

Mechanical Drafting and Design Technology

Unit Calendar (Updated 6/2008)

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
<p style="text-align: center;">Unit 1 (1 Wks) <u>Prepare For Employment</u></p> <ul style="list-style-type: none"> • Develop/update a resume • Create a drafting portfolio • Complete a job application • Demonstrate interviewing skills • Research potential work sites <p>(Course Standards – 8.0 & 12.0)</p> <p style="text-align: center;">Unit 2 (7 Wks) <u>Mechanical Drafting Concepts I</u></p> <ul style="list-style-type: none"> • Use CADD software to draft • Manufacturing and machining terminology • Use precision measuring equipment • Apply mechanical symbols • Detail and assembly working drawings • Prepare an engineering change order • Orthographic projection • Auxiliary views • Full, half, offset section views • Hatch patterns in section views <p>(Course Standards – 3.0 & 4.0)</p> <p style="text-align: center;">Unit 3 (1 Wk) <u>Evaluate Management Practices</u></p> <ul style="list-style-type: none"> • Review Bidding • Review project budgets • Create production and time schedules • Describe project setback implications <p>(Course Standard – 2.0)</p>	<p style="text-align: center;">Unit 4 (8 Wks) <u>Mechanical Drafting Concepts II</u></p> <ul style="list-style-type: none"> • Draft a foundry produced product • Draft a machine tooled product • Draft a welded product • Draft a sheet metal part <p>(Course Standard – 5.0)</p> <p style="text-align: center;">Unit 5 (1 Wk) <u>Written and Oral Presentation Skills</u></p> <ul style="list-style-type: none"> • Conduct formal/informal research • Organize Information • Write documents • Demonstrate active listening • Deliver presentations <p>(Course Standards – 9.0 & 10.0)</p> <p style="text-align: center;">Semester Exam</p>	<p style="text-align: center;">Unit 6 (7 Wks) <u>Mechanical Drafting Concepts III</u></p> <ul style="list-style-type: none"> • Draft and label piping, welding, fasteners • Draft and label springs assemblies • Draft and label jig and fixture tooling • Notate material treatments • Prepare a bill of materials <p>(Course Standard – 5.0)</p> <p style="text-align: center;">Unit 7 (2 Wks) <u>Geometric Dimensioning and Tolerances</u></p> <ul style="list-style-type: none"> • Determine datum features • Standard fit tables for tolerances • Tolerance stackups and dimensions • Dimension using ASME Y14 standards • Use various dimensioning practices • Apply geometric tolerances <p>(Course Standards – 6.0)</p> <p style="text-align: center;">SkillsUSA Regional Conference</p>	<p style="text-align: center;">Unit 8 (4 Wks) <u>Mechanical Drafting Concepts IV</u></p> <ul style="list-style-type: none"> • Construct an aligned section • Construct an assembly section • Construct a cross section • Prepare intersections • Prepare developments • Prepare revolution drawings • Develop radial and parallel line patterns <p>(Course Standard – 7.0)</p> <p style="text-align: center;">Unit 9 (1 Wk) <u>Legal and Ethical Issues in Industry</u></p> <ul style="list-style-type: none"> • Ethics and the Drafting Environment • Ethical workplace behavior • Worker's Rights and Issues <p>(Course Standard – 11.0)</p> <p style="text-align: center;">Unit 10 (4 Wks) <u>Work-Based Learning</u></p> <ul style="list-style-type: none"> • Demonstrate positive work behaviors • Safety and Health Practices • Provide work-based experiences • Culminating final project <p>(Course Standard – 1.0)</p> <p style="text-align: center;">SkillsUSA State Conference</p> <p style="text-align: center;">Semester Exam</p>
<p><u>Standards to be covered throughout the year:</u></p> <p>CTSO (8.0), Oral Communications (9.0) and Written Communications (10.0)</p>		<p>Possible Project Ideas:</p> <ul style="list-style-type: none"> Assembly Drawings Working Drawings Sheet Metal Drawings Prepare Models for CNC lathe or CNC mill Solidworks 	

Career Preparation

Drafting and Design Technology - Option D