Computer Graphics III Curriculum Maps

Grade: 11-12 **Subject:** Computer Graphics III	**Unit 1: Introduction**
Big Idea/Rationale	TSW be introduced to the core concepts of what the CG&D3 class will cover, as well as classroom rules. A review of design and its purpose will be presented.
Enduring Understanding (Mastery Objective)	After a review of current events in the design and technology world, it will be explained to the students what is expected of their efforts during the course of the year.
Essential Questions (Instructional Objective)	• How is the design process used to solve the problems that are presented to the students? • What are some examples in the real world of how design was used to solve a problem? • How will students be evaluated for their comprehension?
Content (Subject Matter)	• Presentation of real-world examples • Presentation of student work samples • Instructor - created notes
Skills/ Benchmarks (CCSS Standards)	• **1.2.12.A.1** Determine how dance, music, theatre, and visual art have influenced world cultures throughout history. • **1.2.12.A.2** Justify the impact of innovations in the arts (e.g., the availability of music online) on societal norms and habits of mind in various historical eras. • **9.3.12.C.3** Develop personal interests and activities that support declared career goals and plans. • **9.4.12.C.(6).2** Analyze how elements and principles are applied in a broad range of specific works of art.
Materials and Resources	• Projector • Laptop Computer • PowerPoint
Notes	

Grade: 11-12 Subject: Computer Graphics III	Unit 2: National Design Week Poster
Big Idea/Rationale	TSW be reintroduced to the process of design after their long summer break.
Enduring Understanding (Mastery Objective)	• TSW be reunited with the Photoshop image processing program, as well as learning two new tools (Clone Tool and Lighting FX filter). • TSW brush up on their storytelling skills by creating a new, original image from three seemingly unrelated images (one of which must be an original photograph taken as part of the class)
Essential Questions (Instructional Objective)	• How can Photoshop be used to compose original images? • How can one connect the dots between seemingly unrelated subject matter (a basic brainstorming technique)?
Content (Subject Matter)	• Presentation of student work samples • Instructor - created notes
Skills/ Benchmarks (CCSS Standards)	• **1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. • **9.1.12.A.1** Apply critical thinking and problem-solving strategies during structured learning experiences. • **9.1.12.E.1** Create messages for different purposes and audiences with sensitivity to cultural, gender, and age diversity, using various digital media outlets. • **9.1.12.E.2** Generate digital media campaigns in support of or opposing a current political, social, or economic issue.
Materials and Resources	• Projector • Laptop Computer • Photoshop • Digital cameras
Notes	

Grade: 11-12 **Subject:** Computer Graphics III	**Unit 3: Spatial Design/Community Project**
Big Idea/Rationale	TSW work in groups to develop a public space to be used within the school and/or local community.
Enduring Understanding (Mastery Objective)	• TSW learn how to work within a group setting towards a common goal. • TSW develop a design concept to be used in a 3D environment. • TSW learn how to work within a physical limitation of 3D space. • TSW learn how to develop a design solution to be utilized by others, not just themselves.
Essential Questions (Instructional Objective)	• How can we improve our school or community? • How can a common task be delegated to a group of people? • Can the students work with a budget? • Can the students discover and research materials that were previously unknown to them?
Content (Subject Matter)	• School by Design instructions • Brainstorming sessions with instructor
Skills/ Benchmarks (CCSS Standards)	• **1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. • **9.1.12.A.1** Apply critical thinking and problem-solving strategies during structured learning experiences. • **9.3.12.C.3** Develop personal interests and activities that support declared career goals and plans.
Materials and Resources	• Projector • Computer • Adobe CS4 software • Internet
Notes	

Grade: 11-12 Subject: Computer Graphics III	Unit 4: Travel Poster
Big Idea/Rationale	Create a travel poster for a destination in New Jersey.
Enduring Understanding (Mastery Objective)	• TSW learn why travel posters first came into existence as travel technology became more accessible. • TSW learn about WPA posters • TSW learn about some prominent poster designers of the 19th and 20th century
Essential Questions (Instructional Objective)	• How can a graphic device such as a poster be used as a marketing tool? • What influence did design trends have on the creation of travel posters? • What influence did technological advances in travel have on poster design? • From a marketing standpoint, how can a destination be summed up in an image that will attract people to travel there?
Content (Subject Matter)	• Presentation of student work samples • Instructor - created notes
Skills/ Benchmarks (CCSS Standards)	• **1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. • **1.3.12.D.5** Identify the styles and artistic processes used in the creation of culturally and historically diverse two- and three-dimensional artworks, and emulate those styles by creating an original body of work. • **8.1.12.A.2** Produce and edit a multi-page document for a commercial or professional audience using desktop publishing and/or graphics software.
Materials and Resources	• Projector • Computer • Adobe Illustrator • Adobe Photoshop
Notes	• Travel_Posters.ppt • Travel Poster Project parameters.pdf • Travel Poster Project worksheet.pdf

Grade: 11-12 Subject: Computer Graphics III	Unit 5: Alpha Channels
Big Idea/Rationale	Learn what Alpha Channels are and how to make them, while also learning about Andy Warhol
Enduring Understanding (Mastery Objective)	- TSW be introduced to Andy Warhol's work and its cultural significance. - TSW learn what Alpha Channels are. - TSW learn how Alpha Channels work. - TSW learn how to use Alpha Channels
Essential Questions (Instructional Objective)	- Who was Andy Warhol? Why was his work so highly regarded? - What are Alpha Channels and how do they work? - How can Alpha Channels be used to make working in Photoshop easier for certain tasks?
Content (Subject Matter)	- Instructor modeling - Student examples - Instructor - created notes
Skills/ Benchmarks (CCSS Standards)	**1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. **1.3.12.D.5** Identify the styles and artistic processes used in the creation of culturally and historically diverse two- and three-dimensional artworks, and emulate those styles by creating an original body of work. **8.1.12.A.2** Produce and edit a multi-page document for a commercial or professional audience using desktop publishing and/or graphics software.
Materials and Resources	- Projector - Computer - Adobe Photoshop
Notes	- Alpha Channel notes 2011.pdf - Andy Warhol 2011.pdf

Grade: 11-12 **Subject:** Computer Graphics III	**Unit 6: Community Project**
Big Idea/Rationale	Design a solution to a problem that services the school and/or local community.
Enduring Understanding (Mastery Objective)	• TSW learn how to work with a client to help them solve a problem or issue. • TSW develop employability skills. • TSW develop visual communication skills to help them portray their solutions.
Essential Questions (Instructional Objective)	• In the act of helping a client resolve an issue, what steps are needed? • How does one accommodate the needs of a client and their own personal creative vision at the same time?
Content (Subject Matter)	• Research for relevant subject matter • Definition of client problem • Instructor - created notes
Skills/ Benchmarks (CCSS Standards)	• **1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. • **1.3.12.D.5** Identify the styles and artistic processes used in the creation of culturally and historically diverse two- and three-dimensional artworks, and emulate those styles by creating an original body of work. • **8.1.12.A.2** Produce and edit a multi-page document for a commercial or professional audience using desktop publishing and/or graphics software.
Materials and Resources	• Projector • Computer • Adobe Photoshop • Adobe Illustrator • Adobe InDesign • Digital Camera • Scanner
Notes	• Alpha Channel notes 2011.pdf • Andy Warhol 2011.pdf

Grade: 11-12 **Subject:** Computer Graphics III	**Unit 7: Doodle 4 Google**
Big Idea/Rationale	Using directions provided from an outside resource and with a specific goal, can we maintain our creative independence and develop a design concept that is unique?
Enduring Understanding (Mastery Objective)	• In some careers, fulfilling the demands of a client's request requires us to follow specific directions • In careers that have a high rate of competition (such as sales, marketing, advertising, etc.), making sure you fulfill the client's request for proposal (RFP) is an absolute necessity in order to make sure you are in the final running. • Entering competitions is a good way to promote your company • Operational excellence is a basic requirement of any career opportunity, but also knowing how to apply those skills in a unique way is how we stand out from the crowd.
Essential Questions (Instructional Objective)	• How does one accommodate the needs of a client and maintain their own personal creative vision at the same time? • How do we create a unique design solution when everyone else is given the same exact specifications as we are?
Content (Subject Matter)	• Define the problem/question • Ideate (sketch) possible solutions • Develop a first draft (prototype) • Revise • Execute final solution
Skills/ Benchmarks (CCSS Standards)	• **1.1.12.D.1** Distinguish innovative applications of the elements of art and principles of design in visual artworks from diverse cultural perspectives and identify specific cross-cultural themes. • **1.3.12.D.1** Synthesize the elements of art and principles of design in an original portfolio of two- and three-dimensional artworks that reflects personal style and a high degree of technical proficiency and expressivity. • **1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. • **9.1.12.A.1** Apply critical thinking and problem-solving strategies during structured learning experiences. • **9.3.12.C.6** Develop job readiness skills by participating in structured learning experiences and employment seeking opportunities.
Materials and Resources	• Projector • Computer • Adobe Photoshop

	- Adobe Illustrator - Adobe InDesign - Digital Camera - Scanner
Notes	

Grade: 11-12 **Subject:** Computer Graphics III	**Unit 8: Spatial Design**
Big Idea/Rationale	• Designing a physical display space such as seen in a retail location, museum or convention requires 3-D thinking skills that are much different than how we are used to working. • Additionally, venues such as these have many supporting print and multimedia components
Enduring Understanding (Mastery Objective)	• Working in a physical 3-D environment is drastically different than working strictly on a screen or on a piece of paper, which involves using 2-D design. • Designing a display space that is effective requires planning.
Essential Questions (Instructional Objective)	• When designing for a 3-D space, what considerations need to be made? • How do we carry a creative concept through a variety of design components and mediums that are not physically related?
Content (Subject Matter)	• Define the problem/question • Ideate (sketch) possible solutions • Develop a first draft (prototype) • Revise • Execute final solution
Skills/ Benchmarks (CCSS Standards)	• **1.1.12.D.1** Distinguish innovative applications of the elements of art and principles of design in visual artworks from diverse cultural perspectives and identify specific cross-cultural themes. • **1.3.12.D.1** Synthesize the elements of art and principles of design in an original portfolio of two- and three-dimensional artworks that reflects personal style and a high degree of technical proficiency and expressivity. • **1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. • **9.1.12.A.1** Apply critical thinking and problem-solving strategies during structured learning experiences. • **9.3.12.C.6** Develop job readiness skills by participating in structured learning experiences and employment seeking opportunities.
Materials and Resources	• Projector • Computer • Adobe Photoshop • Adobe Illustrator • Adobe InDesign

	• Digital Camera • Scanner
Notes	

Grade: 11-12 Subject: Computer Graphics III	Unit 9: Stop-Motion Animation Design
Big Idea/Rationale	Learning how to tell a story in a sequential manner can help students learn how to plan for presentations and for complicated career projects that involve many steps and many component pieces.
Enduring Understanding (Mastery Objective)	In order to be successful when developing a project that is complicated, we must learn how to keep ourselves organized and manage our time effectively.
Essential Questions (Instructional Objective)	• How does stop-motion animation differ from standard hand-or computer-drawn animation? • How do we plan out a stop-motion animation that is visually compelling? • How do we use Photoshop and digital equipment to create original stop-motion animations?
Content (Subject Matter)	• View historical examples of the animation process • Introduction of the stop-motion animation process, including the use of cameras and Photoshop.
Skills/ Benchmarks (CCSS Standards)	• **1.3.12.D.1** Synthesize the elements of art and principles of design in an original portfolio of two- and three-dimensional artworks that reflects personal style and a high degree of technical proficiency and expressivity. • **1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. • **9.1.12.A.1** Apply critical thinking and problem-solving strategies during structured learning experiences. • **9.3.12.C.3** Develop personal interests and activities that support declared career goals and plans. • **9.3.12.C.5** Identify transferable skills in career choices and design alternative career plans based on those skills.
Materials and Resources	• Computer • Scanner • Adobe Illustrator • Adobe Photoshop
Notes	

Grade: 11-12 **Subject:** Computer Graphics III	**Unit 10: Final Publication Design Project**
Big Idea/Rationale	Learning how to create a printed document that is meant to be viewed and used by others is an essential career skill. Such documents can include books, pamphlets, brochures, newsletters and magazines.
Enduring Understanding (Mastery Objective)	It is essential to make sure that when creating a printed product for others to view, you not only communicate the necessary information, but that you convey it in an accurate and visually interesting design that improves the message and is audience-appropriate.
Essential Questions (Instructional Objective)	• How do we plan a multiple-page document? • How do we organize information in an effective way over the course of multiple pages? • How do we work with a variety of content producers (such as photographers, writers, other designers) to still produce a unified document?
Content (Subject Matter)	• View professional and student examples of subject-appropriate publications • Define the audience for the current project • Develop an appropriate design solution
Skills/ Benchmarks (CCSS Standards)	• **1.3.12.D.1** Synthesize the elements of art and principles of design in an original portfolio of two- and three-dimensional artworks that reflects personal style and a high degree of technical proficiency and expressivity. • **1.3.12.D.2** Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding. • **8.1.12.A.2** Produce and edit a multi-page document for a commercial or professional audience using desktop publishing and/or graphics software. • **9.1.12.A.1** Apply critical thinking and problem-solving strategies during structured learning experiences. • **9.3.12.C.3** Develop personal interests and activities that support declared career goals and plans. • **9.3.12.C.5** Identify transferable skills in career choices and design alternative career plans based on those skills.
Materials and Resources	• Computer • Scanner • Adobe Illustrator • Adobe Photoshop

	• Adobe InDesign
Notes	