

BMED206 Sound Techniques

ECTS Value: 5 ECTS
Self-Study Hours: 60

Contact Hours: 25
Assessment Hours: 40

Overall Objectives and Outcomes

Even if one is working with the most talented director of photography in the world, moving image will not succeed without skilled handling of audio and sound design. It is critical that the needs of the audio team are respected and understood. It is just as important to record clean audio as to film beautiful footage. This module will be looking at the audio team, its function, tools and skills, including essential equipment and the audio setup for filmmaking whilst giving the opportunity to the course participants to get their hands-on audio equipment, and learn how to use it.

By the end of this module, the learner will be able to:

Competences:

- a. Collaborate together with the whole team to create recordings using different audio techniques;
- b. Advise on the choice of equipment for a given task;
- c. Prepare for the recording session taking into consideration all resources needed;
- d. Consult with the director in order to assess the audio needs of the particular shot;
- e. Communicate verbally with the director what is expected and how the recording session will evolve;
- f. Prepare equipment needed for the session making sure that it is used safely by taking into consideration placement of cables, recording equipment, mics and making sure that it is placed out of shot if filming on location.

Knowledge:

- a. Describe the physical properties of sound
 - wavelength
 - amplitude
 - frequency
 - velocity
- b. Define the members of the Sound Department and their roles
 - Production Sound Mixer
 - Sound assistant
 - Boom operator
- c. Identify the different kinds of audio present in a scene
 - Diegetic sound
 - Non-diegetic sound
 - Acousmatic Sound
 - Empathetic Sound
 - Anempathetic Sound
- d. Identify bad audio and related problems
 - Distortion
 - Phase issues
 - Reflections and Reverb
 - Signal to noise Ratio

- e. Define different microphone technologies and their properties
 - Dynamic
 - Condenser (LDC and SDC)
 - Shotgun
 - Ribbon
- f. Define different microphone polar patterns and their properties
 - Cardioid
 - Figure of 8
 - Omni directional
- g. Describe the functions of a DAW
 - Mixing
 - Effects
 - Editing
- h. List the equipment needed for recording
 - Microphones
 - Cables
 - Stands
 - Audio interface
 - Computer/ tablet/smart phone with DAW/ recording software
- i. Describe the equipment needed for recording.

Skills:

- a. Assess which equipment is best for the given task;
- b. Show how to set up equipment either in a recording studio (vocal booth) or on site;
- c. Demonstrate how to edit audio clips in a DAW in preparation for mixing;
- d. Demonstrate how to mix audio clips in a DAW to produce final Audio mix;
- e. Demonstrate how one can carry out an audio recording with good technique;
- f. Demonstrate how one can use a DAW to mix recorded audio clips in order to produce the final audio in a short moving image project.

Assessment Methods

This module will be assessed through: Case Studies-View Interviews, Assignment.

Suggested Readings

Core Reading List:

1. Audio – Vision: Sound on Screen – by Michel Chion
 - a. ISBN-10 : 0231185898
 - b. ISBN-13 : 978-0231185899
2. The Location Sound Bible: How to Record Professional Dialogue for Film and TV – by Ric Viers
 - a. ISBN-10 : 1615931201
 - b. ISBN-13 : 978-1615931200
3. Producing Great Sound for Film and Video: Expert Tips from Preproduction to Final Mix 4th Edition
- by Jay Rose
 - a. ISBN-13: 978-0415722070
 - b. ISBN-10: 9780415722070

4. Sound Design: The Expressive Power of Music, Voice and Sound Effects in Cinema - by David Sonnenschein
 - a. ISBN-10 : 0941188264
 - b. ISBN-13 : 978-0941188265

Supplementary Reading List:

1. <https://collegefilmmandmediastudies.com/film-sound-and-music/>
2. <https://www.learnaboutfilm.com/film-language/sound/>
3. <https://flismusicblog.wordpress.com/2015/01/07/different-types-of-sound-within-film/>
4. <https://www.aimm.edu/blog/how-to-create-foley-sound-effects>