

Learning Goals and Scales  
2014-2015

Unit: Threads & Fasteners

Learning Goals:

In this unit:

1. Students will learn/apply threads and fasteners concepts that are essential for being able to read a thread note and draw threads.
2. Students will identify uses of threads and different thread types/forms.

### Rigorous Learning Goal/Scale 1

<b>Course:</b>	<b>Advanced Engineering Drawing –Threads/Fasteners</b>
<b>Score 4</b> Additional Success with the complex content and concepts—inferences, novel applications	<b>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.</b> <ul style="list-style-type: none"> <li>• <i>Student is able to explain how to read a thread note and how it is used to draw threads/fasteners in different forms.</i></li> </ul> <b>Student makes no major errors or omissions regarding the score 4 content</b>
<b>Score 3</b> Mastery of complex content and concepts of learning goal	<b>TARGET LEARNING GOAL: The student will</b> <ul style="list-style-type: none"> <li>• <b>Can identify the concepts/parts of a threads/fasteners drawing in relation to the thread note specifications.</b></li> </ul> <b>Student makes no major errors or omissions regarding the score 3 content</b>
<b>Score 2</b> Success with simpler content—vocabulary, foundational skills	<b>The student will recognize or recall specific vocabulary or basic content, such as:</b> <ul style="list-style-type: none"> <li>• <b>Helix, Internal/External threads, Pitch, Root, Maj/Min Dia., Thread depth/angle, Crest, Root, Thread Note</b></li> </ul> <b>The student will perform basic skills or process, such as:</b> <ul style="list-style-type: none"> <li>• <b>Using CAD –new = Array, Pline, Offset, Chamfer</b></li> <li>• <b>measurement application</b></li> <li>• <b>orthographic visualization/interpretation</b></li> </ul> <b>Student makes no major errors or omissions regarding the score 2 content</b>
<b>Score 1</b> Partial success with help	<b>With help, student achieves partial success at score 2 content and/or score 3 content</b>
<b>Score 0</b> No success even with help	<b>Even with help, no success</b>

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**Rigorous Learning Goal/Scale 2**

<b>Course:</b>	<b>Advanced Engineering Drawing –Threads/Fasteners</b>
<b>Score 4</b> Additional Success with the complex content and concepts—inferences, novel applications	<b>In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.</b> <ul style="list-style-type: none"> <li><i>Student is able to independently draw the best choice of representation for threads/fasteners as per the thread note and need. (Simple, Detailed or Schematic representation).</i></li> </ul> <b>Student makes no major errors or omissions regarding the score 4 content</b>
<b>Score 3</b> Mastery of complex content and concepts of learning goal	<b>TARGET LEARNING GOAL: The student will</b> <ul style="list-style-type: none"> <li><b>learn/apply appropriate Threads &amp; Fasteners concepts and be able to draw Different forms/representations for threads.</b></li> </ul> <b>Student makes no major errors or omissions regarding the score 3 content</b>
<b>Score 2</b> Success with simpler content—vocabulary, foundational skills	<b>The student will recognize or recall specific vocabulary or basic content, such as:</b> <ul style="list-style-type: none"> <li><b>Helix, Internal/External threads, Pitch, Root, Maj/Min Dia., Thread depth/angle, Crest, Root, Thread Note</b></li> </ul> <b>The student will perform basic skills or process, such as:</b> <ul style="list-style-type: none"> <li><b>Using CAD –new = Array, Pline, Offset, Chamfer</b></li> <li><b>measurement application</b></li> <li><b>orthographic visualization/interpretation</b></li> </ul> <b>Student makes no major errors or omissions regarding the score 2 content</b>
<b>Score 1</b> Partial success with help	<b>With help, student achieves partial success at score 2 content and/or score 3 content</b>
<b>Score 0</b> No success even with help	<b>Even with help, no success</b>