

ARTS, A/V AND COMMUNICATION CAREER CLUSTER DESIGN

Graphic Design Pathway

CIP Code 50.0499

Approved Pathway:

- 1) Includes minimum of three secondary-level credits.
- 2) Includes a work-based element.
- 3) Consists of a sequence:
Introductory-level,
Technical-level, and
Application-level
courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan, and a Program of Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

INTRODUCTORY LEVEL

Intro to Drawing & Design	30006	.5 credit
Computer Applications	10004/60004	1 credit

TECHNICAL LEVEL

Principles of Illustration	30101	.5 credit
Photo Imaging	30105	.5 credit
*Graphic Design Fundamentals	30102	.5 credit
Computer Graphics	10102	1 credit
Graphic Design	05162/11154	1 credit

APPLICATION LEVEL

Graphic Design Project Management	31090	1 credit
Media Technology – Workplace Experience	10248	1 credit

*Required for pathway approval.

KANSAS STATE CAREER CLUSTER COMPETENCY PROFILE
ARTS, A/V TECHNOLOGY & COMMUNICATIONS CLUSTER

GRAPHIC DESIGN PATHWAY (C.I.P. 50.0499)

STUDENT _____

Rating Scale:

- 3 - Proficient Achievement**
- 2 - Limited Achievement**
- 1 - Inadequate Achievement**
- 0 - No Exposure**

Graduation Date _____
I certify that the student has received training in the areas
indicated. Instructor Signature _____

Instructor Signature _____

COMMON CAREER TECHNICAL CORE – CAREER READY STANDARDS

1. Act as a responsible and contributing citizen and employee
2. Apply appropriate academic and technical skills
3. Attend to personal health and financial well-being
4. Communicate clearly, effectively and with reason
5. Consider the environmental, social and economic impacts of decisions
6. Demonstrate creativity and innovation
7. Employ valid and reliable research strategies
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management
10. Plan education and career path aligned to personal goals
11. Use technology to enhance productivity
12. Work productively in teams while using cultural/global competence

COMMON CAREER TECHNICAL CORE – ARTS, A/V TECHNOLOGY & COMMUNICATIONS CLUSTER STANDARDS

1. Analyze the interdependence of the technical and artistic elements of various careers within the Arts, A/V Technology & Communications Career Cluster.
2. Analyze the importance of health, safety and environmental management systems, policies and procedures common in arts, audio/video technology and communications activities and facilities.
3. Analyze the lifestyle implications and physical demands required in the arts, audio/visual technology and communications workplace.
4. Analyze the legal and ethical responsibilities required in the arts, audio/visual technology and communications workplace.
5. Describe the career opportunities and means to achieve those opportunities in each of the Arts, A/V Technology & Communications Career Pathways.
6. Evaluate technological advancements and tools that are essential to occupations within the Arts, A/V Technology & Communications Career Cluster.

INTRODUCTORY LEVEL COURSES

30006 Introduction to Drawing and Design

Introduction to Drawing emphasizes the development of fundamental drawing skills. Focus will be on the application of art theory, processes and techniques that increase the power of observation. Instruction includes the elements and principles of design as applied in composition through hard copy and/or electronic software.

Benchmark: 1. 1 Analyze career paths in the visual arts and design fields.

- 1.1.1 Investigate careers that incorporate drawing and design skills (e.g. graphic design, illustrator, art director, architecture, interior design, animation, apparel/textile design and fine art).

Benchmark: 1. 2 Demonstrate technical skills related to careers in the visual arts.

- 1.2.1 Demonstrate knowledge and skill in use of tools, materials and drawing techniques.
- 1.2.2 Build images from basic shapes (i.e. rectangles, squares, circles, triangles and polygons).
- 1.2.3 Understand value scale gradations and tonal relationships.
- 1.2.4 Accurately draw 3-dimensional forms using the elements and principles of design.
- 1.2.5 Render surface textures and patterns.
- 1.2.6 Understand color theory basics.
- 1.2.7 Develop compositions that establish knowledge of space (i.e. isometric, atmospheric and/or linear perspective).
- 1.2.8 Understand the impact of drawing and design styles throughout art history.
- 1.2.9 Recognize and demonstrate productive attitudes and safe work habits in the studio.
- 1.2.10 Understand the aesthetic aspects of decision making and critical analysis in the art process.

10004-Computer Applications

In Computer Applications courses, students acquire knowledge of and experience in the proper and efficient use of previously written software packages. These courses explore a wide range of applications, including (but not limited to) word-processing, spreadsheet, graphics, and database programs, and they may also cover the use of electronic mail and desktop publishing.

1. Personal Information Management

- a. Identify PIM applications (e.g., Essential PIM, MS Outlook, Lotus Notes...) and maintain safe and secure user profiles.
- b. Manage daily/weekly/monthly schedule using applications such as. (e.g., Notes, MS Outlook, calendars/schedules.)
- c. Create reminder for oneself and send notes/ informal memos using PIM applications.
- d. Access email system using login and password functions. Access email messages received
- e. Create and send e-mail messages in accordance with established business standards (e.g., grammar, word usage, spelling, sentence structure, clarity) demonstrating knowledge of email etiquette.
- f. Attach files to send with messages and access and save received attachments.
- g. Demonstrate knowledge of contamination protection strategies for email.
- h. Maintain shared database of contact information.
- i. Participate in virtual group discussions and meetings.

2. Research and Internet

- a. Test Internet connection.
- b. Navigate web sites using software functions. (e.g., Forward, Back, Go To, Bookmarks). Utilize online tools
- c. Explore the multimedia capabilities of the World Wide Web.
- d. Bookmark web addresses (URLs).
- e. Locate information using appropriate search procedures and approaches through a variety of search engines and Boolean logic.
- f. Access, evaluate accuracy, and compile Internet resource information for a variety of purposes. (e.g., library catalogs, business, technical, commercial, government, educational)
- g. Unpack files using compression software. Organize and archive files.

3. Word Processing and Presentations

- a. Create/Open Edit and Save documents (e.g., letters, memos, reports) and presentations using existing forms and templates.
- b. Employ word processing utility tools (e.g., spell checker, grammar checker).
Locate/replace data using search and replace functions.
- c. Format text using basic formatting functions.
- d. Enhance publications using different fonts, styles, attributes, justification, etc.
- e. Enhance publications using paint/draw functions.
- f. Format new desktop publishing files and recognize the advantages and disadvantages of export options.
- g. Place graphics (e.g., graph, clip art, table) in a document or slide in accordance with basic principles of graphics design and visual communication.
- h. Prepare publications using desktop and cloud publishing applications.

4. Spreadsheets

- a. Create/Open Edit and Save spreadsheets.
- b. Create charts and graphs from spreadsheets.
- c. Group worksheets.
- d. Input/process data using spreadsheet functions.
- e. Perform calculations using simple formulas.
- f. Locate/replace data using search and replace functions.
- g. Process data using database functions (e.g., structure, format, attributes, relationships, keys).
- h. Perform single- and multiple-table queries (e.g., create, run, save).
- i. Verify accuracy of output.
- j. Maintain shared database of contact information.

6. Ethics and Security

- a. Demonstrate knowledge of potential internal and external threats to security. Maximize threat reduction.
- b. Assess exposure to security issues.
- c. Demonstrate knowledge of virus protection strategy and ability to load virus detection/protection software.
- d. Identify sources of virus infections and how to remove viruses.
- e. Report viruses in compliance with company standards.
- f. Ensure compliance with security rules, regulations, and codes.
- g. Explore ways to implement countermeasures.
- h. Implement security procedures in accordance with business ethics.
- i. Document security procedures.
- j. Understand how to follow a disaster plan.
- k. Understand how to utilize backup and recovery procedures.
- l. Maintain confidentiality.
- m. Understand how to provide for user authentication (e.g., assign passwords, access level).

7. History / Quality Assurance

- a. Demonstrate knowledge of the diverse continuous improvement cycles within industry and their characteristics. (e.g., Baldrige Performance Excellence, Demming, ISO 9000, Six Sigma)

8. Personal Attributes for success. Career Technical Core Skills.

- a. Act as a responsible and contributing citizen and employee
- b. Demonstrate effective professional communication skills and practices that enable positive customer relationships.
- c. Apply appropriate academic and technical skills
- d. Attend to personal health and financial well-being
- e. Communicate clearly, effectively and with reason
- f. Consider the environmental, social and economic impacts of decisions
- g. Demonstrate the use of cross-functional teams in achieving IT project goals.
- h. Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors.

TECHNICAL LEVEL COURSES

30101 Principles of Illustration

Principles of Illustration explore a variety of media, tools and supports as a means to communicate ideas. Topics include an understanding of illustration as applicable to careers in graphic design, animation, apparel/textile design, industrial design, web design, architecture, interior design and fine arts. Techniques in traditional and digital illustration applications will be explored as directly linked to ever- changing social trends.

Benchmark: 1. 1 Analyze career paths in the visual arts.

- 1.1.1 Investigate careers that incorporate drawing skills (e.g. graphic design, animation, apparel/textile design, industrial design, web design, architecture, interior design and fine art).

Benchmark: 1. 2 Demonstrate technical skills related to careers in the visual arts.

- 1.2.1 Research and identify major styles, terminology and categories of illustration based upon historical and contemporary market trends.
- 1.2.2 Create designs, concepts and sample layout based on knowledge of element and design principles to solve a series of illustration problems for which there are no pre-established solutions.
- 1.2.3 Understand concepts of perspective drawing and modeling of forms in black and white and color to look three dimensional on a two dimensional surface.
- 1.2.4 Maintain a personal visual reference archive of which could include images, surfaces and previous design products.
- 1.2.5 Create, evaluate and revise projects to communicate effectively to a select client or target audience.
- 1.2.6 Prepare illustrations for a variety of purpose such as brochures, web pages, promotional products, technical illustration, literature, animation, newsletters or presentations.
- 1.2.7 Prepare and present a portfolio of illustrations to convey concepts, information and examples of designs showing technical skills in a variety of media.
- 1.2.8 Recognize and demonstrate productive attitudes and safe work habits in the studio.
- 1.2.9 Understand the aesthetic aspects of decision making and critical analysis in the art process.

30105 Photo Imaging

Photo Imaging teaches the technical skills needed to produce quality images for use in a variety of applications. Topics include use of equipment, software and techniques to take, edit and manipulate digital images.

Benchmark: 1. 1 Analyze career paths in the visual arts.

- 1.1.1 Increase knowledge of careers related to photo journalism photography, including but not limited to photojournalism, aerial, architectural, food, landscape, portraiture, sports, wildlife and commercial photography.

Benchmark: 1. 2 Demonstrate technical skills related to careers in the visual arts.

- 1.2.1 Explore the variety of uses of photos and images in media.
- 1.2.2 Discuss current and emerging issues surrounding imaging technologies.
- 1.2.3 Recognize and capture storytelling images that utilize strong elements of composition and complement story content.
- 1.2.4 Identify camera equipment, hardware and software to meet a variety of needs.
- 1.2.5 Explain the operation of different cameras (including features and uses).
- 1.2.6 Define the role that photographs and/or images play in storytelling.
- 1.2.7 Explore photo editing software.
- 1.2.8 Understand the consequences of photo manipulation.
- 1.2.9 Understand and correctly resize an image for a variety of media including but not limited to correct resolution for print, web and display options.
- 1.2.10 Critique photographic work (including an analysis of technique, content, composition and the ability to convey message or tell a story).
- 1.2.11 Understand freedom of the press and define the photographer's rights and responsibilities.
- 1.2.12 Apply principles of composition to improve picture taking capabilities.
- 1.2.13 Demonstrate the ability to select and use the correct equipment for a specific photographic assignment.
- 1.2.14 Demonstrate an understanding of aperture, shutter speed, white balance, ISO and depth of field.
- 1.2.15 Demonstrate an understanding of the ethical and legal issues associated with photography, including invasion of privacy, copyright law, and the National Press Photographers Association's code of ethics.
- 1.2.16 Create a portfolio to illustrate skill development.
- 1.2.17 Explore how photography and photographic images have made an impact on history.
- 1.2.18 Understand how different lenses affect photographs, including but not limited to standard, zoom, prime, telephoto, fisheye and wide angle lenses.
- 1.2.19 Understand the differences between and uses of photo file types, including but not limited to, JPG, TIF, RAW, PNG.

30102 Graphic Design Fundamentals

Graphic Design Fundamentals provides a basic understanding of the graphic design process. Topics include analyzing the design elements and principles, exploring industry tools, software and equipment and learning composition techniques to develop a quality product.

Benchmark: 1. 1 Analyze career paths in the visual arts.

- 1.1.1 Explore visual communication careers which utilize graphic design.
- 1.1.2 Compare the advantages and disadvantages of working independently and working for others within the field (including mass production vs. custom work).

Benchmark: 1. 2 Demonstrate technical skills related to careers in the visual arts.

- 1.2.1 Describe how changing technology is impacting the visual communications industry.
- 1.2.2 Explore present and future uses of graphic design by looking at the present market and predicting trends (i.e. magazines, logos, hang tags, store signage, product and packaging design).
- 1.2.3 Define common terminology and concepts in graphic design (i.e. scale drawing, thumbnail sketches, perspective, typography and branding).
- 1.2.4 Explore the equipment, software and tools used in graphic design for electronic applications.
- 1.2.5 Analyze how images can convey messages.
- 1.2.6 Describe how graphic design is used in digital applications.
- 1.2.7 Demonstrate the methods used to create a visual representation of ideas and messages (i.e. combining words, symbols and/or images).
- 1.2.8 Identify the basics of composition.
- 1.2.9 Identify and understand the design elements and principles.
- 1.2.10 Analyze the effects of the design elements (e.g. Optical illusion and color theory).
- 1.2.11 Compare and contrast 2-D and 3-D design.
- 1.2.12 Analyze legal concerns that affect the design field such as copyright and trademark issues.
- 1.2.13 Describe the fundamental design principles in graphic design.
- 1.2.14 Evaluate the visual appeal of graphic designs within visual communications.
- 1.2.15 Analyze the design process of graphic projects (from concept to finished product).
- 1.2.16 Demonstrate design principles in a graphic design project.
- 1.2.17 Demonstrate proper use of tools, software and equipment.
- 1.2.18 Understand and demonstrate quality presentation skills.
- 1.2.19 Create a portfolio of graphic design projects.

10202 Computer Graphics

Computer Graphics courses provide students with the opportunity to explore the capability of the computer to produce visual imagery and to apply graphic techniques to various fields, such as advertising, TV/video, and architecture. Typical course topics include modeling, simulation, animation, and image retouching.

- 3 2 1 0 1. Demonstrate knowledge of the basic principles of motion graphics.
- 3 2 1 0 2. Demonstrate proficiency in the use of digital imaging.
- 3 2 1 0 3. Manipulate images, video, and motion graphics.
- 3 2 1 0 4. Create and refine design concepts.
- 3 2 1 0 5. Alter digitized images using an image manipulation program.
- 3 2 1 0 6. Alter digitized video using a video manipulation program.
- 3 2 1 0 7. Apply color theory to select appropriate colors.
- 3 2 1 0 8. Apply knowledge of typography.
- 3 2 1 0 9. Apply principles and elements of design.
- 3 2 1 0 10. Create and/or implement the look and feel of a product.
- 3 2 1 0 11. Create graphical images and/or or video elements.
- 3 2 1 0 12. Enhance digital communication presentation using a photographic process.
- 3 2 1 0 13. Evaluate visual appeal.
- 3 2 1 0 14. Produce or acquire graphics content.
- 3 2 1 0 15. Differentiate between copyright and trademarks.
- 3 2 1 0 16. Define scope of work to achieve individual and group goals.
- 3 2 1 0 17. Use available reference tools as appropriate.
- 3 2 1 0 18. Explain the key functions and applications of software.
- 3 2 1 0 19. Explain the need for regular backup procedures

05162/11154 Graphic Design

Commercial Graphic Design courses teach students to use artistic techniques to effectively communicate ideas and information to business and customer audiences via illustration and other forms of digital or printed media. Topics covered may include concept design, layout, paste-up and techniques such as engraving, etching, silkscreen, lithography, offset, drawing and cartooning, painting, collage and computer graphics.

1. Determine client's needs and expected outcomes.
2. Determine purpose of the digital communication project.
3. Determine the digital communication elements to be used.
4. Determine the target audience.
5. Create and produce content.
6. Create and refine design concepts.
7. Alter digitized images using an image manipulation program.
8. Apply color theory to select appropriate colors.
9. Apply knowledge of typography.
10. Apply principles and elements of design.
11. Create and/or implement the look and feel of the product.
12. Create graphical images.
13. Evaluate visual appeal.
14. Differentiate between copyright and trademarks.
15. Define scope of work to achieve individual and group goals.
16. Use available reference tools as appropriate.

APPLICATION LEVEL COURSES

31090 Graphic Design Project Management

In addition to listed technical competencies Local Education Agencies are encouraged to develop Personalized Learning coursework representative of explicit objectives measured against specific target employment skills that are not available in other courses. These should be enumerated in addition to those listed below. Additional competencies may reflect the particular work environment, workplace experience and/or the essential skills addressed reflective of previous coursework.

1. Understand the Project Vision
 - 1.1. Understand the function and importance of tailoring for different projects
 - 1.2. Define a typical project lifecycle
 - 1.3. Understand the concept of scope and demonstrate in context of assessing the size of a project.
 - 1.4. Clearly identify what is desired to be created.
 - 1.5. Create a multi-step project by defining the opportunity statement.
 - 1.6. Define the intended end result of the project; what will be created.
 - 1.7. List the impact of this project; why it is important and worthwhile to create.
2. Develop plans for project management and resource scheduling for different resource types (Work, Material, Cost, Budget, Personnel/Skills, Generic, etc.)
 - 2.1. Identify the resources and details needed for the project: the project deliverables, project budget, project sponsor, project manager, scope, due date and project team members and, if desired, their roles.
 - 2.2. Determine essential tasks necessary for project completion.
 - 2.3. Create strategies to manage project budgets.
 - 2.4. Explore appropriate technologies for project.
 - 2.5. Identify the factors and assets that may impact the outcome of a project
 - 2.6. Document project initiation phase in a project Charter or Project Initiation Document (PID).
 - 2.7. Create and present a project management and resource scheduling plan.
3. Identify key personnel and responsibilities for project.
 - 3.1. Work as a team to plan steps to complete the project deliverables within the budget and due date.
 - 3.2. Outline the scheduling and utilization of project resources
 - 3.3. Documented through the development of a GANTT chart for the project complete with schedule, tasks, resource assignments and graphical timeline.
4. Determine required personnel groups and management hierarchy.
 - 4.1. Practice communication, negotiation and effective teamwork skills to create a synergistic result.
 - 4.2. Identify techniques for developing a team, managing conflict, and resolving resource-related problems
5. Implement project management skills to design and complete a collaborative project.
 - 5.1. Demonstrate effective teamwork and interaction
 - 5.2. Execute project deliverables
 - 5.3. Understand the reasons for and approaches to adapting quality management in different project environments
6. Develop strategies for monitoring interconnected assignment and quality control.

- 6.1. Check, verify and document adherence to quality standards as defined in the project deliverable specifications.
- 6.2. Learn various survey strategies to track project progress.
- 6.3. Analyze workload of tasks and projects.
- 6.4. Develop SWOT analysis [Strengths, Weaknesses, Opportunities, and Threats] for project.
- 6.5. Conduct team progress meetings and/or formal status updates to report adherence to the project plan.
- 6.6. Build survey analysis for customer satisfaction
- 6.7. Prepare a team Closure Report that reconciles budgetary results, provides an overview of the project and analyzes the effectiveness of the project management and resource scheduling processes through use of a tool such as a Plus (what went well that we would want to repeat) / Delta (what could have gone better that we would modify next time) Analysis.

10248 Media Technology –Workplace Experience

3 2 1 0 1. Employ effective listening skills when working with client.

3 2 1 0 2. Employ customer service principles when working with consumers.

3 2 1 0 3. Evaluate and follow-up on customer service provided.

Additional competencies should reflect the particular work environment and the essential skills addressed reflective of previous coursework.