

# Audio Production II

Primary Career Cluster:	Arts, A/V Technology & Communications
Consultant:	Rachel Allen, (615) 532-2835, <a href="mailto:Rachel.Allen@tn.gov">Rachel.Allen@tn.gov</a>
Course Code(s):	
Prerequisite(s):	None
Credit:	1
Grade Level:	10
Graduation Requirements:	This course satisfies one of three credits required for an elective focus when taken in conjunction with other Arts, A/V Technology & Communication courses.
Programs of Study and Sequence:	This is the second course in the <i>Audio Production</i> program of study.
Necessary Equipment:	Refer to the Teacher Resources page.
Aligned Student Organization(s):	SkillsUSA: <a href="http://site1.tnskillsusa.com/">http://site1.tnskillsusa.com/</a> Brandon Hudson, (615) 532-2804, <a href="mailto:Brandon.Hudson@tn.gov">Brandon.Hudson@tn.gov</a> Technology Student Association (TSA): <a href="http://www.tntsa.org">http://www.tntsa.org</a> Amanda Hodges, (615) 532-6270, <a href="mailto:Amanda.Hodges@tn.gov">Amanda.Hodges@tn.gov</a>
Coordinating Work-Based Learning:	If a teacher has completed work-based learning training, appropriate student placement can be offered. To learn more, please visit <a href="http://www.tn.gov/education/cte/work_based_learning.shtml">http://www.tn.gov/education/cte/work_based_learning.shtml</a> .
Available Student Industry Certifications:	
Dual Credit or Dual Enrollment Opportunities:	There are no known dual credit/dual enrollment opportunities for this course. If interested in developing, reach out to a local postsecondary institution to establish an articulation agreement.
Teacher Endorsement(s):	576, 597
Required Teacher Certifications/Training:	
Teacher Resources:	<a href="http://www.tn.gov/education/cte/artstech.shtml">http://www.tn.gov/education/cte/artstech.shtml</a>

## Course Description

*Audio Production II* is the second course in the *Audio Production* program of study intended to prepare students for a careers in audio production. Building on knowledge acquired in *Audio*

*Production I*, this course advances technical skill in utilizing industry equipment related to recording audio, and it places special emphasis on the completion of a full scale recording project from the planning stages to mastering and distribution. Upon completion of this course, proficient students will be able to plan, budget, and execute a recording project individually and through collaboration in teams. This course will also include proficiency in audio editing software of a professional level (DAW) and advanced techniques plus ethical and legal issues, technology, funding, and the organization of professional roles in various audio 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. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, Tennessee State Standards for Physical World Concepts, Physical Science, Physics, and Visual Art.\*

## Program of Study Application

This is the second course in the *Audio Production* program of study. For more information on the benefits and requirements of implementing this program in full, please visit the Arts, A/V Technology & Communications website at <http://www.tn.gov/education/cte/artstech.shtml>.

## Course Standards

### Safety

1. 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. (TN Reading 3, 4, 6; TN Writing 4, 9)
2. 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 as needed for various environments. Incorporate safety procedures and complete a safety test with 100 percent accuracy. (TN Reading 3, 4)

### Audio Recording Industries

3. Analyze how audio professionals interact with others within industry. Conduct a case study of a record company/studio to evaluate the roles and responsibilities of audio 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 engineer interacts with producers, writers, artists, executives, and assistants in a record company to create a radio single or EP. (TN Reading 1, 2, 4, 5; TN Writing 2, 8, 9)
4. Develop a research paper or visual display demonstrating the influence of technology on the careers of audio recording 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. (TN Reading 2, 4; TN Writing 1, 4, 8, 9)

5. Examine funding methods for various types of recordings. Research the options for releasing recordings to be available to the public. Complete a project that explains how artists, record companies and studios work together to create an intended final project within budget and what other options there may be for releasing the music. (TN Reading 1, 2, 4, 5; TN Writing 2, 8, 9; TN Math)

### Career Preparation

6. Research the postsecondary institutions (colleges of applied technology, community colleges, and four-year universities) in Tennessee and other states that offer audio recording-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 recording career. (TN Reading 1, 2, 3, 5; TN Writing 4, 7, 9)

### Ethical and Legal Issues

7. Examine the significance of ethical practices in audio recording occupations, using professional organizations' codes of ethics or other industry sources. Evaluate ethical/legal issues affecting the industry, such as illegal music downloads, music licensing, and royalties distribution. Compose an argument with claim(s) and counterclaim(s), debating the sociological and economic impact of a particular issue facing the industry. (TN Reading 1, 2, 8, 9; TN Writing 1, 4, 8, 9)

### Recording Software/DAW

8. Develop basic to moderate skills using a professional DAW like Logic Pro or Pro Tools, to record edit and master audio recordings. Accurately create session templates for real and/or mock recording sessions within the DAW. Show ability to properly route audio signal to, through, and from the DAW and its corresponding interfaces. Accomplish technical goals through understanding written and verbal instructions. (TN Reading 1, 2, 8, 9)
9. Utilize DAW plug-ins and/or external hardware to add signal processing to recorded mixes or the original signal as it is being recorded. Read manuals and online resources to fully understand the operations of these signal processors to maximize their use. Show ability to enhance mixes by using signal processors within a DAW. (TN Reading 2, 3, 4, 9)

## Planning

10. Building on the experiences and knowledge from Audio Production I, conduct research and write pre-production planning notes including microphone selection, technique, timelines, musician scheduling, and channel assignments for conducting a recording session. (TN Reading 1, 2, 3, 5; TN Writing 4, 7, 9)

## Advanced Audio Equipment Operations

11. Examine specific user manuals for equipment found in the classroom/studio (the mixer(s), microphones, signal processors, etc). Rewrite particular parts of different manuals to help peers understand the directions. Follow the manual to accomplish predetermined task on the various pieces of audio equipment. (TN Reading 2, 3, 4, 9; TN Writing 4, 7, 9)
12. Analyze the signal flow of how equipment moves through the studio. Draw a flow chart similar to that studied in Audio Production I, but on a larger scale as to include the full flow of audio from originating audio source to playback of recorded material. (TN Reading 2, 3, 4, 9)
13. Research uncommon or cutting edge recording techniques and/or equipment in the recording industry. Research and write a detailed explanation of new or rarely used techniques, explaining the benefits and drawbacks of their use. Provide examples of optimal situations when these techniques or equipment would be useful. (TN Reading 1, 2, 3, 5; TN Writing 4, 7, 9)
14. Drawing on knowledge from Audio Production I, show ability to set up studio equipment using proper technique based on instructions from the "producer" or "engineer" (teacher or other students). Techniques should be accomplished individually and in groups. After reviewing each studio set up, summarize in writing what was correct about the set ups and should be changed, with explanation as to what and why changes should be made. (TN Reading 1, 2, 3,4, 7, 9; TN Writing 2, 4,5, 9)

## Analyzing Material

15. Analyze pre-recorded commercial studio recordings of various genres, tempos, decades, etc., and write differences between them in sound quality, recognizing instruments, miking techniques, effects used and overall recording quality. Research and read professional reviews as an example before writing their own. (TN Writing 4, 7, 9)

## Mixing

16. Examine popular recordings for the quality and method of the mix including the 3 main axis' of spacial (left, center, right), depth (front to back) and frequency spectrum. Analyze a recording taking note of how well each axis is mixed. (TN Writing 4, 7, 9)
17. Practice mixing pre-recorded material using the 3 axis'. Begin writing a plan with a list of all included instruments and style of music. Based on previous knowledge, list instruments and make notes as to where each source will "land" in the mix in each of the 3 axis'. Self-evaluation will be most beneficial as students are able to go back and fine tune their mixes. (TN Writing 4, 7, 9)

## Mastering

18. Research and present different mastering techniques and options. Compare the costs of self-mastering or hiring out for mastering services. Explore the steps involved in mastering and how much, if any, varies from engineer to engineer. Practice the mastering techniques using basic plug-ins and/or outboard signal processing gear. Keep a descriptive log while practicing noting audible changes while mastering an audio project. (TN Reading 1, 2, 3, 5; TN Writing 4, 7, 9; TN Math)

## Equipment Testing and Repair

19. Examine testing equipment to help with troubleshooting audio issues related to studio equipment like cables and speakers. Write down steps for troubleshooting in general and the order to take to find the problem and what equipment would be helpful in quickly locating the problem. Practice using the testing equipment and document action taken to remedy the issue. (TN Reading 2, 3, 4, 9; TN Writing 4, 7, 9)
20. Analyze soldering techniques to assist in repairing cables and other audio equipment and other studio equipment. Examine the benefits of developing the skill of soldering compared to paying for repairs or the contrast between making or purchasing your cables. Research and do a cost comparative between buying or making cables. Practice repairing and making cables with soldering equipment. (TN Reading 1, 2, 3, 5; TN Writing 4, 7, 9; TN Math)

## Projects

21. Apply the recording process to complete recording projects (independently and in teams) for distribution and/or competitions. Use all aspects of pre-planning, budgeting, and equipment knowledge of both software and hardware, and keep production notes as in a real recording project. Deadlines must be met and adhered to, to simulate real world environments and to duplicate workplace responsibility. (TN Writing 2, 4, 5, 9)

22. 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 music reviewer to write a critical review of a production, citing evidence to justify claims made. (TN Reading 9; TN Writing 2, 4, 5, 9)

### Interviewing

23. Examine interviewing techniques used in audio recording. 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. (TN Reading 3, 4, 9; TN Writing 4, 9)
24. 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 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. (TN Reading 6, 9; TN Writing 4, 5, 9)
25. 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. (TN Reading 6)

### Portfolio

26. Update materials from coursework to add to the portfolio started in Audio 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. (TN Writing 4)

## Standards Alignment Notes

\*References to other standards include:

- TN Reading: [Tennessee State Standards for English Language Arts & Literacy in History/ Social Studies, Science, and Technical Subjects](#); Reading Standards for Literacy in Science and Technical Subjects 6-12; Grades 9-10 Students (page 62).
  - Note: While not directly aligned to one specific standard, students who are engaging in activities outlined above should be able to also demonstrate fluency in Standard 10 at the conclusion of the course.

- TN Writing: [Tennessee State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects](#); Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6-12; Grades 9-10 Students (pages 64-66).
  - Note: While not directly aligned to one specific standard, students who are engaging in activities outlined above should be able to also demonstrate fluency in Standards 3 and 10 at the conclusion of the course.
- TN Math: [Tennessee State Standards for Mathematics](#); Math Standards for High School: Number and Quantity, Statistics (pages 58-83).
  - Note: The standards in this course are not meant to teach mathematical concepts. However, the concepts referenced above may provide teachers with opportunities to collaborate with mathematics educators to design project based activities or collaborate on lesson planning. Students who are engaging in activities listed above should be able to demonstrate quantitative and statistical reasoning as applied to specific technical concepts. In addition, students will have the opportunity to practice the habits of mind as described in the eight Standards for Mathematical Practice.
- TN Physical World Concepts: Tennessee Science: [Physical World Concepts](#) standard 3 may provide additional insight and activities for educators.
- TN Physical Science: Tennessee Science: [Physical Science](#) standard 2 may provide additional insight and activities for educators.
- TN Physics: Tennessee Science: [Physics](#) standard 4 may provide additional insight and activities for educators.
- TN Visual Art: Tennessee Visual Art: [Visual Art](#) standards 2.1 and 2.2 may provide additional insight and activities for educators.
- 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.