

BECA 510: Music Performance, Recording, and Production

Instructor: Dr. Rajeev S. Naidu

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Room: MH 231

Class Meeting: Mondays 3:30pm-6:15pm

Office Hours: By Appt., Wednesdays 6pm-7pm; MH 111

Fall 2026

Course Description

This course introduces students to the fundamentals of live sound reinforcement, covering system setup, signal flow, mixing techniques, and troubleshooting for both analog and digital consoles. Students will gain hands-on experience working with professional sound equipment, preparing them to manage live audio for concerts, performances, and events. The course culminates in a series of live concerts, providing real-world practice in mixing for both audiences and performers.

Prerequisites

Restricted to Broadcast & Electronic Communication Arts and Music majors, Music Recording Industry certificate students must contact the BECA department for a permission number to enroll; BECA 231; or permission of the instructor.

Program Learning Outcomes

Upon completing this course, students will demonstrate the ability to set up and operate live sound systems using both analog and digital platforms, including Mackie and Behringer X32 consoles. They will understand and apply signal flow, effects processing, and monitor mixing techniques in live performance settings. Students will also gain experience in system tuning, troubleshooting, and integrating audio-over-Ethernet networks such as Dante. Through hands-

on practice and live event execution, students will build the technical skills, confidence, and professionalism necessary for entry-level roles in live sound reinforcement and audio production.

Student Learning Outcomes

By the end of this course, students will be able to:

- Set up and operate analog and digital sound systems for live events
- Route signal through inserts and effects sends/returns
- Demonstrate the ability to implement Front of House and Monitor mixing
- Optimize live sound systems for various venue sizes
- Execute live concerts independently under professional standards

Recommended Readings

Stark, S. (2008). Live sound reinforcement. Boston: Course Technology PTR.

Woram, J. (1989). The sound recording handbook. Saddle River: Financial Times Prentice Hall.

Course Activities

Performance Evaluations

Performance Evaluation I (Analog)

Students will set up an analog live sound system using a Mackie console, including configuring the main outputs and establishing a single monitor send. They will apply one insert effect, such as a compressor, to a selected channel and utilize one reverb effect through an auxiliary send and return. Throughout the process, students will demonstrate a clear understanding of gain structure, apply equalization to shape the sound, and engage in basic troubleshooting to ensure signal flow and system stability.

Performance Evaluation II (Digital)

Students will set up a digital live sound system using either the Behringer X32 or Yamaha QL1 console, configuring the main outputs and creating a single monitor send. They will apply one insert effect, such as a compressor, and utilize one reverb effect within the console's built-in

processing. Additionally, students will demonstrate the ability to save and load scenes, effectively manage signal routing, and achieve a balanced mix for both the audience and performers.

Live Concerts

Concert 1: Class Concert

The first concert will be a class concert held for a student audience, providing an introductory opportunity to apply live sound skills in a controlled setting. Students will rotate roles in front of house mixing, monitor mixing, system technician, and stage management to gain hands-on experience across production areas.

Concert 2: Departmental Concert

The second concert will expand to a departmental audience, offering students a chance to refine their skills in a higher-pressure environment. Students will continue rotating roles while managing sound for a larger and more diverse audience, emphasizing professionalism and adaptability.

Grading Criteria

Class participation and attendance has a large influence on your final grade.

Make-up tests will not be given without a documented emergency.

No incompletes will be given without a documented emergency.

Grading Scale

Grading Scale: A = 93 – 100% A- = 90 – 92% B+ = 87 – 89% B = 83 – 86% B- = 80 – 82% C+ = 77 – 79% C = 73 – 76% C- = 70 – 72% D = 60 – 69% F = 59% or less

Course Grading

Component	Weight
Class Participation	20%
Performance Evaluation I (Analog)	15%
Performance Evaluation II (Digital)	15%
Concert 1	25%
Concert 2	25%

Course Schedule

Date	Topic	Lab	Due Dates
8/24	Intro to Live Sound Reinforcement		
8/31	Live Sound Reinforcement Fundamentals		
9/14	Analog Signal Flow I	FOH Setup	
9/21	Analog Signal Flow II	Monitor and Reverb	
9/28	Performance Evaluation I		
10/5	Performance Evaluation I		
10/12	Digital Audio I	FOH Setup (X32)	
10/19	Digital Audio II	Monitor and Reverb	
10/26	Performance Evaluation II		
11/2	Performance Evaluation II		
TBD	Mock Concert I		
TBD	Mock Concert II		Dante Certification I
TBD	Concert I		
TBD	Concert II		

Policies and Resources

- You are responsible for completing assignments and turning them in at the allocated time and date indicated on the syllabus.
- Please check syllabus and note the due date for the assignments. Late work will be accepted with a deduction of 50%.
- Plagiarism/Cheating will not be tolerated in any class. Please consult SFSU guidelines or me if you have any questions or concerns about what involves plagiarism or cheating.
- All assignments must be turned in at the indicated due date, in the beginning of the class. No extra credit will be given for missed tests and assignments.
- Participation has a strong influence in your final grade. Participation includes attending class, timely completion, teamwork, class interaction, etc.
- Please check syllabus regularly. Due dates and lecture plans are subject to change and will be updated on the course website. Pay close attention to class announcements about assignments, due dates, and other changes.
- San Francisco State University does not tolerate harassment. Harassment consists of abusive behavior directed toward an individual or group because of race, ethnicity, ancestry, national origin, religion, gender, sexual orientation, age, physical or mental disability, including learning disability, and past/present history of a mental disorder. All members of the University community are responsible for the maintenance of a social environment in which people are free to work and learn without fear of discrimination and abuse.
- Silence your cell phone and all other electronic equipment. It is distracting to the entire class, including the instructor. You are expected to remain in the classroom until class is over and not to start packing up until the instructor ends class.

Disability Access

Students with disabilities who need reasonable accommodation are encouraged to contact the instructor. The Disability Programs and Resource Center (DPRC) is available to facilitate the reasonable accommodations process. The DPRC is located in the Student Service Building and can

be reached by telephone (voice/415-338-2472, video phone/415-335-7210) or by email (dprc@sfsu.edu).

Student Disclosures of Sexual Violence

SF State fosters a campus free of sexual violence including sexual harassment, domestic violence, dating violence, stalking, and/or any form of sex or gender discrimination. If you disclose a personal experience as an SF State student, the course instructor is required to notify the Title IX Coordinator by completing the report form available at <http://titleix.sfsu.edu>, emailing vpsaem@sfsu.edu or calling 338-2032.

To disclose any such violence confidentially, contact:

- The SAFE Place - (415) 338-2208; http://www.sfsu.edu/~safe_plc/
- Counseling and Psychological Services Center - (415) 338-2208; <http://psyservs.sfsu.edu/>
- For more information on your rights and available resources: <http://titleix.sfsu.edu>

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