

Spokane Falls Community College
COURSE LEARNING OUTCOMES AND OUTLINE

Prefix and Course Number
Course Title

AUDIO 113
Live Sound and Location Recording I

Last Modified: Winter 2010

Course Learning Outcomes

By the end of this course, a student should be able to:

- Understand the various employment opportunities in the fields of live sound and location recording
- Be able to assess system requirements for many different types and sizes of venues
- Define principles of amplification, power distribution, microphone design, speaker design and acoustics
- Demonstrate how to set-up, troubleshoot and test sound reinforcement systems
- Explain the principles of signal flow and mixing using various control surfaces and outboard gear
- Demonstrate critical listening skills necessary to perform a professional quality mixdown of a live band
- Identify and demonstrate principles and techniques for successful live recording

Course Outline

- I. Understanding Live Sound Systems, and basic Operating Principles of the Equipment
- II. Location Recording
 - a. Acoustical considerations
 - b. Live to two-track
 - c. Multi-track recording
 - d. Lab
- III. Equipment Overview
 - a. Fundamental concepts of all Equipment used
 - b. Types of PA systems
 - c. Studio vs. Live applications
 - d. Snakes, cable types and signal flow
 - e. Mixers
 - i. Signal flow and wiring
 - ii. Quality Cost and Usage concerns
 - f. Speakers – understanding specifications
 - i. Design and Theory
 - ii. Wiring and Impedance
 - g. Crossovers – understanding specifications
 - i. Passive systems
 - ii. Bi-amp and Tri-amp systems
 - h. Power Amplifiers - understanding specifications
 - i. Wiring and Impedance
 - ii. Watts considerations
 - i. Stage monitor applications
 - i. FOH vs. Monitor mixers

- j. Lab
- IV. Sound Theory
 - a. The Nature of Sound Creation
 - b. Inverse Square law and your audience
 - c. Common Mode Rejection
 - d. Real Time Analyzer applications
 - e. Microphone applications
- V. Employment Opportunities
- VI. Complete setup and operation of a small PA system
 - a. Load-in and set-up
 - b. Staging and wiring
 - c. Testing and troubleshooting
 - d. Equalizing main and monitor speakers
 - e. Basic mixing
 - f. Tear down and Load-out
 - g. LAB
- VII. Public Relations
 - a. Psychology
 - b. Communications
 - c. Professionalism
 - d. Emotions and your health
 - e. Safety
- V. Project to design a basic PA system