


Engineering Graphics/CAD I

Teacher: Jay Fogarty

August 2013


Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
<p>How can students understand the importance of personal growth and leadership to enhance career success.</p> <p>How can students understand the necessary employability skills in order to achieve success in today's workplace.</p>	<p>Unit 1 Corporation Building <i>-Understand problem and goal that we are working towards solving.</i> <i>-Understand group design and create group roles.</i> <i>-Decide the software used to solve this problem and resolve technical issues that come with installing it.</i> <i>-Understand business and email etiquette</i></p>	<p>1. Select appropriate media for task / job. AAI4. Technical and Production Skills: Identify specific production and technical skills required for this industry.</p> <p>AAI5. Underlying Principles of Technology: Explain through discussion the technological systems used within this industry</p> <p>2. Demonstrate the use of drawing instruments to complement drafting media</p> <p>3. Construct sketches to conceptualize ideas or objects.</p> <p>4. Construct sketches to describe an object.</p> <p>5. Identify and reproduce forms, shapes, and constraints.</p>	<p>Demonstrate Skill Level by:</p> <p>Creating an email account to be used in the project.</p> <p>Write a business letter attracting mentors.</p> <p>Work ethic: Attitude, Effort & Attendance </p>	<p>Text - Creo Parametric</p>

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		<p>6. Demonstrate and apply coordinate systems.</p> <p>7. Demonstrate planning in the layout process to standards.</p> <p>AAI 4. Technical and Production Skills: Identify specific production and technical skills required for this industry.</p> <p>8. Demonstrate the proper selection of surfaces to construct a drawing.</p> <p>9. Demonstrate view organization and projection.</p> <p>12. Construct proper detail drawing.</p> <p>13. Identify and reproduce material selection.</p> <p>14. Describe an object to: size, location, precision.</p> <p>18. Produce visual and/or oral presentation.</p> <p>23. Demonstrate personal</p>		

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		<p>growth, leadership, and social responsibility.</p> <p>24. Decision-Making & Problem-Solving: Demonstrate and apply good decision-making and problem-solving skills by outlining issues in situations/problems and determining, collecting, and organizing information needed in order to formulate a solution.</p> <p>25. Self-Management demonstrate and apply self-management skills by adhering to regulations, being responsible, and following through on commitments.</p> <p>26. Communication Skills: Demonstrate and apply effective communication skills: verbal, written, visual, and listening.</p>		

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		<p>27. Ability to Work with Others:</p> <p>28. Information Use - Research, Analysis, Technology:</p> <p>29. Mathematical Concepts: Demonstrate mathematical and computation skills as applied to real world situations.</p> <p>30. General Safety: Demonstrate and apply safe practices and procedures in the workplace. AAI 8. Health, Safety, and Environment: Explain the health and safety laws and practices affecting the employee, the surrounding community, and the environment in this industry</p>		

September 2013

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<p>How can students understand the importance of personal growth and leadership to enhance career success.</p> <p>How can students understand the necessary employability skills in order to achieve success in today's workplace.</p> <p>How can students learn to problem solve.</p>	<p>Unit 2 Corporation Building <i>-Understand problem and goal that we are working towards solving.</i> <i>-Understand group design and create group roles.</i></p> <p><i>-Decide the software used to solve this problem and resolve technical issues that come with installing it.</i></p> <p><i>-Use web searches to overcome technical issues.</i></p> <p><i>-Contact live support and use their help to overcome technical issues.</i></p> <p><i>-Understand business and email etiquette</i></p> <p><i>-Work both independently and with classmates to solve challenging problems.</i></p>	<p>1. Select appropriate media for task / job. AAI4. Technical and Production Skills: Identify specific production and technical skills required for this industry.</p> <p>AAI5. Underlying Principles of Technology: Explain through discussion the technological systems used within this industry</p> <p>2. Demonstrate the use of drawing instruments to complement drafting media</p> <p>3. Construct sketches to conceptualize ideas or objects.</p> <p>4. Construct sketches to describe an object.</p> <p>5. Identify and reproduce forms, shapes, and constraints.</p> <p>6. Demonstrate and apply coordinate systems.</p>	<p>Demonstrate Skill Level by:</p> <p>Creating an email group to be used in the project containing all group members.</p> <p>Combine the best aspects of all business letters of to create a single letter to attract mentors.</p> <p>Install Creo software and work through installation bugs.</p> <p>Begin Creo training using training sessions from book.</p> <p>Work ethic: Attitude, Effort & Attendance </p>	<p>Text - Creo Parametric</p>

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		<p>7. Demonstrate planning in the layout process to standards.</p> <p>AAI 4. Technical and Production Skills: Identify specific production and technical skills required for this industry.</p> <p>8. Demonstrate the proper selection of surfaces to construct a drawing.</p> <p>9. Demonstrate view organization and projection.</p> <p>14. Describe an object to: size, location, precision.</p> <p>18. Produce visual and/or oral presentation.</p> <p>23. Demonstrate personal growth, leadership, and social responsibility.</p> <p>24. Decision-Making & Problem-Solving: Demonstrate and apply good decision-making and problem-solving skills by</p>		

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		<p>outlining issues in situations/problems and determining, collecting, and organizing information needed in order to formulate a solution.</p> <p>25. Self-Management demonstrate and apply self-management skills by adhering to regulations, being responsible, and following through on commitments.</p> <p>26. Communication Skills: Demonstrate and apply effective communication skills: verbal, written, visual, and listening.</p> <p>27. Ability to Work with Others:</p> <p>28. Information Use - Research, Analysis, Technology:</p> <p>29. Mathematical Concepts: Demonstrate mathematical</p>		

Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
		and computation skills as applied to real world situations. 30. General Safety: Demonstrate and apply safe practices and procedures in the workplace. AAI 8. Health, Safety, and Environment: Explain the health and safety laws and practices affecting the employee, the surrounding community, and the environment in this industry		

October 2013

Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
How can students understand the importance of personal growth and leadership to enhance career success.	Unit 3 Problem Design -Understand problem and goal that we are working towards solving. -Understand group design and create group roles.	1. Select appropriate media for task / job. AAI4. Technical and Production Skills: Identify specific production and	Demonstrate Skill Level by: Contact mentor and get support.	Text - Creo Parametric

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<p>How can students understand the necessary employability skills in order to achieve success in today's workplace.</p> <p>How can students learn to problem solve.</p>	<p>-Use web research to answer biological questions and help design UAV.</p> <p>-Contact mentor to enlist help and contact for help.</p> <p>-Attend webinars to improve understanding of problem.</p> <p>-Work both independently and with classmates to solve challenging problems.</p>	<p>technical skills required for this industry.</p> <p>AAI5. Underlying Principles of Technology: Explain through discussion the technological systems used within this industry</p>	<p>Research problem and start creating design options.</p> <p>Work ethic: Attitude, Effort & Attendance</p>	
		<ol style="list-style-type: none"> 2. Demonstrate the use of drawing instruments to complement drafting media 3. Construct sketches to conceptualize ideas or objects. 4. Construct sketches to describe an object. 5. Identify and reproduce forms, shapes, and constraints. 6. Demonstrate and apply coordinate systems. 7. Demonstrate planning in the layout process to standards. <p>AAI 4. Technical and</p>		

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		<p>Production Skills: Identify specific production and technical skills required for this industry.</p> <p>8. Demonstrate the proper selection of surfaces to construct a drawing.</p> <p>9. Demonstrate view organization and projection.</p> <p>14. Describe an object to: size, location, precision.</p> <p>18. Produce visual and/or oral presentation.</p> <p>23. Demonstrate personal growth, leadership, and social responsibility.</p> <p>24. Decision-Making & Problem-Solving: Demonstrate and apply good decision-making and problem-solving skills by outlining issues in situations/problems and determining, collecting, and organizing information needed in order to formulate</p>		

Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
		<p>a solution.</p> <p>25. Self-Management demonstrate and apply self-management skills by adhering to regulations, being responsible, and following through on commitments.</p> <p>26. Communication Skills: Demonstrate and apply effective communication skills: verbal, written, visual, and listening.</p> <p>27. Ability to Work with Others:</p> <p>28. Information Use - Research, Analysis, Technology:</p> <p>29. Mathematical Concepts: Demonstrate mathematical and computation skills as applied to real world situations.</p> <p>30. General Safety: Demonstrate and apply safe</p>		

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		practices and procedures in the workplace. AAI 8. Health, Safety, and Environment: Explain the health and safety laws and practices affecting the employee, the surrounding community, and the environment in this industry		

November 2013

Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
How can students understand the importance of personal growth and leadership to enhance career success.	<i>Unit 4 Design Creation based on Research</i> -Set executive function and design problem to maximize efficiency and minimize cost.	1. Select appropriate media for task / job. AAI4. Technical and Production Skills: Identify specific production and technical skills required for this industry.	Demonstrate Skill Level by: Update daily log. Start writing report to document findings.	Text - Creo Parametric
How can students understand the necessary employability skills in order to	-Use web research to answer biological questions and help design UAV.			

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achieve success in today's workplace.	<ul style="list-style-type: none"> -Contact mentor to enlist help and contact for help. -Analyze different solutions to find the best solution to a given problem. 	AAI5. Underlying Principles of Technology: Explain technological systems used within this industry	Continue to design UAV using CREO.	
How can students learn to problem solve.	<ul style="list-style-type: none"> -Work both independently and with classmates to solve challenging problems. -Keep a daily log of class progress. - collect, interpret, organize and display relevant data for solving a mathematics problem - translate real world problems into mathematical representations - express and present mathematical ideas clearly in everyday written and oral language 	<ol style="list-style-type: none"> 2. Demonstrate the use of drawing instruments to complement drafting media 3. Construct sketches to conceptualize ideas or objects. 4. Construct sketches to describe an object. 5. Identify and reproduce forms, shapes, and constraints. 6. Demonstrate and apply coordinate systems. 7. Demonstrate planning in the layout process to standards. 	Work ethic: Attitude, Effort & Attendance <input checked="" type="checkbox"/>	
		AAI 4. Technical and Production Skills: Identify specific production and technical skills required for		

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		<p>this industry.</p> <p>8. Demonstrate the proper selection of surfaces to construct a drawing.</p> <p>9. Demonstrate view organization and projection.</p> <p>14. Describe an object to: size, location, precision.</p> <p>18. Produce visual and/or oral presentation.</p> <p>23. Demonstrate personal growth, leadership, and social responsibility.</p> <p>24. Decision-Making & Problem-Solving: Demonstrate and apply good decision-making and problem-solving skills by outlining issues in situations/problems and determining, collecting, and organizing information needed in order to formulate a solution.</p>		

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		<p>25. Self-Management demonstrate and apply self-management skills by adhering to regulations, being responsible, and following through on commitments.</p> <p>26. Communication Skills: Demonstrate and apply effective communication skills: verbal, written, visual, and listening.</p> <p>27. Ability to Work with Others:</p> <p>28. Information Use - Research, Analysis, Technology:</p> <p>29. Mathematical Concepts: Demonstrate mathematical and computation skills as applied to real world situations.</p> <p>30. General Safety: Demonstrate and apply safe practices and procedures in the workplace. AAI 8.</p>		

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		Health, Safety, and Environment: Explain the health and safety laws and practices affecting the employee, the surrounding community, and the environment in this industry		

December 2013

Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
How can students understand the importance of personal growth and leadership to enhance career success.	Unit 5 Research Writing- -Start writing final report to document all of Units 1-4. -Break report into sections that can be approached by the team simultaneously.	1. Select appropriate media for task / job. AA14. Technical and Production Skills: Identify specific production and technical skills required for this industry.	Demonstrate Skill Level by: Update daily log. Start writing report to document findings.	Text - Creo Parametric
How can students understand the necessary employability skills in order to	-Contact mentor to enlist help and contact for help			

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<p>achieve success in today's workplace.</p> <p>How can students learn to problem solve.</p>	<p><i>proofreading write up.</i></p> <p><i>-Keep a daily log of class progress.</i></p> <p><i>- express and present mathematical ideas clearly in everyday written and oral language</i></p>	<p>AAI5. Underlying Principles of Technology: Explain through discussion the technological systems used within this industry</p> <ol style="list-style-type: none"> 2. Demonstrate the use of drawing instruments to complement drafting media 3. Construct sketches to conceptualize ideas or objects. 4. Construct sketches to describe an object. 5. Identify and reproduce forms, shapes, and constraints. 6. Demonstrate and apply coordinate systems. 7. Demonstrate planning in the layout process to standards. <p>AAI 4. Technical and Production Skills: Identify specific production and technical skills required for</p>	<p>Work ethic: Attitude, Effort & Attendance <input checked="" type="checkbox"/></p>	

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		<p>this industry.</p> <p>8. Demonstrate the proper selection of surfaces to construct a drawing.</p> <p>9. Demonstrate view organization and projection.</p> <p>14. Describe an object to: size, location, precision.</p> <p>18. Produce visual and/or oral presentation.</p> <p>23. Demonstrate personal growth, leadership, and social responsibility.</p> <p>24. Decision-Making & Problem-Solving: Demonstrate and apply good decision-making and problem-solving skills by outlining issues in situations/problems and determining, collecting, and organizing information needed in order to formulate a solution.</p>		

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		<p>25. Self-Management demonstrate and apply self-management skills by adhering to regulations, being responsible, and following through on commitments.</p> <p>26. Communication Skills: Demonstrate and apply effective communication skills: verbal, written, visual, and listening.</p> <p>27. Ability to Work with Others:</p> <p>28. Information Use - Research, Analysis, Technology:</p> <p>29. Mathematical Concepts: Demonstrate mathematical and computation skills as applied to real world situations.</p> <p>30. General Safety: Demonstrate and apply safe practices and procedures in the workplace. AAI 8.</p>		

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		Health, Safety, and Environment: Explain the health and safety laws and practices affecting the employee, the surrounding community, and the environment in this industry		

January 2014

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How can students understand the importance of personal	<i>Unit 6 Editing, Revisions and Submissions</i>	1. Select appropriate media for task / job.	Demonstrate Skill Level by:	Text - Creo Parametric

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<p>growth and leadership to enhance career success.</p> <p>How can students understand the necessary employability skills in order to achieve success in today's workplace.</p> <p>How can students learn to problem solve.</p>	<p>-Finish writing final report to document all of Units 1-5.</p> <p>-Edit report by proofreading and getting as many eyes on corrections as possible.</p> <p>-Contact mentor to enlist help and contact for help proofreading write up.</p> <p>-Updating suggested changes made by mentor and coach, using technology document merges and versioning tools.</p> <p>-Keep a daily log of class progress.</p> <p>- express and present mathematical ideas clearly in everyday written and oral language</p> <p>-Submit report to organization running the competition.</p>	<p>AAI4. Technical and Production Skills: Identify specific production and technical skills required for this industry.</p> <p>AAI5. Underlying Principles of Technology: Explain through discussion the technological systems used within this industry</p>	<p>Update daily log.</p> <p>Report to document findings.</p> <p>Work ethic: Attitude, Effort & Attendance</p>	
		<p>2. Demonstrate the use of drawing instruments to complement drafting media</p> <p>3. Construct sketches to conceptualize ideas or objects.</p> <p>4. Construct sketches to describe an object.</p> <p>5. Identify and reproduce forms, shapes, and constraints.</p> <p>6. Demonstrate and apply coordinate systems.</p> <p>7. Demonstrate planning in</p>		

Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
		<p>the layout process to standards.</p> <p>AAI 4. Technical and Production Skills: Identify specific production and technical skills required for this industry.</p> <p>8. Demonstrate the proper selection of surfaces to construct a drawing.</p> <p>9. Demonstrate view organization and projection.</p> <p>14. Describe an object to: size, location, precision.</p> <p>18. Produce visual and/or oral presentation.</p> <p>23. Demonstrate personal growth, leadership, and social responsibility.</p> <p>24. Decision-Making & Problem-Solving: Demonstrate and apply good decision-making and problem-solving skills by outlining issues in situations/problems and</p>		

Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
		<p>determining, collecting, and organizing information needed in order to formulate a solution.</p> <p>25. Self-Management demonstrate and apply self-management skills by adhering to regulations, being responsible, and following through on commitments.</p> <p>26. Communication Skills: Demonstrate and apply effective communication skills: verbal, written, visual, and listening.</p> <p>27. Ability to Work with Others:</p> <p>28. Information Use - Research, Analysis, Technology:</p> <p>29. Mathematical Concepts: Demonstrate mathematical and computation skills as applied to real world</p>		

Essential Questions/Competencies	Content	Skills/Proficiencies	Assessment	Resources: Materials & Technology
		<p>situations.</p> <p>30. General Safety: Demonstrate and apply safe practices and procedures in the workplace. AAI 8. Health, Safety, and Environment: Explain the health and safety laws and practices affecting the employee, the surrounding community, and the environment in this industry</p>		

