

<b>Iowa SENSE Aligned Welding Curriculum</b>	
<b><u>General Course Info</u></b>	
<b>Course Number:</b>	233
<b>Discipline:</b>	WEL – Welding
<b>Course Title:</b>	Print Reading and Welding Symbol Interpretation: SENSE1
<b>Short Title (29 char limit):</b>	Print Read/Sym Interp: SENSE1
<b>Course Description:</b>	Provides instruction in interpreting elements of welding prints (drawings or sketches), focusing on measurement, American Welding Society welding symbols, and fabrication requirements. Students will understand how to prepare, assemble and tack welding parts according to drawings or sketches, using proper materials and tools. This course aligns to SENSE Level 1 Module 3: Drawing and Welding Symbol Interpretation, Key Indicators 1 and 2.
<b>Credit Hours:</b>	3
<b>Pre/Co-requisites:</b>	A program approved math course is a pre or co-requisite
<b><u>Course Competencies</u></b>	
<b>Course Competencies:</b>	<ol style="list-style-type: none"> <li>1. Evaluate welding drawings or sketches</li> <li>2. Interpret welding symbol information</li> <li>3. Perform conversion between US and SI units</li> <li>4. Produce a multiview sketch</li> <li>5. Evaluate quality as it relates to producing parts from prints</li> </ol>
<b>Course Sub-Competencies:</b>	<ol style="list-style-type: none"> <li>1.1 Locate information in AWS A3.0 – Standard Welding Terms and Definitions</li> <li>1.2 Identify line types, dimensions and tolerances</li> <li>1.3 Understand line types, dimensions and tolerances</li> <li>1.4 Comprehend drawing notes</li> <li>1.5 Interpret elements of a title block and bill of material</li> <li>2.1 Locate information in AWS Documents including AWS A2.4 – Standard Symbols for Welding, Brazing and Non-Destructive Examination</li> <li>2.2 Identify elements of welding symbols</li> <li>2.3 Explain application of welding symbols</li> <li>3.1 Complete conversions within US units</li> <li>3.2 Complete conversions within SI units</li> <li>4.1 Create a side view, front view and top view drawing of an element</li> <li>4.2 Generate dimensions for drawings</li> <li>4.3 Add welding symbols to drawings</li> <li>5.1 Understand the relationship between a print and a fabricated part</li> <li>5.2 Compare and contrast properly and improperly made parts</li> </ol>
<b><u>Assessment of Student Learning</u></b>	
<b>SENSE Assessment:</b>	<ol style="list-style-type: none"> <li>1. Written test score 75% minimum</li> </ol>

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