COURSE OUTLINE OF RECORD

Title: Recording Studio Basics

Number: DM G112

Originator: Warren Carter

Formerly Known As: Sound Recording I

Eff Term: Fall 2017

Date of Outline/Review: 12-06-2016

Cross Listed Course:

Semester Units: 3.0

Hrs Lec: 36.0  Hrs Lab: 54.0  Hrs Other: 0.0

Contact Hrs Total: 90.0

Study Non-Contact Hrs Recommended: 72.0

Catalog Description:

Introduction to fundamental concepts and techniques of mixing boards, amplifiers, microphones, signal processors and their application to both live and studio sound reinforcement. Basic introduction to computer based recording with Avid Pro Tools HD systems. Microphone placement, physics of sound as it relates to recording, sound reinforcement and studio setup techniques.

Justification for Course:

Prerequisites:

Corequisites:

Advisories:

Assigned Disciplines:

Commercial music
Multimedia

Material Fee: Yes [ ] No [X] Amount: $0.00

Credit Status: Noncredit [ ] Credit - Degree Applicable [X] Credit - Not Degree Applicable [ ]


Open Entry/Open Exit: Yes [ ] No [X]

Transfer Status: CSU Transferable[X] UC/CSU Transferable[ ] Not Transferable[ ]

Basic Skills Status: Yes [ ] No [X]

Levels Below Transfer: Not Applicable

California Classification Codes: Y - Not Applicable

Non Credit Course Category: Y - Not applicable, Credit Course

Occupational (Sam) Code: C

Repeatable According to State Guidelines: No [X] Yes [ ]

Number Repeats:

Required for Degree or Certificate: No [ ] Yes [X]

Audio Recording(Certificate of Specialization)

GE and Transfer Requirements Met:

Program Level Learning Outcome(S) Supported by this course:

produce a digital portfolio comprised of sound recordings, mixed, and mastered.

Course Level Student Learning Outcome(S) Supported by this course:
DM G112-Recording Studio Basics

1. demonstrate basic mixing techniques using the software mixer.
2. demonstrate use of digital signal processing in the mixing environment.
3. perform proper steps to produce a final product on CD and DVD.
4. create a podcast using audio and photo content.
5. create a movie using video and audio content.
6. operate recording software and achieve proper tracking and mixing of recorded signals.

COURSE OBJECTIVES:
1. Operate recording software and achieve proper tracking and mixing of recorded signals.
2. Demonstrate basic mixing techniques using the software mixer.
3. Demonstrate use of digital signal processing in the mixing environment.
4. Perform proper steps to produce a final product on CD and DVD.
5. Create a podcast using audio and photo content.
6. Create a movie using video and audio content.

COURSE CONTENT:

LECTURE CONTENT:

A. History and evolution of microphones for home recording
   1. Dynamic mic designs and cost
   2. Condenser mic designs and cost
   3. Microphone selection and modeling for vocals and instruments
B. History and evolution of software for home recording
   1. Musical Instrument Digital Interface (MIDI) software in the home studio
   2. Analog to digital recording using microphones
   3. Software instruments with MIDI recording and digital waveforms
C. History of computers in home recording
   1. Studio in a box
   2. Computer towers and sound cards
   3. Laptops and compatible recording interfaces
D. Software overview
   1. Concepts in digital audio
   2. Principles of Musical Instrument Digital Interface (MIDI)
   3. Mixing
E. Digital audio theory
   1. Basic parameters of sound
   2. Recording and playing back digital audio
   3. Analog to digital conversion
F. Software toolkit
   1. Post-production plug-ins
   2. Extended software functionality
   3. Audio
   4. MIDI
   5. Instrument tracks
G. Software features
   1. File types and organization
   2. Menu structure
   3. Edit tool functions
   4. Time scales
   5. Ruler views
6. Software instruments

H. Recording sessions
   1. Principles of track creation
   2. Adding or recording audio
   3. Microphone selection and placement

I. Studio Sessions
   1. Theory of microphone selection
   2. Principles of microphone placement
   3. Microphone separation

J. Recording preparation
   1. Computer storage requirements
   2. Setting up tracks and hardware connections
   3. Recording and managing audio

K. Importing media into session
   1. Setting import parameters
   2. Importing audio
   3. Importing a movie

L. MIDI recording
   1. Connecting a MIDI device
   2. Using a virtual instrument
   3. Recording and editing MIDI information

M. Basic editing techniques
   1. Concepts of using edit modes
   2. Using tools
   3. Creating fades

N. Basic mixing techniques
   1. Using the digital mixer
   2. Applying automation
   3. Applying basic digital signal processors
      a. Reverberation (reverb)
      b. Equalization (EQ)
      c. Compression
      d. Noise gate

LABORATORY CONTENT:

A. Lab Content:
   1. Labs will consist of mixing audio on individual computer stations, and building a final audio mix, a podcast, and a short movie. Students will learn how to output audio in various formats for commercial use. The sessions will allow the student to implement a multi-track audio mix, create a podcast and create a short movie with audio, video and menu content.

METHODS OF INSTRUCTION:

A. Lecture:

B. Lab:

INSTRUCTIONAL TECHNIQUES:

COURSE ASSIGNMENTS:

Reading Assignments

Textbook
   Audio industry and recording websites i.e. NAMM, ASCAP
   Recording industry periodicals i.e. Billboard, Podcast Daily

Out-of-class Assignments

Fieldtrip to local recording facility. Attendance at recording industry workshops and conferences i.e. NAB, NAMM, ASCAP
Writing Assignments

Students will complete a project plan for three home recording projects. Each project's two to five-page plan will consider audio needs (equipment, sound acquisition, mix setup, equalization, compression, reverberation, etc.) and post production considerations (compression for video/audio for webstreaming, final product output). This plan will also include a script for a podcast and for a short movie. The final component of the plan will include audio, podcast, and movie marketing.

METHODS OF STUDENT EVALUATION:
Midterm Exam
Final Exam
Short Quizzes
Written Assignments
Essay Examinations
Objective Examinations
Report
Projects (ind/group)
Problem Solving Exercises
Oral Presentations
Skills Demonstration

Demonstration of Critical Thinking:

Students will make a basic assessment of a home recording project to determine recording needs, digital signal processing needs, and final output format needs to complete the task.

Required Writing, Problem Solving, Skills Demonstration:

Students will complete a project plan for three home recording projects. Each project's two to five-page plan will consider audio needs (equipment, sound acquisition, mix setup, equalization, compression, reverberation, etc.) and post production considerations (compression for video/audio for webstreaming, final product output). This plan will also include a script for a podcast and for a short movie. The final component of the plan will include audio, podcast, and movie marketing.

TEXTS, READINGS, AND RESOURCES:

TextBooks:

LIBRARY:

Adequate library resources include: Print Materials
Non-Print Materials
Online Materials
Services

Comments:

Attachments:

Attached Files