



The Center for Digital Imaging Arts
at Boston University

DF102 Production Sound

February 8-24, 2005

Instructor

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1. Sound and Hearing 2/8



By the end of this session you will be able to:

- # Give a basic description of how sound is produced, sensed and reproduced
- # Explain the basic mechanism of human hearing, including how we calculate distance and direction of sound sources
- # Explain how pressure waves become sound in the human body
- # Describe at least two limits of hearing in terms of frequency, vector detection or sound pressure
- # Explain why the same voice sounds different reproduced from DAT and a telephone circuit
- # Demonstrate at least two methods of conditioning an environment for improved recording acoustics

2. Introduction To Microphones 2/10



By the end of this session you will be able to:

- # Identify at least three microphone pickup patterns and three types of microphone construction.
- # Demonstrate basic correct mic placement of a directional mic using a fishpole
- # Cue the mic without excessive wind or handling noise
- # Demonstrate basic good placement of a PM
- # Give examples of quieting clothing/cable noise
- # Show at least one sub optimal PM mic mounting
- # Construct a stereo microphone with supplied equipment

3. Mixer and signal flow 2/15



By the end of this session you will be able to:

- # Explain how balanced lines and shielded cables improve signal quality
- # Explain what function the microphone, shockmount, cable, and mixer have in the recording process
- # Identify and explain the major functions of the controls and switches on the Sound Devices 302 mixer
- # Set up a reasonable gain structure for an input to the mixer



4. Radios and wireless technology 2/17

By the end of this session you will be able to:

- # Understand radio propagation and theory such that you can explain, in basic terms, how a wireless system works
- # Explain what RF multipath is and its effects in radio systems
- # Demonstrate how to correctly set modulation levels in a wireless transmitter
- # Give examples of situations where wireless is used, and where it is over-used
- # Create a scenario where a wireless system would not work and explain why
- # Connect a microphone to a wireless system and mixer, setting gain structure correctly and mount the mic on a subject for good results



5. Recording system integration 2/19

By the end of this session you will be able to:

- # Connect microphones or other sources to the mixer, set levels, assign outputs and perform adequate gain staging
- # Demonstrate the major functions of and integrate wireless mics into the sound kit
- # Follow a speaker with an overhead boom mic
- # Make a recording with supplied equipment



6. Timecode, Reporting, Recordkeeping 2/22

By the end of this session you will be able to:

- # Produce a sound report
- # Explain what post production will expect of their tracks, and what information has to pass between production and post
- # Give two examples of how to record production dialogue when “lit out” of a scene
- # Give a basic definition of SMPTE timecode and explain why different frame rates are used for different purposes

7. Recording Project 2/24



- # Students will re-shoot a scene from their camera workshops using a sound unit with overhead boom mic and/or lavalier mics as appropriate, using techniques and principles acquired during the sound seminar and evaluate the results