

MUS 078B: AUDIO RECORDING FUNDAMENTALS

Originator

creba

Justification / Rationale

Updating to allow audit.

Effective Term

Fall 2023

Credit Status

Credit - Degree Applicable

Subject

MUS - Music

Course Number

078B

Full Course Title

Audio Recording Fundamentals

Short Title

RECORDING FUNDAMENTALS

Discipline**Disciplines List**

Music

Modality

Face-to-Face

100% Online

Hybrid

Catalog Description

This course is an introduction to audio and music recording concepts, techniques, terminology and practices. Topics covered include acoustics, psychoacoustics, console/mixer topology, microphones, magnetism, audio processors, loudspeakers and recording software (Digital Audio Workstations).

Schedule Description

This course is an introduction to audio and music recording concepts, techniques, terminology and practices.

Advisory: MUS 021A

Lecture Units

2

Lecture Semester Hours

36

Lab Units

1

Lab Semester Hours

54

In-class Hours

90

Out-of-class Hours

72

Total Course Units

3

Total Semester Hours

162

Prerequisite Course(s)

Advisory: MUS 021A

Required Text and Other Instructional Materials**Resource Type**

Web/Other

Description

Instructor handouts

Resource Type

Book

Open Educational Resource

No

Author

David Miles Huber, Robert E. Runstein

Title

Modern Recording Techniques

Edition

9th

City

New York

Publisher

Taylor Francis

Year

2018

College Level

Yes

ISBN #

9781138954373

For Text greater than five years old, list rationale:

This is the standard text in academic programs like ours and mostly covers tools and techniques that have't changed in the last 20+ years. A new edition is due out soon, but a little behind due to the pandemic. We will update once the new edition comes out.

Class Size Maximum

20

Entrance Skills

Knowledge and familiarity with any music production software and techniques is beneficial, but not required.

Requisite Course Objectives

MUS 021A-Demonstrate knowledge of music notation theory: treble bass clefs, names of notes, key signatures in three keys, time signatures primary triads.

MUS 021A-Demonstrate playing of primary piano music.

Course Content

1. Basic Physics of Sound, Acoustics and Psychoacoustics
2. Basic Electronics and Electromagnetism: Ohms Law, voltage, resistance, current, power, transducers (piezoelectric, electromagnetic and capacitor based transducers)
3. Microphones: types, operating principles, polar patterns, usage techniques
4. Recording Console and Microphone Preamplifier Topologies
5. Basic recording studio signal flow
6. Basic Recording techniques and Digital Audio Workstations (DAW's)
7. Critical Listening

Lab Content

1. Group signal flow practice
2. Group recording projects
3. Individual Recording Projects

Course Objectives

	Objectives
Objective 1	Articulate the fundamentals of physics, acoustics, psychoacoustics and electricity as they relate to the recording studio and recording equipment.
Objective 2	Outline the various types of microphones , how they work, their polar patterns and how they are used in the studio.
Objective 3	Define typical recording consoles (mixers) and their various elements and signal flow (i.e. microphone preamplifiers, equalizers (EQ), busses, auxes, etc...) and how outboard studio equipment is integrated with digital recording systems.
Objective 4	Define Digital Audio Workstations (DAW's) and their use in recording, editing and mixing digitally recorded audio signals.
Objective 5	Create audio recordings of instruments using proper technique and standard practices.

Student Learning Outcomes

	Upon satisfactory completion of this course, students will be able to:
Outcome 1	Demonstrate a functional knowledge of basic acoustics, psychoacoustics, fundamentals of electricity, electromagnetism and their role in the recording studio.
Outcome 2	Demonstrate a functional knowledge of microphone types, operating principles, polar patterns, recording consoles, console topology, basic recording signal flow and their role in the recording studio and recording process.
Outcome 3	Demonstrate a basic skill set for studio recording including microphone selection, setup and placement, cable wrapping, proper gain stage usage, basic knowledge of Digital Audio Workstations, proper equipment usage, critical thinking/problem solving and studio etiquette.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Laboratory	Class lab time will be utilized to allow students to practice skills learned in class with instructor supervision and support. Lab time may be constituted as a physical lab facility on campus or online where a faculty or staff member may be available for assistance.
Demonstration, Repetition/Practice	Activities such as cable wrapping, microphone stand setup and mic placement will primarily use this method where the instructor will demonstrate these skills and students will immediately replicate the instructor's actions.
Lecture	This course will have a significant lecture component for the first half of the semester to prepare students for the various projects to occur in the second half of the semester.

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
Laboratory projects	Students will engage in group and individual lab projects to practice and demonstrate knowledge of the topics covered in class. Topics will range from very simple signal flow demonstrations to various recording projects utilizing 1-5 sound sources/microphones. Students will spend approximately 2-3 hours outside of class per week on projects.	In and Out of Class
Presentations/student demonstration observations	Practicums: Students will be assessed through individual practicums where they are given a specific task or set of tasks to perform demonstrating their knowledge and proficiency with certain skills and practices. This can be done face-to-face with the student or via directed online submissions.	In and Out of Class
Tests/Quizzes/Examinations	Because this course has a significant lecture and theoretical component, quizzes and exams will be employed to test student's knowledge of course concepts and materials. Most exam preparation will occur outside of class.	In and Out of Class

Assignments
Other In-class Assignments

1. Students will be evaluated on proper cable wrapping technique and microphone stand setup.
2. Students will have to record a single source with one microphone demonstrating appropriate gain staging, equipment setup, and microphone choice and placement.

Other Out-of-class Assignments

Students will be given projects as groups and individuals to record various sources of audio usage various types of microphones. These projects will be completed in and out-of-class. Approximately one project every two weeks will be assigned throughout the semester.

Grade Methods

Letter Grade Only

Distance Education Checklist

Include the percentage of online and on-campus instruction you anticipate.

Online %

25

On-campus %

75

Lab Courses

How will the lab component of your course be differentiated from the lecture component of the course?

The lab component will specifically focus on skills practicum and project completion, while the lecture component will feature assessments like writing assignments and quizzes/tests.

From the COR list, what activities are specified as lab, and how will those be monitored by the instructor?

Those specific activities are skills practicums and projects. They will either be monitored in-class for hybrid models, or will be monitored via zoom meetings and messages in a 100% online modality.

How will you assess the online delivery of lab activities?

Students turn projects in online in Canvas, which are then evaluated by the instructor. Also, students will share their work/progress online with the instructor via scheduled zoom meetings.

Instructional Materials and Resources

If you use any other technologies in addition to the college LMS, what other technologies will you use and how are you ensuring student data security?

We will be using industry standard software and hardware for this class. This includes Digital Audio Workstation software and recording hardware. These are industry standard installed software platforms that do not require internet access to operate.

If used, explain how specific materials and resources outside the LMS will be used to enhance student learning.

These are necessary tools for the class, and are part of the course curriculum.

Effective Student/Faculty Contact

Which of the following methods of regular, timely, and effective student/faculty contact will be used in this course?

Within Course Management System:

Discussion forums with substantive instructor participation
Online quizzes and examinations
Private messages
Regular virtual office hours
Timely feedback and return of student work as specified in the syllabus
Weekly announcements

External to Course Management System:

Direct e-mail

For hybrid courses:

Scheduled Face-to-Face group or individual meetings

Other Information

MIS Course Data

CIP Code

10.0203 - Recording Arts Technology/Technician.

TOP Code

100500 - Commercial Music

SAM Code

C - Clearly Occupational

Basic Skills Status

Not Basic Skills

Prior College Level

Not applicable

Cooperative Work Experience

Not a Coop Course

Course Classification Status

Credit Course

Approved Special Class

Not special class

Noncredit Category

Not Applicable, Credit Course

Funding Agency Category

Not Applicable

Program Status

Program Applicable

Transfer Status

Transferable to CSU only

Allow Audit

Yes

Repeatability

No

Materials Fee

No

Additional Fees?

No

Approvals**Curriculum Committee Approval Date**

04/20/2023

Academic Senate Approval Date

04/27/2023

Board of Trustees Approval Date

05/19/2023

Chancellor's Office Approval Date

01/05/2020

Course Control Number

CCC000611425

Programs referencing this course

Basic Commercial Music Certificate of Achievement (<http://catalog.collegeofthedesert.eduundefined/?key=218>)

Video Post-Production Certificate of Achievement (<http://catalog.collegeofthedesert.eduundefined/?key=309>)