

e2020 Curriculum Briefing Audio Engineering (EL5716)

Course Description

This semester-long course introduces students to audio engineering. Students learn about the physics of sound, as well as techniques for protecting hearing while working with audio. Students will learn about the history of recording technologies, as well as techniques for evaluating audio hardware, such as microphones and speakers. Students will also learn about the four stages of professional music recording projects: recording, editing, mixing, and mastering. Using Audacity, an open-source recording and mixing program, students will practice the techniques used by sound engineers to produce multitrack recordings. Students learn about the difference between proprietary, open-source, and free software licenses, as well as the most popular Digital Audio Workspace software used in the profession. Students will also learn about intellectual property issues involving audio, particularly when using other people's music. Through a series of engaging hands-on projects, students will learn the fundamental concepts of audio engineering. A series of interviews with professional audio engineers will give students a sense of the opportunities and requirements for pursuing careers in the field.

This course is partially aligned to Washington State Recording Arts and Sound Reinforcement Tech CTE standards.

Topics of Study

- Understanding sound
- Recording audio
- Audio software tools
- Mics and mixing
- Mastering sound

e2020 Curriculum Briefing (continued)

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Course Features

- The course provides step-by-step instruction on how to use the Audacity recording and mixing software program to complete various audio projects.
- Audio samples and starter files are provided to help students get started.
- Audio widgets play back sound to reinforce and illustrate audio-related concepts.
- Course graphics and animated images provide another way of understanding complicated course material.
- Each section of the course includes assignments that have students use what they learned in different ways, including researching and reflecting on audio concepts, as well as editing and creating audio files in different ways.
- A final assignment pulls together all of the audio-engineering concepts and techniques students learned in the course to mix together a multitrack sound file.

Grading

Just as with our other e2020 courses, you always have the flexibility to tailor the grade weights for the course according to your own district, school, and student needs.

The default grades for this course are as follows:

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| • Assignments | 20% |
| • Essays | 0% |
| • Quizzes | 20% |
| • Tests | 10% |
| • Exams | 0% |
| • Projects | 50% |
| • Additional | 0% |