

CTE Audio Production
Course #05071/05072
Denver School of the Arts
2009 - 2010

Instructor Info:

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Office Hours: 5th period

Course Overview:

In this course, students will explore the following topics:

- Sound & Acoustics concepts and topics
- Digital audio tools and techniques
- Music analysis and construction
- Scoring for video and other multimedia
- Recording studio techniques
- Mixing and Mastering
- Copyright Law/Music Business
- History of audio production

Classroom Behavior Expectations:

- Take responsibility for your own learning.
- Be respectful of others.
- Engage in appropriate, effective, respectful and responsible communication and behavior.
- No food or beverages in classroom (only water in capped bottles).
- Turn cell phones and/or pagers off.
- Be in class on time, awake, and prepared.
- Adhere to all school policies.

Attendance:

Attendance in all classes is **vital!** You are expected to be in class on time, and in your seat ready to go. If one day is missed, you have missed out on many things, many connections, and many valuable and hard-to-replace experiences. The attendance policy is followed very strictly in this class. Please review the attendance policy for both unexcused and excused absences as well as tardiness. For make-up work, unless arranged otherwise, my policy is to allow two days for every one day missed (excused absences).

Required equipment:

Students need to bring headphones to every class.

Student Evaluation:

Students are expected to participate actively in classroom discussions and presentations. In addition to completing assigned homework, students are required to keep a notebook containing all handouts as well as homework, quizzes, and tests that are returned.

Grades will be based on the following percentages:

- 60% Assignments & Projects**
- 20% Tests and Quizzes**
- 20% Participation**

Course Outline

Semester 1:

- A. Fundamental Principles of audio production
 - 1. Sound waves
 - 2. Overtones
 - 3. Acoustics
 - 4. Amplitude
 - 5. Equal loudness contours
- B. Audio Software
 - 1. Logic Pro software basics
 - 2. Digital audio systems
 - 3. MIDI
 - 4. Multitrack audio concepts
- C. Sound System Basics
 - 1. Signal flow
 - 2. Cable types and connectors
 - 3. Mixer configurations
 - 4. Microphone types and functions
- D. Signal Processing
 - 1. Dynamics: compressors and limiters
 - 2. Equalization and filters
 - 3. Panning
 - 4. Reverb, delay and echo
 - 5. De-essing
- E. Studio Equipment
 - 1. Preamplifiers
 - 2. Converters
 - 3. Studio microphones
 - 4. Patchbay
 - 5. Cables

Semester 2:

- F. Studio Recording Process
 - 1. Session techniques
 - 2. Mixing
 - 3. Mastering
 - 4. Microphone placement
- G. Music Business
 - 1. Studio roles
 - 2. Budgets
 - 3. Equipment maintenance
 - 4. Career options
- H. Applications
 - 1. CD production
 - 2. Genre specific recording and mixing
 - 3. Music forms
 - 4. Song analysis and construction

District Standards/Learning Objectives

EXPLORATORY TECHNOLOGY

STANDARD 4: The student will explore, integrate, and apply current technologies to career development. In order to meet the standard, the student will be able to:

- 4.1 Understand and experiment with physical, mathematical, and chemical processes in a technical world.
- 4.2 Explore technical and trade applications.
- 4.3 Research a variety of careers and understand the evolving career opportunities within industrial technology.