

## GRAPHIC COMMUNICATIONS TECHNOLOGY 20

### Description

Graphic Communications 20 is designed to make students aware of the careers available in the area of screen printing technology, and transfer designs. Students will accomplish the following operations: computer design, scanning, assorted computer software applications, stencil preparation including photo direct and photo indirect stencils from processing the image for the screen to the final production of printing the stencils in single and/or multiple colors. Students will also experiment using heat transfer materials, plotter cutting materials, and dye-sublimation processes to print on many different types of substrates such as fabrics, metals, plastics, ceramic tiles, glass and wood. Projects created in this course are *decals, puzzles, T-shirts, mouse pads, mugs, clocks, mirrors, key chains, vinyl applications, jewelry, and assorted clothing applications.*

### Course Overview

#### Course Objectives

Students should be able to:

- use safely and efficiently, the resources, processes, concepts, and tools of the graphic communications industry.
- understand and apply practical technological methods with a hands-on approach to graphic production using screen print and transfer technologies.
- develop the ability to design utilizing computer software in different digital file formats.
- develop a vocabulary for use in the graphic communications field related to screen print and transfer technologies.
- understand factors in design when considering output processes.

#### Essential Questions

- How does color impact the creative strategy of a project?
- Why is the color management among color systems vital to graphic communication?
- How do the fundamental basic elements and principles of design influence design?
- Why are illustrations so important to design?
- Why do we need to develop communication skills?
- How does knowledge of digital file processes enable one to be successful in the field of graphics?
- What role does safety consciousness play in the overall safety and effectiveness of production graphics?
- What are important factors to consider in design when considering output processes?

#### Assessments

- Projects
- Quizzes and Tests on Unit Material

#### Content Outline

- I. [Unit 1](#) – Color Theory and Principles
- II. [Unit 2](#) – Design Principles
- III. [Unit 3](#) – Digital File Preparation
- IV. [Unit 4](#) – Introduction to Output Operations
- V. [Unit 5](#) - Graphic Output Processes

#### Standards

[https://www.georgiastandards.org/standards/Georgia%20Performance%20Standards%20CTAE/Communications\\_Graphic\\_Design\\_and\\_Production.pdf](https://www.georgiastandards.org/standards/Georgia%20Performance%20Standards%20CTAE/Communications_Graphic_Design_and_Production.pdf)

## Pacing Guide

1st Marking Period

2nd Marking Period

Unit 1

Unit 2

Unit 3

Unit 4

Unit 5

[Color Theory and Principles](#)

[Design Principles](#)

[Digital File Preparation](#)

[Introduction to Output Operations](#)

[Graphic Output Processes](#)

2 weeks

4 weeks

2 weeks

2 weeks

8 weeks

**Unit 1– Color Theory and Principles, 2 weeks** [top](#)

**Standards**

**ACCT-GDP-1 Students will explore color and the variety of methods it can be applied.**

**ACCT-GDP-2 Students will interpret and apply color models through graphic manipulations.**

**Unit Objectives**

Students will be able to:

- understand how color impacts the creative strategy of a project.
- analyze and implement color management among color systems including CMYK, RGB, and spot (according to the Pantone Matching System).
- interpret and apply color models through graphic manipulations.

**Essential Questions**

- How does color impact the creative strategy of a project?
- Why is the color management among color systems vital to graphic communication?

**Focus Questions**

- What are the major color systems?
- What is the difference in choosing CYMK vs. RGB and spot color?
- Why is it important to be able to apply color models through graphic manipulation?

**Assessments**

- Projects
- Quizzes and Tests on Unit Material

**Skill Objectives**

Students will:

- choose and implement optimal color schemes.
- demonstrate effective use of black and white (one color) design.
- generate monochromatic, limited chromatic, and full color solutions to solve design problems.
- create printed color with dots and screen patterns.
- demonstrate an understanding of the transition of tone images to dots of an output process.
- describe the development and current standards of color technology.
- evaluate image registration issues.
- design traps and spot color for production.
- determine optimal screen tints for particular job and output needs.

**Unit 2 – Design Principles, 4 weeks [top](#)**

**Standards**

- ACCT-GDP-4 Students will understand and demonstrate the fundamental basic elements and principles of design.**
- ACCT-GDP-5 Students will identify and demonstrate a working knowledge of elements and principles.**
- ACCT-GDP-6 Students will identify and demonstrate a working knowledge of illustration as it pertains to the design field.**
- ACCT-GDP-7 Students will continue to explore different outlets for typography and define its role in design.**
- ACCT-GDP-8 Students will continue to develop communication skills.**

**Unit Objectives**

Students will be able to:

- apply knowledge of design principles to new products.
- understand and demonstrate the fundamental basic elements and principles of design.
- create an original design that utilizes basic elements and principles.
- identify and demonstrate a working knowledge of illustration software.
- understand and demonstrate knowledge of typographic principles as they relate to layout and page composition.
- explore possible combinations of type and image as two different entities combined into a cohesive form.
- continue to develop communication skills.

**Essential Questions**

- How do the fundamental basic elements and principles of design influence design?
- Why are illustrations so important to design?
- Why do we need to develop communication skills?

**Focus Questions**

- What are the fundamental basic elements and principles of design?
- How does a working knowledge of illustration software enable one to be successful in graphic communication?
- What influence does a knowledge of typographic principles have on the designer?
- Does critiquing add any value to your work?

**Assessments**

- Projects
- Quizzes and Tests on Unit Material

**Skill Objectives**

Students will:

- compare and contrast or critique professionally completed works.
- list basic elements and principles of design terminology.
- incorporate design principles in hand drawn sketches and measured layouts.
- design a successful composition that employs elements found in an existing collateral design piece.
- apply creative thinking skills to produce solutions to artistic problems.
- apply traditional drawing skills (i.e. cross hatch, stipple, contouring, and perspective) to graphic solutions.
- develop a process or sketch book carrying visual solutions from hand-drawn roughs to a finished digital composition.
- identify the role and purpose of illustration in the professional field.
- investigate and demonstrate typography as an expressive form (i.e. type as image).
- demonstrate ability to follow directions.
- demonstrate ability to work collaboratively in creative teams.
- criticize a classmate’s work objectively and constructively as well as accept criticism.

**Unit 3- Digital File Preparation , 2 weeks [top](#)**

**Standards**

- ACCT-GDP-10. Students will demonstrate knowledge of file management and file formats.**  
**ACCT-GDP-11. Students will demonstrate knowledge of digital file preparation.**

**Unit Objectives**

Students will be able to:

- demonstrate knowledge of file management and file formats.
- demonstrate knowledge of digital file preparation.

**Essential Question**

- How does knowledge of digital file processes enable one to be successful in the field of graphics?

**Focus Questions**

- How does knowledge of file management and file formats enable one to be more efficient?
- What is the rationale for preflight of documents?
- Why is image conversion sometimes necessary?

**Assessments**

- Projects
- Quizzes and Tests on Unit Material

**Skill Objectives**

Students will:

- create folder structure to organize documents along with all support files (including client original files, fonts, links, etc.).
- identify file formats used in industry: native/default format; meta files (files that contain fonts, raster and vector information, example: wmf, pdf, eps); and generic (example: tif, jpg, gif, and txt).
- read and interpret a job ticket for production information.
- preflight documents and identify problems (resolution, missing fonts, missing graphics, number of inks).
- demonstrate knowledge of spell check and proofreaders marks.
- proofread, edit, and make corrections or adjustments to copy.
- design and produce a digital document in a page layout program. Layout should include placed graphics of print quality, correct number of inks, correct margins, and gutters for folding purposes.
- demonstrate image conversion.

**Unit 4 – Introductions to Output Operations , 2 weeks [top](#)**

**Standards**

**ACCT-GDP-12 Students will explain and demonstrate how to operate equipment in a safe manner.**

**Unit Objectives**

Students will be able to:

- explain and demonstrate how to operate output equipment in a safe manner.

**Essential Question**

- What role does safety consciousness play in the overall safety and effectiveness of production graphics?

**Focus Questions**

- Why does the operator of any piece of equipment need to read and interpret operating instructions?
- What is MSDS and how does it impact personal safety?
- Why are safety procedures and proper personal protection equipment important to the operator of any machine or process?

**Assessments**

- Projects
- Quizzes and Tests on Unit Material

**Skill Objectives**

Students will:

- read and interpret equipment operating instructions.
- identify equipment safety features.
- describe related safety procedures including proper personal protections equipment (PPE) needed, and related MSDS.
- describe the safe production of heat transfer products on various substrates.

**Unit 5- Graphic Output Processes, 8 weeks [top](#)**

**Standards**

**ACCT-IGD-20 Students will explore the different print processes.**

**ACCT-IGD-21 Students will explore the different electronic imaging processes.**

**Unit Objectives**

Students will be able to:

- explore print processes.
- become familiar using screen printing processes.
- explore transfer printing/design processes.
- explore electronic imaging processes.
- develop an understanding of the terms and technology of the processes used to transfer designs to a substrate.

**Essential Question**

- What are important factors to consider in design when considering output processes?

**Focus Questions**

- What are transfer processes and how do they differ from print processes?
- What are electronic imaging processes and how can they assist in design/output?
- What are the methods of transferring designs to a substrate?

**Assessments**

- Projects
- Quizzes and Tests on Unit Material

**Skill Objectives**

Students will:

- create printed products by using at least two different print processes from design to completion.
- describe the differences between the printing processes used in production.
- identify the steps in making an image ready for screen process printing..
- prepare stencils including photo direct and photo indirect stencils from processing the image for screen production.
- create one color and multicolor screen prints.
- create images by using an electronic media process from concept to delivery.
- demonstrate an understanding of the terms and technology of the processes used to transfer designs to a substrate.