Number: DM G110  TITLE: Digital Audio, Introduction

ORIGINATOR: Donavan Nielsen  EFF TERM: Fall 2010
FORMERLY KNOWN AS:
DATE OF OUTLINE/REVIEW: 02-03-2010
CROSS LISTED COURSE:
TOP NO: 0614.00  CID:

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:
This course covers audio theory, tracking, mixing, and mastering techniques using digital audio workstation systems in more detail. Lab experiences include editing, processing, mixing, and mastering projects of various musical genres.

JUSTIFICATION FOR COURSE:

PREREQUISITES:

COREQUISITES:

ADVISORIES:

ASSIGNED DISCIPLINES:
Commercial music
Graphic arts (desktop publishing)
Multimedia

MATERIAL FEE: Yes [ ] No [X] Amount: $7.00

CREDIT STATUS: Noncredit [ ] Credit - Degree Applicable [X] Credit - Not Degree Applicable [ ]

GRADING POLICY: Pass/No Pass [X] Standard Letter [X] Not Graded [ ] Satisfactory Progress [ ]

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]
Digital Media(Associate in Arts)
Digital Media(Certificate of Achievement)

GE AND TRANSFER REQUIREMENTS MET:

COURSE LEVEL STUDENT LEARNING OUTCOME(S) Supported by this course:
1. identify and demonstrate proper mixes and masters in several musical styles.
2. demonstrate proper use of digital signal processing.
3. perform proper steps for mastering digital audio recordings.
4. demonstrate mixing in digital audio software environment.
5. demonstrate multi-track mixing techniques.

COURSE OBJECTIVES:
1. Demonstrate multi-track mixing techniques.
2. Demonstrate mixing in digital audio software environment.
3. Perform proper steps for mastering digital audio recordings.
5. Identify and demonstrate proper mixes and masters in several musical styles.

COURSE CONTENT:

LECTURE CONTENT:

A. History of digital mixing
B. Developmental microphone theory
   1. Studio recording microphone types and usage
   2. Microphone placement
C. Instrument recording techniques
   1. Live recording
      a. Vocal
      b. Acoustic instruments
      c. Electronic instruments
   2. Direct recording
D. Tracking
   1. Studio layout
   2. Equipment
      a. Microphones
      b. Headphones
      c. Cables
   3. Personnel and responsibilities
      a. Musician
      b. Producer
      c. Engineer
E. Mixing theory
   1. Balance
   2. Panning
   3. Compression
   4. Equalization (EQ)
   5. Reverberation
   6. Phase alignment
   7. Pitch
   8. Time correction
   9. Sample augmentation and replacement
F. Mixing techniques
   1. Relative track volumes
   2. Panning
   3. Musical style
   4. Vocals
G. Critical listening
   1. Musical styles
   2. Techniques in musical styles
H. Mix process
   1. Conceptualization
   2. Cleaning and manipulation of recorded tracks
   3. Rhythm section mix techniques
   4. Other instrument track mix techniques
   5. Balance of the final mix
I. Mastering theory
   1. Correcting pitch
   2. Bouncing and normalizing tracks
   3. Mastering software
   4. Creating a CD or DVD master

LABORATORY CONTENT:

A. Lab content:
   1. There will be recording and mixing sessions in different musical genres. The sessions will allow the student to implement the various components listed in the course content.

METHODS OF INSTRUCTION:

A. Lecture:
B. Lab:
C. Independent Study:

INSTRUCTIONAL TECHNIQUES:

COURSE ASSIGNMENTS:
   Reading Assignments
   Text
   Websites
   Handouts

Out-of-class Assignments

Writing Assignments

Students will be presented an audio recording situation and must be prepared to generate a sound plan which considers/solves live audio recording challenges. All aspects of audio recording will be considered such as microphone type, microphone placement, balance, panning, compression, EQ, reverb, phase alignment, pitch/time, volume and final balance of the entire mix.

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 plan and assemble a sound gathering technique/plan which uses microphone theory, mixing theory, critical listening and mastering.
Required Writing, Problem Solving, Skills Demonstration:

Students will be presented an audio recording situation and must be prepared to generate a sound plan which considers/solves live audio recording challenges. All aspects of audio recording will be considered such as microphone type, microphone placement, balance, panning, compression, EQ, reverb, phase alignment, pitch/time, volume and final balance of the entire mix.

TEXTS, READINGS, AND RESOURCES:

TextBooks:

LIBRARY:

Adequate library resources include:

Comments:

Attachments:

[Attached Files]