# REC 135: LIVE SOUND REINFORCEMENT

## Citrus College Course Outline of Record

| Heading | Value |
|---|---|
| **Effective Term:** | Fall 2021 |
| **Credits:** | 4 |
| **Total Contact Hours:** | 126 |
| **Lecture Hours :** | 54 |
| **Lab Hours:** | 72 |
| **Hours Arranged:** | 0 |
| **Outside of Class Hours:** | 108 |
| **Corequisite:** | REC 105 or THEA 120. |
| **Transferable to CSU:** | Yes |
| **Transferable to UC:** | No |
| **Grading Method:** | Standard Letter |

## Catalog Course Description

This course focuses on the essential elements of sound reinforcement: acoustics, sound equipment and mixing techniques. Major subject areas are acoustics, microphones, live sound consoles, speakers, placement, mixing and the cumulative effects to the final sonic product. 54 lecture hours, 72 lab hours.

## Course Objectives

- Understand the terminology used in live sound reinforcement
- Mix front-of-house for a professional-level live performance
- Demonstrate understanding of front-of-house sound system design and operation
- Demonstrate competent microphone usage in live sound environment
- Demonstrate understanding of monitor system design and operation
- Demonstrate understanding of power requirements and distribution, grounding issues and problems associated with both
- Understand wireless microphone usage, radio frequency issues and types of microphones available
- Understand speaker types, configurations, applications including permanent installation, front-of-house, speaker arrays and monitor speakers
- Understanding of artist/venue relations and technical rider information
- Mix monitors for a professional-level live performance

## Major Course Content

1. Basic Audio Vocabulary
2. Introduction to Indoor/Outdoor Acoustics
3. Basic System Components, Signal Flow, Cabling, Connectors, Power
4. Live Sound Consoles, Analog and Digital
5. Speaker Components, Cabinets, Arrays, Signal Processing, Crossovers, Amplifiers
6. Microphones, wired and wireless
7. Front of House and Monitor Systems
8. Stage Movement, Choreography and Sound
9. Mixing Live Sound

## Lab Content

1. Microphone Placement
2. Live Mixing
3. Speaker Setup / Placement
4. Sound System Setup
5. Final Project

## Suggested Reading Other Than Required Textbook

Industry websites, blogs, manufacturer/equipment data sheets.

## Examples of Required Writing Assignments

Written papers on subjects such as wireless microphones, system design or system operation.

## Examples of Outside Assignments

Observe and/or participate in activities related to course content with students performing groups or auditorium concert events.

## Instruction Type(s)

Lecture, Lab, Online Education Lecture, Online Education Lab