

# Digital Audio 2

| Exam Information                                                                                                                                                                                                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <p><b>Exam number</b><br/><b>817</b></p> <p><b>Items</b><br/><b>17</b></p> <p><b>National Career Cluster</b><br/><b>Arts, A/V Technology, &amp; Communications</b></p> <p><b>Certification available</b><br/><b>Yes</b></p> | <p>The Digital Audio 2 industry certification exam assesses advanced knowledge in digital audio production. Learners are evaluated on their understanding of sound synthesis, advanced editing techniques, sound reinforcement, and live sound production. The exam covers advanced recording techniques, including multi-track recording, live recording sessions, and remote recording setups. It tests learners' knowledge of how to optimize recording environments, manage multiple audio tracks, and achieve professional-quality recordings. Additionally, the exam assesses the learner's knowledge of advanced mixing and mastering skills, including signal processing, equalization, compression, reverb, and spatial effects, ensuring learners know how to create polished, professional-grade audio mixes.</p> |

## Exam Blueprint and Performance Skills

| Standard                        | Percentage of exam score |
|---------------------------------|--------------------------|
| 1. Job Roles & Responsibilities | 8%                       |
| 2. Developing Workflows         | 33%                      |
| 3. Equipment Setup & Use        | 38%                      |
| 4. Portfolio Development        | 13%                      |
| 5. Collaboration & Production   | 4%                       |
| 6. Copyright Laws               | 4%                       |
| 7. Career Readiness             | 0%                       |

\*Includes performance skill evaluation

## Standard 1 - Job Roles & Responsibilities

Candidates will fill the role and responsibilities of one or several of the following job titles.

**Objective 1** Candidates will explore/identify job titles in the audio industry.

1. Candidates will explore/identify job titles in the audio industry.
2. Recording Engineer
3. Front of House (FOH) Engineer
4. Mixing Engineer
5. Music Producer
6. Monitor Engineer
7. Theatrical Engineer
8. Mastering Engineer
9. Foley Artist
10. SFX Designer

**Objective 2** Candidates will produce one or more of the following projects.

1. Live music performance
2. Recording a studio album or EP
3. Podcasts
4. Soundtrack and foley for a film or TV Show
5. Audio commercial
6. Audio book

**Optional: Standard performance evaluations on the final page of this document**

## Standard 2 - Developing Workflows

Candidates will demonstrate correct use of audio recording equipment and develop a recording workflow.

**Objective 1** Demonstrate Digital Audio Workstation (DAW) workflow.

1. File/Asset Management
2. Session Organization
3. Create project

4. Import audio files
5. Manage multiple sources/tracks of audio
6. Export audio
7. Export types (MP3, AIFF, WAV, FLAC)

**Objective 2** Identify elements of audio.

1. Decibel
2. Clipping
3. Reverb
4. Panning
5. EQ
  - a. High-pass filter
  - b. Low-pass filter
  - c. Bell/Peaking
  - d. High-Shelf
  - e. Low-Shelf

**Objective 3** File Types & Digital Compression

1. Lossy - reducing the file size by reducing audio quality
  - a. MP3
  - b. AAC
2. Lossless - full audio quality, larger file size
  - a. FLAC
  - b. WAV
  - c. AIFF

## Standard 3 - Equipment Setup & Use

Candidates will demonstrate proper setup and use of recording equipment.

**Objective 1** Identify various types of audio equipment.

1. Analog Mixer - non programmable
2. Digital Mixer - programmable
3. DI Box - used to convert an instrument cable (unbalanced) into an xlr output (balanced)
4. Snake and Stage Boxes - Equipment that allows you to run multiple audio inputs through a single cable to your mixer

**Objective 2** Candidates will Identify common microphone pickup patterns.

1. Cardioid
2. Hyper-Cardioid
3. Omnidirectional

4. Bidirectional/Figure 8
5. Shotgun

## Standard 4 - Portfolio Development

Candidates will assemble a portfolio, including a resume, demonstrating various skills related to audio production.

### Objective 1 Explore audio production

1. Apply for an internship
2. Help someone setup equipment for a show or studio recording
3. Learn how to use a piece of equipment you have never used before
4. Using any equipment available, record interesting sounds in your classroom or neighborhood

## Standard 5 - Collaboration & Production

Candidates should collaborate and produce different types of audio.

**Objective 1** Publication Selection – Candidates will identify the proper distribution outlet that is best suited for their content.

1. Spotify
2. Apple Music
3. YouTube
4. SoundCloud
5. Social Media

**Objective 2** Based on classroom resources, candidates should select a distribution platform and work together to produce one or several of the following:

1. Produce a multiple episode podcast
2. Produce the audio and soundtrack for a film
3. Produce a studio album or EP
4. Produce a live music concert

**Optional: Standard performance evaluations on the final page of this document**

## **Standard 6 - Copyright Laws**

Candidates will be able to understand and obey basic copyright laws applicable to all media.

**Objective 1** Practice correct usage of copyright laws.

1. Right to reproduce, manipulate and distribute
2. Plagiarism

**Objective 2** Licensing/Royalties

1. PRO (Performance Rights Organizations)
  - a. ASCAP
  - b. BMI
  - c. SESAC

## **Standard 7 - Career Readiness**

Candidates will understand the importance of career readiness skills as it relates to participating in either TSA, SkillsUSA, Utah Broadcast Awards, or any other approved event.

**Objective 1**

1. Participate in a CTSO competitive event related to audio
2. Plan for your future career
3. Apply for internships with recording studios
4. Identify the components of an employment portfolio
5. Complete a survey for employment opportunities
6. Create a job application
7. Assemble your employment portfolio
8. Interview someone who is working in your field of interest

## Performance Skills Evaluation

Exam name: Digital Audio 2

Candidate Name: \_\_\_\_\_

Performance assessments may be completed and evaluated any time before the certification is issued. The following performance skills can be used in connection with the associated standards and exam. The evaluator will function as the subject matter expert to determine if the candidate meets the skills requirements with a Yes/No for passing.

### Performance Skills

- Candidates should assemble a portfolio demonstrating equipment use and management, recording skills, basic editing, and publishing high quality audio.

Pass:

Evaluator Name:

Date:

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\_\_\_\_\_