



Planned Course: The CAD Creation Lab		Course Number: AH836T	Department: Fine Arts and Digital Arts
Unit: Production: Print/Trim/Build/Fix		Grade Level: 9-12	
Estimated Time: 9 weeks (Integrated)		Level/Track: Elective	Board Approval Date: 08/22/2016
PA Academic Standards	Core Concepts (in question format) • Skills/Knowledge	Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)	Assessments (include types and topics)


<p>3.1.12.A: Apply concepts of systems, subsystems, feedback and control to solve complex technological problems.</p> <ul style="list-style-type: none"> • Apply knowledge of control systems concept by designing and modeling control systems that solve specific problems. • Apply systems analysis to predict results. <ul style="list-style-type: none"> • Analyze and describe the function, interaction and relationship among subsystems and the system itself. • Evaluate the causes of a system's inefficiency. <p>3.1.12.D: Analyze scale as a way of relating concepts and ideas to one another by some measure.</p> <ul style="list-style-type: none"> • Compare and contrast various forms of dimensional analysis. <ul style="list-style-type: none"> • Assess the use of several units of measurement to the same problem. • Analyze and apply appropriate measurement scales when collecting data. <p>3.2.12.D: Analyze and use the technological design process to solve problems.</p> <ul style="list-style-type: none"> • Implement and assess the solution. • Evaluate and assess the solution, redesign and improve as necessary. • Communicate and assess the process and evaluate and present the impacts of the solution. <p>3.6.12.B: Analyze knowledge of</p>	<ul style="list-style-type: none"> ▶ Can the quality of craftsmanship alter the perception of an idea? (Does it actually alter the idea itself?) ▶ Can color alter your shopping habits - what you pick up off of a shelf? <ul style="list-style-type: none"> • Catches your attention • Blends in • Fits the product ▶ What are the advantages of teamwork as an overall concept and in this unit? ▶ In what other areas of life do we see constant revision of ideas (practice) employed to gain a better result? <ul style="list-style-type: none"> • Parenting • Driving • Choosing friends • Cooking • Everywhere! 	<ul style="list-style-type: none"> • Students will view a short demonstration on the care and use of the large-format printer. • Students will understand and apply the steps necessary to print project pieces on a large-format printer and/or regular printer using a variety of substrates and sheet sizes. • Students will evaluate and select which precise printer(s), substrate(s), and sheet size(s) is/are necessary for the output of their project pieces given various project requirements and their project size. • Students will receive a short demo on scoring thick substrates before folding them. • Students will identify the folds on their projects and recall and employ the scoring technique as needed. • Students will assemble their projects using a variety of adhesives (glue, double-sided 	<p>An ongoing informal class discussion and sharing of ideas regarding the large-format printing, trimming, scoring, building and revising of projects during this time will be strongly encouraged and nurtured.</p> <p>The instructor will informally assess class participation and work ethic during this phase of the project resulting in a roughly bi-weekly classwork progress grade (see unit 7).</p> <p>The instructor will formally assess this portion of the project utilizing a rubric after it is handed in. (see attached project rubric).</p>
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<p>information technologies of processes encoding, transmitting, receiving, storing, retrieving and decoding.</p> <ul style="list-style-type: none"> • Apply and analyze advanced information techniques to produce a complex image that effectively conveys a message (e.g., desktop publishing, audio and/or video production). • Apply various graphic and electronic information techniques to solve real world problems (e.g., data organization and analysis, forecasting, interpolation). <p>3.6.12.C: Analyze physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, Marketing, research and design to real world problems.</p> <ul style="list-style-type: none"> • Apply knowledge of construction technology by designing, planning and applying all the necessary resources to successfully solve a construction problem. • Analyze and apply complex skills needed to process materials in complex manufacturing enterprises. <ul style="list-style-type: none"> • Apply advanced information collection and communication techniques to successfully convey solutions to specific construction problems. • Analyze the positive and negative 		<p>tape, hot melt glue, scotch tape, etc.)</p> <ul style="list-style-type: none"> • Students will continually judge and quality and test the validity of their 3D pieces and finished project. • Students will revise projects (both remedial and enrichment) as needed until both the student and the instructor recognize it as finished (in terms of perfecting the fit and finish) and the problem that the project presented is solved. • Students will view a short animated movie on the implied meaning of various colors in society. • Students will recall and employ the use of color carefully in the graphics/colors applied to the outside of their 3D projects. • Students will employ teamwork in situations where 	
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<p>qualities of several different types of materials as they would relate to specific construction applications.</p> <p>3.7.12.A: Apply advanced tools, materials and techniques to answer complex questions.</p> <ul style="list-style-type: none"> • Demonstrate the safe use of complex tools and machines within their specifications. • Select and safely apply appropriate tools, materials and processes necessary to solve complex problems that could result in more than one solution. • Evaluate and use technological resources to solve complex multistep problems. <p>3.7.12.B: Evaluate appropriate instruments and apparatus to accurately measure materials and processes.</p> <ul style="list-style-type: none"> • Apply and evaluate the use of appropriate instruments to accurately measure scientific and technologic phenomena within the error limits of the equipment. • Evaluate the appropriate use of different measurement scales (macro and micro). • Evaluate the utility and advantages of a variety of absolute and relative measurement scales for their appropriate application. 		<p>they identify/recognize a personal weakness in order to enhance their recall, interpretation, and/or application of various steps. (both remedial and enrichment – as necessary)</p>	
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<p>3.7.12.D: Evaluate the effectiveness of computer software to solve specific problems.</p> <ul style="list-style-type: none"> • Evaluate the effectiveness of software to produce an output and demonstrate the process. • Design and apply advanced multimedia techniques. • Analyze, select and apply the appropriate software to solve complex problems. <p>3.8.12.B: Apply the use of ingenuity and technological resources to solve specific societal needs and improve the quality of life.</p> <ul style="list-style-type: none"> • Apply appropriate tools, materials and processes to solve complex problems. • Use knowledge of human abilities to design or modify technologies that extend and enhance human abilities. 			
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