Mountlake Terrace High School
Drafting Technology

Course Objectives by Unit

1st Trimester - Basics of Drafting

Unit 1: Single-view drawings

1. Be familiar with names and proper use of board drafting tools and equipment.
2. Measure accurately using the inch (16) scale.
3. Draw a standard title block.
4. Draw a single view drawing neatly and accurately.
5. Letter in Vertical Gothic Capitals
   (p. 46, fig. 96 top alphabet)

Unit 2: Two-view drawings

1. Center a two-view drawing.
2. Construct a two-view drawing from an isometric drawing.
3. Use correct line weights for construction lines, border lines, object lines, hidden lines, and lettering.

Unit 3: Three-view drawings

1. Construct an Orthographic Projection (a three-view drawing)
2. Center a three-view drawing.
3. Construct a third view drawing from an isometric drawing and two existing views.
4. Construct a three-view drawing from an isometric drawing.

Unit 4: CAD single-view drawings

1. Start AutoCAD and title and setup a drawing.
2. Properly use the three coordinate systems: absolute, relative, and polar
3. Properly use the following commands: O-Snaps (Object Snaps), text, dimensioning, Arc, and Circle.
4. Properly insert and personalize a title block.

Unit 5: CAD single-view drawings

1. Continue to practice the use of Unit 4 AutoCAD commands.
2. Properly use the following AutoCAD commands: chamfer, fillet, rectangle, and centerlines.
3. Correct errors in an AutoCAD drawing.

Unit 6: CAD isometric and 3-view drawing

1. Continue to practice the use of Unit 4 and 5 AutoCAD commands.
2. Draw an Isometric Drawing from a 3-view drawing.
3. Properly use the following AutoCAD commands: filter, snap/style, rectangular array, mirror, polar array, and dimensioning.
4. Correct errors in an AutoCAD drawing.

Unit 7: Dimensioning

1. Dimension a drawing using current dimensioning standards.
2. Label and letter information on drawings to current standards.

2nd Trimester - Common types of Drawings

Unit 8: Full Sections

1. Draw full sections using current standards.

Unit 9: Half Sections

1. Draw half sections using current standards.

Unit 10: Auxiliary Views I

1. Draw auxiliary views using current standards.

Unit 11: Auxiliary Views II

1. Draw auxiliary views using current standards.

Unit 12: Oblique Drawings

1. Draw Oblique drawings using current standards.

Unit 13: Isometric Drawings I

1. Draw Isometric drawings using current standards.

Unit 14: Isometric Drawings II

1. Draw Isometric drawings using current standards.

3rd Trimester - Common Drafting Specialty Areas

Unit 15: Machine Drawing - Details from an Isometric

1. Develop detail drawings from an isometric view.
2. Dimension detail drawings using current practices.

Unit 16: Machine Drawing - Threads & Fasteners

1. Draw American Standard fasteners.
2. Draw American Standard threads.

Unit 17: Machine Drawing - Working Drawings

1. Develop detail drawings from an isometric view.
2. Develop an isometric assembly drawing

Unit 18: Engineering Drawing - Flat Patterns & Developments

1. Draw a flat plan view from an isometric foldup view.
2. Draw developments from data given.
3. Create a 3 dimensional development model.

Unit 19: Architecture - Sketching

1. Demonstrate knowledge of relative sizing.
2. Sketch Architectural related objects.

Unit 20: Architecture - Floor Plan Development

1. Create architectural sketches.
2. demonstrate knowledge of floor plan development.

Unit 21: Architecture - Design & Working Drawings

1. Design a small building and create a floor plan drawing using current standards.
2. Create Front and Rear Elevation drawings.
3. Create both side elevation drawings.
4. Create a perspective drawing of the building.

Unit 22: Architecture - Model Building

1. Build a 3 dimensional architectural scale model of their Unit 21 building.

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