

## **GRAPHIC COMMUNICATIONS 1**

**Course Code: 6200**

**COURSE DESCRIPTION:** The Graphic Communications 1 course is the first course in the Graphic Communications program. This course is designed to introduce students to an overview of the graphic communications industry, printing processes, print production, and digital prepress, work ethic, and health and safety. Using the Adobe suite software, students will develop skills to design and print products to be used in print production. Students will also have hands-on opportunities integrating technology following industry practices. A balance of classroom study and practical application assures the development of a solid theoretical background, good production skills and appropriate work attitudes.

<b>RECOMMENDED PRE-REQUISITE</b>	None
<b>RECOMMENDED GRADE LEVEL:</b>	10-12
<b>CREDIT:</b>	1 unit (120 hours), 2 units (240 hours)
<b>COMPUTERS REQUIRED:</b>	One computer per student

### **A. HEALTH AND SAFETY OVERVIEW**

**Proficient professionals know the academic subject matter, including safety as required for proficiency within their area. They will use this knowledge as needed in their positions. The following accountability criteria are considered essential for students in any program of study.**

1. Review school safety policies and procedures.
2. Review classroom safety rules and procedures.
3. Review safety procedures for using equipment in the classroom/lab.
4. Identify major causes of work-related accidents in office/production environments.
5. Demonstrate safety skills in an office/work environment.
6. Review applicable national and local governmental safety regulations.
7. Review school graphic lab's safety regulations.
8. Explain the use and locations of safety interlocks on machinery.
9. List the school graphic lab Standard Operating Procedures (SOP) for machines and chemicals.
10. Review chemical handling safety procedures to include PPE.
11. Evaluate Safety Data Sheets in place in the school graphic lab.

### **B. STUDENT ORGANIZATIONS**

**Proficient professionals know the academic subject matter, including professional development, required for proficiency within their area. They will use this knowledge as needed in their positions. The following accountability criteria are considered essential for students in any program of study.**

1. Identify the purpose and goals of a Career and Technology Student Organization (CTSO).
2. Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.
3. Explain the benefits and responsibilities of being a member of a CTSO.

4. List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.
5. Explain how participation in CTSOs can promote lifelong benefits in other professional and civic organizations.

### **C. TECHNOLOGY KNOWLEDGE**

**Proficient professionals know the academic subject matter, including the ethical use of technology as needed in their positions. The following accountability criteria are considered essential for students in any program of study.**

1. Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation.
2. Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.
3. Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.
4. Explain the consequences of social, illegal, and unethical uses of technology (e.g., piracy; illegal downloading; cyberbullying; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment).
5. Discuss legal issues and the terms of use related to copyright laws, Creative Commons, fair use laws, and ethics pertaining to downloading of images, photographs, Creative Commons, documents, video, sounds, music, trademarks, and other elements for personal use.
6. Describe ethical and legal practices of safeguarding the confidentiality of business-related information.
7. Describe possible threats to a laptop, tablet, computer, and/or network and methods of avoiding attacks.

### **D. PERSONAL QUALITIES AND INTERPERSONAL SKILLS**

**Proficient professionals know the academic subject matter, including positive work practices and interpersonal skills, as needed in their positions. The following accountability criteria are considered essential for students in any program of study.**

1. Demonstrate creativity and innovation.
2. Demonstrate critical thinking and problem-solving skills.
3. Demonstrate initiative and self-direction.
4. Demonstrate integrity.
5. Demonstrate work ethic.
6. Demonstrate conflict resolution skills.
7. Demonstrate listening and speaking skills.
8. Demonstrate respect for diversity.
9. Demonstrate customer service orientation.
10. Demonstrate teamwork.

## **E. PROFESSIONAL KNOWLEDGE**

**Proficient professionals know the academic subject matter, including positive work practices and interpersonal skills, as needed in their positions. The following accountability criteria are considered essential for students in any program of study.**

1. Demonstrate global or “big picture” thinking.
2. Demonstrate career and life management skills and goal-making.
3. Demonstrate continuous learning and adaptability skills to changing job requirements.
4. Demonstrate time and resource management skills.
5. Demonstrates information literacy skills.
6. Demonstrates information security skills.
7. Demonstrates information technology skills.
8. Demonstrates knowledge and use of job-specific tools and technologies.
9. Demonstrate job-specific mathematics skills.
10. Demonstrates professionalism in the workplace.
11. Demonstrates reading and writing skills.
12. Demonstrates workplace safety.

## **F. GRAPHIC COMMUNICATIONS OVERVIEW**

**Graphic professionals demonstrate knowledge of the graphic communications industry, including printing processes, print production, and health and safety. The following accountability criteria are considered essential for students in the Graphic Communications program.**

1. Industry Overview
  - a. Identify the types of businesses and organizations that are commonly found in industry.
  - b. Review the types of products and services provided by the industry and provide samples.
  - c. Evaluate the use and value of different types of printing to a customer.
  - d. Describe the markets that use printing (direct mail, books, magazines, stationary, packaging).
  - e. Compare the role (cost and effectiveness) of print compared to other communication mediums (television, radio, internet, and media outlets.)
  - f. Assess examples of different types of communications mediums.
  - g. Identify salaries/wages for local and national graphic communications companies.
  - h. Describe the needs of security in a printing company.
  - i. Identify local and national graphic communications associations.
  - j. Describe the purpose of local and national graphic communications associations.
2. Printing Processes Overview
  - a. Identify principle, products and characteristics of
    - i. flexography
    - ii. gravure
    - iii. offset lithography
    - iv. screen printing
    - v. letterpress
    - vi. specialty printed items
  - b. Identify the characteristics of a variety of digital printing processes (e.g., heat transfer,

- impactless, dye sublimation, etc.)
  - c. Advantages and disadvantages of common printing processes.
  - d. Compare and contrast economic differences of each economic print process.
  - e. Compare and contrast job flow across various printing processes.
  - f. Identify concerns and issues related to counterfeiting, copyright, and intellectual property infringement.
  - g. Identify general emerging and innovative technologies related to printing.
3. Print Production Overview
- a. Define workflow and its importance in a printing plant.
  - b. Identify basic production equipment.
  - c. Review common steps in a typical print workflow.
  - d. Complete a job ticket to include production information as it pertains to a given job.
  - e. Observe a commercial printing operation (live or virtual) and identify the production departments.
  - f. Describe the roles and responsibilities of departments within printing organizations.

## **G. DIGITAL PREPRESS OVERVIEW**

**Graphic professionals demonstrate knowledge in digital prepress and file management. The following accountability criteria are considered essential for students in the Graphic Communications program.**

1. Demonstrate knowledge of concepts, components and principles
  - a. Identify design principles.
  - b. Describe typography and the differences between typestyles.
  - c. Identify components of text, illustrations and photographs.
  - d. Proofread and edit page of text, making corrections/adjustments.
  - e. Define page layout, image editing, and illustration.
  - f. Differentiate between the correct applications of professional software:
    - i. the basics of illustration (i.e., Adobe Illustrator)
    - ii. the basics of image editing (i.e., Adobe PhotoShop)
    - iii. the basics of page layout (i.e., Adobe InDesign)

## **H. BASIC MATH AND MEASUREMENT**

**Graphic professionals demonstrate basic math skills. The following accountability criteria are considered essential for students in the Graphic Communications program.**

1. Solve addition of whole number problems—two and three digits, fraction problems, decimal problems—two and three digits.
2. Solve subtraction of whole number problems—two and three digits, fraction problems, decimal problems—two and three digits.
3. Solve multiplication of whole numbers—two and three digits and decimal problems—two and three digits.

4. Solve division of whole number problems—two and three digits.
5. Solve various problems that require dividing a given dimension in half.
6. Solve division of decimal problems—two and three digits.
7. Solve decimals to percent conversion problems.
8. Solve percent to decimal conversion problems.
9. Solve basic ratio and proportion problems.
10. Solve basic linear measurement problems.

## **I. ADOBE ILLUSTRATOR KNOWLEDGE AND SKILLS**

**Graphic professionals demonstrate understanding of Adobe Illustrator. The following accountability criteria are considered essential for students in the Graphic Communications program.**

1. Review professional illustration software applications: ACA Adobe Certification Objectives (Certiport).
2. Understanding Adobe Illustrator
  - a. Identify elements of the Illustrator user interface and demonstrate knowledge of their functions.
  - b. Describe the differences between a raster/bitmap and a vector graphic.
  - c. Use non-printing design tools in the interface (e.g., guides, grids, etc.)
  - d. Identify and use shortcut keys.
  - e. Identify the different parts of the workspace (e.g., toolbars, menus, panels, etc.)
  - f. Demonstrate an understanding of and select the appropriate features and options required to manage color, pattern, and gradient swatches.
  - g. Demonstrate an understanding of vector drawing concepts.
  - h. Demonstrate knowledge of how to work with brushes, symbols, graphic styles, and patterns.
  - i. Demonstrate knowledge of layers and masks.
  - j. Demonstrate knowledge of pathfinder/compound paths.
  - k. Import, export, and save files.
- 3 Create vector graphics to include tints, fills, strokes, and color.
  - a. Demonstrate knowledge of how to create documents, given specifications and requirements.
  - b. Demonstrate knowledge of how to use drawing and shape tools.
  - c. Demonstrate knowledge of how to use type tools.
  - d. Demonstrate the ability to create realistic graphics.
  - e. Demonstrate knowledge of how to modify and transform objects.
  - f. Demonstrate knowledge of the use of symbols and representative graphics.
  - g. Demonstrate working knowledge of the pen tool.
  - h. Convert a raster/bitmap image to a vector.
  - i. Edit an existing piece of vector art.

## **J. ADOBE PHOTOSHOP KNOWLEDGE AND SKILLS (OPTIONAL)**

**Graphic professionals demonstrate Adobe Photoshop knowledge and skills. The following accountability criteria are considered essential for students in the Graphic Communications program.**

1. Review professional Image Editing software applications: ACA Adobe Certification Objectives (Certiport)
2. Identify elements of the Photoshop CC user interface and demonstrate knowledge of their functions.
3. Demonstrate knowledge of image resolution and image size.
4. Demonstrate knowledge of color correction.
5. Demonstrate knowledge of image-generating devices, their resulting image types, and how to access resulting images in Photoshop.
6. Identify key terminology of digital images.
7. Demonstrate knowledge of layers and masks.
8. Demonstrate knowledge of importing, exporting, organizing, and saving.
9. Demonstrate knowledge of producing and reusing images.
10. Demonstrate knowledge of working with selections.
11. Use guides and rulers.
12. Transform images.
13. Adjust or correct the tonal range, color, or distortions of an image using non-destructive techniques.
14. Demonstrate knowledge of retouching and blending images.
15. Demonstrate knowledge of drawing and painting.
16. Demonstrate knowledge of filters.
17. Demonstrate knowledge of preparing and saving images for web, print, and video.
18. Demonstrate use of computer menus, shortcut keys, and panels in image editing software.
19. Identify different types of graphics/continuous tone.
20. Compare examples and functions of various graphic file formats and their extensions: TIFF, EPS, BMP, PSD, JPG, AI.
21. Explain Resolutions: Pixels Per Inch Resolution (Display), Dots Per Inch (Output device resolution), Lines Per Inch Resolution (Halftone).
22. Discuss minimum resolution requirements for different reproduction devices: Screen display, digital press, offset press, wide format inkjet press.
23. Explain & identify potential quality issues of improper resolution of Pixels per Inch (PPI), Dots per Inch (DPI) and Lines per Inch (LPI) on final output quality.
24. Describe color bit depth.
25. Download a digital image from a stock photography website; resize and resample according to specifications.
26. Discuss Color Models: RGB (Red, Green, Blue) & CMYK (Cyan, Magenta, Yellow, Black).
27. Archive, export, and publish graphics using Adobe Illustrator.
28. Demonstrate knowledge of preparing graphics for multimedia and print applications.

### [Additional Course Materials and Resources](#)

### [Academic Standards and Indicators](#)