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**Coal City Unit District #1**  
**Architectural Drawing and CAD**  
**Career and Technical Curriculum**

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**CTE.CAD:1 Students will learn to use CADD menus. (RST 4; ANSI Y 14; ISO 128; ISO HDBK Vol 1)**

CTE.CAD:1-1 Determine the meaning of symbols and appropriately use key terms associated with CADD.

CTE.CAD:1-2 Build technical background knowledge through vocabulary usage.

**CTE.CAD:2 Students will learn to identify and use drawings and templates. (ANSI Y 14; ISO 128; ISO HDBK Vol 1)**

CTE.CAD:2-1 Identify and appropriately use key terms associated with drawing and templates.

CTE.CAD:2-2 Construct an accurate template.

CTE.CAD:2-3 Compare a template to a drawing.

CTE.CAD:2-4 Create a drawing beginning with a template.

**CTE.CAD:3 Students will learn to use various drawing tools for CADD. ( RST 4, ANSI Y 14; ISO 128; ISO HDBK Vol 1)**

CTE.CAD:3-1 Produce assigned mechanical drawing using appropriate tools.

CTE.CAD:3-2 Determine the meaning of symbols and appropriately use key terms associated with drawing tools.

CTE.CAD:3-3 Build technical background knowledge through vocabulary usage.

CTE.CAD:3-4 Distinguish between relative, absolute and polar coordinates.

CTE.CAD:3-5 Compare the differences between crossing selection boxes and windows.

CTE.CAD:3-6 Explain the difference between inscribed and circumscribed commands.

CTE.CAD:3-7 Demonstrate the tangent commands.

CTE.CAD:3-8 Demonstrate the uses of layers and line types.

**CTE.CAD:4 Students will learn to use viewports and zoom. ( RST4; ANSI Y 14; ISO 128)**

- CTE.CAD:4-1 Produce assigned mechanical drawing using appropriate tools.
- CTE.CAD:4-2 Identify the different types of zoom commands.
- CTE.CAD:4-3 Manipulate viewports as directed by instruction.
- CTE.CAD:4-4 Determine the meaning of symbols and appropriately use key terms associated with viewports and zoom commands.
- CTE.CAD:4-5 Build technical background knowledge through vocabulary usage.
- CTE.CAD:4-6 Explain the differences between regen and redraw.
- CTE.CAD:4-7 Differentiate between model and paper space.
- CTE.CAD:4-8 Identify the various object snaps.

**CTE.CAD:5 Students will learn to draw multi-view drawings. ( ANSI Y 14; ISO 100, 128; ISO HDBK Vol 1)**

- CTE.CAD:5-1 Label various views of mechanical drawings.
- CTE.CAD:5-2 Produce assigned multi-view drawings on board and on a computer.
- CTE.CAD:5-3 Identify the correct sides and views on mechanical drawings.
- CTE.CAD:5-4 Choose the correct line types for pictorial drawings.

**CTE.CAD:6 Students will learn to use text tools for CADD. ( ANSI Y 14; ISO 100, 128; ISO HDBK Vol 1)**

- CTE.CAD:6-1 Produce assigned mechanical drawings using the correct text tools.
- CTE.CAD:6-2 Explain the differences between the various text commands.
- CTE.CAD:6-3 Show how to determine correct text styles and heights.

**CTE.CAD:7 Students will learn to work with tables. ( RST 4;ANSI Y 14; ANSI 32; ISO 128; ISO HDBK Vol 1)**

- CTE.CAD:7-1 Produce assigned tables using appropriate tools.
- CTE.CAD:7-2 Determine the meaning of symbols and appropriately use key terms associated with tables.
- CTE.CAD:7-3 Build technical background knowledge working with tables.
- CTE.CAD:7-4 Answer questions referring to tables.

**CTE.CAD:8 Students will learn to use object editing tools. ( RST 4;ANSI Y 14; ANSI 32; ISO 128; ISO HDBK Vol 1)**

- CTE.CAD:8-1 Produce edited mechanical drawings using appropriate tools on a computer.
- CTE.CAD:8-2 Determine the meaning of symbols and appropriately use key terms associated with object editing.
- CTE.CAD:8-3 Build technical background knowledge through working with object editing tools.
- CTE.CAD:8-4 Identify the correct command aliases for object editing.

**CTE.CAD:9 Students will learn to arrange and pattern objects. ( RST 4;ANSI Y 14; ANSI 32; ISO 128; ISO HDBK Vol 1)**

- CTE.CAD:9-1 Produce assigned mechanical drawing using the array commands.
- CTE.CAD:9-2 Determine the meaning of symbols and appropriately use key terms associated with patterning objects.
- CTE.CAD:9-3 Identify the correct keyboard shortcuts for patterning objects.

**CTE.CAD:10 Students will learn to use grips and properties. ( RST 4;ANSI Y 14; ANSI 32; ISO 128; ISO HDBK Vol 1)**

- CTE.CAD:10-1 Produce assigned mechanical drawing using grips and properties on the computer.
- CTE.CAD:10-2 Determine the meaning of symbols and appropriately use key terms associated with grips and properties.
- CTE.CAD:10-3 Build technical background knowledge through working with grips and properties.
- CTE.CAD:10-4 Change object properties by manipulating grips and properties.

**CTE.CAD:11 Students will learn to use polylines. ( RST 4;ANSI Y 14; ISO 128; ISO HDBK Vol 1)**

- CTE.CAD:11-1 Produce assigned mechanical drawing using polylines on a computer.
- CTE.CAD:11-2 Determine the meaning of symbols and appropriately use key terms associated with polylines.
- CTE.CAD:11-3 Build technical background knowledge through working with polylines.

**CTE.CAD:12 Students will learn about drawing tool information. ( RST 4; ANSI Y 14; ISO 128; ISO HDBK Vol 1))**

- CTE.CAD:12-1 Produce assigned mechanical drawing using appropriate drawing tools on a computer.
- CTE.CAD:12-2 Determine the meaning of symbols and appropriately use key terms associated with drawing tools.
- CTE.CAD:12-3 Build technical background knowledge through use of various drawing tools.
- CTE.CAD:12-4 Distinguish between list and database list.
- CTE.CAD:12-5 Calculate area of an object.
- CTE.CAD:12-6 Calculate distances of objects.

**CTE.CAD:13 Students will learn to use dimensions and dimensioning standards. ( RST 4; ANSI Y 14; ISO 100, 128; ISO HDBK Vol 1)**

- CTE.CAD:13-1 Produce assigned mechanical drawing using the proper dimensioning tools and standards.
- CTE.CAD:13-2 Determine the meaning of symbols and appropriately use key terms associated with dimensioning.
- CTE.CAD:13-3 Build technical background knowledge through use of dimensioning tools.
- CTE.CAD:13-4 Distinguish between the various types of dimensioning.
- CTE.CAD:13-5 Perform editing on dimensions.
- CTE.CAD:13-6 Match the proper dimensioning commands to an example drawing.

**CTE.CAD:14 Students will learn to use orthographic views and standards. ( RST 4; ANSI Y 14; ISO 100, 128; ISO HDBK Vol 1)**

- CTE.CAD:14-1 Produce assigned orthographic drawing using appropriate tools.
- CTE.CAD:14-2 Demonstrate basic geometric construction techniques on computer.
- CTE.CAD:14-3 Determine the meaning of symbols and appropriately use key terms associated with section views and graphic patterns.
- CTE.CAD:14-4 Apply measurements, notes and symbols to orthographic views on a drawing.
- CTE.CAD:14-5 Distinguish between types of sections.
- CTE.CAD:14-6 Compare the differences between associative and non-associative hatches.
- CTE.CAD:14-7 Identify the different types of pictorial drawings.

**CTE.CAD:15 Students will learn layout standards. ( RST 4; ANSI Y 14; ISO 100, 128; ISO HDBK Vol 1)**

CTE.CAD:15-1 Produce assigned mechanical drawing using appropriate scale.

CTE.CAD:15-2 Determine the meaning of symbols and appropriately use key terms associated with with layouts.

CTE.CAD:15-3 Differentiate between model space and paper space.

CTE.CAD:15-4 Define drawing scale.

**CTE.CAD:16 Students will learn blocks, block attributes and external reference standards. (RST 4; ANSI Y 14; ISO 100, 128; ISO HDBK Vol 1)**

CTE.CAD:16-1 Produce assigned mechanical drawing using blocks.

CTE.CAD:16-2 Determine the meaning of symbols and appropriately use key terms associated with blocks and block attributes.

CTE.CAD:16-3 Describe the effect the use of referenced drawings has on drawing file size.

CTE.CAD:16-4 Build technical background knowledge through the use of block attributes and external reference.

CTE.CAD:16-5 Distinguish between the block and write block commands.

CTE.CAD:16-6 Create symbols for multiple uses.

CTE.CAD:16-7 Define the function of the attribute modes.

**CTE.CAD:17 Students will study architectural history. ( RST 4, WHST 7 )**

CTE.CAD:17-1 Produce assigned architectural drawing using appropriate tools.

CTE.CAD:17-2 Produce architectural drawings on board and on a computer.

CTE.CAD:17-3 Determine the meaning of symbols and appropriately use key terms associated with architecture.

CTE.CAD:17-4 Build technical background knowledge through the study of architectural history.

CTE.CAD:17-5 Distinguish between the styles of various schools of architecture.

CTE.CAD:17-6 Discuss the influence of Frank Lloyd Wright on architecture.