

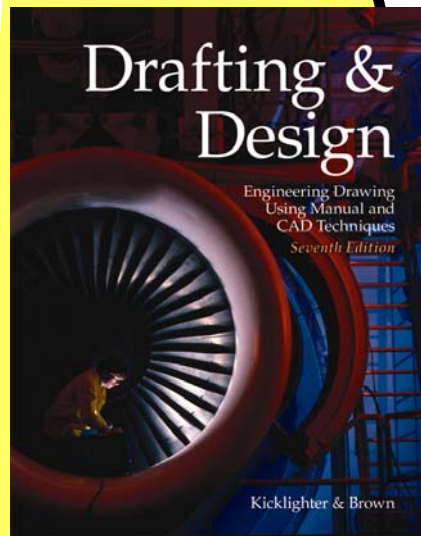


**Goodheart-Willcox Publisher**

**Correlations to the Alabama Career Cluster  
Curriculum**

**Career and Technical Education - Comprehensive  
Course: Introduction to Drafting Design  
Grades 9-12**

*Drafting & Design © 2008  
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**TITLE: *Drafting and Design* © 2008**

<b>CONTENT STANDARD</b>	<b>CORRELATING PAGE NUMBERS</b>
<b>Orientation</b>	
Students will:	
Relate the importance of drafting design technology in today's technological work force.	21–40
<b>Safety</b>	
Demonstrate the safe handling of drafting design tools according to classroom and environmental practices, procedures, and regulations.	41–70
<b>Applied Mathematics for Drafting</b>	
Demonstrate mathematic skills related to drafting design, including basic fractions, scale reading, and conversion of customary to metric and metric to customary measurements.	53–58, 286–287, 556–557, 820
Solving higher-order mathematics applications	616–633, 664–675
Example: Calculating thread depth and pitch	616–617
Calculating architectural computations	93–95, 733
Examples: Area, rise and run	93–95
<b>Drafting Instruments and Techniques</b>	
Demonstrate use of drawing media and drafting instruments.	41–70
Examples: Architectural scales, graphite, lead holders	46–47, 53–58
Utilizing computer software for drafting applications	77–99, 101–124
Reproducing drafting originals	681–689
Examples: Print, plot, blueprint or photocopy	681–689

<b>Lettering and Drawing Techniques</b>	
Demonstrate drafting techniques for freehand sketching, lettering, geometric figures, and the alphabet of lines to create a drawing.	47–51, 131–149
<b>Multi-View Drawings</b>	
Construct basic multi-view two-dimensional drawings, including visualizing principle views, creating third-angle projection, selecting proper drawing scale, and organizing layout of primary views.	241–280
<b>Basic Dimensioning</b>	
Apply dimensions and notes to multi-view drawings, utilizing American National Standards Institute (ANSI) dimensioning standards and decimal, metric, or dual dimensioning.	281–314, 692–696
<b>Fundamentals of Computer-Aided Drafting</b>	
Utilize CAD software to generate a multi-view drawing using appropriate file management techniques, basic drawing commands, and basic dimensioning techniques.	102, 104–130, 165–209, 261, 301–307
Examples: File management techniques—create, set up, and save files	102
basic drawing commands—line, ellipse, circle, scale	104–130, 165–209
basic dimensioning techniques—linear, angular	301–307
Utilizing CAD software and computer to print a multi-view drawing	88, 687–688