

Deccan Education Society's
FERGUSSON COLLEGE, PUNE
(AUTONOMOUS)

**SYLLABUS FOR T Y B Sc PHOTOGRAPHY AND
AUDIO VISUAL PRODUCTION (Vocational)**

SEMESTER - V
Effective from Academic Year 2018-2019

PREAMBLE:

UGC introduced the concept of vocationalization of the first degree way back in the year 1994. Fergusson College was awarded the vocational course in Photography and Audio Visual Production under this programme in the same year. Fergusson College is the only college to offer such course at the UG level. The course is introduced as a vocational course, at par with the traditional subjects.

At the first and the second year of the B Sc it is offered as an independent subject. There are two theory courses and one practical course at the first and the second year.

This course is a part of the B Sc (Physics) programme at the third year of the degree. It is in place of the theory course 5, 6 and practical course.

Students offering the vocational course are more privileged due to their vocational training along with the conventional knowledge based curriculum. This feature forms the basis for framing the syllabus. Due importance is given to the theoretical component vis-à-vis its application keeping up the academic foundation.

Curriculum for the first year introduces the world of media and communication in general and photography in particular. The course is designed to train students to learn camera handling skills and elementary image processing techniques so that they can assist a senior photographer. They are also introduced to various media and their role / impact in society and personal life.

The second year curriculum evolves to train and prepare students to take up commercial photography assignments on their own. All the studio assignments and the image processing assignments are designed so that students are thoroughly trained in all advanced skills of photography and image processing. Students also work on some group assignments when they learn how to work in a group and develop team spirit.

Sound plays an important role in media. A course on 'Acoustics and Sound for Media' is designed to train students to use various sound equipment used in media. Some assignments are also designed to train students in recording and editing sound in a studio.

The third year syllabus is designed to train students to acquire skills useful in the video / film industry. The theory courses are designed to make students aware of the technology and the basic fundamentals of the video / film industry.

The syllabus at the third year is more practical oriented. The assignments in the four practical courses at the T Y level are designed to train the students in every aspect of video production. Each assignment will give them hands-on experience of various aspects of audio-visual

production. Students will be producing a video documentary at the end of the fifth semester. They will produce a social advertisement and a short film at the end of the sixth semester. It will provide a great learning experience for students.

A course on Entrepreneurship Development designed for the sixth semester, will help students to plan and develop their career independently.

**Deccan Education Society's
FERGUSSON COLLEGE (AUTONOMOUS), PUNE 411004
Scheme of Course Structure (Faculty of Science)
2018-2019**

**T. Y. B.Sc.
Vocational Course Photography and Audio Visual Production**

Semester	Code	Course Title	Credits
V	VPH3501	Video Recording and Playback Systems*	3
	VPH3502	Video Production*	3
	VPH3503	Practical Paper - I*	2
VI	VPH3601	Entrepreneurship Development*	3
	VPH3602	Radio Production*	3
	VPH3603	Practical Paper - II*	2
	VPH3604	Practical Paper - III: *	2
	VPH3605	Practical Paper - IV: Project*	2

Note: For semester V:

1. *Students opting for vocational photography at F Y B Sc and S Y B Sc should select VPH3501, VPH3502 and VPH3503.
2. * VPH3503 is in place of PHY3503

Note: For semester VI:

1. *Students opting for vocational photography at F Y B Sc and S Y B Sc should select VPH3601, VPH3602, VPH3603, VPH3604 and VPH3605
2. * VPH3603, VPH3604 and VPH3605 are in place of PHY3603, 3604 and 3605 respectively.

**T. Y. B. Sc. (PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION, VOCATIONAL)
SEMESTER - V
PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION PAPER - I
TITLE: VIDEO RECORDING AND PLAYBACK SYSTEMS
PAPER CODE: VPH3501**

[CREDITS - 3]

Learning Objectives:

1. To understand the science and the technology involved in video recording and reproduction.
2. To get familiar with the evolving trends in the video recording and reproduction techniques.

	Title and Contents	No. of Lectures
Unit - I	<p>Introduction Comparison of between audio and video signals, difficulties in recording and replay of video signals. Generation of video signals. Vidicon camera tube. Charge coupled device. B/W and colour TV camera. Digital camera. Camera adjustments and related terms. Comparison between film and video tape recording. Transmission of TV signal. OB Van: its constitution and applications. Digital TV standards.</p>	12
Unit - II	<p>Black and White and Colour TV Principles of scanning and synchronization. Composite video signal. B/W and colour picture tubes. Principles of colour. PAL colour signal. Vestigial sideband transmission. B/W TV and its working. Colour TV and its working. Modern trends in TV display. Plasma TV, LCD TV, LED TV and their working. (Each of these should be discussed with appropriate block diagrams).</p>	8
Unit - III	<p>Recording of video signal Recording of video signal on a video tape. Transverse and helical scan. Need for rotating head mechanism, frequency modulation of video signal before recording. Tape transport mechanism and track survey. Block diagram of record / playback electronics in a VCR, VHS system.</p>	8
Unit - IV	<p>Recording Media Principle of recording and replay on ACD, VCD etc. Eight to fourteen modulation, digitization error detection and correction, CLV for disc rotation. Optical pick up system, focusing and tracking systems. Block diagram for VCD player. Principles, capacity for DVD. Block diagram for DVD player. Principle of data compression techniques. Principles of blue ray disc and its comparison with DVD. Block diagram of blue ray disc player. Home theatre system. Magnetic video disc machine (slow motion disc) Digital TV, Principles of HDTV and block diagram of HDTV, HD camera.</p>	8

Reference Book:

1. Audio Video Systems Principles, Practice and Troubleshooting; S. P. Bali and Rajeev Bali; Khanna Book Publishing Co. (P), Ltd., New Delhi.

T. Y. B. Sc. (PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION, VOCATIONAL)
SEMESTER - V
PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION PAPER - II
TITLE: VIDEO PRODUCTION
PAPER CODE: VPH3502

[CREDITS - 3]

Learning Objectives:

1. To expose students to various aspects of a video production.
2. To develop skills required for the video production industry.
3. To develop the writing skills required for a script writer.
4. To get familiar with various formats and genera of video programming.

	Title and Contents	No. of Lectures
Unit - I	Film review and film appreciation: Screening some classic films to understand various aspects of film making.	12
Unit - II	<p>Preproduction</p> <p>A: Planning for video production: Choosing subjects, formats, resource persons, locations etc. Scheduling production work. Administration and management of resources and manpower. Rehearsals, visits to locations, coordination and financial management. programme formats.</p> <p>B: Script writing: Concept building, storyline formation, script writing for different programme formats (feature, documentaries, news reports, fiction / non-fiction). Writing for TV plays, serials etc.</p> <p>C: Screen play: Writing for different formats</p> <p>D: Proposals: Writing a proposal for video production</p>	12
Unit - III	<p>Production</p> <p>Production personnel and facilities:</p> <p>A. Equipment: Camera, recorders, Camera lenses, framing, white balance, camera movements (pan, tilt, and dolly) and camera angles, Types of shots, Composition and planning of shots, Continuity, Support between the producer and the camera crew</p> <p>B. Personnel: Production team, Production personnel (Producer, Director), Production assistant, Cameraperson, Researchers, Performers or talent. Technical personnel: Sound recorder, Lighting assistants, Ser / property and wardrobe assistants Make-up artist. Editors, effects and post production personnel</p> <p>Lighting indoors and outdoors: Different light sources, Indoor lighting (Key, Fill and Back lighting, Lighting for characters), Use of filters. Outdoor lighting (Natural light, use of reflectors, scrims)</p>	12
Unit - IV	<p>Post production</p> <p>Video editing: Video editing basics, Line of action, Continuity,</p>	12

	<p>Transitions (Fades, Dissolves, Wipes, Cuts), Graphics / Animations, Sound mixing, Dubbing, Voice over, Music, Background music, colour correction</p> <p>Publicity: Promos, Publicity and Marketing</p>	
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Reference Books:

1. Video Production Handbook 2nd Ed; Gerald Millerson; Focal Press; (1992).
2. Key Concepts & Skills for Media Studies; Vivienne Clark, James Baker, Eileen Lewis; Hodder & Stoughton, (2003).
3. Visual Effects in Cinematography; Zoran Perisic; Focal Press; (2000).
4. Picture Composition for Television and Film; Peter Ward; Focal Press; (2003).
5. The Technique of Lighting for Television and Film, 3rd Ed; Gerald Millerson; Focal Press; (1991).
6. Audio Post Production: For Film and Television; Mark Cross; Berklee Press; (2013).
7. In the Blink of an Eye: A Perspective on Film Editing, 2nd Ed; Walter Murch; Silman-James Press; (2001).
8. Audio Production and Postproduction (Digital Filmmaker); Woody Woodhall; Jones & Birtlett Learning; (2010).
9. Producing Great Sound for Film and Video: Expert Tips from Preproduction to Final Mix; 4th Ed; Jay Rose; Routledge; (2014).
10. The Complete Film Production Handbook; 4th Ed; Eve Light Honthaner; Focal Press; (2010).
11. Cinematography: Theory and Practice: Image Making for Cinematographers and Directors (Volume 3); 3rd Ed; Blain Brown; Routledge; (2016).

T. Y. B. Sc. (PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION, VOCATIONAL)
SEMESTER - V
TITLE: PRACTICAL PAPER - I
PAPER CODE: VPH3503

[CREDITS - 2]

OBJECTIVES:

1. To introduce the basic concepts involved in video production.

	Title of Assignment
1	Basic Film review
2	Concept building and story line formation
3	Film production stages (Film crew)
4	Study of video camera (Exposure settings and composition)
5	Types of shot (shot division)
6	Basic camera movements
7	Introduction to video editing
8	3 shot exercise
9	Introduction to screen play
10	9 shot exercise
11	Editing the 9 shot exercise

Note:

1. All the assignments and practicals are designed and conducted so that the students acquire video camera handling skills and video editing skills.
2. Students will work on one group (2-3 students) assignment and one individual assignment related to a given topic.
3. Students will cover various events on the college campus and maintain a stock of photographs.

Examination: Students will be producing a video documentary of about 6-9 shots.

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**SYLLABUS FOR T Y B Sc PHOTOGRAPHY AND
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SEMESTER - VI
Effective from Academic Year 2018-2019

**T. Y. B. Sc. (PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION, VOCATIONAL)
SEMESTER - VI**

PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION PAPER - I

TITLE: ENTREPRENEURSHIP DEVELOPMENT

PAPER CODE: VPH3601

[CREDITS - 3]

Learning Objectives:

1. To create awareness about self-employment and motivate students to go for self employment.
2. To understand entrepreneurship concepts and their applicability.
3. To expose students to the practical world of business

	Title and Contents	No. of Lectures
Unit - I	<p>A: Introduction Concept of entrepreneurship, Historical background, Need and scope of entrepreneurship in modern society, Entrepreneurship behavior, attributes and skills, Barriers of entrepreneurship and means to reduce them</p> <p>B: Business organization Forms of business organization such as Proprietorship, Limited Liability Partnership (LLP), Partnership, Private Limited & Public Limited Co.</p> <p>C: Legal aspects of small business: Elementary knowledge of Income Tax, Sales Tax, VAT, Service Tax, Patent rules, Excise rules, Factory Act and Payment of Wages Act, Procedures for registration of Small Scale Industries.</p>	12
Unit - II	<p>Understanding Finance: Study of Balance sheet, Profit & Loss statement, Fund flow, Concept of depreciation, Returns of Investments (ROI), Working Capital, Capital, Preparing Project report.</p> <p>Sources of Finance:</p> <ol style="list-style-type: none"> 1. Equity - Angel finance, Venture Capital 2. Debt Finance - Loans from banks loan against co-lateral security, PMYR - Loans with subsidy from Central Government, State Government, CGTSME (Central Grant For Small Medium Enterprise) 	12
Unit - III	<p>Marketing: Meaning, scope and importance, Marketing strategy, Marketing segmentation, Market size, various marketing channels, Digital marketing through Web browsing, Facebook, Google search engines, SMS campaigns, Mailers, Handbills etc. Salesmanship, selling a product, generating enquiry, how to select prospective, presentation, closing of sale.</p>	12
Unit - IV	<p>Generation of innovative ideas and preparation of business plan:</p> <ol style="list-style-type: none"> 1. Introduction to innovative idea (techno-scientific ideas), Copyright and IPR 	12

	2. Financial planning, budgeting, finance management	
	3. Human resource planning and management	
	4. Project management, process and product management	
	5. Marketing management	

Reference Books:

1. Dynamics of Entrepreneurial Development and Management; Shri. Vasant Desai.
2. Business Environment; Dr. G. V. Kayande Patil.
3. Basic Communication Skills; P. Kiranmai Dutt & Geetha Rajeevan; 2000.
4. A Guide to Small Scale Entrepreneurs; Director of Industries, Govt. of Tamil Nadu, Chennai, Latest edition
5. Entrepreneurship and Small Business Management; Dr. C. B. Gupta & Dr. Khanna.
6. Project Management; K. Nagarajan.
7. Entrepreneurship Ideas in Action; Cynthia L. Greene (YCMOU) Edition.

Note: Students will prepare a business plan and present it in the form of a project report.

T. Y. B. Sc. (PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION, VOCATIONAL)
SEMESTER - VI
PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION PAPER - II
TITLE: RADIO PRODUCTION
PAPER CODE: VPH3602

[CREDITS - 3]

Learning Objectives:

1. To understand Radio as a medium of mass communication.
2. To develop skills required in Radio production.
3. To develop the writing skills required for a radio script writer.

	Title and Contents	No. of Lectures
Unit - I	<p>Radio:</p> <ol style="list-style-type: none"> 1. Media introduction & functions 2. Radio: characteristics and advantages 3. Introduction to Radio as a medium of mass communication and its characteristics 4. Organization and management of AIR audience research units. 5. International Radio Broadcasting (BBC, VOA etc.) 	8
Unit - II	<p>Structure of Radio:</p> <p>FM stations: Community radios, Role, Significance and Limitations</p> <p>Commercial Radio: Copy writing for 'ad'</p> <p>Internet / web radio: Radio of the future</p>	08
Unit - III	<p>Radio Programmes:</p> <p>A:</p> <ol style="list-style-type: none"> 1. Music: Role of music in AV production (folk, classical, semi-classical, instrumental, film music) 2. Writing for radio: its importance and difference from print media 3. Talks and talk-lets over radio and their varieties 4. Interviews: a fascinating art of radio / TV programming 5. Feature programs over radio and their characteristics 6. Educational programmes 7. Theme based programmes 8. Special audience programs <p>B:</p> <ol style="list-style-type: none"> 1. Outdoor broadcast programs over Radio and linking communications. 2. Present conditions of Radio and Government policy of Broadcasting. 3. Efforts in making Radio free from Government. 4. Radio news: Gathering, processing and production of news for Radio. 	20

Unit - IV	Ethics of Broadcasting: AIR code, Advertising code, Copyright and Royalty.	8
References:		
<ol style="list-style-type: none"> 1. Broadcasting in India; P. C. Chatterjee; Sage; New Delhi. 2. Broadcast Journalism; Boyd Andrew; Focal Press; London. 3. News Writing for Radio and TV; K. M. Shrivastava; Sterling Publication, New Delhi. 4. This is All India Radio; U. L. Baruah; Publications Division. 5. VANI: Culture your voice; Prasar Bharati Publication. 		

Note:

1. **Sessions related to programmes will be conducted in a recording studio.**
2. **Recording assignments are designed to expose students to gain hands on experience in production and post production process involved in a recorded programme.**

T. Y. B. Sc. (PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION, VOCATIONAL)
SEMESTER - VI
TITLE: PRACTICAL PAPER - II
PAPER CODE: VPH3603

[CREDITS - 2]

Learning Objectives:

1. To help students to acquire higher level skills in camera handling and video editing required in the video / film industry.
2. To encourage students to think creatively.
3. To develop team spirit and leadership qualities.
4. To prepare students to take up independent projects.

	Title of Assignment
1	Screenplay, Script Writing
2	2 Shot Assignment
3	Multilayer Assignment
4	Advanced Camera movements (with track-trolley)
5	Demo of multi camera setup with assignments
6	Radio Interview
7	Radio - Theme based program (musical)
8	Radio - Story telling
9	Radio - (group) Panel discussion
10	News reading for radio
11	Advanced Film Appreciation (Film review)
12	Social Advertisement

Note:

1. All assignments and practicals are designed and conducted so that the students acquire higher level skills in video camera handling video editing skills.
2. Students will work on one group (2-3 students) assignment and one individual assignment related to the given topic.
3. Students will cover various events on the college campus and maintain a stock of photographs.

Examination: Editing the given 9 shot footage.

**T. Y. B. Sc. (PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION, VOCATIONAL)
SEMESTER - VI
TITLE: PRACTICAL PAPER - III
PAPER CODE: VPH3604**

[CREDITS - 2]

Learning Objectives:

1. To help students to acquire higher level skills in lighting for video and in sound recording required in the video / film industry.
2. To encourage students to think creatively.
3. To develop team spirit and leadership qualities.
4. To prepare students to take up independent projects.

	Title of Assignment
1	Understanding visual style
2	Lighting demo and creating effects
3	Sound recording
4	Dubbing and Sound Designing
5	Location sound recording (with multiple microphones)
6	News capsule (With chroma lighting)
7	Recording and editing a 2 minute interview for video
8	Budgeting & proposals for video project

Note:

1. All the assignments and practicals are designed and conducted so that the students acquire higher level skills in video camera handling video editing skills.
2. Students will work on one group (2-3 students) assignment and one individual assignment related to a given topic.
3. Students will cover various events on the college campus and maintain a stock of photographs.

Examination: Sound mixing, sound design and dubbing.

**T. Y. B. Sc. (PHOTOGRAPHY & AUDIO-VISUAL PRODUCTION, VOCATIONAL)
SEMESTER - VI
TITLE: PRACTICAL PAPER - IV (PROJECT)
PAPER CODE: VPH3605**

[CREDITS - 2]

Learning Objectives:

1. To train students to work as a team.
2. To expose students to all aspects of film making.
3. To develop leadership qualities.

Students will work as a team of 4-5 members and produce a short film of 8-10 minute duration. They will also arrange for the publicity and screening of the film, they produce.

Examination:

Every aspect of film production will be assessed individually and as a team.