

FILM-141: INTRODUCTION TO AUDIO PRODUCTION

Effective Term

Fall 2021

BOT Approval

03/12/2020

SECTION A - Course Data Elements
CB04 Credit Status

Credit - Degree Applicable

Discipline

Minimum Qualifications	And/Or
Film Studies (Master's Degree)	Or
Music (Master's Degree)	Or
Theater Arts (Master's Degree)	

Subject Code

FILM - Film Studies

Course Number

141

Department

Film Studies

Division

Arts and Humanities (ARAH)

Full Course Title

Introduction to Audio Production

Short Title

Intro to Audio Production

CB03 TOP Code

0612.00 - Film Studies

CB08 Basic Skills Status

NBS - Not Basic Skills

CB09 SAM Code

E - Non-Occupational

Rationale

This course will be part of a Film AA-T degree.

SECTION B - Course Description
Catalog Course 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.

SECTION C - Conditions on Enrollment
Open Entry/Open Exit

No

Repeatability

Not Repeatable

Grading Options

Letter Grade or Pass/No Pass

Allow Audit

Yes

Requisites**SECTION D - Course Standards****Is this course variable unit?**

No

Units

3.00

Lecture Hours

54.00

Outside of Class Hours

108

Total Contact Hours

54

Total Student Hours

162

Distance Education Approval**Is this course offered through Distance Education?**

Yes

Online Delivery Methods

DE Modalities	Permanent or Emergency Only?
Entirely Online	Permanent
Hybrid	Permanent

SECTION E - Course Content**Student Learning Outcomes**

Upon satisfactory completion of the course, students will be able to:	
1.	Develop a basic working understanding of audio production equipment.
2.	Design a variety of effective audio productions.
3.	Demonstrate an understanding of basic audio production skills: recording, mixing, editing, and the operation of equipment.
4.	Gain an understanding of how the skills of audio production impact other areas of film/media production.

Course Objectives

Upon satisfactory completion of the course, students will be able to:	
1.	Understand basic physics of sound terminology; the sound wave, frequency/pitch, amplitude/loudness, phase, and timbre.
2.	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.
3.	Describe audio production software interface.

4. Create sound effects and original sound clips for dynamic media.
5. Outline the basic process for digitizing audio clips.
6. Explore the emotional and physical perception of music, voice and sound and the aesthetics of audio mixing.
7. Demonstrate appropriate workplace behavior in a studio setting.
8. Evaluate and conduct both destructive and nondestructive waveform editing procedures.
9. Understand audio processes for voice recording, multimedia production, sound design.
10. Perform complex audio production techniques.
11. Demonstrate refined techniques for audio production using Pro Tools or other appropriate audio software.
12. Understand audio used in studio and on-location production for radio, television and film.
13. Collect, create, analyze, and evaluate digital audio clips.
14. Complete applied projects to assess the student knowledge of recording, editing, mixing, and balancing.

Course Content

1. Basic Recording Practice
 - a. Studio and location recording
 - b. Studio personnel and their functions
 - c. Recording process
2. Sound and Hearing
 - a. Waveform characteristics
 - b. Loudness and hearing
 - c. Psychoacoustics
 - d. Perception vs. measurement
3. Studio Acoustics and Design
 - a. Types of studios
 - b. Isolation
 - c. Control of reflections and room mode
 - d. Diffusion and absorption
 - e. Reverberation
4. Recording Equipment/Tools
 - a. Microphones
 - b. Design
 - c. Dynamic
 - d. Ribbon
 - e. Condensor
 - f. Characteristics
 - g. Techniques
 - h. Placement
 - i. Microphone selection for specific purposes
 - j. Amplifiers
 - k. Types
 - l. Characteristics
 - m. Uses
 - n. MIDI
 - o. System description
 - p. MIDI in the studio
 - q. Sequencing
 - r. Recording
5. Monitoring
 - a. Speakers and Rooms
 - b. Polarity
 - c. Configurations
 - d. Formats
 - e. Mono
 - f. Stereo
 - g. Surround
 - h. Types

- i. Nearfield
- j. Farfield
- k. Headphones
- 6. Digital Audio
 - a. Sampling
 - b. Quantization
 - c. Record and playback
 - d. Levels
 - e. Recording systems
 - f. Audio Workstations
 - g. Desktops, laptops
 - h. Interconnection
 - i. Sound files and formats
 - j. DAW (Digital Audio Workstation) software
 - k. Backup and documentation
 - l. Tools and techniques
 - m. Time modifications
 - n. Pitch modifications
 - o. Editing
- 7. Multimedia and the Web
 - a. Delivery formats
 - b. Perceptual coding
 - c. Uploading and getting paid
- 8. Synchronization
 - a. Timecode
 - b. Timing References
 - c. Sample rate conversion
- 9. Art and Technique of Mastering
 - a. Tracking
 - b. Overdubbing
 - c. Mixdown
 - d. Console Architecture
 - e. Spatial visualization
 - f. Mastering
 - g. Mastering process
 - h. Order, transitions
 - i. Relative volumes, EQ (Equalization)
 - j. Studio tips and tricks
 - k. Time constraints
 - l. Budgetary constraints
- 10. Signal Processing
 - a. Effects
 - b. Filtering, EQ
 - c. Dynamic range control
 - d. Time delay, reverb
 - e. Noise reduction
 - f. Compounding
 - g. Noise gates
 - h. Surround Sound
 - i. Past and present
 - j. Home theatre
 - k. Formats
- 11. Product Manufacture and Distribution
 - a. CDs (Compact Disc)
 - b. Replication or reproduction
 - c. DVD (Digital Versatile Disc)
 - d. Vinyl pressing

Methods of Instruction

Methods of Instruction

Types	Examples of learning activities
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.

Online Adaptation

Types	Examples of learning activities
Activity	
Directed Study	
Discussion	
Group Work	
Individualized Instruction	
Journal	
Lecture	

Instructor-Initiated Online Contact Types

Announcements/Bulletin Boards
 Chat Rooms
 Discussion Boards
 E-mail Communication
 Telephone Conversations
 Video or Teleconferencing

Student-Initiated Online Contact Types

Chat Rooms
 Discussions
 Group Work

Course design is accessible

Yes

Methods of Evaluation

Methods of Evaluation

Types	Examples of classroom assessments
Quizzes	Scheduled quizzes and final exam including essay questions that will show appropriate theoretical background and critical thinking about basic single-camera video production.
Projects	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.
Other	Class Work - Create an audio collage using the three types of sound (speech, music, sound effects).

Assignments

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

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.

Outside-of-Class 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.

SECTION F - Textbooks and Instructional Materials

Material Type

Textbook

Author

David Miles Huber

Title

Modern Recording Techniques

Publisher

Routledge

Year

2018

SECTION G - Diversity, Equity and Inclusivity

Course Codes (Admin Only)

CB10 Cooperative Work Experience Status

N - Is Not Part of a Cooperative Work Experience Education Program

CB11 Course Classification Status

Y - Credit Course

CB13 Special Class Status

N - The Course is Not an Approved Special Class

CB23 Funding Agency Category

Y - Not Applicable (Funding Not Used)

CB24 Program Course Status

Program Applicable

Allow Pass/No Pass

Yes

Only Pass/No Pass

No