

Digital Audio Technology II

Level 3: Student explored previously; second pathway specific course

Pathway(s): Digital Media & Communication

Description

Digital Audio Technology II was designed to provide additional opportunities and skill sets for students interested in audio production careers such as audio for radio and television broadcasting, audio for video and film, audio for animation and game design, and music production and live sound. Digital Audio Technology II does not replace Audio Video Production courses but is recommended as a single credit, co-curricular course with an audio production technical emphasis. This course can also be paired with Digital and Interactive Media (DIM). Students will be expected to develop an understanding of the audio industry with a technical emphasis on production and critical-listening skills.

Student Learning Outcomes

Laws & Regulations

- 1) Demonstrate an understanding of ethical conduct related to interacting with others and providing proper credit for ideas.
- 2) Model respect for intellectual property.
- 3) Analyze the ethical impact of the audio production industry on society.
- 4) Understand and comply with all copyright and fair use laws.
- 5) Understand and comply with all applicable rules and regulations of the associated governing authority such as the Federal Communications Commission (FCC), local school district, or client.

Career Building

- 6) Create a career portfolio to document information such as work experiences, licenses, certifications, and work samples.
- 7) Examine and employ professional networking opportunities such as career and technical student associations, professional social media, and industry professional organizations.
- 8) Examine employment opportunities in entrepreneurship.

Technical Skills for Efficiency

- 9) Employ planning and time-management skills to complete work tasks.
- 10) Use technology to enhance productivity.

Audio Production Industry

- 11) Identify various career pathways and job opportunities in the audio production industry.
- 12) Understand the roles of various industry audio professionals such as producers, editors, engineers, and talent as they apply to specific audio production career pathways.
- 13) Understand the history, current practices, and future trends for audio production careers such as radio and television broadcasting, video and film, animation and game design, music production, and live sound.
- 14) Describe how the changing technology is impacting the audio industry.

- 15) Define and appropriately use terminology associated with the audio production industry.

Audio Production Equipment

- 16) Understand types and applications of microphones such as dynamic, condenser, ribbon, pressure zone (PZM), universal serial bus (USB), and wireless.
- 17) Understand pick-up patterns and applications of microphones such as cardioid, omnidirectional, and figure eight.
- 18) Demonstrate the operation and application of audio consoles (mixers) such as broadcast consoles, live sound consoles, and recording consoles.
- 19) Demonstrate the operation and application of audio processing equipment or software such as equalizer (EQ), dynamic compressor, noise gate, band pass filters, reverb, and delays.
- 20) Demonstrate the operation and application of analog and digital audio recording devices such as handheld recorders, USB interfaces, multi-track devices, and digital audio workstations (DAW).
- 21) Demonstrate the application of audio interconnect cabling and connectors such as XLR balanced, TRS balanced, TS unbalanced, RCA, ¼" TRS/TS, and mini TRS/TS.
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- 23) Use the types and applications of audio speakers such as broadcast monitors, studio monitors, and live sound speakers.

Audio Production Elements

- 24) Consistently identify key elements (stems) of an audio production such as dialogue, sound effects, music, and environmental.
- 25) Use music styles, sound effects, or vocal performances to create a specific emotional impact.
- 26) Use key technical elements of audio production for effect such as panning, ducking, track doubling, retiming, and auto-tune.
- 27) Use digital audio codecs and compression standards such as Waveform audio (WAV), MP3, and advanced audio coding (AAC).

Assets for Production Projects

- 28) Use key elements required in audio scripts.
- 29) Consistently apply writing skills to develop an audio script.
- 30) Create or obtain require audio assets through recording, synthesis, or permissions.

Digital Audio Workstation and Audio Editing

- 31) Demonstrate how to record or import various types of audio content such as audio files, MIDI data, or automation.
- 32) Use types and applications of audio tracks such as audio track, instrument track, master track, auxiliary track, and global attributes track.
- 33) Use audio editing tools and transitions such as cut, trim, and fade.
- 34) Demonstrate the use and applications of software plug-ins such as EQ, dynamic compression, reverb, and software instruments.
- 35) Demonstrate the use and application of software automation.
- 36) Use the various delivery formats such as disk, broadcast, cellular, portable device, electronic and online delivery.