

BHARATHIAR UNIVERSITY: COIMBATORE-641 046**DIPLOMA IN FILM MAKING**

(For the CPP/COP students admitted during the academic year 2015-2016 & onwards)

SCHEME OF EXAMINATIONS

PART	Course Title	Ins. Hrs / Week	Examination	
			Dur. Hrs.	Total Marks
	SEMESTER - I			
1.1	Motion Picture Camera and Lenses	5	3	100
1.2	Screen play writing theory	5	3	100
1.3	Fundamentals of Film and Video Editing	5	3	100
1.4	Producing the Film	5	3	100
	SEMESTER – II			
2.1	Advanced Aspects of Cinematography	5	3	100
2.2	Graphics, Animation and Direction for Editors	5	3	100
2.3	Production & Post production process	5	3	100
2.4	Creative Sound Recording	5	3	100
	TOTAL	-	-	800

Eligibility for admission: Candidate for admission to the Course shall be required to have passed the Higher Secondary Examinations (Academic or Vocational)

Duration of the course: The course shall extend over a period of One Year comprising of Two semester.

Medium of instruction and examinations: The medium of instruction and examinations shall be in English.

Other requirements: LIVE trainings as when suggested by Institute is to be completed within the duration of the course followed by submission of the report.

MOTION PICTURE CAMERA AND LENSES

UNIT - I

Introduction to the Principles of Cinematography - Synopsis of motion - Tools of motion picture Camera work - Essential parts of motion picture camera -Working algorithm of motion picture camera - Mechanical parts of motion picture camera - Functions of various parts.

UNIT - II

Study of lens - Study of lens systems - study of lens formats - Relation between film format and lens systems - study of film format and lens systems- study of film loading systems - Magazines - Single chamber, Double chamber & Co-axial magazines - Shutter system - Working principles of various types of shutters - Camera speed - Types of lens mounts - Matte box.

UNIT - III

Transport mechanism - Intermittent mechanism - Frame rates - Shutter speed calculation - Shutter angle - Various types of motors - Claw mechanism -Types of claws - Picture gate and pressure plate - Tacho meter - Comparison between human eye and brain combination - Film and Camera Combination -The factors responsible for visual attention to the audience.

UNIT - IV

Film Formats -Study of 8mm cameras - Study of 16mm cameras - study of super 16 cameras- 35mm format cameras - Anamorphic system - wide screen system - 70mm cameras - Super 35mm system.

UNIT - V

Importance of the quality of a motion picture camera lens - Lens elements -Image formation with positive lens -Negative lenses - Image formation with cinematographic lens - Block lenses - Variable focal length lenses - Breathing effect - Advantages and Disadvantages of block and zoom lenses.

REFERENCES:

1. Cinematography by Kris. Malkiewicz
2. Practical Cinematography by Paul Wheeler
3. Sight Sound and Motion by Herbert Zettl
4. American cinematographer manual 9th Edition.

SCREEN PLAY WRITING THEORY

UNIT : I

Introduction to the Art of writing - Short story - Novel - Play and screenplay -Adoption of novel and drama for TV and film - Transitions of action: Movies -Intention - Goal -

Conflict - The undisturbed story - The disturbance - The struggle - The adjustment - main and sub-audience participation - suspense - Surprise.

UNIT : II

The sources of information - Combination - Co-ordination - Duplication - Scene types - place - Time - Exposition of time - Exposition of place - Plot and sub-plot - Plot patterns - Narrative structure - Theme - Ideas - Complex structure of a story - Causes and effect - Conflict - Development - Climax (Beginning, middle, end) - Synopsis - basic story - Exposition and preparation- Point of view.

UNIT : III

Characterization - Biography or Bone structure of a character - External and internal aspects of a character - Orchestration and unit of opposites -Dialectical approach - understandability - Probability - Identification.

UNIT : IV

Shot - the check list of shot - How shots are related - Art of confrontation -Outline - Step outline - Treatment - Screenplay - Dialogue - Script - Master scene script - Symbols and metaphors.

UNIT : V

How to get ideas - Obligatory scene - Melodrama - Writing for TV - comedy and tragedy - Writing comic sequences - dialogues.

REFERENCE:

1. The Art of Dramatic Writing - Lajos Egri.
2. Screen writing for Narrative film and Television - William Miller.
3. Film script writing - Dwight V. Swain.
4. Aspects of the Novel- E.M. Forster.
5. Screenplay writing - Eugen vale.

FUNDAMENTALS OF FILM AND VIDEO EDITING

UNIT : I

Study of different kinds of Clap Boards and study of the using of Editing Equipments - Talkie Clap - Silent Board-Play Back Clap - Shooting Reports - Camera Report - Sound Report and Direction Reports - Study of Editing tools and accessories. Study of winding and rewinding of films and study of using different kinds of video tapes - VHS - Umatic - HI Band - Beta tapes.

UNIT : II

Knowing the arrangement of Editing room and maintenance of both Film and Video Equipments and their accessories - video monitors. Moviola Equipment - Steinbeck- Film racks- Editing Tables and Video equipments - Video Tape recorders- Telecine systems- Editing systems - Basic systems in Video Editing

UNIT : III

Fundamentals of synchronisation of Both picture and sound-Sorting and Assembling of Negatives Telecine Transformation. Study of Editorial marks -Learning about Editing of silent sequence and talkie sequence.

UNIT : IV

Study of Film Dubbing and video dubbing - Study of synchronous and non -synchronous sounds - Study of Background music-Study of using special effect sounds - Re-recording-Mixing and posting the mixed track - Cutting of negatives as per edited positive and video tape-cut lists.

UNIT : V

Study of Transitions - Study of optical effects - Study of video effects - Using of bridging shot - Cut away and cutting in action - Cutting on movement - Inter cutting- Parallel cutting and constructive editing - Montage -Creative editing -Real time and Artificial time - rhythm-pace-space - Creative editing. Basic Transition Devices Visual Effects - Standard Analog video effects Digital Video effects Non Electronic Effects and How to use them Optical effects and Mechanical effects

REFERENCE:

1. Techniques of Film Cutting Room: Earnest Walter
2. Film and The Director: Don Livingstone
3. How to Edit: Hugh Baddeley
4. The Techniques of Film Editing: KarelReiz& Gavin Miller
5. The Technique of Film and Video Editing: Ken Dancyger

PRODUCING THE FILM**UNIT I**

Overview of Scheduling, Script Breakdown, Element Sheet Creation, Creating the Shooting Schedule, Scheduling Principles, Scheduling Steps, Stripboard Creation, Day-Out-of-Days Schedule, Scheduling Each Shoot Day, Portrait of an Assistant Director, Locking the Schedule

UNIT II

First Day of Principal Photography, Wrap Checklist, Budget Actualisation, Second Day Disasters, Enemy of the Production, Expanding the Team, Actors, Crew & Vendors, Independent Contractor or Employee

UNIT III

Finding Locations, Create Location List, Specifics of Location Scouting, Alternatives to Hiring Location Scout, Finalising Location Decision, Negotiating the Deal, Back up Location, Location Release Form, Police / Fire Department, Shoot Day Protocol, Run through with Owner, The Day after the Location Shoot

UNIT IV

Sound Recording During Principal Photography, How to get Best Sound on Set, Room Tone, Wild Sound, Audio Post Production, Building Audio Tracks / Sound Design, Adding Sound Effects, Creating and Recording Foley Work, Recording ADR, Laying in Music Tracks, Sound Mixing

UNIT V

Creating a Music Soundtrack, Rights Required, Putting in the License Request, Negotiating for Music Rights, Out of Copyright or Public Domain Music, Fair Use, E&O Insurance, Blanket TV Agreement, Music Cue Sheet, Original Music Composition for your Project, Music Supervisors,

REFERENCE:

1. Indie Film Producing: The Craft of Low Budget Filmmaking
2. Producing, Financing, and Distributing Film: A Comprehensive Legal and Business Guide
3. Independent Film Producing: How to Produce a Low-Budget Feature Film
4. The Complete Film Production Handbook Eve Light Honthaner

ADVANCED ASPECTS OF CINEMATOGRAPHY**UNIT - I**

Introduction to the advanced models of motion picture cameras - Brief study of Arriflex BL cameras - Arriflex 435 cameras - Arriflex 765 camera - Arriflex 535 & 535B cameras - Panavision 65 camera - Panaflex 35 cameras - Vista vision cameras - Photo Sonics Action master 500 camera - A brief study about the special nature and application of these cameras - A brief study of 3 D cinematography - The aspect ratios of all the systems. The advantages and disadvantages of blow-up concepts - technical approach for working films for blow-ups.

UNIT - II

Introduction to modern cinematographic light sources - Metal iodine lamps - HMI lights – HMI flicker problems - flicker free HMI lights - Study of soft sun lights - Study of fluorescent light sources - kin-o-flo - Technique of working with fluorescent light sources for motion pictures - Mercury vapor lamps - Sodium vapor lamps - Study of unconventional light sources such as laser lights - Computer controlled light systems - Black lighting - UV lighting and IR lighting - non photographic light sources such as domestic tungsten and fluorescent tube lights - Follow spots - Effects/Pattern projecting lamps - Techniques of working with unconventional light sources and non-photographic light sources.

UNIT - III

Advanced lighting approaches - Light is more than illumination - Using lighting to play active and passive part - Lighting continuity for visual matching - Lighting shiny objects - Lighting matte objects - Lighting semi-matte objects - Lighting for transparency - Fantasy lighting - Introduction to pictorial lighting styles such as Notion - silhouette - Chair-o-scuro, Cameo - Limbo and Rembrandt lighting - Lighting for form - Lighting for color - Use of colored lighting for effects - Lighting techniques for creating - Animated lighting - Lighting with Ultra violet sources - Lighting with infrared light sources - Lighting for night

in exterior - Day for night shooting techniques -Technique of lighting different types of human faces - Magic hour and twill light shooting - Sun rise and sun set shooting - Lighting for process shots - Lighting involving practical lamps in the frame - Lighting for skin tones - Lightning effects - Technique of lighting for rain sequences - Available light shooting techniques.

UNIT - IV

Introduction to choices of lenses for cinematography - Creative use of Cinematographic lenses -Special purpose lenses - Reasons for working for a constant depth of field - Technique of working with variation in depth - Different types of lens construction - normal lens construction - Retrofocus lenses - Telephoto lenses - Reasons for the superiority of prime lenses over zoom lenses - The concept of variable prime lenses - Care of lenses - Introduction to advanced camera movement and camera support systems - Cranes - Remote controlled camera heads - Mobile cranes - Camera stabilizing systems - Study of a Steadicam system.

UNIT - V

Introduction to the advanced models of broadcast video cameras - study of a Betacam camera ad its accessories - Features available in a Betacam camera for a cameraman - Formats of Betacam -Working for a satellite news channel - Technique of working for ENG and EFP - Introduction toDigital Cinematography - Working for music albums - Working for commercials - Shooting film for TV broadcast - Comparative study of advantages and disadvantages of analogue system Vs Digital system - Comparative study of advantages and disadvantages of Digital system Vs Film.

REFERENCE:

1. Video Shooter, Second Edition by Barry Braverman
2. High Definition Cinematography, Third Edition by Paul Wheeler
3. Shooting Action Sports by Todd Grossman

GRAPHICS, ANIMATION AND DIRECTION FOR EDITORS

UNIT - I

Construction of Cinemaproduction - Theme - Synopsis - Oneline Treatment - Screenplay - Dialogue - Master scene script - Shooting Script - Characterization - Make up - Stage Direction for Various dialogues and movements - Master scene and Triple take Techniques.

UNIT - II

Break up into shots based on acting - Different film genres - Economic and Operative Break down schedule and shooting schedule - Dope Sheets - Budgeting - Directing the Actor and crew.

UNIT - III

Traditional animation - Stop animation - 2D animation - 3D animation - Draw on film animation and chromo key programming - Usage of virtual set technology.

UNIT - IV

Compositing - Typical application - Physical compositing - Multiple exposure - Back ground projection.

UNIT - V

Latest technique in animation - Effects matte painting - Morphing - Optical effects - Prosthetic make up effects. Rotoscoping - Traveling matte dolly - Virtual cinematography - Wire removal scan mate adobe after effects.

REFERENCE:

1. Creating Motion Graphics with After Effects, Fourth Edition
By Chris Meyer and Trish Meyer
2. VFX Artistry by Spencer Drate and Judith Salavetz
3. The Visual Effects Arsenal by Bill Byrne
4. How to read a Film - James Monaco.
5. Directing-Film Techniques and aesthetics - Michael Rabiger.
6. Five C's of Cinematography - Joseph V. Mascelli.
7. Screenplay writing - Eugen vale.
8. The Art of Dramatic Writing - Lajos Egri.
9. Technique of Film make-up - Vincent ANIMATION

PRODUCTION & POST PRODUCTION PROCESS**UNIT : I**

Basic requirements of Television Camera - Lens - Turret - Variable Focal Length Lens - Lens Controls - Focus ring - Zoom ring - Aperture ring - Macro ring - Flange Focus - Filter Wheel - Image sensor - Camera Tube - CCD - Signal Processing - Analogue and Digital Video signal - Composite and Component Video signal - White and Black Balance - Saturation and Pedestal Control - Gain Control - Menu Controls - Camera Supports.

UNIT : II

Sound Recording Techniques for Television - Understanding Sound - Frequency - Sound Reproduction - Microphone - Functioning of Microphone - Types of Microphone and their Application - Audio Mixing Console - Audio Sources - Analogue and Digital Audio Recording Instruments - Audio Sweetening Techniques - Audio layering - Mixing - audio Monitoring Devices - Acoustic Treatment for Recording Studio -

UNIT : III

Hard wares in Television - Camera and its Accessories - Camera Supports - Camera Control Unit - Vision Mixer - Special Effects Generator - Digital Video Effects Generator - Character Generator - Video Monitors - Intercommunication System - audio Monitor - Audio Mixing Console - Lighting control - Lighting Instruments - Video Tape Recorders - Telecine - Sync Generators - Teleprompters - Graphic Generators - Video Editing Systems - Linear and Non-Linear Video Editing Systems - Effective use of Hardware in Television Production - Co-ordination.

UNIT : IV

Television Programme Production - Planning - Selection of Concept - Scripting - Story board writing - Writing Shooting Script - Budgeting - Selection of Artist - Selection of Location - Production arrangements - Floor Plan - Set-designing and Construction of Sets - Lighting Plan - Placement of Set-props - Rehearsal - Blocking - Preparing Camera card, Audio cue-sheet, VTR and Telecine cue-sheet - Preparation of Graphics - Dry Run-

Recording - Television Programme Production Crew - Technical and Production Personnels - Duties and Responsibilities.

UNIT : V

Post Production Techniques - Video Editing - Linear and Non-Linear Editing - Cut to Cut Editing -A/B Roll Editing - Use of Special Video Effects Generator - Using Computers In Video Editing - Different Non -Linear Editing Software - Audio / Video Capture cards - Digitizing Techniques - Using compression during Capturing -Colour Correction - Technique of Non-Linear Editing - Using Videos/Audio layers - Use of Transition and Effects - Compositing - Modifying images - Editing and Exporting to MTape - Voice Dubbing - Effects Posting - Music Recording - Audio Layering - Mixing Techniques - Understanding Time-code-Time-code based Editing - Creating EDL - Off-line Editing.

REFERENCE:

1. The Complete Film Production Handbook- Honthaner, Eve Light
2. Video Production – Belavadi -Oxford

CREATIVE SOUND RECORDING

UNIT - I

Greatness and Power of Music - Basic technical terms - in music - Basic knowledge about the various instruments used in, folk, Hindustani and Western Music - Elementary knowledge in writing musical notation.

UNIT - II

Microphone technique - sound localization - stereo microphone placement techniques – binaural recording - the stereo microphone stereosonic recording - X-Y recording - M-S Recording - use of additional microphones - multi microphone placement techniques general rules - avoiding phase cancellations - Leakage minimizing techniques - Microphone placement for maximum separation - Using the Figure of 8 microphone - Acoustic separation - Isolation Booths, Baffles and GOBOES.

UNIT - III

Use of special purpose microphones - contact microphone - Lavalier microphones - Mixing various musical instruments. The electric guitar electronics keyboard instruments - The Leslie organ cabinet - percussion instruments - The Drum set - The piano-strings, brass and woodwinds - Signal processing devices - Echo and reverberation - Definitions - Echo reverberation - Delay Decay - Room acoustics- Echo and Delay - The tape delay system. The digital delay line - The acoustic delaying - doubling - Reverberation and Decay - The reverberation plate - The spring reverberation system - Acoustic reverberation chambers - stereo reverberation - using stereo reverberation - The complete Echo -reverberation system

UNIT - IV

The modern recording studio console - The basic console - input section. Output section – Monitor section - Echo send and return signal path summary of the signal path through the console – Monitor section Recording technique - Overdubbing - The Sel-Sync process - Transferring of —Bouncing||tracks. Transferring on to adjacent tracks - —Punching in|| Remote control of the record/play back mode - The console in the Sel-Sync mode using the

cue system - Headphone monitoring – Selecting headphones - Track assignment - Bus/tape monitoring-preparing for the multi-track recording session- Seating plan - Microphone set up - Console preparation - Monitoring Using artificial reverberation during recording - using other signal processing devices - Recorded levels - —Slating|| End of recording - The mix down session - Musical editing-splicing blocks - tracks editing – Track assignment and panning - Preparing for mix down Assistance during mix down - Recording and monitor levels - Monitor Speakers - The basic in-line recording console - input section of I/O module- output section of I/O module - The master module - The monitor module - The component parts of an in-line recording console.

UNIT - V

Simplified signal flow path through the in line console - Channel/line and reverse switches – Boardcast mode - Grouping - Group select switch - Monitor pan to channel buses - Monitor pan to send buses - Monitor mix - tu - cue - Wet switch - Mute switch - Solo in place - console module detail drawings. Time code implementation - Recorded time data - The SMPTE time code - Frame rates and application - Description of the code - SMPTE-assigned address bits - Time code address bits -Frame rate errors - Drop frame code bit - Colour frame code bit - Sync word bits-plus one frame - The complete SMPTE time code-User-assigned bits-Unassigned address bits - Bi-phase modulation - Time code generator - Time code reader-Video character generator - Jam sync-One time - Jam sync - continuous - Jam sync - copying time code - Regenerated time code - restored time code -Introduction to digital audio.

REFERENCE BOOKS:

1. Recording studio Hand book by John M. Woram.
2. Modern Recording Techniques 7th Edition by David Miles Huber.
3. Elements of sound Recording by J.C Frayne and Wolte.
4. The technique of sound studio by Alec Nisbett.
5. Principles of Digital Audio by Ken. C. Pohlmann.