



FILM 141 - Introduction to Audio Production Course Outline

Approval Date: 03/12/2020

Effective Date: 08/16/2021

SECTION A

Unique ID Number CCC000615974

Discipline(s) Film Studies

Music

Theater Arts

Division Arts and Humanities

Subject Area Film Studies

Subject Code FILM

Course Number 141

Course Title Introduction to Audio Production

TOP Code/SAM Code 0612.00 - Film Studies (including combined film/video) /
E - Non-Occupational

Rationale for adding this course to the curriculum This course will be part of a Film AA-T degree.

Units 3

Cross List N/A

Typical Course Weeks 18

Total Instructional Hours

Contact Hours

Lecture 54.00

Lab 0.00

Activity 0.00

Work Experience 0.00

Outside of Class Hours 108.00

Total Contact Hours 54

Total Student Hours 162

Open Entry/Open Exit No

Maximum Enrollment 20

Grading Option Letter Grade or P/NP

Distance Education Mode of Instruction On-Campus

SECTION B

General Education Information:

CSU Transferable:

CSU Transferable

Approved on:Fall 2020

SECTION C

Course Description

Repeatability May be repeated 0 times

Catalog Description This course serves as an introduction to the theory and practice of audio production for radio, television, film and digital recording applications. Students will learn the fundamentals of sound design and aesthetics, microphone use, and digital recording equipment. Students gain hands on experience recording, editing, mixing and mastering audio. Upon completion, students will have basic knowledge of applied audio concepts, production workflow, equipment functions, and audio editing software.

Schedule Description

SECTION D

Condition on Enrollment

1a. **Prerequisite(s):** *None*

1b. **Corequisite(s):** *None*

1c. **Recommended:** *None*

1d. **Limitation on Enrollment:** *None*

SECTION E

Course Outline Information

1. Student Learning Outcomes:

- A. Develop a basic working understanding of audio production equipment.
- B. Design a variety of effective audio productions.
- C. Demonstrate an understanding of basic audio production skills: recording, mixing, editing, and the operation of equipment.
- D. Gain an understanding of how the skills of audio production impact other areas of film/media production.

2. Course Objectives: Upon completion of this course, the student will be able to:

- A. Understand basic physics of sound terminology; the sound wave, frequency/pitch, amplitude/loudness, phase, and timbre.
- B. Comprehend acoustics; microphone classification, placement and use; theory and practical use of consoles, computers and software; analog/digital recording and storage devices; patching; editing; time code; signal processors; loudspeakers.
- C. Describe audio production software interface.
- D. Create sound effects and original sound clips for dynamic media.
- E. Outline the basic process for digitizing audio clips.
- F. Explore the emotional and physical perception of music, voice and sound and the aesthetics of audio mixing.

- G. Demonstrate appropriate workplace behavior in a studio setting.
- H. Evaluate and conduct both destructive and nondestructive waveform editing procedures.
- I. Understand audio processes for voice recording, multimedia production, sound design.
- J. Perform complex audio production techniques.
- K. Demonstrate refined techniques for audio production using Pro Tools or other appropriate audio software.
- L. Understand audio used in studio and on-location production for radio, television and film.
- M. Collect, create, analyze, and evaluate digital audio clips.
- N. Complete applied projects to assess the student knowledge of recording, editing, mixing, and balancing.
- O.

3. Course Content

- A. **Basic Recording Practice**
 - Studio and location recording
 - Studio personnel and their functions
 - Recording process
- B. **Sound and Hearing**
 - Waveform characteristics
 - Loudness and hearing
 - Psychoacoustics
 - Perception vs. measurement
- C. **Studio Acoustics and Design**
 - Types of studios
 - Isolation
 - Control of reflections and room mode
 - Diffusion and absorption
 - Reverberation
- D. **Recording Equipment/Tools**
 - Microphones
 - Design
 - Dynamic
 - Ribbon
 - Condensor
 - Characteristics
 - Techniques
 - Placement
 - Microphone selection for specific purposes
 - Amplifiers
 - Types
 - Characteristics
 - Uses
 - MIDI
 - System description
 - MIDI in the studio
 - Sequencing
 - Recording
- E. **Monitoring**
 - Speakers and Rooms
 - Polarity
 - Configurations

- Formats
 - Mono
 - Stereo
 - Surround
 - Types
 - Nearfield
 - Farfield
 - Headphones
- F. **Digital Audio**
 - Sampling
 - Quantization
 - Record and playback
 - Levels
 - Recording systems
 - Audio Workstations
 - Desktops, laptops
 - Interconnection
 - Sound files and formats
 - DAW (Digital Audio Workstation) software
 - Backup and documentation
 - Tools and techniques
 - Time modifications
 - Pitch modifications
 - Editing
- G. **Multimedia and the Web**
 - Delivery formats
 - Perceptual coding
 - Uploading and getting paid
- H. **Synchronization**
 - Timecode
 - Timing References
 - Sample rate conversion
- I. **Art and Technique of Mastering**
 - Tracking
 - Overdubbing
 - Mixdown
 - Console Architecture
 - Spatial visualization
 - Mastering
 - Mastering process
 - Order, transitions
 - Relative volumes, EQ (Equalization)
 - Studio tips and tricks
 - Time constraints
 - Budgetary constraints
- J. **Signal Processing**
 - Effects
 - Filtering, EQ
 - Dynamic range control
 - Time delay, reverb
 - Noise reduction

Compounding
Noise gates
Surround Sound
Past and present
Home theatre
Formats

K. **Product Manufacture and Distribution**

CDs (Compact Disc)
Replication or reproduction
DVD (Digital Versatile Disc)
Vinyl pressing

L.

4. Methods of Instruction:

Directed Study: Selected clips of multiple audio forms (sound effects, music, speech) used to support lecture topics.

Discussion: In-class discussion of audio theory and audio equipment use.

Lecture: Presentation of topics via spoken lectures combined with equipment demonstrations.

Observation and Demonstration: Audio demos and projects to be completed throughout the semester.

5. Methods of Evaluation: Describe the general types of evaluations for this course and provide at least two, specific examples.

Typical classroom assessment techniques

Quizzes -- Scheduled quizzes and final exam including essay questions that will show appropriate theoretical background and critical thinking about basic single-camera video production.

Research Projects -- Individual projects of increasing difficulty and scope resulting in a final project that will demonstrate appropriate practical knowledge.

Projects -- Set-up, record, and edit a voice-over announcement for a commercial product.

Group Projects -- Set-up, record, and edit a short field piece of audio on campus.

Class Work -- Create an audio collage using the three types of sound (speech, music, sound effects).

Letter Grade or P/NP

6. Assignments: State the general types of assignments for this course under the following categories and provide at least two specific examples for each section.

A. Reading Assignments

A. Reading Assignments

Selected readings from textbook, course reader, library resources, and in-class handouts.

Example:

1. Read ?Ch. 3, Digital Audio Production? in Audio Production Worktext, by Stark & Sauls.

2. Read ?Ch.2, Sound and Hearing? in Modern Recording Techniques, by David Miles Huber

B. Writing Assignments

- A. Read article about acoustics and summarize findings.
- B. Watch the film Star Wars and note the use of sound editing and summarize findings.
- C. Other Assignments
Other Assignments Research paper or other writing project that develop a related topic.

Students are to select a paper topic covering a critical analysis and evaluation of the artistic elements of the Hollywood Silent Film covered in the course this semester. This paper is designed as a research project and students are expected to go beyond the level of information found in the course textbook. Students must find a minimum of five sources for this paper. Of those five, no more than two may be periodical sources and no internet sources are allowed, except where students can demonstrate the academic verifiability and validity of a source. Paper will be in the MLA format using parenthetical citations. The body of the text must be a minimum of 7 pages and no more than 15. Work will be graded on a 50 point rubric that evaluates format; development of the body of the text including a thesis, relevant examples, integration of research, conclusion and merit of original premise; punctuation; grammar; bibliography; citations; and use of images.

7. Required Materials

A. EXAMPLES of typical college-level textbooks (for degree-applicable courses) or other print materials.

Book #1:

Author: David Miles Huber
Title: Modern Recording Techniques
Publisher: Routledge
Date of Publication: 2018
Edition:

B. Other required materials/supplies.