw orthographic drawings.
- 2.c. Draw engineering drawings.
- 2.d. Draw missing views of objects based on given views.

3. Interpret dimensions on blueprints.

Assessment Strategies

- 3.1. Written Product

Criteria

You will know you are successful when

- 3.1. you calculate the overall dimensions of two parts from a print.
- 3.2. you calculate dimensions that are missing for two parts.
- 3.3. you calculate included angles and missing angular dimensions on one part.

Learning Objectives

- 3.a. Compute missing dimensions on a print.
- 3.b. Compute part feature locations.
- 3.c. Interpret part feature sizes.
- 3.d. Interpret angular measurements on prints