Audio Engineering - HS/One Part

COURSE DESCRIPTION: In this introductory course, students learn about the physics of sound and the history of recording technologies. They learn about the four stages of professional music recording projects: recording, editing, mixing, and mastering. Using Audacity, an open-source recording and mixing program, they practice the techniques used by sound engineers to produce multitrack recordings. Through a series of engaging hands-on projects, they learn the fundamental concepts of audio engineering.

PREREQUISITES: None

COURSE LENGTH: One Semester

REQUIRED TEXT: None

MATERIALS LIST: Audacity (free download)

COURSE OUTLINE:

Unit 1: Course Overview

- Start the Course
- Set Up Your Computer
- Set Up a Browser
- Find and Complete Coursework

Unit 2: Section 1: Understanding Sound

- Sound
- Make Waveforms
- Manipulate Waves
- Frequency
- Clean Up Audio
- Health and Safety

Unit 3: Section 2: Recording Audio

- Analog Recording Technology
- Digital recording Technology
- Recording Studios

- Echoes
- Reverb
- More Acoustical Problems

Unit 4: Section 3: Audio Software Tools
- DAW Software
- Other Audio Tools
- Multitrack Music Project
- Audio File Formats
- Encode Audio

Unit 5: Section 4: Mics and Mixing
- Microphone Hardware
- Microphone Specifications
- Microphone Placement
- Using Other People's Music
- Mix Samples
- Finish Mixing Samples

Unit 6: Section 5: Mastering Sound
- Mastering and EQ
- Continue Using EQ
- Compress Audio
- Normalize and Fade
- Phaser and Wahwah Effects