

MUS 078C: LIVE SOUND REINFORCEMENT I

Originator

creba

Justification / Rationale

Add hybrid modality to this course. In preparation for potential online and hybrid course requirements in the future, we would like to add this modality to this course now. This course would not work in a 100% online modality, but can work as a hybrid course.

Effective Term

Fall 2022

Credit Status

Credit - Degree Applicable

Subject

MUS - Music

Course Number

078C

Full Course Title

Live Sound Reinforcement I

Short Title

LIVE SOUND I

Discipline**Disciplines List**

Music

Modality

Face-to-Face

Hybrid

Catalog Description

This course is an introduction to live sound reinforcement. Topics will primarily be focused on reinforcement for live music performance, but will also touch upon public address systems, live sound for theatrical productions, sound system design and maintenance.

Schedule Description

This course is an introduction to live sound reinforcement for live music performance.

Advisory: MUS 078B

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 078B

Class Size Maximum

20

Entrance Skills

Knowledge of microphone types, operating principles and polar patterns.

Requisite Course Objectives

MUS 078B-Students will learn about the various types of microphones , how they work, their polar patterns and how they are used in the studio.

Entrance Skills

Knowledge of audio signal flow and gain structure.

Requisite Course Objectives

MUS 078B-Students will learn about 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.

Entrance Skills

Knowledge of recording software.

Requisite Course Objectives

MUS 078B-Students will learn about the fundamentals of physics, acoustics, psychoacoustics and electricity as they relate to the recording studio and recording equipment.

MUS 078B-Students will learn about 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.

MUS 078B-Students will learn about Digital Audio Workstations (DAW's) and their use in recording, editing and mixing digitally recorded audio signals.

Entrance Skills

Knowledge of basic acoustics.

Requisite Course Objectives

MUS 078B-Students will learn about the fundamentals of physics, acoustics, psychoacoustics and electricity as they relate to the recording studio and recording equipment.

Course Content

1. Live sound consoles (digital and analog) overview
2. Loudspeaker design and use for live sound reinforcement
3. Monitors vs. front of house
4. Microphone design and use for live sound systems
5. Cabling, stands, stage boxes and proper stage setup for live sound reinforcement
6. Room acoustics and room tuning for live sound reinforcement
7. Line array loudspeaker systems vs. traditional point source systems
8. Audio processors and effects for live sound reinforcement
9. Safety and hearing preservation (OSHA standards)

Lab Content

Lab time will be used to explore practical use and application of concepts discussed during the lecture portions of the course. Students will practice, in real world scenarios, stage setup and layout, system tuning, mic placement, proper gain staging, speaker placement and angles, stage monitor setup and operation, and full band/ensemble sound reinforcement scenarios.

Course Objectives

Objectives	
Objective 1	Identify and describe the primary differences between a typical recording console and a live sound console.
Objective 2	Identify and describe the types of loudspeakers used in a typical PA system for music.
Objective 3	Identify and describe microphone types and their usage in live sound.
Objective 4	Properly, and safely, set up and tear down a live sound reinforcement system for music.
Objective 5	Summarize how room acoustics impact PA system operation, including how to adjust (tune) a PA system to a specific venue.
Objective 6	Learn and adopt safety standards for PA system setup and operation.

Student Learning Outcomes

Upon satisfactory completion of this course, students will be able to:	
Outcome 1	Students will be able to identify and describe the essential components of a live sound reinforcement system (music PA system).
Outcome 2	Students will demonstrate the ability to appropriately create a PA setup, tune and operate a PA system for music live sound reinforcement.
Outcome 3	Students will demonstrate critical thinking skills using their knowledge of live sound reinforcements systems and procedures to evaluate, troubleshoot and correct malfunctions and common issues inherent in live sound reinforcement.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Experiential	Students will be placed in "real world" situations during the semester where they will have to use the skills learned in the course to operate a live sound system for performances on and off-campus under instructor supervision.
Lecture	Lectures will be used to disseminate fundamental information about the various components, concepts and facets of live sound reinforcement.
Laboratory	Laboratory time will be used to put into practice the concepts covered in the lecture portion of the course.
Technology-based instruction	This course is heavily reliant on specific technology for this subject. Much of the demonstration components of the course will be done with the myriad technological components relevant to modern live sound reinforcement systems.
Demonstration, Repetition/Practice	Lab time will primarily be spent with the instructor demonstrating specific skills (i.e. cable wrapping, stand setup, mic placement, room tuning, etc...) with students repeating and practicing those skills immediately afterwards under instructor supervision.

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
Oral and practical examination	Students will be evaluated on their practical and evaluative skills through periodic practicums and skills demonstrations conducted by the instructor. These practicums will be both group and individual evaluations held during class and through out-of-class performances. Each student will be required to participate in 2-3 out-of-class performances during the semester. These will be comprised of on-campus and off-campus events organized by the instructor and Music Department.	In and Out of Class
Tests/Quizzes/Examinations	Students will be evaluated on their theoretical knowledge of the subject matter via written examinations on various topics introduced throughout the semester.	In Class Only
Field/physical activity observations	Students will be provided opportunities throughout the semester, outside of class time, to put the skills learned in-class into practice in practical settings.	Out of Class Only

Assignments
Other Out-of-class Assignments

Students will be assigned to attend a concert of their choosing in a venue that utilizes some kind of live sound reinforcement. They will evaluate the usage and components of the system and write a short report about it.

Students will also be given opportunities to engage in activities outside of the classroom during the semester.

Grade Methods

Letter Grade Only

Distance Education Checklist

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

Online %

50

On-campus %

50

Lab Courses

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

The lab component will consist of skills practicums training and testing, demonstrations of practices and procedures and use of equipment. Lectures will primarily be focussed on history and theory, and will be evaluated using written assignments and quizzes/ tests.

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

Laboratory time will be used to put into practice the concepts covered in the lecture portion of the course. This will include practice of skills, demonstrations, practicum tests, and performance. The instructor will be present for all lab activities.

How will you assess the online delivery of lab activities?

Lab activities will not be offered online.

Instructional Materials and Resources
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
Timely feedback and return of student work as specified in the syllabus

External to Course Management System:

Direct e-mail
Posted audio/video (including YouTube, 3cm mediasolutions, etc.)

For hybrid courses:

Field trips
Scheduled Face-to-Face group or individual meetings

Briefly discuss how the selected strategies above will be used to maintain Regular Effective Contact in the course.

Students will be meeting with the instructor at least once per week.

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

No

Repeatability

No

Materials Fee

No

Additional Fees?

No

Approvals**Curriculum Committee Approval Date**

11/18/2021

Academic Senate Approval Date

12/09/2021

Board of Trustees Approval Date

01/21/2022

Chancellor's Office Approval Date

01/05/2020

Course Control Number

CCC000611426

Programs referencing this courseAdvanced Commercial Music Certificate of Achievement (<http://catalog.collegeofthedesert.eduundefined/?key=219>)