



UNIVERSITY OF CALICUT

Abstract

Bachelor of Visual Communication (BVC) - (Language Reduced Programme LRP)- CUCBCSS UG Implementing the restructured Scheme and Syllabi with effect from 2014 admission on wards after rectifying the Anomalies & Ambiguities - Orders issued.

G & A - IV - B

U.O.No. 7978/2017/Admn

Dated, Calicut University.P.O, 27.06.2017

*Read:-*1. U.O.No 2308/2015/Admn Dated. 09.03.2015

2. U.O.Note No 29086/BA- CONF-ASST- 3/2017/PB Dated:31.03.2017

3. Meeting of the BoS Audio Visual Communication held on 08.06.2017 Vide item no.III

4. Remarks of the Dean Faculty of Journalism dated 27.06.2017

5. Orders of the Vice Chancellor in the file of even no. dated 27.06.2017

ORDER

Vide paper read first above orders are issued implementing the scheme and syllabus of Bachelor of Visual Communication (BVC) - (Language Reduced Programme LRP)- CUCBCSS UG with effect from 2014 admission after rectifying the anomalies.

Vide paper read second above Pareeksha Bhavan has pointed out certain ambiguities & anomalies in the scheme and Syllabus of Bachelor of Television and Film Production (BTFP) CUCBCSS UG 2014 Admission.

Vide paper read third above the meeting of the BoS Audio Visual Communication held on 08.06.2017Vide item no. III resolved to rectify the ambiguities and anomalies in the existing syllabi of CUCBCSS UG BVC& BTFP Programmes.

Vide paper read fourth above the Dean Faculty of Journalism has approved to implement the scheme and syllabus of Bachelor of Visual Communication (BVC) - (Language Reduced Programme LRP)- CUCBCSS UG with effect from 2014 admission after rectifying the ambiguities and anomalies pointed out by the Pareeksha Bhavan.

Vide paper read fifth above the Vice Chancellor after considering the matter in detail has given orders to implement the scheme and syllabus of Bachelor of Visual Communication (BVC) - (Language Reduced Programme LRP)- CUCBCSS-UG with effect from 2014 admission after rectifying the ambiguities and anomalies pointed out by the Pareeksha Bhavan.

Sanction has therefore been accorded to implement the scheme and syllabus of Bachelor of Visual Communication (BVC) - (Language Reduced Programme LRP)- CUCBCSS UG with effect from 2014 admission after rectifying the ambiguities and anomalies pointed out by the Pareeksha Bhavan.

Orders are issued accordingly.

The corrected version of the syllabus is uploaded in the University website.

Ajitha P.P

Joint Registrar

To

The Principals of all affiliated Colleges

Copy to:

CE/ Ex Section/ EG Section/ DR and AR BA Branch/ EX IV/Director, SDE/SDE Exam Wing/
Tabulation Section / System Administrator with a request to upload the Syllabus in the
University website/ GA I F Section

Forwarded / By Order

Section Officer

BACHELOR OF VISUAL COMMUNICATION

REGULATIONS, SCHEME AND SYLLABI

- 1. Bachelor of Visual Communication, an undergraduate programme, brings together technologies of visual communication, approaches to communication, theories of visual art, digital production of moving images and electronic media. The courses included in this programme focus on the emerging areas such as digital movie making, television, web and other electronically mediated communication systems. The scope of this programme is the ever-expanding careers associated with digital film, cyber technologies, television, advertising and other means of visual communication. Bachelor of Visual Communication Programme comes under Group 3 of LRP, which also includes programmes such as Computer Science, Electronics, Multimedia, and Instrumentation**

2. Objective

The Bachelor of Visual Communication programme (VCM) is designed to equip students with the art and craft of visual communication in order to enable them to emerge as professionals matching the human resources required for the rapidly growing media and entertainment industry. This programme provides immense theoretical and practical exposure to students in both the core and complementary sectors to cater to the needs of media and entertainment sectors.

3. Course Duration

The Programmes shall be of six semesters spread across three years.

4. Eligibility for Admission

4.1 Admission Criteria

Candidates who have passed Pre-degree/Pre-university/Plus two course with not less than 45% marks in aggregate shall be eligible to apply for admission to the programme. Relaxation of 5% marks will be allowed to candidates belonging to socially and educationally backward communities as referred to by Govt. of Kerala. SC/ST candidates need to have only a pass in their qualifying degree examinations. Those awaiting results of their qualifying examinations also can apply. But such candidates will be admitted provided they produce the marks sheets of the qualifying examination on or before the

date prescribed for admission. Admission to the Programme shall be based on the marks secured by candidates in the qualifying examinations.

4.2 Course Requirements

Students should attend the prescribed lecture and practical sessions without fail and should submit their assignments, practical work and projects in the prescribed mode within the deadlines. Those who fail to put in 75% attendance in both the lecture and practical sessions will not be permitted to appear for the semester-end examinations. The University can however condone the shortage of attendance as per the rules and procedures framed by it from time to time.

5. CUCBCSS UG Regulations 2014

All norms regarding the Visual Communication programme will be as per the regulations of the University of Calicut (CUCBCSS UG Regulations 2014), except that:

(1) The evaluation of courses; (1) *VCM5B13 Visual Production Project Work* and (2) *VCM6B17 Visual Production Practical* and (3) *VCM6B18 Project Work* shall be conducted by two examiners – one internal and an external, appointed by the University.

6. Courses of Study and Scheme of Examinations

The Programme is structured to provide a sound grounding in theoretical and practical areas of visual communication. The courses and the scheme of assessment are as follows. Common Course (Code A), Core courses (Code B), Complementary courses (Code C) and Open courses (Code D). The first part of the alpha numerical code represents the name of the course (VCM), second part (n) represents semester and the last part (A/B/C/D) represents whether it is a common course, Core course, Complementary course or Open course. The two complementary courses are **Electronic Media** and **Digital Media**.

1st Semester

Sl No	Course Code	Course Title	Contact hours					Credits
			Theory	Lab	Total	External	Internal	
1	A01		5	0	5	80	20	3
2	A02		4	0	4	80	20	3
3	A07		5	0	5	80	20	4
4	VCM1B01	Vision and Communication	3	0	3	80	20	2
5	VCM1B02	Film Appreciation	2	0	2	80	20	2
6	VCM1C01	Introduction to Electronic Media	3	0	3	80	20	3
7	VCM1C02	Introduction to Computers	2	1	3	80	20	3
Total (7 Courses)					25	700		20

* Bachelor of Visual Communication abbreviated as (VCM)

2nd Semester

Sl No	Course Code	Course Title	Contact hours					Credits
			Theory	Lab	Total	External	Internal	
8	A03		5	0	5	80	20	4
9	A04		4	0	4	80	20	4
10	A08		5	0	5	80	20	4
11	VCM2B03	Photography	0	3	3	80	20	3
12	VCM2B04	Theory of Visual Design	2	0	2	80	20	2
13	VCM2C03	Radio Production	2	1	3	80	20	3
14	VCM2C04	Computer Graphics – I [Media Design]	2	1	3	80	20	3

	Total (7 Courses)			25	700	23
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3rdSemester

Sl No	Course Code	Course Title	Contact hours			External	Internal	Credits
			Theory	Lab	Total			
15	A11		4	0	4	80	20	4
16	A12		4	0	4	80	20	4
17	VCM3B05	History & Theory of Art	2	0	2	80	20	2
18	VCM3B06	Writing for the Media	0	3	3	80	20	3
19	VCM3B07	Digital Video Production – I Pre-production	3	1	4	80	20	4
20	VCM3C05	Television Production	2	2	4	80	20	3
21	VCM3C06	Computer Graphics –II Multimedia	2	2	4	80	20	3
	Total (7 Courses)				25	700		23

4thSemester

Sl No	Course Code	Course Title	Contact hours			External	Internal	Credits
			Theory	Lab	Total			
22	A13		4	0	4	80	20	4
23	A14		4	0	4	80	20	4
24	VCM4B08	History of Cinema	4	0	4	80	20	4
25	VCM4B09	Digital Video Production – II Cinematography	2	3	5	80	20	4
26	VCM4C07	E-Content	3	1	4	80	20	3

		Development						
27	VCM4C08	Web Design	3	1	4	80	20	3
	Total (6 Courses)				25	600		22

5thSemester

Sl No	Course Code	Course Title	Contact hours			External	Internal	Credits
			Theory	Lab	Total			
28	VCM5B10	Theatre Production	3	2	5	80	20	3
29	VCM5B11	Digital Video Production - III Video Editing	2	3	5	80	20	4
30	VCM5B12	Digital Video Production - IV Audiography	2	3	5	80	20	4
31	VCM5B13	Visual Production Project Work	0	5	5	80	20	3
32		Open Course (Other Streams)	5	-	5	40	10	2
	Total (5 Courses)				25	450		16

6thSemester

Sl No	Course Code	Course Title	Contact hours			External	Internal	Credits
			Theory	Lab	Total			
33	VCM6B14	Management in Media	5	0	5	80	20	3
34	VCM6B15	New Media	3	2	5	80	20	4
35	VCM6B16	Advertising	3	2	5	80	20	4
36	VCM6B17	Visual Production Practical	0	5	5	80	20	3

37	VCM6B18	Project Work	2	3	5	40	10	2
	Total (5 Courses)				25	450		16

Course Code – VCM1B01

Course Title – Vision and Communication

Credits – 2

UNIT 1

Introduction to communication studies; Visual Communication and its fundamental principles; History and development of visual arts and communication; visual communication and visual culture.

UNIT 2

What is visual media. Types of visual media – folk and performing art forms, theatre, drawing, painting, photography, film and television. New media and multimedia products. Visual elements – line, plane, shape, form, pattern, texture gradation, colour symmetry, order, balance, unity, contrast, mass and proportion. Spatial relationships, compositions in 2- and 3-dimensional space. Visual communication aesthetics, the structure of appearance.

UNIT 3

Fundamentals of film and television studies. Sensual and perceptual theories of visual communication. What the brain sees: colour, form, depth, and movement. Visual messages and viewers' meaning making process – perception, visual thinking/visualization. Practice of Looking: images, power, and politics.

UNIT 4

The visual media and the public sphere; global flow of visual culture. Potential of visual media on the scenario of education. Visual media tools and technologies. Visual literacy and education.

REFERENCE:

1. Lester E, *Visual Communication: Image with Messages*, 2000.
2. Bo Bergstorm, *Essentials of Visual Communication*, Laurence king, 2009.
3. History of Visual Communication. Website. <www.citrinitas.com/history_of_viscom/>
4. John Berger, *Ways of Seeing*, Penguin, London, 2009.

Course Code – VCM1B02

Course Title – Film Appreciation

Credits – 2

UNIT 1:

Cinema and spectatorship, cinema as art, cinema as industry. Hollywood cinema. Indian cinema. Bollywood movies.

UNIT 2:

Film and other visual arts. Film and novel. Film and theatre. Film and music.

UNIT 3:

Technology and film. Fundamentals of image technology, sound technology. The lens; the camera. Aspect ratio, colour contrast and tone. Post production, editing, special effects.

UNIT 4:

Film genres. Fundamentals of film theory.

EXERCISE: Screen and review 15 masterpieces

FILMS

1. Buster Keaton: *The General* (1926)
2. Charles Chaplin: *Modern Times* (1936)
3. Ford: *The Grapes of Wrath* (1940)
4. De Sica *Bicycle Thieves* (1948)
5. Kurosawa: *Rashomon* (1950)
6. Bresson: *The Diary of a Country Priest* (1951)
7. Stanley Kubrick: *The Paths of Glory* (1957)
8. Hitchcock: *Vertigo* (1958)
9. Satyajit Ray: *Charulata* (1964)
10. Sergio Leone: *The Good, the Bad and the Ugly* (1966)
11. Andrei Tarkovski: *Solaris* (1972)
12. Francis Ford Coppola: *The Godfather* (1972)
13. Adoor Gopalakrishnan: *Kodiyettam* (1977)
14. Anand Patwardhan: *Bombay Our City (Hamara Shehar)* (1985)
15. Zhang Yimou: *Raise the Red Lantern* (1992)
16. Majid Majidi: *The Color of Paradise* (1999)

17. Aki Kaurismäki: *Le Harve* (2011)

18. Michael Haneke: *Caché* (2005)

19. Martin Scorsese: *Hugo* (2012)

20. Alfonso Cuarón: *Gravity* (2013)

REFERENCE

1. James Monaco, *How to Read a Film: The Art, Technology, Language, History, and Theory of Film and Media*. NY: Oxford University Press, 1981.
2. Gaston Roberge, *Subject of Cinema*, Sea Gull, Calcutta, 1990.

Course Code – VCM2B03

Course Title – Photography

Credits – 3

UNIT 1

Human Eye and Camera. Visual Perception. Basics of Camera (aperture, shutter speed, focal length, depth of field) Camera operations – Types of Camera, Types of Lenses.

UNIT 2

Understanding Lighting- indoor and outdoor, Exposing and Focusing, Types of lighting, Natural and Artificial Lights, Exposure Meters, Differential focus, Filters, Flashes. Designing with light. Basic Requirements, Equipments.

UNIT 3

Image editing – Colour profiles, colour management, colour modes- RGB vs. CMYK. Photoshop. Special effects techniques-motion pictures etc., manipulation of image, framing & trimming. Sensitivity, Temperature, Speed etc., Reversal. Manipulation of Colour and Light. Black and White, and Colour Photography – Colour materials, Processing and Printing.

UNIT 4

History of Photography. Aesthetics and photography. Basics of Photo-Journalism, Photo-features, Photo-essays, Writing captions, Visual story telling. Photography for advertising- Consumer and Industrial. Planning a shoot-studio, location, set props and casting.

PRACTICALS

Photography record should contain at least 30 photographs. Each exercise should include all the necessary details (colour, exposure time, lens type etc.). Following themes should be covered

Landscape (scenic, people, birds/animals, monuments), Portraits, Photo feature, photo language, Environmental exposure, Silhouette, Freezing movement, Panorama, Montage, Indoor photography, Industrial photography, Special effects

REFERENCE:

1. Michael Langford, *Basic Photography*, Focal Press, 2005.
2. Michael Langford, *Advanced Photography*, Focal Press, 2008.

3. Mitchell Bearley & John Hedgeese, *New Introductory Photography Course*, Read Book, 2005.

Course Code – VCM2B04

Course Title – Theory of Visual Design

Credits – 2

UNIT 1

Visual Arts, continuity and style, Abstract interpretation, image, symbols, Design methods, ideation, concepts, prototyping and evolution.

UNIT 2

The principles of design – unity contrast, balance, rhythm, harmony and direction. The process of design – the needs, information, planning, exploration, creation, satisfaction. Functions of Design – orderly presentation, attraction, simulation, reflection, support, and retention.

UNIT 3

Image reproduction techniques – print technology, printing press, off-set, study of proportions, finish and features, digital reproduction of images. Typography, classification, use of various letter forms, Typography in different contexts: Web, posters, signage, books, motion graphics etc.

UNIT 4

Basics of image making, basics of illustration in 2-D and 3-D. fundamentals of animations; Basics of image manipulation and editing. The elements of design – line, form, surface, mass pattern, texture, tone, colour, point, image, space and three-dimensional design concepts.

REFERENCE:

1. Colin Ware, *Visual Thinking for Design*, Morgan Kaufmann Publishers. 2008.
2. Wimmel Ledwell & Kritina Holden, *Universal Principles of Design*, Rockport, 2003.
3. Alan Hashimoto, *Visual Design: A Digital Approach*, Cengage Learning, 2009.

Course Code – VCM3B05

Course Title – History and Theory of Art

Credits – 2

UNIT 1:

Fundamentals of art, Drawing, Geometrical drawing, line space, balance, and harmony, angles and viewpoint, perspective. Tonal variations, texture of objects and forms, colour schemes, colour combinations, composition and values.

UNIT 2:

Brief history of art. Classical art, murals, papyrus manuscripts, hieroglyphics, Mughal art, medieval art, Byzantine and Gothic, Renaissance, Baroque and Rocco, Romanticism and Realism.

Unit 3:

Modernism in the West: Impressionism, Symbolism, Expressionism, Cubism, Futurism, Constructivism, Dada, Surrealism, Abstract expressionism, pop art, performance art, postmodern art and architecture.

UNIT 4:

Surrealism and psychoanalysis – Dali and Margritte. Feminist Theory of Art: gaze. Contemporary Indian art.

REFERENCE:

1. Robert Belton, *Art History: A Preliminary Handbook*, McGraw-Hill, 2000.
2. Laurie Schneider Adams, *History of Western Art*, McGraw-Hill, 2004.
3. David Wilkins, Bernard Schultz, and Katheryn M. Linduff, *Art Past, Art Present*, 4th edition, New York: Harry Abrams, 2001.

Course Code – VCM3B06

Course Title – Writing for the Media

Credits – 3

UNIT 1

Writing for visuals. Script: meaning and types of script. Elements of good script - structure, clarity, coherence. Process of scripting: idea formation, research, sequencing, opening and concluding. Script Formats - Scripts for film/ TV. Fiction and nonfiction, educational documentaries, docudramas and advertisements; Script and story board.

UNIT 2

Writing Television Script. advertisements, documentary, game show, variety programmes, information programmes, children, women and minority programmes. Concept of spoken language. Relation between narration and visuals. Script layout: treatment, screen play one page and split page.

UNIT 3

Script writing for educational documentaries. Script writing for tele-serials. Analysis of movie scripts, short-film script, enrichment programme script. Scripting for commercials. News writing - news angle, multiangled stories, feature openers, development of story, news formula, sign posting, accuracy and fieldwork.

UNIT 4

The art of writing for films; Fundamentals of film screen writing; Script formats; stages of script and screen play – idea, research, treatment, draft script, revision of script; Structure, Characters Dialogue, Hiring a Writer, Optioning a Screenplay.

PRACTICALS

Write two scripts and prepare the story boards for any of the following: short-fiction, nonfiction, educational documentary, advertisement, television programme, TV game show, TV commercial, New programme. Duration: 5 minutes. Maintain the final draft.

REFERENCES

1. Allan Rosenthal. *Writing, Directing and Producing Documentary Films*. Southern Illinois University Press, 1990.
2. Gerald Kelsey, *Writing for Television*, A and C Black, London, 1990.
3. J. Michael Stracynski, *The Complete Book of Script writing: Television, Radio, Motion Pictures, The Stage Play*, Writers' Digest Books, 1982.

Course Code – VCM3B07

Course Title – Digital Video Production – I [Pre production]

Credits – 4

UNIT 1:

Conceiving the idea; Theme and story; Screen Play; Dialogue; Script development;

UNIT 2:

Budgeting, choosing the right equipments, Schedule and Location planning; audition for actors/actresses, Casting and scheduling; Role of production crew - Director, Assistant Director, Producer, Production Controller, Cinematographer/videographer; Camera assistant(s);

UNIT 3:

From script to story board; Objectives and structure of story board; story board styles; Story board exercises. Shot division of script; Shot types - Extremely long shots(ELS); Long shots(LS); Medium long shots(MLS); Medium close-up (MCU); Big Close-up(BCU); Extreme close up(ECU); Level angle shots; High angle shots; Low angle shots; Extreme wide shot.

UNIT 4:

Direction: Interpreting scripts and understanding characters; Review and Critique live and/or taped performances; Study and experience of the rehearsal process, prompt book with production concept, production notes; Fundamentals of acting, Theatre exercises, acting for media.

REFERENCES:

1. James Thomas. *Script Analysis for Actors, Directors, and Designers*. 3rd Edition. Focal Press, 1992.
2. Peter W. Rea & David K. Irving. *Producing and Directing the Short Film and Video*. Focal Press, 2001.
3. Michael Rabinger. *Directing the Documentary*. Focal Press, 1998.

Course Code – VCM4B08

Course Title – History of Cinema

Credits – 4

UNIT 1

Brief History of Film: Silent movies, the coming of talkies, black and white and colour; Film Technology from Chrono photography; Documentaries and feature films; Language of Cinema: visual composition - visual space, balance, contrast, depth of field; mise-en-scene; Shots, scene and sequence; Editing - formal and stylistic techniques Film as art, industry, and political instrument;

UNIT 2

Film Movements: German Expressionism – *The Cabinet of Dr. Calgari* (Robert Wiene); Soviet Montage – *Battleship Potemkin* (Sergei M. Eisenstein); Italian Neo-Realism – *The Bicycle Thieves* (Vittorio De Sica); The French New Wave – *Breathless* (Jean Luc Godard). Hollywood Cinema – *Citizen Kane* (Orson Welles); Westerns – *The Great Train Robbery* (Edwin S. Porter); Psychoanalysis in cinema – *Psycho* (Alfred Hitchcock)

UNIT 3

Nationalism & cinema: Korea – *Real Fiction* (Kim Ki Duk), Iran – *Children of Heaven* (Majid Majidi), Japan – *Rann* (Akira Kurasowa), Africa – *Gods must be Crazy* (Jamie Uys), Latin America – *The Motorcycle Diaries* (Walter Salles), Spanish – *Volver* (Pedro Almodavor), Greece – *Ulysses Gaze* (Theo Angelopoulos)

UNIT 4

Indian Cinema – brief history, great masters – *Charulata* (Satyajit Ray), *Mrigaya* (Mrinal Sen), *Subarna Rekha* (Ritwik Ghatak), *Bhumika: The Role* (Shyam Benegal), *Pokuvayil* (G. Aravindan), *Elipathayam* (Adoor Gopalakrishnan). Bollywood – entertainment, culture and film industry, masters such as *Kaagaz Ke Phool* (Guru Dutt) and *Aawara* (Raj Kapoor). Film censorship and certification, Cinema and Society.

Analyse suggested films for understanding narrative structure, cinematic techniques, camera movements, lighting and portrayal of characters, visual composition, scene analysis and maintain the record.

REFERENCE:

1. Andrew Dixx, *Beginning Film Studies*, New Delhi: Viva, 2005.
2. Bill Nichols. *Movies and Methods*. 2 Vols. Los Angeles: University of California Press, 1976.
3. Satyajith Ray. *Our Films, Their Films*. London: Hyperion, 1994.

Course Code – VCM4B09

Course Title – Digital Video Production – II [Cinematography]

Credits – 4

UNIT 1

Fundamentals of handling video camera systems – lenses, recorders, tripods/pedestals, dollies, cranes, cables; camera mounting and balance; Balancing camera in hands and on shoulders; Shallow focus and deep focus; camera movements – pan; tilt; zoom; track; crab; Safety measures in handling equipment.

UNIT 2

Shot types, Shot composition; Proportion; Rule of thirds; Framing; Pictorial balance; Continuity; Light positions; Taking different shots to convey idea(s), meaning and relationships; Master shots/establishing shot; Point of view shots; Cut-away shots; Retakes;

UNIT 3

Camera Lenses- aperture, focal length, lens angle and image size; Video gain; Exposure, Colour balance; DV Cam, HD, 2K, 4K, Video signals – composite, component – DVI, VGA, HDMI, SDI; Video recorders; Choosing the correct focal length - Zoom lenses; Camera Control Units (CCU); Camcorders; Multiple camera shoot.

UNIT 4

Lighting: natural light and created light; Basic light sources: key light, fill light and back light. Shading devices; Filters: Reflectors; Diffusers; Umbrellas; Light meters; matching outdoor- and indoor-light. Lighting techniques to create mood, time period and special effects.

REFERENCE:

1. Joseph Mascelli. *The Five C's of Cinematography*. Los Angeles: Silman James Press, 2007.
2. Leonard Maltin, *The Art of the Cinematographer*, Los Angeles: Focal Press 1978.
3. Blain Brown, *Cinematography: Theory and Practice: Image Making for Cinematographers, Directors, and Videographers*, New York, Focal Press, 1993.

Course Code – VCM5B10

Course Title – Theatre Production

Credits – 3

Unit 1:

Fundamentals of set design; Elements of Design and design principles; essentials of visual composition – balance and proportion, rhythm and movement, unity and harmony. Stage space – dramatic and physical space, designing for different theatre spaces; the ground plan.

Unit 2:

Acting: exploring the medium; recreating a character; movement and space; actors training; Character portrayal; objective, motivation and sub-text. Theories of acting; Performance theory; body and the challenges of acting; Physical theatre, Acting in classical theatre and experimental theatre. Folk theatre and forms and acting. Props, costume and make-up materials and techniques.

Unit 3:

Lighting: natural light and created light; Basic light sources – key light, fill light and back light. Shading devices; Filters: Reflectors; Diffusers; Umbrellas; Light meters; matching outdoor- and indoor-light. Lighting techniques to create mood, time period and special effects.

Unit 4:

Direction: Interpreting scripts and understanding characters; Review and Critique live and/or taped performances; Study and experience of the rehearsal process, prompt book with production concept, production notes, the rehearsal process; stages of developing a play; Theatre exercises, staging.

PRACTICAL:

Produce a record of acting exercises, review of live performances, analysis of select scripts OR produce a drama of 20mts duration.

REFERENCE

1. Bernard Frank Dukore. *Dramatic Theory and Criticism: Greeks to Grotowski*. New York: Holt Rinehart and Winston, 1974.
2. Mark Fortier. *Theory of Theatre: An Introduction*. 2nd Ed. New York: Routledge, 2002.
3. Marvin Carlson. *Theories of Theatre: A Historical and Critical Survey, from the Greeks to the Present*. Cornell University Press, 1995.

Course Code – VCM5B11

Course Title – Digital Video Production – III [Video Editing]

Credits – 4

UNIT 1:

Video editing equipment; Analog and digital; linear editing – AB Roll editing; edit controllers and mixers; Basic Non linear editing equipment and software – Avid/Adobe Premiere/Final Cut Pro/Express; Post production: shot logging; Metadata, Re-shoot; EDL; importing and organising video clips; time line tools; trimming clips; batch capturing.

UNIT 2:

Supporting the Editing Process: Playing multiple formats, working with master clips, Logging information in browser columns, Finding and labelling project items, Customizing shortcut keys and button bars; Applying Transitions, Viewing transition options, Modifying and copying transitions, Using the transition editor, Changing transition parameters, Previewing and rendering effects.

UNIT 3:

Selection of shots, timing, ordering of shots. Manipulating time through editing. Continuity, structuring a scene, structuring a film/program. Mixing Audio Tracks: Editing and organising audio effects, Monitoring and adjusting audio levels, Applying transitions to fade volume, Setting key frames to change volume, Using the audio mixer, Recording a narration track. Applying Filters: Applying and viewing video filters, Viewing and modifying filter parameters, Applying audio filters, Using a colour correction filter, Animating filters

UNIT 4:

Finishing and Outputting: Preparing the project for finishing, Detecting audio peaks, Adjusting video levels for broadcast, Exporting Quicktime files, Compressor, Outputting to tape, Making a time code window burn, Backing up projects.

PRACTICALS:

Exercises in any editing software; importing and assembling clips batch capturing, Video Editing: Use of transition devices. Audio Editing; Sound mixing.

REFERENCE:

1. James R. Caruso & Maris E Arthur, *Video Editing and Post Production*, Prentice-Hall, 1992.
2. Patrick Morris, *Non-linear Editing Media Manual*, Focal press, UK, 1999.
3. Charles Roberts. *Digital Video Editing with Final Cut Express*, 2007.

Course Code – VCM5B12

Course Title – Digital Video Production – IV (Audiography)

Credits – 4

UNIT 1

Perception of sound - hearing sensitivity - frequency, range - sound wave length - measuring sound - Basic setup of recording system - analog digital cables, connectors, Analogue to digital conversion. Microphone - types - unidirectional, bidirectional, omni directional, cardioids; direction, pickup pattern, noise, choosing the right mike, technique- sound reproduction devices - input devices – various sound file extension.

UNIT 2

Audio Studio Fundamentals: Introduction to Pro Tools, Installing Pro Tools and the Textbook's DVD contents, The Pro Tools Interface, Signal Flow, Gain Stages, I/O Setup, Types of Tracks, Creating a New Session in Pro Tools, Keyboard Shortcuts.

UNIT 3

Pro Tools Recording Techniques: Setting Recording Levels, Sample Rate and Bit Depth, Sound Wave Fundamentals, Deeper into Sampling, Sampling and Anti-Aliasing, Quantizing and Coding, Hard Drive Space Requirements, Disk Allocation, Session Parameters, Buffer Settings and Latency Times, The Basics of Microphones and Microphone Techniques, Pro Tools Preferences, Importing Audio and Session Data, Keyboard Shortcuts, Assignment: The Ultimate Recording.

UNIT 4

Recording: Busses, Playlists, Use of sound fx, dialogue, music. Equalisation. Balancing of levels – panning, mixing, creative use of sound track, the art of producing and recording Your Own Music, Memory Locations and Markers, Window Configurations and Arrangements, Using Inserts, The Basics of Effects Loops, Headphones and Headphone Mixes.

REFERENCE:

1. John Strutt & Baron Williams, *The Theory of Sound*, Rayleigh. 1996.
2. Francis Rumsay and Tim Mick. *Sound and Recording: An Introduction*. Oxford: Focal Press.
3. Collins Mike, *Pro Tools for Music Production: Recording, Editing*, Academic P, 2009.

Course Code – VCM5B13

Course Title – Visual Production Project Work

Credits – 3

Students should produce a short-film (fiction) or documentary of 5 minutes duration by maintaining records for all procedures including one-line, script, storyboard, scheduling, casting etc.

It is a group project and all students in the group must have a role in the project. The Visual Production project work will be evaluated by two examiners – one external, appointed by the University and an internal from the respective college.

Course Code – VCM6B14

Course Title –Management in Media

Credits – 3

UNIT 1:

Introduction to media management: basic management principles, Managerial skills in visual media production and promotion; Market for visual media products; market analysis and meeting the demand. Online marketing, mobsourcing.

UNIT 2:

Media production planning: production objectives/goals; Mobilising human resources – production crew and cast, contracts and call sheets; Acquiring/hiring equipment and properties; Booking studio floor and time, mounting sets, Out-door shoot planning – location search, suitability of locations; Seeking permission from legal and official bodies; Production schedules; logistics management; time management.

UNIT 3:

Film festivals & Film marketing. Financial management in visual media production; Budgeting basics, Budgeting for preproduction, production, Post production activities; Mobilising financial resources; cost cutting measures. Cash flow. Marketing of various rights.

UNIT 4:

Visual media laws: The Cinematograph Act 1952 and later amendments, Cable TV network Regulation Act; Broadcasting codes in India (Doordarshan); Cinematography Certification Rules 1983; Copyright laws; Limits of fair use; Video piracy; Cyber crime and cyber laws; Current copyright debates over such issues as file sharing, the on-line video, and remix culture.

REFERENCE:

1. Kundra S. *Media Management*. New Delhi: Soujanya Books, 2005.
2. Dibankar Panigrahy and P K. Biswasroy. *Media Management in India*. Kanishka Publishers, 1993.
3. Venkatlyer. *Mass Media Laws and Regulations in India*. India Research Press, 2002.

Course Code – VCM6B15

Course Title – New Media

Credits – 4

UNIT 1:

Introduction to Internet Journalism — Internet as a medium of communication, history of internet, characteristics of online journalism (immediacy, interactivity and universality), difference between websites and portals, Blogs, podcasts, search engines, online sites of leading media organizations/web servers/administrators, internet service providers

UNIT 2:

Online Reporting — Language and style of on – line journalism, tools for news gathering, floating pyramids in cyberspace, screen – chunk and scroll – page formats, characteristics of journalistic writing on the web (conciseness, scannability, objectivity, TOC, section summaries, bullets, numbered lists, keywords, additional headlines, shorter paragraphs, summary decks, pull quotes/callouts, story shell style, side bars, infoboxes, slide show, photo gallery, etc)

UNIT III:

Web Design — HTML/XML, hypertext, links, finding information on the Web, directories and search engines Linear and non–linear presentations, integration of design, graphics and visual computing, picture editing software, page design tools, typography and colour

UNIT 4:

Cyber Technology Trends— An overview of current trends in information technology, the ICE concept, digital convergence.

REFERENCE

1. Reddick, Randy Elliot King, *The Online Journalist*, Harcourt College Publishers, New York, 1997
2. Jane Dorner, *Writing for the Internet*, OUP, New York, 2002
3. Francis Botto, *Dictionary of Multimedia and Internet Applications*, John Wiley & Sons, New York, 1999
4. Domnick, Barry & Fritz, *Broadcasting, Cable, The Internet and Beyond: An Introduction to Modern Electronic Media*, Surjeet Publication, New Delhi, 2004

Course Code – VCM6B16

Course Title – Advertising

Credits – 4

UNIT 1

Definition, origin & growth, nature & scope, roles of advertising; Social, Communicational, Marketing & Economic - functions of advertising. Advertising and its role in the market; advertising industry in India - advertising as a process of communication - Social effects.

UNIT 2

Types of advertising: consumer, corporate, industrial, retail, cooperative and Public service advertising; reading the advertisement - review with current ad campaigns. Target audience, geographic area, Media & purpose. corporate & promotional advertising – web advertising.

UNIT 3

Advertising agency; Structure and functions; Leading agencies in India-Diversification and competition – full service agencies – multinational clients – challenges and opportunities. Latest trends in advertising (India& abroad) – Ad agency & its types, Structure of small, medium & big agencies, functions, services- legal aspects & ethical issues.

UNIT 4

Conceptualization & Ideation. visualization, designing & layout, copy-writing; types of headlines, body copy base lives, slogans. Logos & trademarks. Client Brief, Account Planning, Creative Strategy & Brief, Communication Plan, Brand management, Positioning, Brand personality, Brand image, Brand equity, Case studies. Advertising campaign: objectives, creative strategy: message, appeals, level of response, media Planning, advertising budget, pre testing and post testing.

REFERENCE:

1. Otto Kleppner, *Fundamentals of Advertising*, Prentice Hall, New Jersey, 1980.
2. Mariekae de Mooij, *Advertising Worldwide*, Prentice Hall, UK, 1994.
3. Mohan M, *Advertising Management Concepts and Cases*, Tata McGraw Hill; New Delhi, 1989.

Course Code – VCM6B17

Course Title – Visual Production Practical

Credits – 3

The examination will be of 5 hours duration and will be conducted by two examiners – one external, appointed by the University and an internal from the respective college.

(The internal marks will also cover the assessment of practical records of all papers.)

Course Code – VCM6B17

Course Title – Project Work

Credits – 2

The core course project should consist of any one of the following.

- a) Short film (7-10 minutes)
- b) Documentary (7-10 minutes)
- c) Video advertisement (maximum 1 minute).

A group comprises minimum of 4 students and each should have a director, editor, cinematographer, sound designer and script writer. External intervention other than acting is strictly prohibited in 6th semester project. The students should maintain the formal procedure of production and submit a record book of all the activities. Each production should be guided by a faculty. The project will be evaluated by two examiners – one external, appointed by the University and an internal from the respective college.

COMPLEMENTARY COURSE I

ELECTRONIC MEDIA

Sl No	Course Code	Course Title	Contact hours			External	Internal	Credits
			Theory	Lab	Total			
1	VCM1C01	Introduction to Electronic Media	3	0	3	80	20	3
2	VCM2C03	Radio Production	2	1	3	80	20	3
3	VCM3C05	Television Production	2	2	4	80	20	3
4	VCM4C07	E-Content Development	3	1	4	80	20	3
		Total (4 Courses)			14	320	80	12

Course Code - VCM1C01

Course Title - Introduction to Electronic Media

Credits - 3

UNIT I

Defining electronic media, Evolution of electronic media, age of wired transmission, telegraph, facsimile, telephone, receiver, teleprinter, co-axial cable, fibre optics, analog encoding, electronic modulation and multiplexing, electronic encryption. LAN, WAN, PAN, MAN.

UNIT 2

History of Wireless transmission, radio, television, satellite broadcasting, free space optics, internet : File Transfer Protocol and Real-Time Transport Protocol, mobile communication technology: GSM, CDMA and GPRS, to 3G, Wireless network technologies such as IrDA, Bluetooth, Wireless USB, Z-Wave, ZigBee Wireless LAN, interactivity, brain control interface.

UNIT 3

Introduction to Electronic Media Production, Basics of Radio and Television, Radio and TV in India. History of Electronic storage, paper tape, phonographic cylinder and disc, film, magnetic storage, RAM, Laser disc, compact disc, DVD, Blue Ray. Future of electronic media.

UNIT 4

Significance of electronic media: Fundamentals of the use of electronic media in Journalism, news, commerce, marketing, education, science, corporate communication, art, cinema. Satellite communications for transportation, aviation, maritime and military.

REFERENCE

1. Jitendra Kumar Sharma, *Print Media and Electronic Media: Implications for the Future*, Viva, 2006.
2. Susan Tyler Eastman & Douglas A. Ferguson, *Electronic Media: Programming Strategies and Practices*, Wadsworth, 2009.
3. Randeep Wadehra, *The History of the Evolution of Indian Electronic Media*, Sea Gull, 2007.

Course Code – VCM2C03

Course Title – Radio Production

Credits – 3

UNIT 1

History and evolution of radio; characteristics of the medium. Introducing radio formats: radio talk, interview, radio drama, chat shows, phone-in/phone-out programmes, running commentary, news bulletins, features, and documentaries; special abilities required for each format; writing techniques.

UNIT 2

Radio news - news-room management, news coverage, news formats, news presentation and structure and content of news bulletins. Theory of Sound- frequency, pitch, amplitude, timber; theory of broadcasting technology- AM, FM, SW, Long Wave, Satellite Radio, Internet Radio; recording and storing of sound- Wave Format, MP2 and MP3.

UNIT 3

Recording instruments - various types of microphones, speakers, headphones, sound recorders, recording software, multi-track music recording, special effects, mixing and dubbing. Role of radio broadcaster -announcer, disc jockey, radio host; 'on-air' techniques - performance, art of interviewing, speed, breathing, emphasis and pitch.

UNIT 4

Radio in India -public service broadcasting and All India Radio, private commercial broadcasters, educational radio, community radio in the West, scope of community radio in India, the Indian Audience and the revival of radio after the television boom.

REFERENCE

1. Robert McLeish, *Radio Production*, 3rd Edition, Focal Press, 2008.
2. U. L. Baruah, *This is All India Radio*, Sage Publications, 2005.
3. Carl Hausman, Philip Benoit, Lewis Donnell. *Modern Radio Production, Programming and Performance*, O'Reilly Media, 2005.

Course Code – VCM3C05

Course Title – Television Production

Credits – 3

UNIT 1

Production planning, pre-production planning-duties and responsibilities of producer/director. Production techniques- Camera for TV, Single camera and Multi-camera productions, treatment, screenplay, shoot, script, storyboard; documentary, serial, talk show, interview, demonstration, discussion, profiles, commercials.

UNIT 2

Set designing and make up – visualization and composition-aesthetics-directing the actors-directing the crew. Planning and Production of indoor and outdoor shootings, planning and management of live shows. Multi-camera productions – live telecast – switchers

UNIT 3

Video display systems. Lighting systems- Lighting methods and needs. Mike positioning and arrangements. Shooting plans and backgrounds. Camera, lenses, frame, shots, angle, moving frame, dolly, trak, truck, crane, pedestal, handheld, steady, chroma key, 180⁰ system, establishing shot, shot, continuity.

UNIT 4

Post-production editing for commercials; for news reporting; for live programmes. Narrative editing and non-narrative editing, sound for television, digital audio workstation. Effective

shots, File shots, Footages, Special effects. graphics and animation, Chroma key usage and Economy shooting methods.

REFERENCE:

1. Jeremy G. Butler, *Television: Critical Methods and Applications*, Blueprint, London, 1995.
2. Gerald Millerson & Jim Owens, *Video Production Handbook*, Focal Press, 2004.
3. Catherine Kellison, *Producing for TV and Video*, Focal Press, 1999.

Course Code – VCM4C07

Course Title – E-Content Development

Credits – 3

UNIT 1:

Introduction to E-Content Development. Definitions of e-content, Types of e-content, Examples of e-content. Scope and career opportunities in e-content development.

UNIT 2

Introduction to Instructional Design and Learning Theories. Definitions of instructional design. Bloom's taxonomy for the cognitive domain. The ADDIE model, Rapid prototyping or Successive Approximation Method (SAM), ARCS model. (Keller), Kirkpatrick's evaluation model

UNIT 3

Basics of E-Content Development. Learner needs analysis, Design document, Course map, Writing learning objectives. Content analysis, Content chunking, Working with SMEs. Storyboarding for e-content. The e-content development cycle. E-content development tools. Multimedia elements: Working with graphics, animation, narration and audio. Technical considerations: Introduction to LMS, LCMS, SCORM and AICC.

UNIT 4

Instructional Strategy for E-content Development. Learner Engagement: Engaging learners through interactivity, branching, visualization of content. Types of interactivity for e-content: Point and click, drag and drop, text-input, match, system process simulations. Presentation Strategy: Scenario-based learning, Game-based learning, Virtual coaches and avatars. Cognitive overload: Ways to avoid. Assessments: Types of assessment, Types of feedback,

Monitoring the learner's progress through CYUs and self-assessments. Different ways of delivering e-content: Synchronous versus asynchronous

PRACTICAL

E-Content Development Tools

Basics of Web Programming using HTML

Creating e-content with Adobe Articulate

Creating e-content with Adobe Captivate

REFERENCE

1. Ruth C. Clark & Richard E. Mayere, *E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning*, Pfeiffer, 2011.
2. Julie Dirksen, *Design For How People Learn*, New Riders Publishing, 2011.
3. William Horton, *e-Learning by Design*, Pfeiffer, 2011.

COMPLEMENTARY COURSE II

DIGITAL MEDIA

Sl No	Course Code	Course Title	Contact hours			External	Internal	Credits
			Theory	Lab	Total			
1	VCM1C02	Introduction to Computers	3	0	3	80	20	3
2	VCM2C04	Computer Graphics – I [Media Design]	2	1	3	80	20	3
3	VCM3C06	Computer Graphics –II Multimedia	2	2	4	80	20	3
4	VCM4C08	Web Design	2	2	4	80	20	3
		Total (4 Courses)			14	320	80	12

Course Code – VCM1C02

Course Title – Introduction to Computers

Credits – 3

UNIT 1:

Computer basics – CPU, memory and storage devices; input/output devices; communication devices; operating systems – DOS, Windows, Linux, Unix; Cross-platforms problems and solutions; workstations; networks.

UNIT 2:

Analog and digital principles; image formats; video formats; resolutions and pixels; Vector and Raster graphics. Introduction to Algorithm, uses of Algorithm in computer graphics. Application of multimedia in education, commerce, advertising, e-governance and entertainment.

UNIT 3:

Fundamentals of Programming with Java. Object Oriented Programming. Evolution: Features, Environment, JFC. Constants, Variables & Data Types. Operators and Expressions. Basics of Decision Making : Branching, Looping.

UNIT 4:

Classes, Objects and Methods. Arrays, Strings and Vectors. Interfaces. Packages. Multi-threaded Programming. Exceptions. Applet Programming. Graphic Programming. Managing Input/Output files. Java Collection. JDBC. Concepts of J2EE

REFERENCE

1. E. Balaguruswami, *Programming with Java a Primer*, 3rd Edition, Tata McGraw-Hill, 2008
2. Andy Harris, *Java 2-Fast and Easy Web Development*, Prentice-Hall

Course Code – VCM2C04

Course Title – Computer Graphics – I [Media Design]

Credits – 3

UNIT 1

Foundation for learning animation, introduction to animation, Animation techniques, Basic Drawing with forms, Figure drawing: Basic Pose and Construction, Perspectives, Gesture drawing, Animation principles and their applications.

UNIT 2

Idea and concept, Acting and expressions, Script writing, Copy writing, Character design, Background and lay outs, Voiceovers, Storyboards, Leica reels/Animatics.

UNIT 3:

2D animation, Traditional 2D Animation, Cleanup (CU), In Betweens (IB), Timing Charts (X Sheets), Pencil Tests, Compositing.

UNIT 4

Graphics Softwares: Adobe Photoshop, Adobe Illustrator, Adobe Flash.

REFERENCE:

1. Russell N. Baird, *The Graphic Communication*, Holt, Rinehart and Winston, Canada, 1987.
2. Jerry Palmer & MacDodson, *Design and Aesthetics*, Routledge, London, 1995.
3. John Christopher Jones, *Design Methods*, Wiley, 1992.

Course Code – VCM3C06

Course Title – Computer Graphics -II Multimedia

Credits – 3

UNIT 1:

Definition of Multimedia. Multimedia systems. Multimedia elements. Multimedia applications. Multimedia system architecture. Multimedia file formats, standards.

UNIT 2:

Concept creation, story boarding, scripting and project developing methods. 3D designing and Animation dynamics - lens, effects, ray tracing, lighting, shading, reflection, texturing techniques.

UNIT 3:

3D animation using Maya, Animation Principles in 3D, Concepts of light and shading, Clay modeling, Basic 3D modeling using Maya, Basic Texturing using Maya, Introduction to Rigging and animation using Maya, rendering.

UNIT 4:

Dynamics and Vfx: Pre Production For Maya FX, Texturing and Lighting, Advanced Texturing and Lighting, Dynamics, Particles, Real Flow, Maya and Combustion, Advanced Maya and Combustion.

REFERENCE:

1. Ze-Nian Li and Mark S. Drew, *Fundamentals of Multimedia*, Prentice-Hall, 2004.
2. William W. Lee, *Multimedia-Based Instructional Design: Computer-Based Training, Web-Based Training, and Distance Learning*, Prentice-Hall, 2010.
3. Jenifer Tidwell, *Designing Interfaces: Patterns for Effective Interaction Design*, London, O'Reilly Media, 2005.

Course Code – VCM4C08

Course Title – Web Design

Credits – 3

UNIT 1:

Introduction to HTML. HTML Tags and their applications. Commonly used HTML Commands. Structure of an HTML program., Document Head. Document Body. Lists-Types of Lists (Unordered List (Bullets), Ordered Lists (Numbering), Definition Lists). Adding Graphics to HTML Documents.

UNIT 2:

Internet technology. History of the World Wide Web. Web documents. Web servers, apache. browsers and Web spiders. Search engines and applications. Mirror sites. E-commerce. E-learning. E-Examinations. Active Server Pages – ASP, PHP. Personal Home Pages. URLs and Call activations.

UNIT 3:

Multimedia application classes. Flash video, iptv. Video conferencing, Live streaming. Hypermedia mails. Content management systems. Joomla, Wordpress.

UNIT 4:

Using tables for webpage design. Linking Documents. Links (External Document References, Internal Document References); Images as Hyperlinks (Image Maps). Frames and their usage. Methods of creating web pages- in-line frames, handling of media elements in web pages. Dreamweaver, Javascript, Flash (action script).

REFERENCE

1. Thomas Powell, *Web Design: The Complete Reference*. Tata McGraw-Hill, 2000.
2. Graham L, *The Principles of Interactive Design*. Thomson Learning, 1999.
3. Patrick Xavier, *World Wide Web with HTML*, Tata McGraw- Hill, 1996.

OPEN COURSES FOR OTHER PROGRAMMES

Sl No	Course Code	Course Title	Contact hours			External	Internal	Credits
			Theory	Lab	Total			
1	VCM5D01	Basic Photography	3	0	3	40	10	2
2	VCM5D02	Advertising	3	0	3	40	10	2
3	VCM5D03	Radio Production	3	0	3	40	10	2

Course Code - VCM5D01

Course Title - Basic Photography

Credits - 2

UNIT 1

Basics of Camera: aperture, shutter speed, focal length, depth of field - Camera operations - Types of Camera, Types of Lenses.

UNIT 2

Understanding Lighting- Types of lighting, Natural and Artificial Lights, Exposure Meters, Differential focus, Filters, Flashes. Designing with light.

UNIT 3

Image editing - Colour profiles, colour management, colour modes- Photoshop. Special effects techniques-

UNIT 4

A brief history of Photography - Basics of Photo-Journalism, Photo-features, Photo-essays,

REFERENCE:

4. Michael Langford, *Basic Photography*, Focal Press, 2005.
5. Michael Langford, *Advanced Photography*, Focal Press, 2008.
6. Mitchell Bearley & John Hedgeese, *New Introductory Photography Course*, Read Book, 2005.

Course Code – VCM5D02

Course Title – Advertising

Credits – 2

UNIT 1

Definition, origin & growth, nature & scope, roles of advertising - advertising as a process of communication - Social effects.

UNIT 2

Types of advertising: consumer, corporate, industrial, retail, cooperative and Public service advertising - corporate & promotional advertising – web advertising.

UNIT 3

Advertising agency; Structure and functions – Ad agency & its types.

UNIT 4

Conceptualization & Ideation. visualization, designing & layout, copy-writing; types of headlines, body copy base lives, slogans. Logos & trademarks - Advertising campaign.

REFERENCE:

4. Otto Kleppner, *Fundamentals of Advertising*, Prentice Hall, New Jersey, 1980.
5. Mariekae de Mooij, *Advertising Worldwide*, Prentice Hall, UK, 1994.
6. Mohan M, *Advertising Management Concepts and Cases*, Tata McGraw Hill; New Delhi, 1989.

Course Code – VCM5D03

Course Title – Radio Production

Credits – 2

UNIT 1

History and evolution of radio; characteristics of the medium - Kinds of radio stations - Types of radio formats

UNIT 2

Radio news - newsroom management, news coverage, news formats, news presentation and structure and content of news bulletins.

UNIT 3

Recording instruments - various types of microphones, speakers, headphones, sound recorders, recording software, multi-track music recording, special effects, mixing and dubbing.

REFERENCE

4. Robert McLeish, *Radio Production*, 3rd Edition, Focal Press, 2008.
5. U. L. Baruah, *This is All India Radio*, Sage Publications, 2005.
6. Carl Hausman, Philip Benoit, Lewis Donnell. *Modern Radio Production, Programming and Performance*, O'Reilly Media, 2005.