

## **Proposed Revised Curriculum of Film Sound & Music**

### **PREAMBLE:**

Music Production Course is designed to help you become a successful Music Producer, Music Programmer, Music Arranger Music Composer or Record Producer. This Course is designed keeping practical application in mind. This Music Production Course certification is a perfect base for the student to understand the fundamentals of Music Production. Students will be introduced to all major aspects of professional music production using the technology. Combined studio and lecture course that will focus on the creation, selection, editing, processing, and integration of sound and music (post-production) into film, video, and animations. Music composition, Foley, Voice Over Recording (ADR and Voice Acting), digital audio techniques, and MIDI control will be studied. •Students will have the opportunity to work in groups to realize original creations. This course examines the development of music in film from its origins in 19<sup>th</sup> century musical traditions to the modern day. Emphasizes analysis and relationship between music and narrative films.

To provide students with a basic understanding of the techniques and aesthetics of Sound Production, Recording; along with its relationship to the sound design and overall production of the completed soundtrack for motion pictures and TV. Emphasis will be given to the practical techniques and equipment operation as currently utilized on professional theatrical productions, and how those approaches can be utilized on productions of any scope — be they theatrical or non-theatrical, film or video.

### **COURSE OBJECTIVES:**

- Develop understanding of the basic concepts of Audiography.
- Knowledge of microphone's technical aspects and their handling.
- Working knowledge of: Mixing console, Digital audio, Storage medium, File formats and Various connectors involved.
- Operational Knowledge of Monitoring Systems, Processors, Equalizers, compressors and limiters.
- Working Knowledge of Recording, track laying, sound designing and mixing for film sound.

### **LEARNING OUTCOMES:**

- Ability to identify and understand the terminologies involved with audiography.
- Ability to identify and place microphones for various recording purposes.
- Hands on experience of handling Mixing console, digital audio systems, storage medium, file formats and various connectors involved.
- Working knowledge of purpose and processes involved with Monitoring Systems, processors, Equalizers, compressors and limiters.
- Ability to create sound for film.

**MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI.**

1	Name of Syllabus	<b>C. C. IN FILM SOUND &amp; MUSIC (413204)</b>						
2	Max.Nos of Student	25 Students						
3	Duration	1 year						
4	Type	Part Time						
5	Nos Of Days / Week	6 Days						
6	Nos Of Hours /Days	4 hrs.						
7	Space Required	1) Sound Recording / Editing Studio = 600 sqfeet 2) Class Room = 300 sqfeet TOTAL = 900 sqfeet						
8	Entry Qualification	HSC / HSC (Voc) / Diploma/Degree in any stream						
9	Objective Of Syllabus/ introduction	To build student awareness of the techniques, methods, and aesthetic choices used to ensure quality sound and music for film, video, and animation through the study of existing examples, group work and discussions. To understand production/post production of sound and music for video, film, broadcast, and animation. to gain skills necessary for successful group work and leadership.						
10	Employment Opportunity	These fundamentals will create a solid base for launching student career in the music business. They can start as a Music Composer or will get to work with Film Industry, Sound Studios, Music Directors						
11	Teacher's Qualification	Faculty that comprises leading industry professionals with hands-on experience of what is taught Diploma / Degree in Sound/Music and/or Professional work experience in Sound industry and / or Extreme passion about teaching film music						
12	Training System	<b>Training System Per Week</b>						
		Theory		Practical		Total		
		6hrs		18hrs		24hrs		
13	Exam. System	<b>Sr. No.</b>	<b>Paper Code</b>	<b>Name of Subject</b>	<b>TH/PR</b>	<b>Hours</b>	<b>Max. Marks</b>	<b>Mini. Marks</b>
		1	41320411	Principles of Sound	TH- I	3 hrs.	100	35
		2	41320412	Audiography	TH- II	3 hrs.	100	35
		3	41320413	Film Music	TH- III	3 hrs.	100	35
		4	41320421	Audiography	PR- I	3 hrs.	100	50
		5	41320422	Film Music	PR-II	3 hrs.	100	50
		6	41320423	Film Project	PR- III	3 hrs.	100	50
				<b>Total</b>			<b>600</b>	<b>255</b>

# Film Sound & Music

## Theory & Practical – I

### Paper–1: PRINCIPLES OF SOUND

#### PROGRAMME OBJECTIVES:

- Music Production Course is designed to help you become a successful Music Producer, Music Programmer, Music Arranger Music Composer or Record Producer.
- This Course is designed keeping practical application in mind. This Music Production Course certification is a perfect base for the student to understand the fundamentals of Music Production. Students will be introduced to all major aspects of professional music production using the technology. Combined studio and lecture course that will focus on the creation,
- selection, editing, processing, and integration of sound and music (post-production) into film, video, and animations. Music composition, Foley, Voice Over Recording (ADR and Voice Acting), digital audio techniques, and MIDI control will be studied.
- Students will have the opportunity to work in groups to realize original creations.
- To provide students with a basic understanding of the techniques and aesthetics of Production Sound Recording; along with its relationship to the sound design and overall production of the completed soundtrack for motion pictures and TV.
- Emphasis will be given to the practical techniques and equipment operation as currently utilized on professional theatrical productions, and how those approaches can be utilized on productions of any scope — be they theatrical or non-theatrical, film or video.

#### LEARNING OUTCOMES

- Understand and articulate the history, theories and critical models of electronic media.
- Understand the fundamental concepts of pre-production, production and post-production in film/television sound production.
- Have an understanding of basic film/television Sound production principles, terminology, and procedures and use them in the assigned video projects. Including (but not limited to) proper rigging of lavalier mics, proper "over/under" coiling of audio cables, proper use of mixing panels, and proper use and identification of shotgun microphones.
- Understand the basic oral and written communication tools to function professionally in film/television Sound.
- Record and edit video production sound exercises. All students must be able to produce professionally acceptable audio CD's and standard video DVD's. Any student who cannot prepare an audio CD or video DVD is not worthy of a production degree in Cinema-Television Arts.

Paper-1	Principles of Sound	
	Course Practical	Course Theory
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding sound via listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the nature and characteristic of sound wave</li> <li>• Human hearing mechanism and various acoustics methods and treatments.</li> <li>• Anatomy of Hearing and Auditory perception</li> <li>• The ear – threshold of hearing</li> <li>• Dynamic Range. Loudness, Pitch, Critical Bands, Equal Loudness Curve, Fletcher – Munson Curve, Doppler Effect</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding sound via listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• Nature of Sound</li> <li>• Propagation, Frequency, Amplitude, Wavelength</li> <li>• Velocity of sound</li> <li>• Compression and Rarefaction in sound wave</li> <li>• How sound travels in air</li> <li>• Sound Transmission and Medium Density.</li> </ul>

		<ul style="list-style-type: none"> <li>• Audible Frequency Range, Infrasonic, Ultrasonic, Subsonic, Supersonic.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding sound via listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• Back to Basics, how to Hear Films</li> <li>• Techniques and Terminology</li> <li>• Early History of Film Music</li> <li>• Pre-Film Roots</li> <li>• Early History of Film Music from the Silent Era, Compiled Scores, Composed Scores</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding sound via listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• Quality of Sound: Timber, Pitch, Tone, Range, Phase, loudness</li> <li>• Envelope of sound and Noise.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding sound via listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• Acoustics (Fundamentals)</li> <li>• Sound pressure and sound power</li> <li>• Inverse square law</li> <li>• The behaviour of sound in outdoors and in closed spaces</li> <li>• Absorption coefficient, reflection, diffraction, refraction, reverberation, echo, SN Ratio, Distortion, Vow and Flutter.</li> <li>• Sabine formula</li> <li>• Resonance effect</li> <li>• Free and Reverberant Field</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding sound via listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• Recording of Sound-Analog recording-early recording machines- Magnetic tape-magnetic tape recording Process-Digital tape recording</li> <li>• Mass storage base system-magnetic hard disk, optical disk, memory card etc.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding sound via listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• Transducers: Electronics concept, Microphones and monitors.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding sound via listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• History of sound technology, from Edison's Dickson Sound Experiment.</li> <li>• Sound-on-disc vs. sound-on-film. Don Juan and The Jazz Singer.</li> </ul>

# Film Sound & Music

## Theory & Practical – II

### Paper–2: AUDIOGRAPHY

#### COURSE OBJECTIVES:

- Develop understanding of the basic concepts of Audiography.
- Knowledge of microphone's technical aspects and their handling.
- Working knowledge of: Mixing console, Digital audio, Storage medium, File formats and Various connectors involved.
- Operational Knowledge of Monitoring Systems, Processors, Equalizers, compressors and limiters.
- Working Knowledge of Recording, track laying, sound designing and mixing for film sound.

#### LEARNING OUTCOMES:

- Ability to identify and understand the terminologies involved with audiography.
- Ability to identify and place microphones for various recording purposes.
- Hands on experience of handling Mixing console, digital audio systems, storage medium, file formats and various connectors involved.
- Working knowledge of purpose and processes involved with Monitoring Systems, processors, Equalizers, compressors and limiters.
- Ability to create sound for film.

Paper-2	Audiography	
	Course Practical	Course Theory
	<ul style="list-style-type: none"><li>• Class room lecture with PPT</li><li>• Understanding via studio visits</li><li>• Demonstration of equipments</li></ul>	<ul style="list-style-type: none"><li>• Introduction to Microphone</li><li>• Types of Microphones</li><li>• Dynamic, Condenser, moving coil–mechanism, working principle, structural design.</li><li>• The nine Subcategories of Mics: Large Diaphragm Condenser Mics, Small Diaphragm Condenser Mics, Dynamic Mics, Bass Mics, Ribbon Mics, Multi-Pattern Mics, USB Mics, Boundary Mics, Shotgun Mics.</li></ul>
	<ul style="list-style-type: none"><li>• Class room lecture with PPT</li><li>• Understanding via studio visits</li><li>• Demonstration of equipments</li></ul>	<ul style="list-style-type: none"><li>• Microphone directional characteristics &amp; property: Polar Pattern, Sensitivity, Omni directional, Directional-uni directional and Bidirectional, Cardioid, Super cardioids, Lobar pattern, Hyper Cardioid, Subcardioid.</li></ul>
	<ul style="list-style-type: none"><li>• Class room lecture with PPT</li><li>• Understanding via studio visits</li><li>• Demonstration of equipments</li></ul>	<ul style="list-style-type: none"><li>• Microphone designs for special applications: Mics for Vocals, Mics for Acoustic Guitar, Mics for Electric Guitar, Mics for Drums, Mics for Bass/Kick.</li><li>• Popular mic brands: Shure, Sennheiser, Blue, AKG, Neumann</li><li>• Audio Technical.</li></ul>
	<ul style="list-style-type: none"><li>• Class room lecture with PPT</li><li>• Understanding via studio visits</li><li>• Demonstration of equipments</li></ul>	<ul style="list-style-type: none"><li>• Microphone techniques: Placement, Applications, Proximity effects etc.</li></ul>
	<ul style="list-style-type: none"><li>• Class room lecture with PPT</li><li>• Understanding via studio visits</li><li>• Demonstration of equipments</li></ul>	<ul style="list-style-type: none"><li>• Microphones and placement technique for stereo recording: Stereo mics, Best stereo mics available.</li></ul>

	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via studio visits</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Psycho Acoustics-Spectral Analysis</li> <li>• Perception of frequency and loudness, beats, combination tones,</li> <li>• Masking, Perception of space.</li> <li>• Sound localization -Perception of Direction - Hass Effect, direct sound, early reflections, Comb Filter effect</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via studio visits</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Essentials of audio production</li> <li>• Mixing Console Basics: The signal flow and Do's for excellent recording,</li> <li>• Concept of channel, Groups, Sub groups, Cue out, Send - return</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via recording software interface</li> <li>• Studio visits</li> </ul>	<ul style="list-style-type: none"> <li>• Digital Audio: Sampling rate, Frequency, Bit Rate, Analog v/s Digital audio.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via recording software interface</li> <li>• Studio visits</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Analog to Digital to Analog conversion: A to D and D to A Converter, Various connectors</li> <li>• Concept of balanced lines</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via recording software presets</li> </ul>	<ul style="list-style-type: none"> <li>• Standard Digital recording &amp; mastering Formats</li> <li>• Audio file formats- aiff, mp3, wav, pcm, wma, aac, flac, raw, etc.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> </ul>	<ul style="list-style-type: none"> <li>• Storage mediums: Optical, Magnetic, Jitter, etc</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via recording software presets</li> </ul>	<ul style="list-style-type: none"> <li>• Amplifier and Speakers</li> <li>• Concept of active and passive components, Power Rating - RMS, program, peak. Speaker and amplifier power matching, impedance matching, bridge connection</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring Systems, Processors, Equalizers, compressors and limiters</li> <li>• Active &amp; Passive types of monitor, Various components of audio monitor:- Woofer, Tweeter, Quacker, Mirage.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> </ul>	<ul style="list-style-type: none"> <li>• Domestic and professional listening environment: Importance of Acoustically insulated room, Profession monitoring.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> </ul>	<ul style="list-style-type: none"> <li>• Stereo and surround monitoring- Monitor Placement Pattern- 2.1, 5.1, 6.1, etc.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via recording software interface</li> <li>• Studio visits</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Processors: Theory of Tonal, Dynamic &amp; Spatial processors.</li> <li>• Compressors &amp; Limiters</li> <li>• Theory and application</li> <li>• Effects processors</li> <li>• Reverberation and Delay devices and their plug in counterparts.</li> </ul>

	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via recording software interface</li> </ul>	<ul style="list-style-type: none"> <li>• Equalizers: Types and their application, Parametric equalizer, Graphic Equalizer, High Pass Filter.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via recording software interface</li> </ul>	<ul style="list-style-type: none"> <li>• Signal Processors</li> <li>• Types of EQ - graphic EQ, parametric EQ, semi-parametric EQ, shelving</li> <li>• EQ. Types of audio filters - HPF, BPF, LPF, notch filter. Types of dynamic processors - gate, compressor, expander, limiter.</li> <li>• Types of effects processors - delay, reverb, chorus. Crossover.</li> </ul>

# Film Sound & Music

## Theory & Practical – III

### Paper–1: FILM MUSIC

#### PROGRAMME OBJECTIVES:

- To explore the diverse relationships between image and music in film
- To examine the craft of soundtrack design, particularly in the interactions between music, sound effects and dialogue
- To study the historical reasons why composers have used different styles of music from Romantic to jazz to minimalism in their film scores.
- Sound Editor in the Media & Entertainment Industry is also known as a Dialogue / Sound Effects / Foley Effects Editor or Supervising Sound Editor to understand various types of Editing. Individuals at this job are responsible for preparing, organizing.
- This job requires the individual to know how to operate a range of sound equipment and software. Depending on the size of the production, the individual may have to delegate to/supervise several Sound Editing Assistants or Sound Specialists. The individual must be well-versed with the principles of acoustics, psychoacoustics and aural discrimination. The individual must be able to select sound sources and apply various editing techniques and treatments to create quality end products that meet production requirements. and editing sound sequences that meet the quality standards and requirements of production.

#### LEARNING OUTCOMES

- Students will be able to edit various sound sources including live or pre-recorded music, atmosphere tracks, dialogue, foley effects, live/pre-recorded/electronic sound effects tracks
- End-products could include sound tracks, films, interviews, documentaries, news broadcasts, radio programmes

Paper-3	Film Music	
	Course Practical	Course Theory
	<ul style="list-style-type: none"><li>• Class room lecture with PPT</li><li>• Understanding via recording software interface</li></ul>	<ul style="list-style-type: none"><li>• Sound for film</li><li>• The sound track: Its Importance in an AV medium</li><li>• Different elements of a sound track</li><li>• Explanation of how sound is put to the film</li></ul>
	<ul style="list-style-type: none"><li>• Class room lecture with PPT</li><li>• Understanding via practical on equipments</li></ul>	<ul style="list-style-type: none"><li>• Basic concepts in music – pitch, melody, harmony, rhyme.</li><li>• Types of musical instruments– string, wind, percussion and electronic instruments.</li></ul>
	<ul style="list-style-type: none"><li>•</li></ul>	<ul style="list-style-type: none"><li>• Music and Film Narrative</li><li>• Diegetic and non-diegetic music, onscreen and off-screen space.</li><li>• Topics and other musical stereotypes.</li></ul>
	<ul style="list-style-type: none"><li>•</li></ul>	<ul style="list-style-type: none"><li>• Silent Film Music: Reading and Creating Cue Sheets</li></ul>
	<ul style="list-style-type: none"><li>• Class room lecture with PPT</li><li>• Understanding via practical on software in audio lab</li></ul>	<ul style="list-style-type: none"><li>• Location sound: Radio mics - Uses and potential difficulties.</li><li>• 1. Signal Dropouts and Multi-path Interference 2. Noise Floor and</li><li>• Interference 3. Inter-modulation Distortion and Frequency</li><li>• Coordination.</li></ul>



	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Western classical music – orchestra, instrumentation.</li> <li>• Form – song, concerto, symphony, sonata, opera, dance, music.</li> <li>• Prominent composers – Bach, Vivaldi, Mozart, Beethoven, Rossini, Chopin, Brahms, Tchaikovsky etc.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Carnatic Music – Sruti, Swara, Raga, Tala, Varnam,</li> <li>• Kriti, Katcheri – Structure, Content and Instrumentation.</li> <li>• Prominent composer –Purandara Dasa, Muthuswami Dikshitar, Syama Sastri,</li> <li>• Swathi Thirunal etc.</li> <li>• Introduction to Hindustani Music – Alap, Bandish.</li> <li>• Types of compositions –dhrupad, khyal and tarana instrumentation.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• 20th and 21st century music – Jazz, country music, rock and roll, blues and heavy metal</li> <li>• Indian Film Music – Hindi, North Indian, South Indian.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Background Music – Incidental music, Ambient music, Music Design,</li> <li>• Musical Functions, Instrument Types, Digital Samplers</li> <li>• Sound Editing - sequencing/programming.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical on software in audio lab</li> </ul>	<ul style="list-style-type: none"> <li>• Sync sound: Boom operation for sync sound, Construction, Preferred placement angle and its reason.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical on software in audio lab</li> </ul>	<ul style="list-style-type: none"> <li>• Sound Forge and Nuendo: Basic principles</li> <li>• Understanding the process from initial set up to completion of a project.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical and listening of examples</li> </ul>	<ul style="list-style-type: none"> <li>• Sound design strategy: Narrative, Performative.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Dubbing – narration, commentary etc</li> <li>• Dubbing and multi-track recording, Multi track dubbing</li> <li>• Multi track FX recording, Re-recording and final mix</li> <li>• FX- pre-mixing, BGM mixing, Multi track FX mixing and multitrack BGM mixing.</li> <li>• Final mixing and Mastering</li> <li>• Multi track voice levelling with mixing, multi-track FX mixing, Multi track BGM mixing, Bouncing and Mastering.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> </ul>	<ul style="list-style-type: none"> <li>• Dialogue Editing-getting sound from the picture dpt. to the sound dept,</li> <li>• File names and Backup,</li> </ul>

	<ul style="list-style-type: none"> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Screening the OMF,</li> <li>• Post confirm -The spotting session</li> <li>• Image –Depth and perspective, Damage Repair, Production effects and guide tracks, confirmation, ADR,</li> <li>• Editing sound for Documentaries</li> <li>• Preparing for the Mix</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Sound Editing -Effects and Ambience recording/Tracklaying</li> <li>• Folley Editing-Folley recording/Tracklaying</li> <li>• Pre-Mix-Dialogue Premix, Effects Premix, Ambience Pre mix, Folley Premix, Music Premix</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Final Mix-DAW-Project file setup, Various Mixing Formats-Mono,</li> <li>• Stereo and Surround Sound.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Synchronization and Transfers, Timecodes-SMPTE Timecode, MIDI Timecode,</li> <li>• Time formats with Computer-Based Recorder /Editor.</li> <li>• Synchronizing Digital Equipment, Framrates .</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Synchronizing Sound and Picture-Timecode synchronization,</li> <li>• Head and Tail Synchronization</li> <li>• Points. Location recorders, Microphones, Location recording.</li> </ul>
	<ul style="list-style-type: none"> <li>• Class room lecture with PPT</li> <li>• Understanding via practical listening</li> <li>• Demonstration of equipments</li> </ul>	<ul style="list-style-type: none"> <li>• Transfers -Digital to digital Audio Transfers</li> <li>• Transferring Audio Files for Accompanying Video,</li> <li>• Altering Audio in Transferring for Special Effects</li> </ul>

## SUGGESTED READINGS:

- A History of Film Music (Cambridge University Press, 2008) - Mervyn Cooks
- Film Music: A History (Routledge, 2008) - James Wierzbicki
- Sound for Film and Television - Alten, Stanley R. (2006) Audio in Media. Holman, Tomlinson. (2010)
- Practical Recording Techniques - Bartlett, Jenny. (2013)
- Master Handbook of Acoustics. Mc Graw Hill, F. Alton. (2001)
- Sound for picture: an inside look at audio production for film and television- Forlenza, Jeff & Stone, Terri. (1993)
- Sound For Digital Video - Holman, Tomlinson. (2013)
- Modern Recording Techniques - Huber, David Miles. (2010)
- Mixing Audio. Routledge- Izhaki, Roey. (2018)
- Handbook of sound engineers - Ballou Glen
- Sound recording practice - Borwick John
- Sound Studio - Ford Tyree S.
- Sound FX - Alexander U. Case
- The Sound Effects Bible - RicViers

## List of Tools Equipment

Sr. No	Film Music & Sound Course code 413204	Qty	Rate	Total Amount
1	Analog Mixing Desk	4	50000	200000
2	Studio Monitors	4	25000	100000
3	Analog Compressors	1	25000	25000
4	Pro Tools Ultimate 2019 Software & Plugins	2	60000	120000
5	Pre Amps	2	20000	40000
6	Microphones	4	5000	20000
7	Guitar Amps	2	20000	40000
8	AD/DA Converter	2	5000	10000
9	Drum Kits	1	30000	30000
10	Digital Controllers - Avid S3	1	25000	25000
11	Speaker (5.1)	1	100000	100000
12	Adequate Furniture	1	50000	50000
13	Headphone	12	2000	24000
14	Internet broadband Connection.	1	15000	15000
15	External hard drive-8 TB	2	20000	40000
16	Shotgun Microphone, Boom Pole, Wireless Microphone	1	30000	30000
17	Intel i5 processor, 4 GB RAM, 2GB Graphic Card, 17" Monitor, Keyboard, Mouse, compatible Motherboard (Configured Computers)	6	30000	180000
	<b>Total Amount</b>			<b>1049000</b>