

<b>Planned Course: The CAD Creation Lab</b>		<b>Course Number: AH836T</b>	<b>Department: Fine Arts and Digital Arts</b>
<b>Unit: CAD-Paperspace</b>		<b>Grade Level: 9-12</b>	
<b>Estimated Time: 4 weeks (Integrated)</b>		<b>Level/Track: Elective</b>	<b>Board Approval Date: 08/22/2016</b>
<b>PA Academic Standards</b>	<b>▶ Core Concepts (in question format)</b> <ul style="list-style-type: none"> <li>• Skills/Knowledge</li> </ul>	<b>Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)</b>	<b>Assessments (include types and topics)</b>

<p><b>3.1.12.D: Analyze scale as a way of relating concepts and ideas to one another by some measure.</b></p> <ul style="list-style-type: none"> <li>• Compare and contrast various forms of dimensional analysis.</li> <li>• Assess the use of several units of measurement to the same problem.</li> <li>• Analyze and apply appropriate measurement scales when collecting data.</li> </ul> <p><b>3.7.12.A: Apply advanced tools, materials and techniques to answer complex questions.</b></p> <ul style="list-style-type: none"> <li>• Demonstrate the safe use of complex tools and machines within their specifications.</li> <li>• Select and safely apply appropriate tools, materials and processes necessary to solve complex problems that could result in more than one solution.</li> <li>• Evaluate and use technological resources to solve complex multistep problems.</li> </ul> <p><b>3.7.12.B: Evaluate appropriate instruments and apparatus to accurately measure materials and processes.</b></p> <ul style="list-style-type: none"> <li>• Apply and evaluate the use of appropriate instruments to accurately measure scientific and technologic phenomena within the error limits of the equipment.</li> <li>• Evaluate the appropriate use of different measurement scales (macro</li> </ul>	<p>▶ Why is it always important to know where something will end up (the end use(s)) before you start a project?</p> <ul style="list-style-type: none"> <li>• Requirements of Different Output Devices</li> <li>• Will it be output to a traditional or digital printer or put on a website or other digital media or all of the above?</li> <li>• Being Familiar with Different File Formats and their Uses.</li> <li>• Being Familiar with Different Layout Sizes and Terminology. (Ex: Arch B)</li> </ul> <p>▶ Why is accuracy important in every endeavor – not just CAD drawing?</p> <ul style="list-style-type: none"> <li>• Utilizing scales correctly</li> <li>• Drawing accuracy</li> <li>• Monetary Detriment of inaccuracy in the world!</li> </ul> <p>▶ How can working with this type of software program help you in your future endeavors – regardless of your</p>	<ul style="list-style-type: none"> <li>• The following topics and tools will be demonstrated via projection system over a many non-consecutive days in short segments.</li> <li>• Students will be following along on their own computers for practice, which will demonstrate their understanding and provide immediate feedback for the instructor who will then tailor the subsequent demonstrations to fulfill those needs.</li> <li>• Students will write down notes as they feel necessary in a digital notebook as we go along.</li> <li>• All of the following will be completed in PAPERSPACE as opposed to MODELSPACE. <ul style="list-style-type: none"> <li>a) Defining and setting up a layout bases upon a chosen printer’s output capabilities</li> <li>b) Discussing different layout sizes/names</li> </ul> </li> </ul>	<p>1) This unit will be partially assessed informally by observing the necessity of reprinting a project due to incorrect project setup in ‘paperspace’.</p> <p>2) The instructor will also informally observe and mentor students while they are working in ‘paperspace’ throughout the year.</p> <p>3) Peer mentoring will also be highly encouraged (and informally assessed) to foster a family atmosphere and aid both parties in retaining their knowledge on a higher level.</p> <p>4) It will also be assessed formally as a part of each project’s formal assessment as it will be mounted on board and handed in (refer to the Presentation unit for grading the rubric).</p>
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<p>and micro).</p> <ul style="list-style-type: none"> <li>Evaluate the utility and advantages of a variety of absolute and relative measurement scales for their appropriate application.</li> </ul> <p><b>3.7.12.C: Evaluate computer operations and concepts as to their effectiveness to solve specific problems.</b></p> <ul style="list-style-type: none"> <li>Describe and demonstrate atypical software installation.</li> <li>Analyze and solve hardware and advanced software problems.</li> <li>Assess and apply multiple input and output devices to solve specific problems.</li> </ul>	<p>future major/job emphasis?</p> <ul style="list-style-type: none"> <li>Ability to Follow Directions</li> <li>Practicing Accuracy &amp; Patience</li> <li>Introduction to Technical Terminology and ideas</li> <li>Heavy Computer Usage/Practice</li> </ul>	<ul style="list-style-type: none"> <li>Defining and creating a title block and the elements within it</li> <li>Altering text sizes to fit within the title block areas</li> <li>Define and utilize Viewports</li> <li>Discussing the Necessity, Use, and Creation of Multiple Viewports</li> <li>Analyzing and deducing the correct scale to utilize in a viewport and illustrating that accurately into the titleblock</li> <li>Creating custom scales when necessary</li> <li>Discussing the necessity of printing project pieces at a 1 to 1 scale</li> <li>Creating Multiple Paperspace Layouts for a variety of output devices/reasons</li> <li>Deciding what to print and what not to print in a layout (regarding layers)</li> </ul> <ul style="list-style-type: none"> <li>The steps above will be</li> </ul>	
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		<p>shown and practiced during the first quarter. For the rest of the year students will be recalling and applying these steps independently as needed to all of their future projects in order to output them correctly relative to each individual projects' requirements. (remedial/enrichment as needed on an individual basis)</p>	
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