## Career Cluster:

### Arts, Audio/Visual Technology, and Communications

# A/V Production I

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| **Primary Career Cluster:** | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |
| **Course Code(s):** | C11H01 |
| **Prerequisite(s):** | None |
| **Credit:** | 1 |
| **Grade Level:** | 9 |
| **Focus ElectiveElective Focus-Graduation Requirement:** | This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition, when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the first course in the *A/V Production* program of study. |
| **Aligned Student Organization(s):** | SkillsUSA: http://www.skillsusatn.org/<br>Technology Student Association (TSA): http://www.tntsa.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Tennessee Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/education/educators/career-and-technical-education/student-industry-certification.html. |
| **Teacher Endorsement(s):** | 042, 230, 231, 537, 538, 539, 543, 576, 583, 597, 710 |
| **Required Teacher Certifications/Training:** | Please refer to Occupational Educator Licensure Guidance for a full list.None |
| **Required Teacher Training:** | NoneNone |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best For All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in ~~career~~ careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for ~~your~~ students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course~~;~~, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
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- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
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  - Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.~~Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.~~
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  ~~For more ideas and information, visit Tennessee SkillsUSA at http://www.skillsusatn.org/.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities ~~that relate~~related to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1-1.3** | Incorporate a safety briefing in a visit to an industry partner.
- **Standards 2.1-2.2** | Conduct~~Do~~ an informational interview with A/V industry partner.
- **Standards 3.1, 4.1-4.2** | Invite a local attorney to explain federal and local laws impacting the A/V industry.
- **Standards 5.1, 6.1-6.7** | Job shadow a local television station.
- **Standards 7.1-8.1** | Have students complete~~do~~ a project that is supervised by an industry partner.
- **Standards 9.1-9.2** | Have students visit a local industry and see the usage of digital software.

- **Standards 10.1-10.2** | Complete~~Do~~ an integrated project with multiple interactions with professionals.
- **Standards 11.1-11.2** | Have an industry partner review student portfolios.

~~For more ideas and information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html~~

## Course Description

*A/V Production I* is a foundational course in the Arts, A/V Technology, & Communications cluster for students interested in A/V (audio/visual) production occupations. Upon completion of this course, proficient students will be able to explain and complete the phases of the production process, including pre-production, production, and post-production. Students will establish basic skills in operating cameras, basic audio equipment, and other production equipment. Standards in this course include career exploration, an overview of the history and evolution of A/V production, and legal issues affecting A/V production. In addition, students will begin compiling artifacts for inclusion in a portfolio, which they will carry with them throughout the full sequence of courses in this program of study.

## Course Standards

### 1. Safety

1.1 Safety Rules: Accurately **read, interpret, and demonstrate adherence to safety rules**, including but not limited to rules published by the Occupational Safety and Health Administration (OSHA), and state and national code requirements. Be able to distinguish between the rules and explain why certain rules apply in a written, oral, or digital presentation using domain-specific terminology.

1.2 Use of Equipment: **Explain the intended use of equipment** available in the classroom. Demonstrate how to properly inspect, use, and maintain safe operating procedures with equipment. Incorporate safety procedures and complete a safety test with 100 percent accuracy.

1.3 Safety Considerations: Determine the **safety considerations for working both in the studio and in the field**. Create a hazard assessment checklist and perform safety inspections for various environments, including a classroom studio.

### 2. History and Evolution of A/V Production

2.1 Development of A/V Production: Research the **development of A/V production throughout history**, analyzing **how advances in technology have impacted the industry**. Create an annotated timeline or visual graphic illustrating the significant people, time periods, and technological advances affecting A/V production. Citing resources from informational texts, include justification for why each identified item is significant.

2.2 Impact of A/V Production: Analyze the **impact A/V productions have on society**. Investigate the **role of media in communicating ideas** in society, emphasizing how social,

cultural, economic, and political developments are reflected in and influenced by media, including the impact of social media on A/V production. For example, compose a persuasive essay describing how a given social media application has positively or negatively impacted society, such as the rise of cyberbullying on social networks or how non-profit organizations use social media to fundraise.

## 3. Career Exploration

3.1 A/V Production Occupations: Research A/V production occupations, such as film and video editor, A/V equipment technician, broadcast engineering technician, multimedia animator, camera operator, announcer, producer, director, or reporter. Interpret labor market data, such as information from the Bureau of Labor Statistics and O*Net ~~OnLine~~Online, to **identify the industries in which A/V production professionals work**, including but not limited to the motion picture industry, radio and television broadcasting, advertising, and more. Determine areas of largest growth and discuss emerging trends and careers in A/V production-related industries.

3.2 Career and Technical Student Organization Introduction: **Introduce** the program's **aligned Career and Technical Student Organization** (CTSO), Technology Student Association (TSA) and Skills USA, **through an interactive activity**, such as classroom competition.

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## 4. Ethical and Legal Issues

4.1 Laws Impacting~~on~~ A/V Production: Investigate the **laws impacting the work of A/V production professionals**. Accurately describe the First Amendment to the U.S. Constitution and **make a claim about its impact** on the media industry, citing specific textual evidence from landmark legal cases.

4.2 Laws Impacting Production Process: Drawing evidence from a variety of resources, conduct a short research project to **evaluate the proper procedures for legally obtaining and using content for production purposes**, including attribution procedures. Examine copyright laws and fair use. In a written, oral, or video presentation, summarize and explain the legal concerns for creating, obtaining, or sharing a production as though leading a training or tutorial for fellow employees. Include the use of property and talent releases.

## 5. Introduction to the Production Process

5.1 Production Process: Explain the production process as described in textbooks, professional websites, and by industry professionals. Describe the **components of each phase of production, including pre-production, production, and post-production**. Exhibit findings in a written, oral, or digital presentation, citing resources used.

## 6. Production Equipment

6.1 Camera Features: Examine the **features and functions of various types of video cameras**. Explain the interrelationship between f-stops, the iris, and aperture in controlling light, and relate concepts to the physical laws that govern light and other optical phenomena. Differentiate between the focal length and the focal point related to a zoom lens. Describe how to focus a camera and explain the depth of field. Describe the importance and procedures for setting white balance. Summarize the purpose and steps of camera settings in a checklist that a camera operator could use to prepare a camera for capturing video in various environments.

6.2 Rules of Composition: Analyze the **rules of composition and elements of design as related to composing camera shots** (~~i.e.~~i.e., the rule of thirds, field of view, lead room, color, lines, etc.). Examine videos, artwork, and photographs to identify examples of the rules of composition in use and evaluate the impact on the scene. Create a visual presentation to describe the rules of composition, citing examples and counterexamples from various resources.

6.3 Camera Mounting: Distinguish among **different types of tripods and other camera mounting devices**. Demonstrate the **proper procedures for setting up a camera** on a tripod. Analyze and describe the various types of camera angles, shots, and movements in an infographic or demonstration. Correctly use the proper equipment and procedures to capture video footage.

6.4 Production Accessories: Select the **appropriate camera and basic accessories for a given production location.** Properly set up the camera, including positioning, ~~and~~ mounting the camera, and connecting the necessary cables. Demonstrate proper procedures to clean and store cameras and equipment.

6.5 Lighting Equipment: Examine the **basic types and applications of various lighting equipment**. Compare and contrast studio and field lighting equipment and techniques. Evaluate **light quality in terms of intensity, color, direction, and other characteristics**. Describe a variety of lighting techniques, including one, two, and ~~three point~~three-point lighting techniques; demonstrate the ability to provide written specifications for required lighting setups, as a set designer would instruct a gaffer. Employ proper lighting equipment according to industry safety standards.

6.6 Principles of Sound: Examine the **scientific properties and principles of sound**, including how sound travels and how digital audio is created. Citing textbooks and online resources, create an informational text with supporting graphics illustrating the principles.

6.7 Microphones: Utilize the **knowledge of microphones and scientific principles of sound** to appropriately select and place microphones for a given production. Connect microphones to camera equipment and other audio equipment using the proper cables. Compare and contrast the **types, uses, and pick-up patterns of various microphones**. Create a visual display illustrating pick-up patterns of microphones and listing example scenarios when each is commonly used. Experiment with different microphones and predict the pick-up pattern of each. Consult instructional manuals and manufacturer online resources to evaluate if the conclusions are correct.

## 7. Planning a Production

7.1 Story Elements: Describe the **elements of a story, such as characters, setting, conflict, and resolution**. Distinguish among the **script styles and writing techniques for different types of productions**, including but not limited to news broadcast, documentary, fictional narrative, and advertising. Select at least one example of a fact-based script, an entertainment-based script, and an advertising-based script. Investigate the scripts to compare and contrast the elements of each type. Summarize findings in an informational text, citing evidence from research.

7.2 Preproduction: Utilize the **steps of the pre-production phase to create a written plan for a simple production**. Conduct a pre-production meeting to develop a production plan. The plan should include but ~~would~~ not be limited to the following:

a. justifying the purpose of the production;
b. determining the target audience;
c. writing a script for the production;
d. creating a project budget;
e. outlining a production schedule; and
f. choosing a method of content delivery (i.e., online, on radio, on television, live production, etc.).

Justify all recommendations for the budget, production schedule, and method of delivery, and then prepare a brief written pitch to a mock funder or studio. Argue for the merits of the project using persuasive language and supporting evidence.

## 8. Capturing a Production

8.1 Production Equipment: Select and set up the **most appropriate production equipment** for a chosen production location. Properly **use the appropriate equipment**, camera and/or microphone techniques, and composition principles to capture video and/or audio according to a pre-production plan.

## 9. Post-Production

9.1 File Management: Demonstrate common **procedures to manage digital files** and distinguish between the various types of digital video, image, and audio files. Describe file storage in cameras and calculate the amount of recording time a device can hold based on the settings. Log, upload, and organize video and/or audio resources in preparation for editing, converting file formats as necessary. Utilize online file management services to backup files.

9.2 Software Operations: Perform basic **software operations to edit videos and/or audio**, including assembling clips for proper sequencing, applying transition effects, and inserting basic text to enhance video (~~i.e.~~i.e., captions and credits). Utilize digital video and/or audio editing software to individually perform post-production procedures to create a short production, such as a three-minute film, news report, or radio broadcast.

## 10. Projects

10.1 Production Process: Apply the **production process to independently complete video and/or audio projects for a public audience**. Demonstrate the ability to set goals according to the project ~~plan, and~~plan and select and use the appropriate equipment and procedures to achieve goals. Prepare an informative narrative to explain the final product to a peer, emphasizing how the production process, composition rules, and scientific principles were applied. Compile the elements of the production process with other artifacts for inclusion in a design portfolio, such as an engineering design notebook, to be updated throughout the program of study.

10.2 Effectiveness of Production: Create a rubric to **evaluate the effectiveness of ~~a~~ production based on the rules of composition and project goals**. Use the rubric to reflect upon project outcomes and gather feedback from peers. Note constructive feedback received and use it to improve the outcomes of future projects. Similarly, evaluate the work of others, drawing on composition rules and project goals to provide clear, specific, and constructive feedback.

10.3 Data Analysis in Arts, A/V Technology & Communications: **Research** the **use of data in Arts, A/V Technology & Communications career fields**. Include data that is **generated internally** by businesses, **and externally** by local communicates, state, and the nation. Explore examples of how data is used, including the following:

a. Customer/Client use of products and services
b. Demographics of end users
c. Community, state, and national statistics
d. Data that must be reported to another entity

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## 11. Portfolio

11.1 Portfolios: Gather **examples of professional portfolios from contemporary videographers and journalists**. List the **items that are often included** in a professional portfolio. In a written, visual, or oral presentation, describe the **components of a professional portfolio** and the benefits of maintaining one.

11.2 Artifacts: Compile **relevant artifacts to create a student portfolio** connecting personal career preparation to concepts learned in this course, including written descriptions of project processes and reflections on learning outcomes.

## 12. Ethical Artificial Intelligence

~~11.2~~12.1 ~~1~~Ethical Artificial Intelligence (AI): **Explore the ethical implications of AI usage** through interactive discussions and case studies, learning to identify bias, ensure fairness, and protect privacy in AI systems. **Develop** critical thinking **skills to evaluate the societal impact of AI technologies**, while fostering a sense of responsibility and ethical decision-making in the ~~ir own~~ use of AI tools.

## Standards Alignment Notes

*References to other standards include:

- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

# A/V Production II

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| **Primary Career Cluster:** | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |
| **Course Code(s):** | C11H02 |
| **Prerequisite(s):** | *A/V Production I* (C11H01) |
| **Credit:** | 1 |
| **Grade Level:** | 10 |
| **Focus ElectiveElective Focus- Graduation Requirements:** | This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition, when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the second course in the *A/V Production* program of study. |
| **Aligned Student Organization(s):** | SkillsUSA: http://www.skillsusatn.org/<br>Technology Student Association (TSA): http://www.tntsa.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Tennessee Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/content/tn/education/educators/career-and-technical-education/student-industry-certification.html. |
| **Teacher Endorsement(s):** | 042, 230, 231, 537, 538, 539, 543, 576, 583, 597, 710 |
| **Required Teacher Certifications/Training:** | Please refer to Occupational Educator Licensure Guidance for a full list.None |
| **Required Teacher Training:** | None None |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best For All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

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Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for ~~your~~ students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course~~;~~, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.

~~For more ideas and information, visit Tennessee SkillsUSA at http://www.skillsusatn.org/.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities ~~that relate~~related to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1-1.2** | Have an industry expert explain onsite safety issues to students.
- **Standards 2.1-2.3** | Integrated project with industry partner involvement.
- **Standards 3.1** | Informational interview with industry ~~partner~~ partners on how they got started in this career field.
- **Standards 4.1** | Virtual exchange with a local attorney to explore A/V ethical and legal issues.
- **Standards 5.1-5.3** | Have industry partners mentor students on an integrated project.
- **Standards 6.1-6.3** | Have students do virtual mock ~~interview~~ interviews with industry partners.
- **Standards 7.1-11.1** | Have students job shadow a production crew.
- **Standards 12.1-13.1** | Have industry partners mentor and evaluate students through their portfolio ~~project~~projects.

~~For more ideas and information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html.~~

## Course Description

*A/V Production II* is the second course in the *A/V Production* program of study intended to prepare students for careers in audio/visual production. Building on knowledge acquired in *A/V Production I*, this course advances technical ~~skill~~ skills in utilizing industry equipment related to lighting and audio, and it places special emphasis on the research and technical writing involved in planning productions. Upon completion of this course, proficient students will be able to plan, capture, and edit research-based productions of increasing complexity, individually and through collaboration in teams. In addition to more robust career preparation, standards in this course include an investigation of concerns affecting A/V production businesses, such as ethical and legal issues, technology, funding, and the organization of professional roles in various industries. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study.

## Course Standards

### 1. Safety

~~a.~~1.1 Safety Rules: Accurately **read, interpret, and demonstrate adherence to safety rules**, including but not limited to rules published by the Occupational Safety and Health Administration (OSHA), and state and national code requirements. Be able to distinguish between the rules and explain why certain rules apply in a written, oral, or digital presentation using domain-specific terminology.

~~b.~~1.2 Use of Equipment: Explain the intended use of equipment available in the classroom. Demonstrate how to **properly inspect, use, and maintain safe operating procedures with equipment**. Review the hazard assessment checklist from the introductory course and update it as needed for various environments. Incorporate safety procedures and complete a safety test with 100 percent accuracy.

### 2. A/V Production Industries

~~c.~~2.1 Industry Interaction: Analyze **how A/V professionals interact with others within the industry**. Conduct a case study of a company to evaluate the roles and responsibilities of A/V production professionals within the company. Create an oral, written, or visual presentation to illustrate the similarities and differences among the various roles. For example, investigate how an audio or video editor interacts with producers, directors, cinematographers, and assistants in a motion picture company to create a movie trailer.

~~d.~~2.2 Technology Influence: Develop a research paper, video production, or visual display demonstrating **the influence of technology on the careers of A/V production professionals**, including the impact on technical work and business management. Write persuasively to make a claim about the personal traits and skills needed for professionals in the field as technology advances, citing an example of an emerging or future technology.

~~e.~~2.3 Production Funding Methods: Examine **funding methods for various types of productions, including private equity and capital investment, tax incentives, and grants**. Describe the relationship between A/V productions and advertising. Select a production type and describe how a specific project is funded, including the role advertising

plays in the project, citing examples, and identifying key personnel involved in production finance. Use technology to compile the information as a class and create a library of production types, with example funding strategies for each.

## 3. Career Preparation

f.3.1 Career Development: Research the **postsecondary institutions** (colleges of applied technology, community colleges, and four-year universities) **in Tennessee and other states that offer A/V production-related programs**. Based on the research, determine how postsecondary study and other advanced training help facilitate career development. Identify specific occupations of interest, outline preliminary employment goals, and devise a tentative career plan to reach those goals. Include in the plan descriptions of admissions criteria, postsecondary programs of study, and the secondary courses that will prepare a student to be successful in a chosen A/V career.

## 4. Ethical and Legal Issues

g.4.1 Ethical Practices: Examine **the significance of ethical practices in A/V production occupations**, using professional organizations' codes of ethics or other industry sources. Evaluate ethical issues affecting the industry, such as truth tellingtruth-telling in broadcast journalism and cultural sensitivity. Compose an argument with claim(s) and counterclaim(s), debating the sociological and economic impact of a particular issue facing the industry.

## 5. Production Writing

h.5.1 Research Methods: Employ **research methods when planning a production, including data collection, critical reading, and analysis of such information as casting tapes or location scouting reports**. Synthesize research to draw conclusions and present a claim, citing resources and articulating logical rationale for the use of chosen resources. For example, conduct a survey to determine student body opinions regarding a current news event.

i.5.2 Target Audience: Utilize **research methods to determine the target audience for a given advertising production**. Analyze the wants and needs of the target audience to prepare persuasive writing to communicate the intended message to the viewer. Create a distribution plan to deliver the content to the target audience such as through television, radio, email, websites, and/or social media.

j.5.3 Script Writing: Building on the **experiences and knowledge from *A/V Production I*, conduct research and write scripts for various production types**. Analyze and break down the components of each type to create narratives that communicate the desired message or story with a logical beginning, middle, and end. Produce, review, and revise a script for each of the following production types, utilizing the appropriate style and formatting conventions of each:

i.a. entertainment-based productions;
ii.b. fFact-based productions; and
iii.c. market-based productions, such as advertising and proposals.

## 6. Interviewing

~~k.~~6.1 Interviewing Techniques: Examine **interviewing techniques used in A/V production**. Create an interviewing plan outlining the selected topic, interviewees, interview location, and scheduling plan. Include justification for why the selected interviewees and location are appropriate for the given topic, noting any potential biases that may exist.

~~l.~~6.2 Writing Interview Questions: Analyze **techniques used for writing interview questions**. Compare and contrast a variety of example interview questions to determine the characteristics of quality interview questions, such as those ~~which~~ that evoke detailed responses. Recognize the properties of biased and unbiased questions. Create a library of example questions a professional could use to prepare for interviews.

~~m.~~6.3 Interview Practice: Drawing on research, **create a list of interview questions for a specified interview with a specific purpose and audience**. Evaluate the questions for bias and quality. Perform interviews using prepared questions, appropriately improvising based on responses.

## 7. Planning a Production

~~n.~~7.1 Storyboard: Explain the **components and function of storyboards for A/V productions**. Search for short scripts or draw excerpts from larger texts in order to analyze and prepare them for conversion into storyboards. For the identified production, create an original storyboard based on the written script.

~~o.~~7.2 Production Plans: Utilize the **steps of the pre-production phase to create written plans for productions of increasing complexity**. Conduct a pre-production meeting to develop production plans. The plans should include but ~~would~~ not be limited to the following:

- ~~i.~~a. justifying the purpose of the production~~;~~,
- ~~ii.~~b. researching the topic of interest~~;~~,
- ~~iii.~~c. determining the target audience~~;~~,
- ~~iv.~~d. writing a script for the production based on research~~;~~,
- ~~v.~~e. crafting a storyboard~~;~~,
- ~~vi.~~f. creating a project budget~~;~~,
- ~~vii.~~g. outlining a production schedule~~;~~ ~~,~~ and
- ~~viii.~~h. choosing a method of content delivery (i.e., online, on radio, on local television, live production, etc.).

For example, research a popular or controversial topic within A/V production, and create a production plan for a well-organized, short documentary film or radio news story that explores expert opinion on both sides of the debate. Sample topics include the portrayal of athletes as positive role models or the prevalence of violence on television.

## 8. Lighting

~~p.~~8.1 Lighting: Examine the s**cientific principles of light, distinguishing among the characteristics of hard light, diffused light, and incident light**. Describe techniques used for manipulating light such as filters, gels, diffusers, and more. Utilizing these

principles and building on techniques learned in *A/V Production I*, plan and implement the lighting for a production scene. Steps include planning the scene and equipment, blocking the scene, setting the lights, and adjusting the white balance of the camera.

~~q.~~8.2 Usage of Lighting Techniques: Analyze **how lighting techniques are used to create composition, visual continuity, and mood by examining case studies of video productions**. Examine a given production and formulate a hypothesis concerning the types and setup of lighting equipment used for the scenes. Corroborate the hypothesis where possible and illustrate the conclusions in a written narrative with supporting graphics, ~~(~~such as a lighting set-up diagram~~)~~. Formulate a strategy for creating a given mood by studying and citing examples from textbooks, online resources, and the results of the case study.

## 9. Audio

~~r.~~9.1 Components of Audio: Describe **the importance and characteristics of quality audio, drawing conclusions about production results and implications based on audio quality**. Explain the proper techniques for capturing quality audio for productions. Cite sources employing both scientific and industry perspectives, briefly justifying why each is valid.

~~s.~~9.2 Sound Quality: Properly **set up audio recording equipment and perform a pre-production check**. Record an audio sequence and properly monitor the sound level. Troubleshoot poor sound quality and interferences by identifying the source of the problem and making corrections. Record quality sound, both in the studio and on location.

## 10. Production Equipment

10.1 Set Layout: Design the **staging and layout of a set**. Appropriately integrate lighting, audio, scenery, costumes, and props according to the script and production plan. In teams, demonstrate the proper setup and operation of a wide array of production equipment, and rotate roles to complete the various jobs necessary for a studio and/or remote production.

10.2 Camera Operations: Demonstrate **camera operations of advancing skill in studio and field environments** including the following:

~~i.~~a. selecting proper framing;
~~ii.~~b. capturing action footage;
~~iii.~~c. using appropriate lens focal length, aperture, and exposure; and
~~iv.~~d. implementing appropriate recording sequence.

10.3 Control Room Equipment: Identify and **describe the function of the equipment in a control room**. Appropriately use an audio mixer, switch cameras, and utilize traffic control equipment. Drawing on instructional manuals and other resources, create a short tutorial video that a beginning A/V production student could view to understand the basic functions of a control room.

10.4 Maintenance of Equipment: **Interpret instructional manuals and other resources to determine and demonstrate routine maintenance and cleaning procedures to protect**

**and prolong the life of A/V production equipment**. Create a maintenance plan for a given piece of equipment that another peer could use to perform proper cleaning and storing techniques.

10.5 Troubleshooting Procedures: Perform **troubleshooting procedures, including researching solutions used by A/V technicians, to solve basic technical problems involving production equipment.** For example, examine a malfunctioning piece of equipment or an improperly set-up network of equipment and determine the cause of the malfunction. Apply knowledge gained through experience in the course and employ research procedures to fix the equipment, adjust the settings, and prepare for production.

## 11. Post-Production

11.1 Post-Production Editing: Examine **the importance of post-production editing to the A/V production process, and determine the impact of editing on continuity, performance, emphasis, and pacing**. Perform advancing software operations to edit video and/or audio clips. Build on the skills learned in *A/V Production I* (i.e., assembling clips for proper sequencing, applying transition effects, and inserting basic text to enhance video) to complete more sophisticated tasks, including the following:

- ~~i.~~a. adjusting audio levels for balance and emphasis;
- ~~ii.~~b. using multiple audio sources;
- ~~iii.~~c. mixing audio for video such as applying sound effects, equalizing, and matching levels;
- ~~iv.~~d. applying visual effects such as filters, keying, and image control;
- ~~v.~~e. creating graphics for video productions such as titles and still images;
- ~~vi.~~f. exporting and uploading video and/or audio in the appropriate format based on its planned distribution; and
- ~~vii.~~g. utilizinge~~-~~ digital editing software to create productions of increasing complexity, such as a documentary film that incorporates photographs, interviews, narrative voice-over, and other footage.

## 12. Projects

12.1 Video/Audio Projects: **Apply the production process to complete video and/or audio projects** (independently and in teams) for a public audience of increasing complexity and of varying ~~type~~types. Demonstrate the ability to select and use the appropriate equipment and procedures to accomplish project goals. Create a narrative to promote the production to a targeted audience. For example, write a synopsis of a short film, as though for a movie listing.

12.2 Production Reflection: **Reflect on the outcomes of productions created in the course**. Evaluate whether the various elements of the production meet the goals set in the production plan. Additionally, evaluate the productions of others, assuming the role of a film critic or analyst to write a critical review of a production, citing evidence to justify claims made.

12.3 Team Project with Data Analysis: As a team, **identify a problem** related to the program of study as a whole. **Research and utilize the Engineering Design Process to design a**

**solution**. Document the following steps in the engineering design notebook for inclusion in the program portfolio. When possible, connect the problem to an existing CTSO event.

a. **Problem identification**: Brainstorm specific problems and challenges within the program of study. Conduct basic research to understand the scope and implications of the identified problem. Identify one problem as a focus area.
b. **Research and Analysis**: Conduct in-depth research on chosen topics related to the problem. Locate and analyze a dataset related to the problem.
c. **Review the S~~s~~tages of the Engineering Design Process**: Define the problem, research, brainstorm solutions, develop prototypes, test, ~~and~~ evaluate, and iterate. Consider constraints such as cost, efficiency, and environmental impact during the design process.
d. **Project Implementation**: Assign specific roles within the design teams (e.g., project manager, researcher, designer, tester). Design a solution tailored to address the identified problem or scenario. Document progress through design journals, sketches, diagrams, and digital presentations.
e. **Presentation and Reflection**: S~~s~~howcase the problem and solution to the class. Share the data that was analyzed and how it affected the solutions and propose potential improvements.

**Portfolio**

13.1 Artifacts: **Update materials from coursework to add to the portfolio started in *A/V Production I***, including the career plan generated in this course, and continually reflect on coursework experiences. Include written descriptions of project types and learning outcomes.

## Standards Alignment Notes

*References to other standards include:

- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
  - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

# A/V Production III

| | |
|---|---|
| **Primary Career Cluster:** | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |
| **Course Code(s):** | C11H03 |
| **Prerequisite(s):** | *A/V Production II* (C11H02) |
| **Credit:** | 1-2 credits (See Recommended Credit below) |
| **Grade Level(s):** | 11-12 |
| **Focus ElectiveElective Focus- Graduation Requirements:** | This course satisfies one to two of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition, when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the third course in the *A/V Production* program of study. |
| **Aligned Student Organization(s):** | SkillsUSA: http://www.skillsusatn.org/<br>Technology Student Association (TSA): http://www.tntsa.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Tennessee Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/content/tn/education/educators/career-and-technical-education/student-industry-certification.html. |
| **Teacher Endorsement(s):** | 042, 230, 231, 537, 538, 539, 543, 576, 583, 597, 710 |
| **Required Teacher Certifications/Training:** | Please refer to Occupational Educator Licensure Guidance for a full list.None |
| **Required Teacher Training:** | None |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best For All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in ~~career~~ careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for ~~your~~ students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course~~; ,~~ note this is not an exhaustive list.

- Participate in the CTSO ~~-~~Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.
- ~~For more ideas and information, visit Tennessee SkillsUSA at http://www.skillsusatn.org/.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities ~~that relate~~related to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1-1.2** | Have an industry partner explain the job safety issues.
- **Standards 2.1-2.2** | Invite an A/V union representative to guest speak.
- **Standards 3.1-3.5** | Incorporate a ~~Student run~~student-run enterprise with industry partner involvement and mentorship.
- **Standards 4.1-4.5** | Have students work on-site with a production crew.
- **Standards 5.1-5.3** | Have students partner with a social media outlet to learn how analytics are used in the industry.
- **Standards 6.1-6.3** | Have students experience a live television broadcast with an industry partner.
- **Standards 7.1-8.3** | Participate in an i~~l~~nternship.

~~For more ideas and information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.htmll.~~

## Course Description

*A/V Production III* is an ~~applied-knowledge~~applied knowledge course intended to prepare students to pursue careers and postsecondary learning in audio/visual production. Students in this course will apply knowledge and skills from previous courses in the program of study to create productions both independently and in teams, with the option of participating in a work-based learning experience for additional credit. Students will use industry equipment and technology to complete all phases of the production process, including planning, coordinating, capturing, editing, and distributing productions. Standards in this course include policies and regulations, independent and collaborative productions, distribution of media, and the production of live events. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Upon completion of this course, proficient students will be prepared for a career in audio/visual production or to transition to a postsecondary program for further study.

## Course Standards

### 1. Safety

1.1 Safety Rules: Accurately **read, interpret, and demonstrate adherence to safety rules**, including but not limited to rules published by the Occupational Safety and Health Administration (OSHA), and state and national code requirements. Be able to distinguish between the rules and explain why certain rules apply using domain-specific terminology.

1.2 Use of Equipment: Explain the **intended use of equipment available in the classroom**. Demonstrate how to properly inspect, use, and maintain safe operating procedures with equipment. Review the hazard assessment checklist from *A/V Production I* and *A/V Production II* and update as needed for various environments. Incorporate safety procedures and complete a safety test with 100 percent accuracy.

### 2. Policies and Regulations

2.1 Regulations: Research and summarize **relevant legislation, regulations, and laws regulating audio/visual production**, such as Federal Communications Commission regulations and the Freedom of Information Act. Discuss the influence of government regulations on various media.

2.2 Labor Management: Examine **labor management processes** and agreements used **in A/V production fields**. Describe the **roles and functions of unions and professional organizations**. Explain how such organizations influence and impact the development of production plans and work production.

### 3. Independent Production

3.1 Project Development: Perform research to **develop a project idea for a given production type.** Prepare a proposal and storyboard for the proposed project and pitch the idea to industry professionals, clients, and/or peers. In the presentation, include:

a. justification of identified production type;
b. determination of the target audience based on research;
c. relevance of the project idea to a targeted audience;
d. a draft of a written script based on research and appropriate to the purpose; and
e. a storyboard illustrating the main ideas of the production.

Collect and reflect on constructive feedback from the audience, andaudience and incorporate feedback to develop the production plan.

3.2 Production Elements: Apply skills and knowledge from previous courses to independently coordinate and **complete all elements of the pre-production, production, and post-production processes,** in order to **create an original production**, (as outlined in standard 5,) according to identified schedule and intended purpose (e.g. client requirements).

3.3 Roles of a Producer: Assume the role of a producer to **coordinate production activities**. Log activities in a production log. **Determine the personnel, equipment, and associated costs needed to complete the project,** including anticipated scheduling, coordinating, and managing of crews to complete projects.

3.4 Performances: Examine **characteristics of high qualityhigh-quality on-camera performances** by reading textbooks and other resources and by analyzing actual professional video productions. Synthesize research to **create guidelines for on-screen performances**. **Practice performing** on-screen and **identify strengths and areas to improve** for future performances, both through personal reflection based on identified guidelines and by requesting constructive feedback from the instructor and/or peers.

3.5 Production Elements: Read and interpret instructional materials to **generate special effects and animated elements for a given production using industry software**. Employ the elements of design such as type, color, and composition to enhance the communication of the theme and message. For example, create and employ graphical elements consistent with a company's or broadcasting station's branding to appeal to the identified target audience.

## 4. Collaborative Production

4.1 Production Team Structure: Drawing on research conducted in *A/V Production II* regarding the **roles of individuals within A/V production teams**, determine the **structure of a production team needed to complete a classroom production**. Draw a diagram to illustrate the breakdown of the team. Create job descriptions to indicate the responsibilities of every position.

4.2 Production Team Creation: Apply skills and knowledge in an authentic production laboratory. **Organize a production team; assign roles based on the strengths of each individual**, working collaboratively to set and complete project goals. Demonstrate professionalism, exercise leadership, and complete tasks in a timely manner according to the production schedule.

4.3 Project Meetings: Schedule and **conduct team project meetings as needed throughout all phases of production, emphasizing team goals and values**. For example, conduct meetings to brainstorm and refine project ideas, prepare for production, coordinate logistics, address challenges as production is implemented, and ~~to~~ plan and delegate editing and distribution responsibilities during post-production.

4.4 Production Process: Work in production teams to **complete all aspects of the production** process**,** **including planning, coordinating, capturing, editing, and distributing** a production. Demonstrate advanced skills in selecting, setting up, and using industry equipment and software. Utilize advanced scheduling techniques to manage extended projects by developing a Gantt chart, monitoring production processes, and appropriately adjusting plans in response to problems or delays.

4.5 Evaluation: Reflect upon project outcomes, evaluating the results based on project goals. **Evaluate team operations and identify opportunities to improve the** functioning processes of the team. As a group, **evaluate the effectiveness of production content and implementation** based on audience feedback, ratings, etc. Note constructive and positive feedback ~~received, and~~received and incorporate feedback to improve the outcomes of future projects.

## 5. Distribution of Media

5.1 Media Distribution: Research outlets for media distribution. Explain the **techniques and procedures of online distribution** (e.g., web hosting, streaming, social media), television broadcast and cable networks, radio broadcast and networks, syndication, and public broadcast. Compare and contrast each in an infographic or written narrative, citing evidence from the sources consulted.

5.2 Transmission Procedures: **Select a specific media outlet** and **research in** more **detail the transmission procedures of that outlet**. For example, analyze methods a local news broadcasting company uses to send transmissions from a remote site to a studio ~~,~~ and how news broadcasts are transmitted to viewers.

5.3 Audience Feedback: Create a **strategy to gather audience feedback utilizing technology**. For example, utilize social media sites to monitor audience feedback posts or create an online survey. Gather and analyze feedback from audience responses and use it to influence future productions.

## 6. Live Events

6.1 Live Events: Analyze the **unique procedures and equipment needed to capture and stream/broadcast video and/or audio productions of live events**, such as a sporting event or a performance. Summarize findings in an informational text, citing research from online resources or industry professionals.

6.2 Live Production: Drawing on research, plan equipment **setup for a live production**. For a given event, create drawings (i.e., location sketches or CAD drawings) to **plan the layout of equipment required for the event including cameras, lighting, audio,**

**intercommunications, and other equipment and its connection to available electrical sources.** While planning, attend to safety considerations such as the placement of cords and balancing of electrical loads. Use the drawings to develop an equipment list and determine the personnel required to capture the event.

6.3 Producing Live Events: Work in teams to **produce live events**. **Follow proper procedures to set up, use, and tear down equipment for producing live events in various contexts**. Reflect on production outcomes in a journal and use the reflections to improve future outcomes.

## 7. Portfolio

7.1 Portfolios: Update the portfolio to reflect the cumulative total of all projects undertaken across the program of study. Continually **reflect on coursework experiences, ~~and~~ and revise ~~and~~ and refine the career plan generated in *A/V Production II*.** Include written descriptions of project types and learning outcomes.

## 8. Internship Option**

8.1 Work-Based Learning: **Participate in a work-based learning internship** experience to **develop, practice, and demonstrate skills outlined in course standards**. An internship must follow the current Tennessee Work-Based Learning (WBL) Framework Guidelines.

8.2 Journal: Create and continually update **a personal journal to document internship activities**. Draw connections between the experience and course content, thoughtfully reflecting on the following:

a. acquired leadership and technical skills;~~,~~
b. problem-solving techniques and decision-making skills;~~,~~
c. team member participation in a learning environment;~~,~~ and
d. personal career development.

8.3 Essay: Upon conclusion of the internship, **write an informative essay summarizing the internship experience** and next steps for personal and professional growth. Produce a technology-enhanced class presentation showcasing highlights, challenges, and lessons learned from the internship.

**Although ~~a~~ hands-on experience in work-based learning (WBL) is ~~most~~ ideal, it is recognized that not all students will be able to be placed in a company setting. Internship activities may take the form of work-based learning (WBL) opportunities, ~~(~~such as internships, cooperative education, service learning, ~~and~~ job shadowing, ~~)~~ or industry-driven project-based learning. These experiences must comply with the Work-Based Learning Framework guidelines established in SBE High School Policy 2.103. As such, to earn two credits, this course must be taught by a teacher with an active WBL Certificate issued by the Tennessee Department of Education and must follow policies outlined in the Work-Based Learning Policy Guide available online at https://www.tn.gov/content/dam/tn/education/ccte/wbl/wbl_policy_guide.pdf.

The Tennessee Department of Education provides a *Personalized Learning Plan* template to ensure compliance with the Work-Based Learning Framework, state and federal Child Labor Law, and

Tennessee Department of Education policies, which must be used for students participating in WBL opportunities.

## Standards Alignment Notes

References to other standards include:

- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

# Applied Arts Practicum

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| **Primary Career Cluster:** | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |
| **Course Code(s):** | C11H07 |
| **Prerequisite(s):** | Minimum of 2 credits in an Arts, A/V Technology, & Communications program of study. |
| **Credit:** | 1 |
| **Grade Level:** | 12 |
| **Focus ElectiveElective Focus- Graduation Requirement:** | This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the fourth course in the *Digital Arts & Design* and *A/V Production* programs of study. |
| **Aligned Student Organization(s):** | SkillsUSA: http://www.skillsusatn.org/<br>Technology Student Association (TSA): http://www.tntsa.org |
| **Coordinating Work-Based Learning:** | Teachers who hold an active WBL certificate may offer placement for credit when the requirements of the state board's WBL Framework and the Department's WBL Policy Guide are met. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/education/educators/career-and-technical-education/student-industry-certification.html. |
| **Teacher Endorsement(s):** | A/V Production- 538, 576, 597, 710 Digital Arts & Design- 152, 153, 230, 311, 435, 436, 475, 476, 516, 519, 520, 521, 537, 538, 543, 583, 711, 952, 953 and ADDA Certified Digital Designer or NOCTI Advertising & Design or Adobe Certified Expert |

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| **Required Teacher Certifications~~/Training~~:** | Please refer to ~~Occupational Educator Licensure~~Occupational Educator Licensure Guidance~~ Guidance~~ for a full list.~~If students are assigned in work-based learning settings, teachers must attend WBL training and earn the WBL Certificate provided by the Tennessee Department of Education.~~ |
| **Required Teacher Training:** | If students are assigned ~~in~~to work-based learning settings, teachers must attend WBL training and earn the WBL Certificate provided by the Tennessee Department of Education. |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best for All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in ~~career~~ careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for ~~your~~ students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course~~;~~, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.

~~For more ideas and information, visit Tennessee SkillsUSA at http://www.skillsusatn.org/.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities ~~that relate~~related to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1, 2.1-2.2** | Invite an A/V worker to give a safety demonstration.
- **Standards 3.1-3.6** | Conduct an i~~I~~nformational interview with an industry partner.
- **Standards 4.1-4.4** | Complete an integrated project with multiple interactions with professionals in the Arts, A/V Technology, and Communications field.
- **Standards 5.1** | Participate in a ~~student run~~student-run enterprise with team involvement.
- **Standards 6.1-6.2** | Complete~~D~~o a virtual portfolio exchange with an industry partner.
- **Standards 7.1-7.2** | Present final presentation to potential industry employer.

~~For more ideas and information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html.~~

## Course Description

The *Applied Arts Practicum* is a capstone course intended to provide students with the opportunity to apply the skills and knowledge learned in previous Arts, A/V Technology, & Communications courses within a professional, working environment. In addition to developing an understanding of the professional and ethical issues encountered by professionals in these careers, students learn to refine their skills in problem-solving, research, communication, teamwork, and project management through the completion of a course-long project. The course is highly customizable to meet local system needs. Instruction may be delivered through school laboratory training or ~~through~~ work-based learning arrangements such as internships, service learning, and job shadowing. Upon completion of the practicum, proficient students will be prepared to pursue postsecondary study in arts, A/V technology, or communications programs~~;~~ or seek additional training or employment with the aid of the portfolio, which documents the student's work completed throughout the program of study.

## Work-Based Learning Framework

Practicum activities may take the form of work-based learning (WBL) opportunities~~,~~ ~~(~~such as internships, cooperative education, service learning, ~~and~~ job shadowing~~,)~~ or industry-driven project-based learning. These experiences must comply with the Work-Based Learning Framework guidelines established in SBE High School Policy 2.103. As such, this course must be taught by a teacher with an active WBL Certificate issued by the Tennessee Department of Education and follow policies outlined in the Work-Based Learning Policy Guide available online at https://www.tn.gov/content/dam/tn/education/ccte/wbl/wbl_policy_guide.pdf. The Tennessee Department of Education provides a *Personalized Learning Plan* template to ensure compliance with the Work-Based Learning Framework, state and federal Child Labor Law, and Tennessee Department of Education policies, which must be used for students participating in WBL opportunities.

## Course Requirements

This capstone course aligns with the requirements of the Work-Based Learning Framework (established in Tennessee State Board High School Policy), with the Tennessee Department of Education's Work-Based Learning Policy Guide, and with state and federal Child Labor Law. As such, the following components are course requirements~~:~~.

## Course Standards

## 1. Personalized Learning Plan

1.1 Personalized Learning Plan: A student will have a personalized learning plan that **identifies their long-term goals**, demonstrates how the **work-based learning (WBL) experience** aligns with their elective focus and/or high school plan of study, addresses how the student plans to meet and demonstrate the course standards, and addresses employability skill attainment in the following areas:

a. application of academic and technical knowledge and skills (embedded in course standards);
b. career knowledge and navigation skills;
c. ~~21st century~~21st-century learning and innovation skills; and
d. personal and social skills.

## 2. Safety

2.1 Safety Rules: Accurately read, **interpret, and demonstrate adherence to safety rules**, including but not limited to rules published by the Occupational Safety and Health Administration (OSHA), and state and national code requirements. Be able to distinguish between the rules and explain why certain rules apply.

2.2 Use of Safety Equipment: Identify and explain the **intended use of safety equipment** available in the studio or on the ~~jobsite~~job site. Demonstrate how to properly inspect, use, and maintain safe operating procedures with equipment. If assigned to a school laboratory, incorporate safety procedures and complete a safety test with 100 percent accuracy. If assigned to work-based learning, follow all applicable safety requirements and guidelines outlined by the company and document completion of training topics on the appropriate work-based learning and work site forms.

## 3. Postsecondary and Career Preparation

3.1 Company Research: Research and **select a company or organization for a project in the ~~an arts~~arts, A/V technology, or communications field**. Cite specific textual evidence from the organization's literature, as well as independent news articles, to summarize the following:

a. the mission and history of the organization;
b. headquarters and organizational structure;
c. products or services provided;
d. credentials required for employment and how they are obtained and maintained;
e. policies and procedures;
f. reports, newsletters, and other documents published by the organization; and
g. website and contact information.

3.2 Interview: Interview supervisors and other employees in a work environment to **identify appropriate methods of pursuing education and employment** in the given industry, and

determine what knowledge, skills, and educational credentials are required in the given workplace setting. Summarize the interviews in an informative narrative.

3.3 Career Plan: Apply learning experiences throughout the course to **review and update the education and career plan** based on the knowledge and feedback acquired. Proactively **identify areas of** strength and opportunities **for professional growth**, encourage and act on feedback from peers, supervisors, and customers, and seek and use resources to improve skills.

3.4 Resumes: Search for the resumes of **arts, A/V technology, and communications professionals** retrieved from the websites of companies, organizations, or professional networks. Discuss **what is typically included in the resumes of these professionals**, compare and contrast several examples, and create a personal resume modeled after elements identified in the search.

3.5 Future Career Preparation: Conduct a **job search and simulate the experience** by researching local employment options. In preparation for a future career in arts, A/V technology, and communications, **compose a cover letter** highlighting relevant experience and skills from the **resume** for a specific job posting.

3.6 Mock Interview: Participate in a mock interview. Prior to the interview, research tips on **dress and grooming**, most commonly asked **interview questions**, appropriate conduct during an interview, and recommended **follow-up procedures**. Highlight sample work compiled in the portfolio that illustrates mastery of specific skills attained throughout the program of study. Upon completion of the interview, write a thank you letter to the interviewer in a written or email format.

## 4. Transferring Course Concepts to Practicum

4.1 Work-Based Learning: Apply skills and knowledge from previous courses in an authentic work-based learning internship, job shadow, or classroom-based industry project. Where appropriate, **develop, practice, and demonstrate skills** outlined in previous courses.

4.2 Student Learning Plan: Work with the supervising teacher and work-based learning supervisor (if applicable) to develop a **personalized student-learning plan**, in accordance with approved policies, to address the methods **for practicing and demonstrating each of the skills** identified in the pre-requisite Arts, A/V Technology, & Communications course standards. Relate how each skill applies **to a placement in the workplace** or ~~in-class~~in a class setting.

4.3 Project Plan: As part of a course project, develop a comprehensive **project plan to guide all work-based learning on project planning techniques** used in prior coursework. Collaboratively update the plan to **reflect unexpected changes in conditions or capacity**. For example, demonstrate the ability to reschedule an activity if there is a technical issue with equipment due to unforeseen circumstances.

4.4 Journal Documentation: Create and continually update a **personal journal to document skills learned during the practicum** and draw connections between the experience and previous course content by reflecting on the following:

a. tasks accomplished and activities implemented;
b. positive and negative aspects of the experience;
c. how challenges were addressed;
d. team participation in a learning environment;
e. comparisons and contrasts between classroom and work environments;
f. interactions with colleagues and supervisors;
g. personal career development; and
h. personal satisfaction.

## 5. Business Skills and Project Management

5.1 Project Management: In teams, develop and successfully **implement a suite of project management tools and processes to aid in the completion of the course project**. (If participating in a work-based learning arrangement, apply tools and processes to satisfy placement requirements.) Demonstrate the ability to divide roles and responsibilities among team members, track progress toward goals, and satisfy client specifications as would a director, producer, or executive member of a production team. For example, assign tasks and monitor deliverables using a Gantt chart or other tracker.

## 6. Portfolio

6.1 Portfolio Artifacts: Update materials from coursework to add to the portfolio ~~begun~~ that began in the introductory course. The **portfolio should reflect a thoughtful assessment and evaluation of the progression of work** involving the application of project management skills specific to the industry. The following documents will reside in the career portfolio:

a. career plan;
b. resume;
c. list of responsibilities undertaken through the course;
d. artifacts of project outcomes (such as storyboards, production schedules, and videos);
e. periodic journal entries reflecting on tasks and activities;
f. feedback from instructor and/or supervisor based on observations; and
g. transcripts or other evidence of certifications obtained throughout the program of study.

6.2 Electronic Portfolio: Synthesize best representations of all coursework in the program of study to create a **cohesive professional webpage, digital portfolio, or video, exemplifying personal accomplishments**. Develop a plan to distribute the electronic portfolio as part of a career job search and/or application to a postsecondary institution.

## 7. Communication of Project Results

7.1 Communication of Project Results: Apply all **steps of the production or design process** to successfully complete projects as outlined in the course project plan. Demonstrate the ability to **communicate results over the course of the project's duration**. Produce a memo documenting the progress of the project and evaluating the final product as though writing to studio executives or project funders. Upon completion of the course, stage a live production, public screening, or other showcase to share the final product, if applicable, within the work-based learning placement.

7.2 Presentation: Upon completion of the practicum, develop a **technology-enhanced presentation showcasing highlights, challenges, and lessons learned** from the experience. The presentation should be delivered orally, but supported by relevant artifacts, such as storyboards, casting videos, scripts, or screenshots of the finished product. Throughout the presentation, justify decisions and assess the quality of the work. Prepare the presentation in a format that could be presented to both a technical and a non-technical audience, as well as for a career and technical student organization (CTSO) competitive event.

## Standards Alignment Notes

References to other standards include:

- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

# Digital Arts & Design I

| | |
|---|---|
| **Primary Career Cluster:** | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |
| **Course Code(s):** | C11H06 |
| **Prerequisite(s):** | None |
| **Credit:** | 1 |
| **Grade Level:** | 9 |
| **Focus Elective Graduation Requirements:** | This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. In addition, this course satisfies one fine arts credit required for graduation. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition, when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the first course in the *Digital Arts & Design* program of study. |
| **Aligned Student Organization(s):** | SkillsUSA: http://www.skillsusatn.org/<br>Technology Student Association (TSA): http://www.tntsa.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Tennessee Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/content/tn/education/educators/career-and-technical-education/student-industry-certification.html. |
| **Teacher Endorsement(s):** | 153, 230, 311, 435, 436, 475, 476, 516, 519, 520, 521, 537, 538, 543, 576, 583, 597, 710, 711, 953 |
| **Required Teacher Certifications:** | Please refer to Occupational Educator Licensure Guidance for a full list. |
| **Required Teacher ~~Certifications/~~Training:** | ~~ADDA Certified Digital Designer or NOCTI Advertising & Design or Adobe Certified Expert~~None |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best For All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for ~~your~~ students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.

~~For more ideas and information, visit Tennessee SkillsUSA at http://www.skillsusatn.org/.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities ~~that relate~~related to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1-3.2** | Invite an industry guest speaker who explains safety protocol and the current job market.
- **Standards 4.1-4.7** | Job shadow a graphic designer.
- **Standards 5.1-7.2** | Spend the day at an art institute being introduced to the field basics.
- **Standards 8.1-9.1** | Virtual exchange with a software company on digital design.
- **Standards 10.1-10.2** | Have students do a project with industry student organizations.
- **Standards 11.1-12.2** | Have a business professor as a guest speaker.
- **Standards 13.1-13.2** | Have an industry professional evaluate the students' portfolios.

~~For more ideas and information, visit~~ https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html

## Course Description

*Digital Arts & Design I* is a foundational course in the Arts, A/V Technology, & Communications cluster for students interested in art and design professions. The primary aim of this course is to build a strong understanding of the principles and elements of design and the design process. Upon completion of this course, proficient students will be able to utilize industry tools to conceptualize and create communications solutions ~~which~~ that effectively reach targeted audiences. Students will acquire basic skills in illustration, typography, and photography. Standards in this course include career exploration, an overview of the history of design, basic business management, and legal issues. In addition, students will begin compiling artifacts for inclusion in a digital portfolio, which they will carry with them throughout the full sequence of courses in this program of study.

## Course Standards

### 1. Safety

1.1 Safety: Demonstrate the ability to **comply with personal and environmental safety practices** associated with art and design applications: the use of adhesives; hand tools; machines; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

a. Inspect, maintain, and employ safe operating procedures with tools and equipment.
b. Adhere to responsibilities, regulations, and Occupational Safety ~~&~~ and Health Administration (OSHA) policies regarding reporting ~~of~~ accidents, ~~and~~ observed hazards, ~~,~~ and ~~regarding~~ emergency response procedures.
c. Complete a safety test with 100 percent accuracy. For equipment used in the course, complete equipment examinations with 100 percent accuracy in which the student performs an operational checkout by the instructor. Maintain a record of safety examinations and equipment examinations.

### 2. Introduction to Design

2.1 Roles ~~&~~ and Development of Design: Investigate the **role of designers in communicating ideas in society, both historically and currently, emphasizing how social, cultural, economic, and political developments are reflected in and influenced by visual messaging**. Synthesize research from informational texts, including design magazines and textbooks~~,~~ to create an informational artifact that illustrates how visual art and design ~~is~~ are used as a communication tool, citing specific examples to illustrate concepts.

a. Research the development of design throughout history, analyzing how advances in technology have impacted design (Gutenberg's invention of movable type, lithography, computers, etc.). Citing resources from informational text, create an annotated timeline or visual graphic emphasizing significant time periods in design, ~~(~~such as Victorian, Arts and Crafts, Modernism, Art Deco, etc.~~,)~~ and the key technological advances impacting design.

## 3. Career Exploration

3.1 Career Pathways: **Identify** and analyze the **career pathways in art and design professions and the industries in which art and design professionals work**, including but not limited to manufacturing, specialized design services, publishing, and advertising. Cite supporting evidence from multiple sources, ~~(~~such as interviews with design professionals retrieved from industry magazines~~)~~, and summarize the aptitudes and training needed for at least three careers of interest. For example, outline the typical requirements needed to become a graphic designer, including personal aptitudes and secondary and postsecondary training required. Devise a tentative career plan to reach employment goals.

Labor Market Data: Compile and analyze real-time and **projected labor market data from public sources**, such as the U.S. Bureau of Labor Statistics, to explore local and regional occupational opportunities and trends in design careers. Synthesize collected data to **develop an informational artifact comparing occupations** by job availability, salaries, and benefits.

3.2

3.2 ~~3.3~~ Career and Technical Student Organization Introduction: **Introduce** the program's **aligned Career and Technical Student Organization** (CTSO), Technology Student Association (TSA) and Skills USA, **through an interactive activity**, such as classroom competition.

## 4. Elements and Principles of Design

4.1 Principles of Design: Categorize and **describe the principles of design** which affect 1) the internal relationships of a design, and 2) the design as a whole, citing examples of design principles found in art.

a. Unity
b. Contrast/Variety
c. Hierarchy
d. Dominance/Emphasis
e. Proportion/Scale
f. Balance
g. Rhythm/Repetition

4.2 Elements of Design: Analyze the **elements of design** by evaluating their **purposes and applications** in a variety of design applications.

a. Line
b. Shape/Form
c. Space/Size/Stability
d. Value
e. Color
f. Texture

g. Typography

For example, label and explain the elements of design in a given book cover compared with a billboard.

4.3 Rules of Composition: Research **rules of composition**, ~~(~~such as the rule of thirds, ~~s)~~ and explain **how the rules govern the elements and principles of design**. Write persuasively to describe the properties of a strong composition by providing examples and counterexamples and citing evidence from informational texts.

4.4 Color Wheel Functions: Explain the **function of the color wheel** and identify **techniques that achieve desired hues, values, intensities, and color schemes for use in design**. Compare and contrast additive and subtractive color ~~systems, and~~systems and relate these principles to color specification systems (such as CMYK and RGB) used in design software.

4.5 Characteristics of Color: Research the **psychological characteristics of colors, comparing and contrasting the differences in warm and cool color palettes.** Illustrate and describe in a written narrative how color is measured in hue, value, and intensity, and how these properties combine to produce specific psychological characteristics and illustrate themes. Produce examples that demonstrate how emotions may be influenced by the use of color in designs.

4.6 Color Theories: Examine color theories such as **color context and contrasts of colors**. Evaluate the **use of various color schemes**, ~~(~~such as complementary, tertiary, and analogous,~~)~~ in designs. Apply the knowledge to demonstrate basic techniques in combining colors to create designs.

4.7 Effectiveness of Design Products: Analyze, assess, and identify t**he effectiveness of design products based on the intended function of the design and the principles and elements of design** used in the composition. Investigate the intent of a given design and evaluate whether the intent was met through the structure of the design. For example, create an evaluation rubric based on the elements and principles of design and use it to evaluate given design products.

## 5. Introduction to the Design Process

5.1 Design Process: **Research design processes** described in textbooks, designers' professional websites, design magazines, or by interviewing design professionals. ~~(~~Steps may include problem identification, research, identifying the audience, brainstorming, and idea refinement. ~~)~~ Citing research, create a visual illustration describing the major steps ~~to~~ in the design process for digital arts and design.

5.2 Design Goals: Describe the **importance of setting design goals**, such as **determining the purpose, message, and audience for given design projects**. Examine the research techniques professionals use to inform design goals and influence design outcomes. For example, describe how designers use market data to identify the audience for advertisement of a given product.

## 6. Basic Illustration

6.1 Types of Sketches: Create **two-dimensional and three-dimensional sketches**, including **rough and refined sketches**, demonstrating shape, volume, depth, and dimension. **Distinguish among common illustration techniques used in design composition**, such as one-point, two-point, and multi-point perspective drawings. Develop conceptual design ideas using freehand sketching. For a given design problem, generate, analyze, and refine sketches to develop design solutions. Use the sketches to create refined drawings utilizing design software. For example, create thumbnail sketches to generate ideas for a logo or advertisement.

6.2 Symbols: Describe **how symbols have been used and have been developed** throughout history. Explain **how symbols communicate visual information in design**. Analyze the use of symbols in pictograms, ideograms, and logos, explaining and providing examples of each.

6.3 Logos: Examine a variety of well-known company logos to create a list of **key characteristics that influence a logo's effectiveness**. Compare the list with other resources such as textbooks and design journals, evaluating the credibility of each source. Drawing on research, plan and create an effective logo for a given mock company. Appraise the effectiveness of the resulting logo design as well as the designs of peers based on the criteria generated from the prior research.

## 7. Basic Photography

7.1 Photography Techniques: Demonstrate **basic techniques to adjust camera settings and operate a camera to capture digital images**. Define and explain white balance, depth of field, and shutter speed; demonstrate procedures for properly adjusting each for a particular scene. Apply the principles of design and the rules of composition to capture photographs.

7.2 Editing: Read and interpret instructional narratives, such as manuals or tutorials, to **perform basic edits and enhancements to photographs using software**, including but not limited to cropping, resizing, retouching, making selections, and using layers. Assess the extent to which each text addresses the given editing task. Demonstrate the procedures for editing raster-based imagery, both high resolution and low resolution, in CMYK and RGB, and preparing files for both print and web media.

## 8. Introduction to Design Software

8.1 Digital Files: Demonstrate **basic procedures to manage digital files**. Describe **file storage in memory cards** and estimate the number of photographs a memory card can hold based on the resolution of the photographs and other factors. Use a scanner to create digital files. Determine **appropriate resolutions for various applications such as printed and web media**. Use file system folders to organize files. Utilize online file management services to ~~backup~~ back up files.

8.2 Design Software: Distinguish between the **various software used for visual design**, including page layout software, illustration software, photo editing software, and web

publishing software. Describe and illustrate the difference between raster and vector graphics. Create a chart or infographic explaining the major types and uses of design software. Employ the appropriate software to complete assigned tasks.

## 9. Basic Typography

9.1 Typography: **Categorize varieties of type**, including but not limited to serif, sans serif, script, and decorative. Employ the units of measurement used to **describe line spacing (leading), type size, tracking, and kerning**. Apply appropriate typography to given projects, emphasizing readability and the impact on design goals.

## 10. Design Projects

10.1 Design Projects: **Apply the design process to complete projects** of increasing complexity and of varying applications **such as print, web, film, and marketing communications**. Demonstrate the ability to select and **use the appropriate tools and procedures** to accomplish project goals. Prepare an informative narrative to explain a design to a peer, **emphasizing how the design process, ~~and~~ the design elements, and principles were applied**. Compile the elements of the branding package with other artifacts for inclusion in a design portfolio, such as an engineering design notebook, to be updated throughout the program of study.

10.2 Design Evaluation: Utilize the **critique and refinement strategy** as part of the design process to achieve project goals. As part of a design project, present preliminary design ideas in a way that is understandable to an audience using both visual and verbal explanations. Note constructive criticism received and use it to influence design refinement. Similarly, evaluate the work of others, drawing on design principles and project goals, to provide clear, specific, and constructive feedback.

10.3 Data Analysis in Arts A/V Technology & Communications: **Research** the **use of data in Arts A/V Technology & Communications cluster career fields**. Include data that is **generated internally** by businesses, **and externally** by local communicates, state, and the nation. Explore examples of how the data is used, including the following:

a. ~~C~~customer/~~C~~client use of products and services;
b. ~~D~~demographics of end users;
c. ~~C~~community, state, and national statistics; and
d. ~~d.~~ d~~D~~ata that must be reported to another entity.

## 11. Ethical ~~&~~ and Legal Issues

11.1 Ethical ~~&~~and Legal Issues: Research and **interpret laws and regulations protecting intellectual property as they relate to the design industry, such as copyright laws**. Explain ethical and legal conduct that provides proper credit to those whose ideas and content have been used in creating new works. Distinguish between copyrights, trademarks, infringement, and fair use. Summarize and explain guiding principles in a written or oral presentation, as though leading a training or tutorial for fellow employees.

11.2-Ethical Artificial Intelligence (AI): **Explore the ethical implications of AI usage** through interactive discussions and case studies, learning to identify bias, ensure fairness, and protect privacy in AI systems. **Develop** critical thinking **skills to evaluate the societal impact of AI technologies**, while fostering a sense of responsibility and ethical decision-making in the~~ir own~~ use of AI tools.

~~7.1~~

### 12. Business Management

12.1 Profit: Explore **how design professionals and companies calculate profit**. Relate the profitability of a business to pricing and cost. For example, create a list of expenses incurred by a freelance designer and calculate the price and amount of work that must be accomplished in order to earn profit.

12.2 Contracts: Describe the **components of a basic contract document for design work** by analyzing an example contract. Drawing on textbooks, news articles, and other resources, explain the benefits of utilizing written contracts as opposed to oral agreements.

### 13. Portfolio

13.1 Portfolio Components: Gather examples of professional portfolios from contemporary designers and photographers. List the **items that are often included in a professional portfolio**. In a written, visual, or oral presentation, describe the components of a professional portfolio and the benefits of maintaining one.

13.2 Digital Portfolio: Compile important **artifacts to create a digital student portfolio that connects personal career preparation to concepts learned** in this course, including written descriptions of project processes and reflections on learning outcomes.

## Standards Alignment Notes

References to other standards include:

- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

# Digital Arts & Design II

| | |
|---|---|
| **Primary Career Cluster:** | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |
| **Course Code(s):** | C11H05 |
| **Prerequisite(s):** | *Digital Arts & Design I* (C11H04) |
| **Credit:** | 1 |
| **Grade Level:** | 10 |
| **Focus ElectiveElective Focus- Graduation Requirements:** | This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition , when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the second course in the *Digital Arts & Design* program of study. |
| **Aligned Student Organization(s):** | SkillsUSA: http://www.skillsusatn.org/<br>Technology Student Association (TSA): http://www.tntsa.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Tennessee Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/content/tn/education/educators/career-and-technical-education/student-industry-certification.html. |
| **Teacher Endorsement(s):** | 153, 230, 311, 435, 436, 475, 476, 516, 519, 520, 521, 537, 538, 543, 576, 583, 597, 710, 711, 953 |
| **Required Teacher Certifications/Training:** | ADDA Certified Digital Designer or NOCTI Advertising & Design or Adobe Certified ExpertPlease refer to Occupational Educator LicensureOccupational Educator Licensure Guidance Guidance for a full list. |
| **Required Teacher Training:** | None |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best For All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for your students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course~~;~~, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.
- ~~For more ideas and information, visit Tennessee SkillsUSA at http://www.skillsusatn.org/.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities ~~that relate~~related to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1-3.1** | Have an art director guest speaker explain job safety protocols.
- **Standards 4.1-4.4** | Job shadow a local photographer.
- **Standards 5.1-6.5** | Job shadow a local artist.
- **Standards 7.1-7.5** | Have students complete~~do~~ a project with a local art museum.
- **Standards 8.1** | Interview a small business owner of an art gallery.
- **Standards 9.1** | Have an industry professional evaluate students' portfolios.

~~For more ideas and information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html.~~

## Course Description

*Digital Arts & Design II* is a course that builds on the basic principles and design process learned in the introductory *Digital Arts & Design I* course. Upon completion of this course, proficient students will be able to perform advanced software operations to create photographs and illustrations of increasing complexity. Students will employ design principles and use industry software to create layouts for a variety of applications. Standards in this course also include an overview of art and design industries, career exploration, and business management. In addition, students will continue compiling artifacts for inclusion in a digital portfolio, which they will carry with them throughout the full sequence of courses in this program of study.

## Course Standards

### 1. Safety

1.1 Safety Practices: Demonstrate **the ability to comply with personal and environmental safety practices** associated with art and design applications: the use of adhesives; hand tools; machines; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

a. Inspect, maintain, and employ safe operating procedures with tools and equipment.
b. Adhere to responsibilities, regulations, and Occupational Safety and Health Administration (OSHA) policies regarding reporting ~~of~~ accidents~~, and~~ observed hazards~~, ,~~ and regarding emergency response procedures.
c. Complete a safety test with 100 percent accuracy. For equipment used in the course, complete equipment examinations with 100 percent accuracy in which the student performs an operational checkout by the instructor. Maintain a record of safety examinations and equipment examinations.

### 2. The Art and Design Industry

2.1 Industry Interaction: Analyze **how art and design professionals interact with other professionals within the industry**. Perform a case study of a company to evaluate the role of art and design professionals within the company. Create an oral, written, or visual presentation of findings. For example, investigate a package designer's interactions with engineers, managers, and assembly crews in a manufacturing company to create package designs for a product.

2.2 Impact of Technology: Develop a research paper, media production, or visual display demonstrating **the impact of technology and industry trends on the careers of art and design professionals**, including the impact on technical work and business management. Write persuasively to describe the personal traits and skills needed for professionals in the field as technology advances and industry trends change, citing an example of an emerging or future technology or trend.

## 3. Career Exploration

3.1 Post-~~S~~secondary Opportunities: Research **postsecondary institutions** (i.e., colleges of applied technology, community colleges, and four-year universities) **in Tennessee and other states that offer art and design programs**. Summarize admissions criteria, the postsecondary programs of study, and the secondary courses that will prepare individuals to be successful in an art or design program. Evaluate the tentative career plan developed in the introductory course in light of these findings and update the career plan to reflect any new discoveries, citing evidence from the research.

## 4. Principles of Photography

4.1 Shutter Speeds: Analyze the **relationship between shutter speeds, f-stop, and ISO settings in determining the exposure of an image**. Synthesize information from instructional manuals and other resources to appropriately adjust manual camera settings including shutter, ISO, f-stop controls, and white balance to take photographs for a range of settings and content.

4.2 Lighting Technique: Identify and **differentiate between different lighting techniques, such as strobe lighting, bounce flash, and diffusing devices, describing the purposes and functions of each**. Appraise a given setting and content and draw a conclusion about the appropriate lighting techniques to take a quality photograph. Defend choices by citing data and evidence to support claims and address counterclaim(s).

4.3 Photo Editing: Develop photo editing skills by utilizing **software operations of advancing complexity to modify and enhance images**. For example, use layers to manipulate parts of an image independently or remove objects from an image. Explain the steps required to perform a given photo editing technique in a presentation such as an instructional video or text with supporting graphics.

4.4 Photography Journal: **Document photography activity in a photography journal** or portfolio. **Use proper measurements and terminology to record camera settings and lighting techniques** when capturing photographs in a variety of environments. Include any editing techniques performed using software and the resulting photographs. Reflecting on the results, summarize strategies for taking photographs in at least three different environments in a written narrative, citing evidence from supporting texts as well as the finished product.

## 5. Principles of Illustration

5.1 Vector Illustrations: **Create and modify vector illustrations of increasing complexity**. Apply the principles of design and utilize advanced software tools such as live trace, creating gradients, transforming objects, and more.

## 6. Visual Layouts

6.1 Single and Multi-Page Layouts: Use publishing software to **create single- and multi-page layouts**. Apply and **build on compositional techniques learned in the introductory course**, including the rule of thirds. Describe the elements of a page layout, including headings, body text, illustrations, frames, color schemes, and white space. Identify and use layout tools such as a grid system, guides, margins, columns, gutters, and rows. Distinguish among measurement and layout terminology such as picas, bleeds, and slugs. Based on a project's theme and the medium of the final product, create comprehensive layouts properly integrating page layout elements, design principles, and compositional techniques.

6.2 Design and Finish Layouts: **Apply mathematics concepts and measurement techniques to design and finish layouts.** Concepts should include, but are not limited to the following:

a. Determining and applying the equivalence between fractions and decimals. For example, convert a decimal to a fraction to prepare a unit for measurement on a fractional scale to the precision of 1/16 of an inch.
b. Working with units such as feet, inches, meters, centimeters, millimeters, and picas. For example, convert a dimension from centimeters to inches.
c. Performing proportionate reasoning to estimate quantities, such as determining the appropriate scale of an image for a given sheet size.

6.3 Typography: Apply **principles of typography as they relate to layout and page composition in order to appropriately use various forms of type when designing layouts**. Employ typography tools to manipulate text within layouts such as threading and flowing text frames. Further, investigate the use of typography as an expressive form. For example, use text as an image or combine type and image into a cohesive form.

6.4 Complex Layouts: In teams, use software to **create complex layouts, including multiple-page layouts, large displays, and/or product designs** (i.e., for corporate branding packages, product-line packaging and marketing, and more). Demonstrate consistency of style throughout the design package while managing the storage of complex files within the selected software environment.

6.5 Layouts and Final Products: Understand **the connection between digital layouts and final products, such as understanding the difference between the screen color and the print color**. Prepare layouts for production by testing and refining files using pre-flight procedures. Make final products in varying formats, including but not limited to layouts printed on paper and layouts published digitally.

## 7. Projects

7.1 Research Methods: Employ **research methods when planning a design project, including data collection and analysis**. **Synthesize research to present appropriate precedents for the development of a project and articulate logical rationale for the use of chosen precedents**. Create a detailed presentation or written report, citing evidence from research, which summarizes design decisions in light of research findings. For example, conduct a

survey to determine the target audience for a given company branding package, and select colors and symbols based on the target audience.

7.2 Design Process Application: Apply the **design process to complete projects** of increasing complexity and **of varying applications such as print, web, film, and marketing communications**. Demonstrate the ability to select and use the appropriate tools and procedures to accomplish project goals. Prepare a persuasive narrative to explain the design to a client, communicating the project in such a way that is understandable to the audience.

7.3 Critique and Refinement Strategy: Utilize the **critique and refinement strategy as part of the design process to achieve project goals**. As part of a design project, present preliminary design ideas in a way that is understandable to an audience using both visual and verbal explanations. Note constructive criticism received and use it to influence design refinement. Similarly, evaluate the work of others, drawing on design principles and project goals, to provide clear, specific, and constructive feedback.

7.4 Design Project: Complete a **design project in a specific application** (i.e., print, web, film, marketing, or other design communications) **using multiple software formats**. Referencing supporting evidence such as industry standards, select the appropriate software for each specific task and efficiently manage file content. Convert and export files as needed for the given application. For example, place photographs and illustrations in publishing software by appropriately linking the files.

7.5 Time Management Techniques: **Explore time management techniques utilized by professionals from case studies or professional organizations**, noting key habits and best practices of freelance designers as compared with their salaried peers. Create and implement a work schedule, timeline, and budget for completing a given project.

7.6 Team Project with Data Analysis: As a team, **identify a problem** related to the program of study as a whole. **Research and utilize the Engineering Design Process to design a solution**. Document the following steps in an engineering design notebook for inclusion in the program portfolio. When possible, connect the problem to an existing CTSO event.

a. **Problem Identification**: Brainstorm specific problems and challenges within the program of study. Conduct basic research to understand the scope and implications of the identified problem. Identify one problem as a focus area.
b. **Research and Analysis**: Conduct in-depth research on chosen topics related to the problem. Locate and analyze a dataset related to the problem.
c. **Review the Sstages of the Engineering Design Process**: Define the problem, research, brainstorm solutions, develop prototypes, test and evaluate, and iterate. Consider constraints such as cost, efficiency, and environmental impact during the design process.
d. **Project Implementation**: Assign specific roles within the design teams (e.g., project manager, researcher, designer, tester). Design a solution tailored to address the identified problem or scenario. Document progress through design journals, sketches, diagrams, and digital presentations.
~~7.2~~e. **Presentation and Reflection**: Showcase the problem and solution to the class. Share the data that was analyzed and how it affected the solution. Discuss the

design process and challenges. As a class, critically evaluate the effectiveness and feasibility of the solutions and propose potential improvements.

### 8. Business Management

8.1 Business Contract: Analyze the **relationship and responsibilities of various parties involved in a business contract.** Write a basic contract for design work, such as a graphic designer's contract with a new business to create a marketing package. Emulate a design professional by explaining the contract to a mock client.

### 9. Portfolio

9.1 Artifacts: **Update materials from coursework to add to the digital portfolio that beganbegun in *Digital Arts & Design I*, including artifacts that demonstrate the ability to use industry-specific technology**. Continually reflect on coursework experiences and revise and refine the career plan generated in the introductory course. Include written descriptions of project types and learning outcomes.

## Standards Alignment Notes

*References to other standards include:

- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

# Digital Arts & Design III

| | |
|---|---|
| **Primary Career Cluster:** | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |
| **Course Code(s):** | C11H16 |
| **Prerequisite(s):** | *Digital Arts & Design II* (C11H05) |
| **Credit(s):** | 1-2 (See Recommended Credits Below) |
| **Grade Level(s):** | 11-12 |
| **~~Focus Elective~~Elective Focus~~:~~ Graduation Requirements:** | This course satisfies one to two of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition~~,~~ when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the third course in the *Digital Arts & Design* program of study. |
| **Aligned Student Organization(s):** | SkillsUSA: http://www.skillsusatn.org/<br>Technology Student Association (TSA): http://www.tntsa.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Tennessee Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/content/tn/education/educators/career-and-technical-education/student-industry-certification.html. |
| **Teacher Endorsement(s):** | 153, 230, 311, 435, 436, 475, 476, 516, 519, 520, 521, 537, 538, 543, 576, 583, 597, 710, 711, 953 |
| **Required Teacher Certifications~~/Training~~:** | ~~ADDA Certified Digital Designer or NOCTI Advertising & Design or Adobe Certified Expert~~Please refer to ~~Occupational Educator Licensure~~Occupational Educator Licensure Guidance ~~Guidance~~ for a full list. |
| **~~Required Teacher Training:~~** | None |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best For All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for your students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.

~~For more ideas and information, visit Tennessee SkillsUSA at http://www.skillsusatn.org/.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities ~~that relate~~related to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1-3.1** | Have an industry guest speaker to explain safety protocols, professionalism, and industry careers.
- **Standards 4.1-4.2** | Work with a graphics firm on a real-world project.
- **Standards 5.1-5.3** | Job shadow a software publisher.
- **Standards 6.1-6.2** | Participate in~~Do~~ a workplace tour ~~of~~ where 3D graphics are used so students can see the software and instruments firsthand.
- **Standards 7.1-7.9** | Job shadow at a local animation company.
- **Standards 8.1-9.3** | Have students complete~~do~~ a project that is useful to a local employer ~~that~~ and can be evaluated by the manager.
- **Standards 10.1-11.1** | Have an industry professional evaluate the students' portfolios.

~~For more ideas and information, visit~~ ~~https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html~~.

## Course Description

*Digital Arts & Design III* is the third course in the *Digital Arts & Design* program of study. Applying design skills developed in prior courses, students will expand their creative and critical thinking skills to create comprehensive multimedia projects and three-dimensional designs. Upon completion of this course, proficient students will be able to use industry-standard software to create multimedia projects, web pages, three-dimensional models, and animations. Students will utilize research techniques to plan and enhance project outcomes. Standards in this course also include professionalism and ethics, career exploration, and business and project management. In addition, students will continue compiling artifacts for inclusion in a digital portfolio, which they will carry with them throughout the full sequence of courses in this program of study.

## Recommended Credit

If all standards in the course are covered, the course is recommended for two credits. If only one credit is to be offered, two options are recommended. Option A focuses more on multimedia and web applications. Option B is tailored for programs with a specific interest in or capacity for teaching animation.

**1 Credit - Option A**

| Content | Standards |
|---|---|
| Safety | 1.1 |
| Professionalism & Ethics in Design | 2.1, 2.2~~3~~ |
| Career Exploration | 3.14 |
| Multimedia | 3.2~~5~~, 3.3~~6~~ |
| Web Applications | 5.1, 5.2, 5.3~~7, 8, 9~~ |
| Three-Dimensional Graphics | ~~10, 11~~6.1, 6.2 |
| Research Project | ~~2~~18.1 |
| Design Projects | ~~22, 23, 24~~9.1, 9.2, 9.3 |
| Business Management | ~~25, 26~~10.1, 10.2 |

**1 Credit - Option B**

| Content | Standards |
|---|---|
| Safety | ~~1~~1.1 |
| Professionalism & Ethics in Design | ~~2, 3~~2.1, 2.2 |
| Career Exploration | ~~4~~3.1 |
| Three-Dimensional Graphics | ~~10, 11~~6.1, 6.2 |
| Animation | ~~12, 13, 14, 15 16, 17, 18, 19, 20~~7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9 |
| Research Project | ~~2~~18.1 |
| Design Projects | ~~22, 23, 24~~9.1, 9.2 9.3 |

## Course Standards

### 1. Safety

1.1 Safety Protocols: Demonstrate the **ability to comply with personal and environmental safety practices associated with art and design applications**: the use of adhesives; hand tools; machines; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

a. Inspect, maintain, and employ safe operating procedures with tools and equipment.
b. Adhere to responsibilities, regulations, and Occupational Safety and Health Administration (OSHA) policies regarding reporting ~~of accidents and observed hazards, and regarding~~ accidents, observed hazards, and emergency response procedures.
c. Complete a safety test with 100 percent accuracy. For equipment used in the course, complete equipment examinations with 100 percent accuracy in which the student performs an operational checkout by the instructor. Maintain a record of safety examinations and equipment examinations.

### 2. Professionalism and Ethics

2.1 Professional Attributes and Employability: Collaboratively develop a professionalism rubric for **professional attributes required within art and design professions**. Research job descriptions, career information, and online job boards to determine general employability skills and character traits most often mentioned or desired for digital art and design professionals. For each item on the rubric, define the characteristic, state why it is important for professionals working in these fields, and list performance indicators for the skill. Possible skills include the following:

a. creative design skills,
b. ethical business practices,
c. honesty,
d. respect,
e. communication, and
f. responsibility.

2.2 Ethical and Legal Issues: Examine **current and emerging ethical and legal issues related to the digital art and design industry** (e.g., copyright, font licensing, piracy, photo manipulation, sustainability). Choose one such issue and develop a claim about its impact on society and the responsibility of the digital art and design professional.

### 3. Career Exploration

3.1 Post-Secondary Opportunities: Research **the range of credentials one can earn with advanced study of art and design at the postsecondary level** (i.e., technical certification, BA, BS, MFA, etc.). Investigate both in-state and out-of-state postsecondary programs in a variety of digital art and design fields, including but not limited to graphic design, photography, industrial design, digital media, animation, and more. Synthesize research

conducted in previous Digital Arts & Design courses to update the portfolio career plan to achieve post-high school goals.

## 4. Multimedia

4.1 Multimedia Products: Drawing on research from industry journals and similar publications, analyze **how the principles of design converge with digital technology and imagery in motion graphics and multimedia**. Select a multimedia product and explain how the principles of design work in harmony with technical skills such as creating visual layouts, illustrations, and photographs to achieve the final product.

4.2 Design Process Application: **Apply the design process to complete advanced multimedia projects of increasing complexity for a range of applications such as print, web, film, and marketing communications**. Demonstrate the ability to select and use the appropriate tools and procedures to accomplish project goals. Gather and arrange ~~image~~images, audio, and media for incorporation into comprehensive media projects. For example, create an interactive presentation that a client could use as a marketing and educational tool for potential customers.

## 5. Web Applications

5.1 Design Constraints: Research **design constraints affecting the design of graphics and layouts for web device**s, including computers and mobile devices. Describe how design processes for the web differ from design processes for print or product creation. Evaluate and critique webpages based on the principles and elements of design and other considerations related to ~~user friendliness~~user-friendliness and navigability.

5.2 Interactive Media: Apply **illustration, photography, and layout skills to create interactive media for use on the web**. For example, create a navigation bar, logo, or banner to incorporate ~~in~~ into a web page.

5.3 Webpage Creation: Describe the **steps involved in creating webpages**. Use a content management system or web design software to create a simple informative webpage. Apply the principles of design and composition. Prepare images and illustrations in the proper format for use on the web. For example, as part of a design package for a client, create a mock-up of a webpage incorporating color schemes and graphics that coordinate with the design package.

## 6. Three-Dimensional Graphics

6.1 Three-Dimensional Modeling Research: Research and compile **examples of digital three-dimensional modeling and graphics created by design professionals in a range of industries**, such as entertainment, health sciences, architecture, engineering, aerospace, advertising, and graphic design. In a visual display such as an infographic, evaluate examples from at least five industries, citing the sources used.

6.2 Three-Dimensional Modeling Application: Perform **multistep procedures in industry software to create three-dimensional models of increasing complexity**. Apply design principles, mathematical concepts, and software tools to develop the design, including but not limited to the following:

a. applying surface materials;
b. creating a background environment;
c. adding lighting features to create shading and shadow effects;
d. calculating area, diameter, circumference, and volume for two- and three-dimensional objects employing related geometric terminology;
e. positioning cameras to set up scenes;
f. rendering the models to create finished products; and
g. generating videos of three-dimensional models such as walkthroughs or flyovers.

## 7. Animation

7.1 History of Animation: Synthesize research from informational texts, including industry magazines and online resources, to create an annotated timeline or visual graphic emphasizing **significant time periods, technological advances, and key figures in animation**.

7.2 Principles of Animation: Research and report on the **principles of animation**. Examine movies, cartoons, or other animations to identify applications of the principles of animation. As a class, create, review, and revise a presentation explaining the principles of animation by citing resources and identifying examples in works of animation.

7.3 Animation Process: Describe **the animation process, outlining the steps involved in planning, creating, and editing an animation**. Drawing on research, perform multistep procedures to develop a three-dimensional animation. Steps should include the following:

a. brainstorming to develop an idea;
b. conducting research to determine the target audience;
c. conducting research to develop visual ideas;
d. producing sketches of the presentation;
e. creating an environment for the animation; and
f. applying the principles of animation toward the completion of a working animation.

7.4 Animation Concepts: Create a storyboard to **develop animation concepts**. The storyboard should present visual elements of the animation, illustrations of the sequence of actions, and major themes and ideas. Present the storyboard to peers for evaluation. Revise and refine the storyboards based on constructive feedback.

7.5 Elements of Animation: Apply **three-dimensional modeling skills to create the elements of ~~an~~ animation**, including creating, modifying, and manipulating polygonal objects, and creating and applying surface textures.

7.6 Lighting and Animation: Compare and contrast the properties and **uses of different types of lighting for an animation scene**, including ~~three point~~three-point lighting, animated lighting, indirect and direct lighting, and environmental lighting. Use software tools to apply appropriate lighting to the scene, utilizing the principles of design and animation.

7.7 Animation Creation: Follow multistep procedures to use cameras, including animated cameras, to create animations. Demonstrate **the ability to bring conceptual ideas from the storyboards to fruition**.

7.8 Mechanics of Animation: Utilize animation software to **understand and apply the mechanics of animation**. Apply basic software techniques to create animations. Techniques include the following:

a. create and modify ~~key frames~~keyframes and poses,
b. change an ~~objects~~ object's state or position over time,
c. establish an object's speed,
d. move an object along a path, and
e. apply basic rigging to a model.

For example, utilize software tools to simulate a mechanical cycle such as a ball dropping and bouncing.

7.9 Animation Effects: **Apply various animation effects when working on animation projects, including particle systems, environmental simulation** (wind, gravity, time), and other effects. Use appropriate rendering settings to render a sequence of frames. Save the file in appropriate formats for given applications and explain why a particular format is most acceptable for the selected application and audience, such as the use of a .swf file on a webpage.

## 8. Research Project

8.1 Research Project: In preparation for a design project, **perform in-depth research to investigate the context of the project's use and the potential users of the project**. Create an informative essay **describing the context of the design, citing both qualitative and quantitative research**. For example, for a three-dimensional animation of a product's design, make a claim for the targeted audience and the environment in which the product will be used, citing specific textual evidence to support the claim.

## 9. Design Projects

9.1 Multiple Media Usage: Apply the design process to complete projects of increasing complexity, combining **multiple media to communicate, market, or advertise across different platforms, including print, web, film, and other digital forums, in order to maximize audience reach and reinforce message**. Describe why multiple media are needed to accomplish project goals; specifically, justify why a web-based format is appropriate for one audience whereas a print format is more appropriate for another. Demonstrate the ability to select and use the appropriate tools, procedures, and project management techniques to accomplish project goals. Prepare a persuasive narrative to explain the project to a client, communicating the project in such a way that is understandable to the audience.

9.2 Critique and Refinement Strategy: **Utilize the critique and refinement strategy as part of the design process to achieve project goals**. As part of a design project, present preliminary design ideas in a way that is understandable to an audience using both visual and verbal explanations. Note constructive criticism received and use it to influence design refinement. Similarly, evaluate the work of others, drawing on design principles and project goals to provide clear, specific, and constructive feedback.

9.3 Software Application Usage: Complete **a project using multiple software applications**. Determine the appropriate software for each specific task and efficiently manage file content. Convert and export files as needed for the given application. For example, import photographs and illustrations into three-dimensional modeling software by appropriately linking the files.

### 10. Business Management

10.1 Design Proposal Components: Analyze the **components of a professional design proposal**. Write an informative text describing the purpose of each element of a proposal. Include strategies for the designer to use to generate the information contained in each section.

10.2 Professional Proposal: Use an online editing tool to **develop a professional proposal for a specific project**. Use a **variety of sources to gather data**, cite each source, and briefly describe why the chosen source is reliable.

### 11. Portfolio

11.1 Portfolio: **Update the digital portfolio to reflect the cumulative total of all projects undertaken across the program of study**. Compile information, sketches, photographs, illustrations, layouts, and design projects from each course. Include artifacts that demonstrate the ability to use industry-specific technology. Select projects from ~~course work~~coursework that showcase qualifications as a design student. Upon completion of this course, the following artifacts should reside in the student portfolio:

a. career plan,
b. professionalism rubric, and
c. example designs showing the best work from each course.

## Standards Alignment Notes

*References to other standards include:

- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

# Foundations of Fashion Design and Merchandising

| | |
|---|---|
| Primary Career Cluster: | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |
| **Course Code(s):** | **C11H17** |
| **Prerequisite(s):** | ***Visual Art I* (G05H08)** |
| **Credit:** | **1** |
| **Grade Level:** | **10** |
| **Focus Elective Graduation Requirements:** | **This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. In addition, this course satisfies one fine arts credit required for graduation.** |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition, when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the second course in the *Fashion Design* program of study. |
| **Aligned Student Organization(s)** | Family, Career and Community Leaders of America (FCCLA): http://www.tennesseefccla.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Tennessee Student Industry Credentials** | **Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/education/educators/career-and-technical-education/student-industry-certification.html.** |
| **Teacher Endorsement(s):** | **046, 050, 051, 059, 154, 204, 230, 231, 450, 452, 472, 516, 519, 569, 570, 571, 573, 711, 760, 776, 954** |
| **Required Teacher Certifications/Training:** | **None** |
| **Required Teacher Training:** | **None** |
| **Teacher Resources:** | **https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html**<br><br>Best For All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for ~~your~~ students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing industry specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.

~~For more ideas and information, visit Tennessee FCCLA at http://www.tennesseefccla.org.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities ~~that~~ related to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1-2.2** | Have students participate in~~do~~ an industry tour that includes a safety briefing.
- **Standards 3.1-3.3** | Interview a fashion historian.
- **Standards 4.1-4.2** | Interview a visual artist.
- **Standards 5.1-6.4** | Job shadow a textile designer.
- **Standards 7.1-7.2** | Have a fashion designer evaluate students' design work.

~~For more ideas and information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html~~

## Course Description

*Foundations of Fashion Design* introduces students to the rich history of the fashion industry and the basic design principles that are integral to its operation. This course studies the history of the fashion industry, elements and principles of design, textile history and composition, as well as basic construction principles. Upon completion of this course, proficient students will be able to demonstrate basic garment production and will create artifacts for inclusion in a portfolio, which will continue to build throughout the program of study.

# Course Standards

### 1. Occupational Safety

1.1 Safety Practices: Demonstrate the ability to **comply with personal and environmental safety practices associated with textile applications**: the use of adhesives; hand tools; machines; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

a. Inspect, maintain, and employ safe operating procedures with tools and equipment.
b. Adhere to responsibilities, regulations, and Occupational Safety and Health Administration (OSHA) policies regarding reporting ~~of~~ accidents~~, and~~ observed hazards, and ~~regarding~~ emergency response procedures.
c. Maintain a record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.

### 2. Career Investigation

2.1 Career Pathways: Identify and analyze **career pathways within the Fashion Design program of study.** Cite supporting evidence from multiple sources~~, (~~such as interviews with fashion design professionals retrieved from industry magazines~~,)~~ to summarize the essential knowledge and skills required for these careers. Complete one or more career aptitude surveys, analyze the results, and compose an essay describing the relationships between personal career aptitudes and careers in fashion design.

2.2 Labor Market Data: Compile and analyze **real-time and projected labor market data** from public sources such as the U.S. Bureau of Labor Statistics **to investigate local and regional occupational opportunities and trends in the fashion design industry**. Synthesize collected data to develop a graphic illustration comparing occupations by education requirements, job availability, salaries, and benefits.

2.3~~-~~ Career and Technical Student Organization Introduction: **Introduce** the program's **aligned Career and Technical Student Organization** (CTSO), Technology Student Association (TSA) and Skills USA, **through an interactive activity**, such as classroom competition.

~~1)~~

## 3. History and Development of Fashion Design

3.1 History of Fashion: Synthesize research from informational texts, including fashion magazines and textbooks, to create an annotated timeline or visual graphic emphasizing **significant time periods within fashion design dating from the beginning of civilization to the present**. Using descriptive text, interpret the cultural, social, economic, and technological factors that have influenced fashion development and design.

3.2 Fashion Cycle: Explore **theories of fashion dynamics and forecasting**, and compose an informative essay that illustrates the five stages of the fashion cycle concept:

~~d.~~a. introduction,
~~e.~~b. rise in popularity,
~~f.~~c. peak of popularity,
~~g.~~d. decline in popularity, and
~~h.~~e. rejection.

Investigate major paradigms (~~i.e.~~i.e., circle, pendulum) in fashion history and critique whether the fashion cycle model helps explain major paradigm shifts over time.

3.3 Fashion in Society: Analyze the **importance of clothing and fashion in contemporary society as they relate to cultural, economic, and political realities in a variety of contexts around the globe**. Investigate the influences of modern fashion designers; discuss how a society's customs and preferences influence what is fashionable to certain populations. Create an informational artifact that identifies significant contributions from these designers to the fashion industry.

## 4. Elements and Principles of Design

4.1 Elements and Principles of Design: Compare and contrast the **elements and principles of design in visual arts and examine their ~~–~~interrelationships**. Analyze the elements and principles of design in the context of fashion by evaluating their purpose and application in apparel and accessories.

- Elements:
    a. line,
    b. shape,
    c. proportion,
    d. color theory and basic schemes, and
    e. texture.
- Principles:
    a. unity,
    b. harmony,
    c. formal and informal balance,
    d. rhythm,

e. contrast,
f. emphasis, and
g. gradation.

4.2 Color Theory: Analyze the color wheel and apply **concepts of color theory to the development of fashion specs for a real or invented clothing line**. Identify techniques that achieve desired hues, values, and intensities. Demonstrate the ability to color mix apparel and accessory samples in various color systems.

## 5. History and Development of Textiles

5.1 History of Textiles: Examine the **historical development of processes and techniques in textile design and production**. Using descriptive text, summarize the evolution of trends in textile colors, textures, and prints used in fashion design. Identify textile technologies that have influenced apparel design, production, merchandising, and sales.

5.2 Textile Products: Analyze research from multiple sources such as technical journals to summarize the **typical products made out of textiles in the apparel industry**. Compare and contrast determining factors for textile suitability and applications for a variety of commercial purposes.

5.3 Ethical Practices: Examine the **progression of ethical practices in the textile and apparel industry, using historical records found in textbooks or other sources**. Evaluate current ethical issues affecting the fashion industry, ~~included~~ including but not limited to~~:~~ knockoff products/designer forgeries, shoplifting, sweatshop labor, provocative advertising, and body image. Compose an argument, including the development of claim(s) and counterclaim(s), debating the sociological and economic impacts of these issues on the fashion industry.

## 6. Textile Applications

6.1 Common Fibers: **Identify common fibers** and **describe their associated characteristics and applications**. Perform swatch tests to analyze and evaluate fiber characteristics, including their aesthetic features as well as mechanical and chemical properties.

6.2 Natural and Synthetic Fibers: Analyze **characteristics of natural and synthetic fibers**. Compare and contrast **natural and synthetic textiles with ~~regards~~ regard to performance, dying, printing, and finishing processes**. Determine the suitability of various textiles for specific applications.

6.3 Textile Fabrication Process: Identify common fabrics and **examine basic textile fabrication processes**. Research and summarize technical sources such as industry manuals or manufacturers' quality control ~~protocol~~ protocols to develop a list of general instructions for the selection, evaluation, use, and care of fabrics used in fashion design.

6.4 Industry Standards: Review informational **resources identifying textile and apparel**

**industry standards that promote quality control in apparel manufacturing**. Compose an informative essay, citing specific textual evidence that critiques the effectiveness and implications of these standards on product quality, cost, and supply chain dynamics.

## 7. Principles of Construction

7.1 Garment Construction: Demonstrate **basic garment construction skills and techniques**. Demonstrate **proficiency in proper pressing, fitting, alteration, finishing, and embellishment for quality garment construction**. Demonstrate the appropriate use, selection, and maintenance of equipment, tools, and sewing supplies for the construction of apparel.

7.2 Pattern Design and Drafting Techniques: Demonstrate **proficiency in basic pattern design and drafting techniques by designing and creating an original garment pattern**. Compare and contrast skill requirements for manual and computer-aided pattern design and drafting methods. Compile the elements of the pattern design that highlight the computer-aided pattern design and drafting methods with other artifacts for inclusion in a design portfolio, such as an engineering design notebook, to be updated throughout the program of study.

## 8. Data Analysis

8.1 Data Analysis in Arts A/V Technology & Communications: **Research** the **use of data in Arts A/V, Technology & Communications cluster career fields**. Include data that is **generated internally** by businesses, **and externally** by local communicates, state, and the nation. Explore examples of how the data is used, including the following:

e. ~~C~~customer/~~C~~client use of products and services;
f. ~~D~~demographics of end users;
g. c~~C~~ommunity, state, and national statistics; and
h. d~~D~~ata that must be reported to another entity.

## 9. Ethical Artificial Intelligence

9.1 Ethical Artificial Intelligence (AI): **Explore the ethical implications of AI usage** through interactive discussions and case studies, learning to identify bias, ensure fairness, and protect privacy in AI systems. **Develop** critical thinking **skills to evaluate the societal impact of AI technologies**, while fostering a sense of responsibility and ethical decision-making in the~~ir own~~ use of AI tools.

# Standards Alignment Notes

References to other standards include:

- TN Reading: FACS: National Standards for Family and Consumer Sciences Education, Second Edition: National Association of State Administrators of Family and Consumer Sciences, FACS.
- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

# Fashion Design and Merchandising

| | |
|---|---|
| **Primary Career Cluster:** | Arts, A/V Technology, & Communications |
| **Course Contact:** | CTE.Standards@tn.gov |

| | |
|---|---|
| **Course Code~~(s)~~:** | C11H10 |
| **Prerequisite~~(s)~~:** | *Foundations of Fashion Design* (C11H09) |
| **Credit:** | 1 |
| **Grade Level:** | 11 |
| **~~Focus Elective~~Elective Focus: Graduation Requirements:** | This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition~~,~~ when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the third course in the *Fashion Design* program of study. |
| **Aligned Student Organization(s)** | Family, Career and Community Leaders of America (FCCLA): http://www.tennesseefccla.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Tennessee Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/education/educators/career-and-technical-education/student-industry-certification.html. |
| **Teacher Endorsement(s):** | 046, 050, 051, 059, 154, 204, 230, 231, 450, 452, 472, 516, 519, 569, 570, 571, 573, 711, 760, 776, 954 |
| **Required Teacher Certifications~~/Training~~:** | None |
| **Required Teacher Training:** | None |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best For All Central: https://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for ~~your~~ students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.

~~For more ideas and information, visit Tennessee FCCLA at https://www.tennesseefccla.org/.~~

### Using Work-Based Learning (WBL) in Your Classroom

Sustained and coordinated activities that relate to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1** | Have an industry representative explain the daily occupational hazards.
- **Standards 2.1-2.5** | Visit a local promotions company.
- **Standards 3.1-3.2** | Job shadow at a local boutique.
- **Standards 4.1-4.5** | Interview a marketing executive on the trends in the fashion industry.
- **Standards 5.1-5.6** | Assist a fashion designer with the creation of their upcoming collection.

~~For more ideas and information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html.~~

## Course Description

*Fashion Design* is an ~~applied-knowledge~~applied knowledge course intended to prepare students to pursue careers in the fashion industry. Building on the knowledge acquired in *Foundations of Fashion Design*, this course places special emphasis on apparel manufacturing and merchandising, marketing applications, and product and service management. In addition, students will explore trends in fashion design and engage with industry-specific technologies used to produce a variety of fabrics, garments, and accessories. Upon completion of this course, proficient students will have created an original fashion collection.

## Course Standards

### 1. Occupational Safety

1.1 Safety Practices: Demonstrate the **ability to comply with personal and environmental safety practices associated with textile applications**: the use of adhesives; hand tools; machines; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

a. Inspect, maintain, and employ safe operating procedures with tools and equipment.
b. Adhere to responsibilities, regulations, and Occupational Safety and Health Administration (OSHA) policies regarding reporting ~~of~~ accidents~~, and~~ observed hazards, and ~~regarding~~ emergency response procedures.
c. Maintain a portfolio record of written safety examinations and equipment ~~examination~~ examinations for which the student has passed an operational checkout by the instructor. Compare occupational safety skills included in the portfolio to safety skills designated in authentic career postings.

### 2. Merchandising and Promotion

2.1 Psychological Characteristics of Colors: Evaluate data from multiple sources, including textbooks and fine art books, to support **analysis of the psychological characteristics of colors**. For example, compare and contrast warm and cool color palettes. Craft an argument examining the effects on consumer preferences and buying trends when color psychology is employed in the marketing of fashion products. Assess the implications for the selection of fabrics for apparel and accessory design.

2.2 Visual Merchandising: Identify **fundamental techniques and design concepts of fashion merchandise presentation**. Research the **influence of visual merchandising on consumer purchase decisions**. Create a checklist to appraise visual displays for effective and efficient use of display space, lighting, and merchandise. Apply principles of visual merchandise organization by creating an original merchandise display.

2.3 Store Layout: Design a **visual representation of a store layout incorporating aesthetic considerations of merchandise, services, and customers**. Assess how the point of view or purpose of the store layout affects content, style, and color choices. Store layout representation could include the following:

a. freeflow layout,
b. grid layout,
c. spine layout,
d. loop layout, and
e. parallel layout.

2.4 Merchandise Flow Processes: Examine the **importance of establishing and maintaining merchandise flow processes and strategies for successful management of merchandise logistics**. Compare and contrast the role of merchandise flow in evaluating and responding to the needs of the business and consumers.

2.5 Promotion Strategies: Identify **promotion strategies used in the fashion industry for communication of product information**. Consult sample ~~catalogues~~catalogs, professional commentary, shopping apps, and related print and digital sources to determine the impact of technology and social media on fashion marketing and promotion.

## 3. Product and Service Management

3.1 Retail Stores: Categorize **types of retail clothing stores based on size, company organization** (traditional, ~~catalogue~~catalog, internet), and range of products (variety or specialized). Examine **how these retail stores operate within an integrated supply chain, using software** such as Electronic Point of Sale (EPOS). Assess how the target population of a store shapes the content and style of the products it sells.

3.2 Principles of Merchandise: Analyze **principles of merchandise planning and ~~buying, and~~buying and explain how they relate to each other and the fashion industry as a whole**. Use merchandise planning software solutions to coordinate a buying plan that includes the following elements:

a. selection of merchandise,
b. establishment of retail prices,
c. ongoing ordering processes,
d. management of supplier relationships,
e. strategic merchandising, and
f. in-store advertising.

## 4. Marketing and Trends in Fashion Design

4.1 Principles of Marketing: Identify basic **principles of marketing**, including but not limited to

**market analysis, planning, implementation, and control**. Create a checklist of common marketing plan components (e.g., marketing objectives, customer analysis, marketing strategies, and tactics). Evaluate data and conduct an original fashion design analysis for a real or invented clothing line using the four basic elements of a fashion marketing plan:

a. product development,
b. price,
c. distribution management, and
d. promotions and communications.

4.2 Market Analysis: Examine **components of market analysis and trends research related to fashion design** (i.e., season, target market, colors, fabrics, texture, usage). Analyze how and why individuals, events, and ideas develop and interact to create seasonal fashion trends. Research and interpret technical data to forecast trends in fashion and identify target markets.

4.3 Target Markets: Analyze the **demographics of target markets to predict consumer requirements and preferences**. Integrate research and analysis data to create original fashion collections for domestic and global markets using computer-aided design applications.

4.4 Social Media Use in Personal Sales: Identify and research a business with a strong social media marketing presence (e.g., Warby Parker, Smile Direct, etc.) and summarize how the company's **social media promotions** contributes to personal sales in **establishing and maintaining customer relationships**.

4.5 Social Media in Customer Relations: Research companies that use social media to engage with customer compliments, complaints, and comments and **evaluate their response times, recommended solutions, and professionalism and tone** to customer feedback via social media platforms. Identify common strategies to develop **brand loyal customers** with post-visit interactions via social media platforms.

~~1)~~ 4.6

~~1)~~ Seasonal Buying Plan: Create a **comprehensive seasonal buying plan using industry-related budget designing software**. Formulate basic budget functions, including the following elements: planning process, buy quantity, and benchmarks for progress evaluation and plan adjustment.

~~2)~~ 4.7 Window Presentation: Create a **window presentation for a retail store incorporating an original garment design and accessories**. Create modified display options to accommodate different seasons, events, and customer demographics.

## 5. Creation of a Fashion Collection

5.1 Collection Creation: Drawing on current and historic trends in the color, texture, and print of fabrics used for garment designs, **develop a collection of apparel and accessories for**

**different lifestyles and seasons using hand sketches or computer-aided design**.

5.2 Fabrics and Trims: Justify the **use of certain fabrics and trims for the needs of selected target markets and garment functionalities, citing market research or industry journals to support decisions**. Analyze how properties of fabrics affect garment performance and cost. Compose an informative presentation from textile choices through the product development for a chosen target market.

5.3 Presentation Board Preparation: Compile a **list of materials required for a presentation board featuring a wide range of material samples**. Evaluate sample elements to determine the most effective combination for creating a comprehensive fashion collection using a variety of colors, fabrics, sketches, and/or industry software designs.

5.4 Presentation Board Assembly: Assemble a **presentation board that incorporates a collage of color samples, fabrics, and sketches, mounted with color renderings that logically present a particular fashion collection by color or style of design**. Create a name for each garment in the collection for tracking and communication to potential clients.

5.5 Justification of Fashion Collection: Compose and present a clear and **coherent written justification for the presentation board that explains the principles of design, choice of samples, and analysis of the fashion collection**.

5.6 Garment Construction: Construct one or more garments from one of the student-designed collections developed in previous standards. **Demonstrate basic garment construction skills and techniques, using samples provided on the presentation board**. Demonstrate proficiency in proper pressing, fitting, alteration, finishing, and embellishment for quality garment construction. Demonstrate the appropriate use, selection, and maintenance of equipment, tools, and sewing supplies for the construction of apparel.

## 6. Team Project

6.1 Team Project with Data Analysis: As a team, **identify a problem** related to the program of study as a whole. **Research and utilize the Engineering Design Process to design a solution.** Document the following steps in an engineering design notebook for inclusion in the program portfolio. When possible, connect the problem to an existing CTSO event.

a. **Problem Identification**: Brainstorm specific problems and challenges within the program of study. Conduct basic research to understand the scope and implications of the identified problem. Identify one problem as a focus area.
b. **Research and Analysis**: Conduct in-depth research on chosen topics related to the problem. Locate and analyze a dataset related to the problem.
c. **Review the Sstages of the Engineering Design Process**: Define the problem, research, brainstorm solutions, develop prototypes, test and evaluate, and iterate.

Consider constraints such as cost, efficiency, and environmental impact during the design process.

d. **Project Implementation**: Assign specific roles within the design teams (e.g., project manager, researcher, designer, tester). Design a solution tailored to address the identified problem or scenario. Document progress through design journals, sketches, diagrams, and digital presentations. (Note: Prototype is optional in the Level II course.)

e. **Presentation and Reflection**: Showcase the problem and solution to the class. Share the data that was analyzed and how it affected the solution. Discuss the design process and challenges. As a class, critically evaluate the effectiveness and feasibility of the solutions and propose potential improvements.

## Standards Alignment Notes

*****References to other standards include:

- FACS: National Standards for Family and Consumer Sciences Education, Second Edition: National Association of State Administrators of Family and Consumer Sciences, FACS.
- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.

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| ~~Primary Career Cluster:~~ | ~~Arts, A/V Technology, & Communications~~ |
| ~~Course Contact:~~ | ~~CTE.Standards@tn.gov~~ |
| ~~Course Code(s):~~ | ~~C11H11~~ |
| ~~Prerequisite(s):~~ | ~~*Fashion Design* (C11H10)~~ |
| ~~Credit:~~ | ~~1~~ |
| ~~Grade Level:~~ | ~~12~~ |
| ~~Focus ElectiveElective Focus~~ ~~Graduation Requirements:~~ | ~~This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses.~~ |
| ~~Program of Study (POS) Concentrator:~~ | ~~This course satisfies one out of two required courses that meet the Perkins V concentrator definition, when taken in sequence in the approved program of study.~~ |

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| Programs of Study and Sequence: | This is the fourth and final course in the *Fashion Design* program of study. |
| Aligned Student Organization(s): | Family, Career and Community Leaders of America (FCCLA): http://www.tennesseefccla.org |
| Coordinating Work-Based Learning: | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| Promoted Student Industry Credentials: | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit **https://www.tn.gov/education/educators/career-and-technical-education/student-industry-certification.html**. |
| Teacher Endorsement(s): | 046, 050, 051, 059, 154, 204, 230, 231, 450, 452, 472, 516, 519, 569, 570, 571, 573, 711, 760, 776, 954 |
| Required Teacher Certifications/Training: | ADDA Certified Digital Designer or NOCTI Advertising & Design or Adobe Certified Expert. Please refer to Occupational Educator Licensure Guidance for a full list. |
| Required Teacher Training: | None |
| Teacher Resources: | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best for all Central: http://bestforall.tnedu.gov/ |

# Advanced Fashion Design and Merchandising

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|---|---|
| Primary Career Cluster: | Arts, A/V Technology, & Communications |
| Course Contact: | **CTE.Standards@tn.gov** |
| Course Code: | C11H11 |
| Prerequisite: | *Fashion Design* (C11H10) |
| Credit: | 1 |
| Grade Level: | 12 |

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|---|---|
| **Elective Focus-Graduation Requirements:** | This course satisfies one of three credits required for an elective focus when taken in conjunction with other *Arts, A/V Technology, & Communications* courses. |
| **Program of Study (POS) Concentrator:** | This course satisfies one out of two required courses that meet the Perkins V concentrator definition when taken in sequence in the approved program of study. |
| **Programs of Study and Sequence:** | This is the fourth and final course in the *Fashion Design* program of study. |
| **Aligned Student Organization(s):** | Family, Career and Community Leaders of America (FCCLA): http://www.tennesseefccla.org |
| **Coordinating Work-Based Learning:** | Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html. |
| **Promoted Student Industry Credentials:** | Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit **https://www.tn.gov/education/educators/career-and-technical-education/student-industry-certification.html**. |
| **Teacher Endorsement(s):** | 046, 050, 051, 059, 154, 204, 230, 231, 450, 452, 472, 516, 519, 569, 570, 571, 573, 711, 760, 776, 954 |
| **Required Teacher Certifications:** | ~~Please refer to Occupational Educator Licensure Guidance for a full list.~~None |
| **Required Teacher Training:** | None |
| **Teacher Resources:** | https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-arts-av-tech.html<br><br>Best for all Central: http://bestforall.tnedu.gov/ |

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and ~~21st century~~21st-century skills necessary to be successful in ~~career~~ careers and ~~in~~ life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards ~~which~~ that feed into intentionally designed programs of study.

Students engage in ~~industry relevant~~industry-relevant content through general education integration and experiences such as career and technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with ~~industry standard~~industry-standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce ~~industry specific~~industry-specific, informational texts.

**Using a Career and Technical Student Organization (CTSO) in Your Classroom**
CTSOs are a great resource to put classroom learning into real-life experiences for ~~your~~ students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course~~;~~, note this is not an exhaustive list.

- Participate in the CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing ~~industry specific~~industry-specific skills that involve teamwork and project management.
- Participate in contests that highlight job skill demonstration, interviewing skills, community service activities, extemporaneous speaking, and job ~~interview~~interviews.
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project.

~~For more ideas and information, visit Tennessee FCCLA at https://www.tennesseefccla.org/.~~

**Using Work-Based Learning (WBL) in Your Classroom**
Sustained and coordinated activities that relate to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1, 2.1-2.3** | Visit a fashion designer and include a safety briefing.

- **Standards 3.1-3.3** | Invite a g~~G~~uest speaker from industry to discuss business start-up and management functions.
- **Standards 4.1-4.3** | Complete an i~~I~~ntegrated project with a professional.
- **Standards 5.1, 6.1-6.3** | Participate in an i~~I~~nternship.

## Course Description

*Advanced Fashion Design* is the capstone course in the *Fashion Design* program of study. This course is designed to prepare students for further education and careers in the fashion industry. Through exposure to crucial business activities such as project management and product promotion, students will acquire advanced skills related to business professionalism, ethics, policies, and communication in the fashion industry. In addition, students complete a capstone project during which they will create artifacts to include in a professional portfolio. While not required, student internships can provide an alternative route for students to master required course standards. Students who have the opportunity to participate in internships may be responsible for the following tasks: assisting in client presentations, resource updating and vendor management, assisting designers~~,~~ and participating with design teams. Upon completion of this course, proficient students will have artifacts of original fashion designs in a portfolio and will understand basic project management skills.

## Course Standards

### 1. Occupational Safety

1.1 Safety Practices: Demonstrate the ability to comply with **personal and environmental safety practices** associated with textile applications: the use of adhesives; hand tools; machines; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

a. Inspect, maintain, and employ safe operating procedures with tools and equipment.
b. Adhere to responsibilities, regulations, and Occupational Safety ~~&~~ and Health Administration (OSHA) policies regarding reporting ~~of~~ accidents~~,~~ ~~and~~ observed hazards, and ~~regarding~~ emergency response procedures.
c. Maintain a portfolio record of written safety examinations and equipment ~~examination~~ examinations for which the student has passed an operational checkout by the instructor.

### 2. Professionalism and Ethics in Fashion Design

2.1 Performance Indicators: Collaboratively develop a professionalism rubric with performance indicators for each of the following **professional attributes required within the fashion design industry**:

a. creative design skills,
b. ethical fashion business practices,
c. honesty,
d. respect,
e. communication, and
f. responsibility.

2.2 Ethical Trading Initiative: Examine the Ethical Trading Initiative (ETI) and summarize **its governance, mission, and strategies**. Synthesizing popular commentary and scholarly perspectives on the Initiative and its effectiveness, assess the **domestic and global significance and implications** of ETI's Base Code on the textile industry and clothing market. Apply principles from the ETI Base Code to compose a personal code of ethics to follow in the fashion design industry.

2.3 Ethical Issues: Examine current and emerging ethical **issues related to the fashion design** industry (e.g., fur debate, unethical labor practices, and fashion-inspired body-image disorders). Choose one such issue and develop a claim about its impact on the fashion industry's image.

## 3. Project Management

3.1 Business Plans: Interpret and apply **basic components of business plans** to design and complete a comprehensive business plan **for a specific fashion line**. Generate formal strategies for marketing, financing, manufacturing, and labor in the context of domestic and global markets.

3.2 Budgets: Create an outline that illustrates the **basic components of project budgets** commonly used in fashion design proposals (e.g., itemized budgets, non-itemized budgets, fixed budgets, and flexible budgets). Implement outline components to generate a comprehensive budget for a potential seasonal fashion line.

3.3 Project Management: Examine how businesses in the fashion design industry conduct project management processes. Compare and contrast **components of project management models** gathered from case studies of major or local designers. Generate a project management template that addresses the objectives required for organizing and producing a fashion show.

## 4. Capstone Project

4.1 Fashion Design Knowledge: Demonstrate the application of advanced fashion design knowledge and **skills to create a** comprehensive, original **fashion line with at least three pieces**. Incorporate design and fabrication skills, technology applications, and market indicators (e.g., trends, forecasting, target markets) to plan, problem-solve, and attain project goals. Project components may include but are not limited to the following:

a. Utilize computer-aided design software to illustrate project elements.
b. Create ~~3-Dimensional~~3-dimensional models of project elements.
c. Select and use appropriate materials and methods to fabricate project apparel.

d. Create a design narrative board using textile samples and fashion sketches.

4.2 Effects of Brand Strategies: Research the effects of **brand strategies on creating product identity** and enhancing sales. Examine print and digital resources to compare brand strategies used in fashion design; develop an original business logo and designer label for the fashion line.

4.3 Promotional Elements: Summarize the main elements of a **promotional mix** and examine **promotional activities specific to the fashion design industry**. Develop and implement a promotional campaign to strategically position and publicize the fashion line. Produce and deliver a technology-enhanced presentation of the promotional plan for the fashion collection that could be translated into a runway fashion show.

### 5. Career Portfolio

5.1 Portfolio: Compile important **artifacts that represent professional skills and personal style** to create a professional portfolio and accompanying electronic representation. Develop a plan to compile important artifacts that represent professional skills and personal style to create a professional portfolio and accompanying electronic representation. Develop a plan to distribute the electronic portfolio as part of a career job search and/or as admission to a postsecondary design institution.

### 6. Internship Option**

6.1 Internship: Participate in a work-based learning internship **experience to develop, practice, and demonstrate skills** outlined in the standards above. ~~Internship~~ Internships should follow current Tennessee work-based learning guidelines as appropriate.

6.2 Journal: Create and continually update a personal journal to **document internship activities**. Draw connections between the experience and course content, thoughtfully reflecting on the following:

a. acquired leadership and technical skills,
b. problem-solving techniques and decision-making skills,
c. team member participation in a learning environment, and
d. personal career development.

6.3 Essay: Upon conclusion of the internship, write an informative **essay summarizing the internship** experience and next steps for personal and professional growth. Produce a technology-enhanced class presentation showcasing highlights, challenges, and lessons learned from the internship.

** Although ~~a~~ hands-on experience in work-based learning (WBL) is the most ideal, it is recognized that not all students will be able to be placed in a working establishment. If a student is placed, then the experience would follow the requirements of the state board's WBL Framework and the Department's WBL Policy Guide. For information, visit https://www.tn.gov/education/educators/career-and-technical-education/work-based-learning.html.

## Standards Alignment Notes

References to other standards include:

- FACS: National Standards for Family and Consumer Sciences Education, Second Edition: National Association of State Administrators of Family and Consumer Sciences, FACS.
- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
  - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.