

Arts, Audio-Video Technology and Communications Career Cluster
Introduction to Graphics and Design
Course Number: 48.56100

Course Description:

This course is designed as the foundational course for both the Graphics Production and Graphics Design pathways. The Graphics and Design course provides students with the processes involved in the technologies of printing, publishing, packaging, electronic imaging, and their allied industries. In addition, the Graphics and Design course offers a range of cognitive skills, aesthetics, and crafts that includes typography, visual arts, and page layout. Pre-requisite for this course is adviser approval.

Course Standard 1

AAVTC-IGD-1

Demonstrate employability skills required by business and industry.

The following elements should be integrated throughout the content of this course.

- 1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.
- 1.2 Demonstrate creativity with multiple approaches to ask challenging questions resulting in innovative procedures, methods, and products.
- 1.3 Exhibit critical thinking and problem solving skills to locate, analyze, and apply information in career planning and employment situations.
- 1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.
- 1.5 Apply the appropriate skill sets to be productive in a changing, technological, and diverse workplace to be able to work independently, interpret data, and apply team work skills.
- 1.6 Present a professional image through appearance, behavior, and language.

Support of CTAE Foundation Course Standards and Common Core GPS and Georgia Performance Standards

L9-10RST 1-10 and L9-10WHST 1-10:

Common Core ELA/Literacy standards have been written specifically for technical subjects and have been adopted as part of the official standards for all CTAE courses. Additional Common Core ELA/Literacy standards for Speaking and Listening are listed in the foundational course standards below.

Course Standard 2

AAVTC-IGD-2

Explore careers available in the field of graphic communications and the design industry.

- 2.1 Identify the certificates, diplomas, and degrees available.)
- 2.2 Compare and contrast careers in graphics and design, along with their education, training requirements, and salary ranges.
- 2.3 Identify the college majors that are found in the area of graphics design and communication.

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- 2.4 Investigate how graphics and design permeates our daily lives.
- 2.5 Demonstrate understanding of education and career development as a lifelong learning process.
- 2.6 List and describe professional organizations in the field of computing.

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ELACC9-10SL4: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Course Standard 3

AAVTC-IGD-3

Discuss developments and individuals relating to the history of the graphics and design industry and explore emerging trends and technologies.

- 3.1 Describe the development of the graphic communication and design industries.
- 3.2 Identify persons with major contributions to the field of graphic design.
- 3.3 Outline the history of printing and graphic design and explain its effects on the print/design industry and society.
- 3.4 Identify and describe emerging trends and technologies.

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Course Standard 4

AAVTC-IGD-4

Examine the professional and ethical issues involved in the visual communications and design industries.

- 4.1 Identify basic copyright issues for graphic communications and design industries to include understanding the use of Creative Commons copyright.
- 4.2 Explain the consequences of copyright infringement.
- 4.3 Explain ethics issues for the graphic communications and design industries.

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Support of CTAE Foundation Course Standards and Common Core GPS and Georgia Performance Standards

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ELACC9-10SL5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

Course Standard 5

AAVTC-IGD-5

Examine and describe the business cycle elements.

- 5.1 Describe the job flow from initial customer contact to collection of payment.
- 5.2 Interpret basic business terms.

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Course Standard 6

AAVTC-IGD-6

Explain and demonstrate how to operate equipment in a safe manner.

- 6.1 Identify safety features and practices.
- 6.2 Describe proper personal protection equipment needed.
- 6.3 Read and interpret equipment operating instructions.

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Course Standard 7

AAVTC-IGD-7

Identify safety and health procedures utilized in the classroom/lab environment.

- 7.1 Identify location of safety and first aid equipment.
- 7.2 Identify procedures for emergency situations.

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- 7.3 Identify procedures for handling hazardous and combustible materials (MSDS, OSHA).
- 7.4 Identify proper ergonomic practices.
- 7.5 Describe OSHA, MSDS, and EPA.
- 7.6 Describe Lockout and Tagout.
- 7.7 Explain Right to Know.

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Course Standard 8

AAVTC-IGD-8

Demonstrate proper usage of measuring units and devices.

- 8.1 Examine and construct documents with multiple measurement systems used in the field (including inches and picas).
- 8.2 Understand and accurately execute measurement conversions.

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Course Standard 9

AAVTC-IGD-9

Recognize and utilize basic paper types and sizes for output.

- 9.1 Determine size, weight, quantities, type, and amount of paper necessary for fulfilling a job order.

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Course Standard 10

AAVTC-IGD-10

Generate and manipulate various graphic imaging processes.

- 10.1 Discern appropriate use of technology in areas of color and design choices.
- 10.2 Evaluate photographic digital input techniques for maximum effect.
- 10.3 Manage resolution issues.
- 10.4 Assess the issues of sizing images in various forms.

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Course Standard 11

AAVTC-IGD-11

Analyze pre-press, pre-flight, and output operations.

- 11.1 Determine and use proper imposition to save materials used in multi-page and multi-piece projects.
- 11.2 Position images on substrates using appropriate measurements.

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Course Standard 12

AAVTC-IGD-12

Understand and demonstrate how to design a page layout.

- 12.1 Demonstrate how to log on/boot-up, save, and print using a page layout program.
- 12.2 Demonstrate proper document set-up.
- 12.3 Design and produce a document using desired fonts, formatting, margins, indents, tabs, gutters, header and footer, guides, trims, folds, and proper leading.
- 12.4 Demonstrate text alignment, element positioning, and rules of page design for printed matter.
- 12.5 Set-up column grids for page layout according to job specifications.
- 12.6 Set up and select appropriate pagination for a given job.
- 12.7 Proofread, edit, and make corrections/adjustments to copy on the screen.

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Course Standard 13

AAVTC-IGD-13

Identify and define the five elements incorporated in basic graphic designs and understand the application of effective color usage.

- 13.1 Identify the utilization of the elements of design including line, shapes, value, mass, space, texture, and color as they apply to basic design.
- 13.2 Understand the color wheel: primary, secondary, tertiary.
- 13.3 Understand the use of color schemes, such as analogous and complementary colors.
- 13.4 Understand and apply the psychology of color in design.
- 13.5 Define CMYK and RGB and understand the difference between them and when to use them.

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Course Standard 14

AAVTC-IGD-14

Identify and produce files utilizing different digital formats.

- 14.1 Describe the strengths and weaknesses of TIFF, EPS, JPG, GIF, PDF, and PNG in a Postscript environment.
- 14.2 Create documents/images and demonstrate the ability to save as digital files.
- 14.3 Demonstrate how to place scanned graphics/photos into an existing page layout program.
- 14.4 Produce digital files using appropriate DPI and PPI resolution for media.

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Course Standard 15

AAVTC-IGD-15

Identify and demonstrate page layout terminology and tools.

- 15.1 Identify and demonstrate use of basic design principles including figure/ground, unity/variety, proportion/scale, emphasis, contrast, balance, repetition and rhythm.
- 15.2 Identify and demonstrate use of layout methods/stages: (1) Thumbnail, (2) Rough, and (3) Comprehensive/Computer.
- 15.3 Identify and demonstrate use of traditional and computer-generated tools in the production of page layout.

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Course Standard 16

AAVTC-IGD-16

Distinguish and demonstrate the difference between page layout, raster-based photo manipulation, and vector-based graphic software applications.

- 16.1 Identify and demonstrate the basic capabilities of page layout, raster-based photo manipulation, and vector-based software applications as they apply to the completion of graphic communications projects.
- 16.2 Define and identify the differences between raster- and vector-based software.
- 16.3 Demonstrate the ability to properly integrate text and images in a computer-generated page layout.
- 16.4 Demonstrate the ability to properly alter and enhance an image using a raster-based photo manipulation software application.
- 16.5 Demonstrate the ability to create a logo utilizing a vector-based software application.

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Course Standard 17

AAVTC-IGD-17

Discuss the origins of type by examining the evolution of letterforms.

- 17.1 Define the terms “pictograms”, “ideograms”, “icons” and the distinctions between them and letterforms.
- 17.2 Outline the evolution of alphabet, punctuation, upper case letters, lower case letters, and ligatures as elements of typography and explain the effect of each in its development.
- 17.3 Identify and describe how current communication technologies impact emerging trends in typography.

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Course Standard 18

AAVTC-IGD-18

Evaluate the function of typeface design in supporting legibility in a variety of media applications.

- 18.1 Define the concept of “mood and theme” in typography.
- 18.2 Identify effects applied to typefaces to achieve “readability” and evaluate when each is – or is not – appropriate to use.

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- 18.3 Identify major type classifications and define distinguishing characteristics of each such as Roman/Serif, Block/Square Serif, Sans Serif, Script, Black Letter, Decorative/Novelty.
- 18.4 Define the use of reverse type and the concept of weight and color as a type effect.
- 18.5 Identify the four methods of alignment and describe how each impacts the presentation of type.
- 18.6 Define and apply the difference between display type (14pts or larger) and body copy (12pts or smaller)
- 18.7 Select and use appropriate type composition techniques involving leading, tracking, kerning, scaling, and aligning based on job particulars.

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Course Standard 19

AAVTC-IGD-19

Distinguish between the different print/output processes.

- 19.1 Create printed products by using at least two different print processes from design to completion.
- 19.2 Describe the differences between the processes used.
- 19.3 Identify the steps in making an image using one process.
- 19.4 Demonstrate an understanding of the terms and technology of these processes.

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Course Standard 20

AAVTC-IGD-20

Explore the different electronic imaging processes.

- 20.1 Create images by using an electronic media process from concept to delivery.
- 20.2 Identify the steps in making an image using one process.
- 20.3 Demonstrate an understanding of the terms and technology of the process.

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Course Standard 21

AAVTC-IGD-21

Examine how related student organizations are integral parts of career and technology education courses through leadership development, school and community service projects, and competitive events.

- 21.1 Explain the purpose, mission, objectives, motto, colors, official dress and other distinguishing characteristics of SkillsUSA.
- 21.2 Explain how participation in SkillsUSA can promote lifelong responsibility for community service, professional growth and development.
- 21.3 Explore the impact and opportunities SkillsUSA can develop to bring business and industry together with education in a positive working relationship through innovative leadership and career development programs.
- 21.4 Explore the local, state, and national opportunities available to students through participation in SkillsUSA including but not limited to conferences, competitions, community service, philanthropy, and other SkillsUSA activities.

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