

**Career Technical Education (CTE) Course Outline**

<b>Course Title:</b>	Graphic Design/2: Digital Imaging
<b>Course Number:</b>	70-65-56
<b>Date:</b>	July 2024
<b>Industry Sector:</b>	Arts, Media & Entertainment
<b>Pathway:</b>	Design, Visual & Media Arts
<b>CBEDS Title:</b>	Intermediate Graphics Technology
<b>CBEDS Code:</b>	5622
<b>Credits:</b>	15

**Hours:**

<b>Total</b>
180

**Course Description:**

This competency-based course is the second in a sequence of three designed for graphic design. It provides students with an introduction review, safety, ergonomics, and environmental impact review, hardware, software, and storage devices, digital imaging applications, accessing digital images, image manipulation, creation of original images, retouching and colorization, editing and revising projects, and employability skills and resume preparation review. The competencies in this course are aligned with the California High School Academic Content Standards and the California Career Technical Education Model Curriculum Standards.

<b>Prerequisites:</b>	Enrollment requires the successful completion of the Graphic Design/1: Fundamentals (70-65-52) course and portfolio.
<b>NOTE:</b>	For Perkins purposes this course has been designated as a <b>concentrator</b> course.  This course <b>cannot</b> be repeated once a student receives a Certificate of Completion
<b>A-G Approval</b>	N/A
<b>Methods of Instruction:</b>	Lecture and discussion, critiques, field trips, guest lectures, training films
<b>Student Evaluation:</b>	Summative: End of section assessments
<b>Industry Certification:</b>	N/A
<b>Recommended Texts:</b>	Chavez, Conrad. Adobe Photoshop Classroom in a Book, 1st Edition (latest release), Adobe Press  Wood, Brian. Adobe Illustrator Classroom in a Book, 1st Edition (latest release), Adobe Press  Anton, Kelly; DeJarld, Tina. Adobe InDesign Classroom in a Book, 1st Edition (latest release), Adobe Press  Kendra, Erika. Adobe Photoshop: The Professional Portfolio, (latest release), Against the Clock  Kendra, Erika. Adobe Illustrator: The Professional Portfolio, (latest release), Against the Clock
<b>Link to Resource Folder</b>	Employer Advisory Board members  CTE Model Curriculum Standards for Arts, Media, and Entertainment: <a href="https://www.cde.ca.gov/ci/ct/sf/documents/artsmedia.pdf">https://www.cde.ca.gov/ci/ct/sf/documents/artsmedia.pdf</a>  COMPETENCY CHECKLIST

Approved by: Renny L. Neyra, Executive Director

<b>COMPETENCY AREAS AND STATEMENTS</b>	<b>MINIMAL COMPETENCIES</b>	<b>STANDARDS</b>
<p><b>A. INTRODUCTION REVIEW</b></p> <p>Understand the career opportunities available and define the scope and purpose of graphic design.</p> <p>(2 hours)</p>	<ol style="list-style-type: none"> <li>1. Review the scope and purpose of the course.</li> <li>2. Review, compare, and list personal goals for course.</li> <li>3. Review classroom policies and procedures.</li> <li>4. Review and recognize the importance of ethics, teamwork, responsibility skills, respecting individual and cultural differences and diversity in the workplace.</li> <li>5. Review the importance of prioritizing work.</li> <li>6. Review the opportunities available for promoting gender equity and the representation of non-traditional populations in the industry.</li> <li>7. Review, identify, research, and draw conclusions on the different career paths, occupations, employment outlook, career advancements.</li> <li>8. Review the job responsibilities and skills required of a graphic artist based on specialty field(s).</li> <li>9. Review the value of developing effective customer service skills when selling/marketing a service/product.</li> <li>10. Review, explain, and research client confidentiality, propriety information, software copyright laws using multiple sources.</li> <li>11. Define and review the following: <ol style="list-style-type: none"> <li>a. resources</li> <li>b. management</li> <li>c. sustainability</li> </ol> </li> <li>12. Review and list the effective management of the following resources in graphic design: <ol style="list-style-type: none"> <li>a. time</li> <li>b. materials</li> <li>c. personnel</li> </ol> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 3, 4, 7, 8, 9, 11</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.6 Career Planning &amp; Management: 3.1, 3.2, 3.3, 3.4, 3.5, 3.9 Technology: 4.1, 4.2, 4.3, 4.4 Responsibility &amp; Flexibility: 7.1, 7.2, 7.3, 7.4, 7.7 Ethics &amp; Legal Responsibilities: 8.2, 8.3, 8.4, 8.5, 8.6, 8.7 Leadership &amp; Teamwork: 9.3, 9.6 Technical Knowledge &amp; Skills: 10.1, 10.2</p> <p><b>CTE Pathway:</b> A8.1</p>
<p><b>B. SAFETY, ERGONOMICS AND</b></p>	<ol style="list-style-type: none"> <li>1. Review ergonomics.</li> </ol>	

<p><b>ENVIRONMENTAL IMPACT REVIEW</b></p> <p>Understand safety principles in graphic design.</p> <p>(2 hours)</p>	<ol style="list-style-type: none"> <li>2. Review and demonstrate sound ergonomic practices in organizing one’s workspace to include: <ol style="list-style-type: none"> <li>a. causes, effects, and preventive measures for repetitive strain injuries</li> <li>b. benefits of periodic breaks to stretch and relax involving wrists, neck, and shoulders</li> </ol> </li> <li>3. Review how each of the following insures a safe workplace: <ol style="list-style-type: none"> <li>a. employees’ rights as they apply to job safety</li> <li>b. employees’ obligations as they apply to safety</li> <li>c. safety laws applying to tools and equipment</li> </ol> </li> <li>4. Review and practice proper safety in the workplace.</li> <li>5. Review health and safety practices for storing, cleaning, and maintaining tools, equipment, and supplies.</li> <li>6. Review and demonstrate proper disposal of inks and responsible consumption of paper and its environmental impact in the graphic design industry.</li> <li>7. Pass the safety test with 100% accuracy.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 10, 12</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.6 Health &amp; Safety: 6.3, 6.4, 6.5, 6.6 Technical Knowledge &amp; Skills: 10.1, 10.2 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A8.7</p>
<p><b>C. HARDWARE, SOFTWARE, AND STORAGE DEVICES</b></p> <p>Understand and apply the use of hardware, software, and storage devices.</p>	<ol style="list-style-type: none"> <li>1. Describe and demonstrate the use of a: <ol style="list-style-type: none"> <li>a. scanner</li> <li>b. printer</li> <li>c. graphic tablet</li> <li>d. storage device</li> <li>e. digital camera</li> <li>f. cloud storage</li> </ol> </li> <li>2. Describe situations which demand different file resolutions.</li> <li>3. Attach and detach peripheral devices.</li> <li>4. Demonstrate software installation and upgrades.</li> <li>5. Transfer digital files between storage devices.</li> <li>6. Identify various backup strategies.</li> <li>7. Describe internet research techniques for finding technical support.</li> <li>8. Solve technical problems over the internet by: <ol style="list-style-type: none"> <li>a. using company technical support</li> </ol> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 5, 10, 11</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.1, 4.2, 4.3, 4.5, 4.6 Problem Solving &amp; Critical Thinking: 5.3, 5.4</p>

<p>(10 hours)</p>	<p>b. using user forums</p> <p>9. Pass a hardware, software, and storage device assessment with an 80% score or higher.</p>	<p>Technical Knowledge &amp; Skills: 10.1 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A1.4, A5.4, A8.3, A8.6</p>
<p><b>D. DIGITAL IMAGING APPLICATIONS</b></p> <p>Understand and apply the features and applications of digital imaging software.</p> <p>(47 hours)</p>	<p>1. Describe and demonstrate the following basic and intermediate Photoshop skills:</p> <ul style="list-style-type: none"> <li>a. image handling</li> <li>b. formatting</li> <li>c. resizing</li> <li>d. color management</li> <li>e. optimizing for web</li> </ul> <p>2. Define, describe, and demonstrate visual effects achieved by Photoshop filters.</p> <p>3. Describe and demonstrate the following basic and intermediate Illustrator skills:</p> <ul style="list-style-type: none"> <li>a. toolbox tools</li> <li>b. layers</li> <li>c. text tools</li> <li>d. color management</li> <li>e. transform tools</li> <li>f. paths</li> <li>g. printing</li> </ul> <p>4. Pass a digital imaging applications assessment with an 80% score or higher.</p>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2 Technical Knowledge &amp; Skills: 10.1 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A1.1, A2.1, A3.1, A4.6, A8.1, A8.6</p>
<p><b>E. ACCESSING DIGITAL IMAGES</b></p>	<p>1. Describe, explain, compare, and contrast the following file formats:</p> <ul style="list-style-type: none"> <li>a. jpg</li> </ul>	<p><b>Career Ready Practice:</b></p>

<p>Understand, apply, and evaluate the basics of capturing and downloading digital images.</p> <p>(15 hours)</p>	<ul style="list-style-type: none"> <li>b. camera RAW</li> <li>c. tiff</li> <li>d. png</li> <li>e. pdf</li> <li>f. eps</li> <li>g. ai</li> <li>h. psd</li> <li>i. other file formats</li> </ul> <ol style="list-style-type: none"> <li>2. Demonstrate the following: <ul style="list-style-type: none"> <li>a. scanning a graphic</li> <li>b. downloading images</li> <li>c. transferring images to a graphics application</li> </ul> </li> <li>3. Explain the difference between resolution for: <ul style="list-style-type: none"> <li>a. print projects</li> <li>b. web projects</li> </ul> </li> <li>4. Describe and demonstrate the purpose of a mock-up.</li> <li>5. Import the following: <ul style="list-style-type: none"> <li>a. commercial photographs</li> <li>b. vector illustrations</li> <li>c. other files/images</li> <li>d. assets (logos, infographics, charts, etc.)</li> </ul> </li> <li>6. Describe the following: <ul style="list-style-type: none"> <li>a. copyright restrictions</li> <li>b. fair use of images</li> </ul> </li> <li>7. Pass accessing digital images assessment with an 80% score or higher.</li> </ol>	<p>1, 2, 4, 8, 10,</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.1, 4.2, 4.3 Ethics &amp; Legal Responsibilities: 8.1, 8.2, 8.3, 8.4, 8.6 Technical Knowledge &amp; Skills: 10.1, 10.2 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A1.6, A5.1</p>
<p><b>F. IMAGE MANIPULATION</b></p> <p>Understand and apply the techniques for manipulating various types of images.</p>	<ol style="list-style-type: none"> <li>1. Explain and demonstrate software tools to save in a portfolio by manipulating the image: <ul style="list-style-type: none"> <li>a. size</li> <li>b. color</li> <li>c. texture</li> <li>d. masking</li> <li>e. layers</li> <li>f. special effects</li> <li>g. filters</li> <li>h. adjustment layers</li> <li>i. channels</li> <li>j. paths</li> <li>k. brushes</li> <li>l. panels</li> <li>m. symbols</li> </ul> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.1</p>

<p>(40 hours)</p>	<p>2. Pass an image manipulation assessment with an 80% score or higher.</p>	<p>Technical Knowledge &amp; Skills: 10.1, 10.3 Demonstration &amp; Application: 11.1, 11.5</p> <p><b>CTE Pathway:</b> A2.1, A2.2, A2.5, A2.6, A5.6, A8.1, A8.2, A8.4</p>
<p><b>G. CREATION OF ORIGINAL IMAGES</b></p> <p>Understand the value of digital image manipulation and apply various graphic design software tools to create original images.</p>	<p>1. Describe, demonstrate and research:</p> <ul style="list-style-type: none"> <li>a. visual effects creation</li> <li>b. photo collage creation</li> <li>c. illustration</li> </ul> <p>2. Create original images and save in portfolio using the following techniques:</p> <ul style="list-style-type: none"> <li>a. tools</li> <li>b. filters</li> <li>c. layers</li> <li>d. effects</li> <li>e. masks</li> </ul> <p>3. Pass a creation of original images assessment with an 80% score or higher.</p>	<p><b>Career Ready Practice:</b> 1, 2, 4, 5, 10, 11</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.5 Problem Solving &amp; Critical Thinking: 5.3 Technical Knowledge &amp; Skills: 10.1, 10.3 Demonstration &amp; Application: 11.1, 11.5</p> <p><b>CTE Pathway:</b></p>



(32 hours)		A2.1, A2.2, A2.5, A2.6, A5.6, A8.1, A8.2, A8.4
<p><b>H. RETOUCHING AND COLORIZATION</b></p> <p>Understand and apply the techniques for retouching and colorization of images.</p>	<ol style="list-style-type: none"> <li>1. Describe, demonstrate, interpret, and make informed decision on: <ol style="list-style-type: none"> <li>a. image restorations</li> <li>b. image repairs</li> <li>c. colorization</li> <li>d. retouching tools</li> </ol> </li> <li>2. Produce a portfolio image using retouching techniques.</li> <li>3. Pass a retouching and colorization assessment with an 80% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 5, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.1, 4.5 Problem Solving &amp; Critical Thinking: 5.4 Technical Knowledge &amp; Skills: 10.1, 10.3 Demonstration &amp; Application: 11.1, 11.5</p> <p><b>CTE Pathway:</b> A2.1, A2.2, A2.5, A5.6, A8.1, A8.2, A8.4</p>
(20 hours)	<p><b>I. EDITING AND REVISING PROJECTS</b></p> <p>Understand the production and creative process in</p>	<ol style="list-style-type: none"> <li>1. Explain the production process and creative process of reworking projects and interacting with client to include cost.</li> <li>2. Demonstrate the ability to give and follow directions.</li> </ol> <p><b>Career Ready Practice:</b> 1, 2, 4, 5, 10</p> <p><b>CTE Anchor:</b> Academics:</p>

<p>the graphic design industry.</p> <p>(10 hours)</p>	<ol style="list-style-type: none"> <li>3. Explain the revision and feedback processes to include asking questions to make informed decisions.</li> <li>4. Pass an editing and revising projects assessment with an 80% score or higher.</li> </ol>	<p>1.0</p> <p>Communications: 2.1, 2.3, 2.5</p> <p>Technology: 4.6</p> <p>Problem Solving &amp; Critical Thinking: 5.1, 5.3, 5.4</p> <p>Technical Knowledge &amp; Skills: 10.3</p> <p>Demonstration &amp; Application: 11.1, 11.5</p> <p><b>CTE Pathway:</b> A1.2, A1.3, A1.4, A2.1, A2.2, A2.3, A2.4, A2.5, A2.6, A8.1</p>
<p><b>J. EMPLOYABILITY SKILLS AND RESUME PREPARATION REVIEW</b></p> <p>Understand, apply, and evaluate employability skills and resume preparation.</p>	<ol style="list-style-type: none"> <li>1. Review and define employer requirements for soft skills such as: <ol style="list-style-type: none"> <li>a. attitude toward work</li> <li>b. communication and collaboration</li> <li>c. critical thinking, problem solving, and decision-making</li> <li>d. customer service</li> <li>e. diversity in the workplace</li> <li>f. flexibility and adaptability</li> <li>g. interpersonal skills</li> <li>h. leadership and responsibility</li> <li>i. punctuality and attendance</li> <li>j. quality of work</li> <li>k. respect, cultural and diversity differences</li> <li>l. teamwork</li> <li>m. time management</li> </ol> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12</p> <p><b>CTE Anchor:</b> Communications: 2.1, 2.4, 2.5</p> <p>Career Planning &amp; Management: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9</p> <p>Technology: 4.3, 4.5</p> <p>Problem Solving &amp; Critical Thinking:</p>

<p>(2 hours)</p>	<ul style="list-style-type: none"> <li>n. trust and ethical behavior</li> <li>o. work ethic</li> </ul> <ol style="list-style-type: none"> <li>2. Review a career plan that reflects career interests, pathways, and post-secondary options.</li> <li>3. Revise a resume, cover letter and/or portfolio.</li> <li>4. Review, analyze, research, and review the role of online job searching platforms and career websites to make informed decisions.</li> <li>5. Review the importance of assessing social media account content for professionalism.</li> <li>6. Review and complete and/or review an on-line job application.</li> <li>7. Review and demonstrate interview skills to get the job:             <ul style="list-style-type: none"> <li>a. do's and don'ts for job interviews</li> <li>b. how to dress for the job</li> </ul> </li> <li>8. Review and create sample follow-up letters.</li> <li>9. Review the importance of the continuous upgrading of job skills as it relates to:             <ul style="list-style-type: none"> <li>a. certification, licensure, and/or renewal</li> <li>b. professional organizations/events</li> <li>c. industry associations and/or organized labor</li> </ul> </li> </ol>	<p>5.4</p> <p>Health &amp; Safety: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7</p> <p>Responsibility &amp; Flexibility: 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8</p> <p>Ethics &amp; Legal Responsibilities: 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7</p> <p>Leadership &amp; Teamwork: 9.1, 9.6, 9.7</p> <p>Technical Knowledge &amp; Skills: 10.1, 10.2, 10.3, 10.4</p> <p>Demonstration &amp; Application: 11.1, 11.2, 11.3, 11.4, 11.5</p> <p><b>CTE Pathway:</b> A2.5, A2.6, A2.7, A2.9, A5.5, A5.6, A5.7, A8.2</p>
------------------	--	---

## ***ACKNOWLEDGEMENTS***

Thanks to the following individuals for their contributions in developing and editing this curriculum:

Ana Martinez, Samuel Limon Orozco, Shannon Scott, Harlan West