

# **B.Sc. Multimedia**

**Syllabus - June 2011**



## **Department of New Media Technology**

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## New Media Technology

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## Courses Offered

## BSc Multimedia

**Eligibility:** *Pass in Class 12 or equivalent*

**Duration : 3 years**

## BSc Graphics and Animation

**Eligibility:** *Pass in Class 12 or equivalent*

***Duration : 3 years***

The Undergraduate courses prepare a student to be part of the digital industry as a creator of content with focus on the convergence of text, video, sound, graphics and animation. Starting from a basic concept learning of computers, communicative language and social science, students gradually move towards professional skills development in multidimensional animation or interactive media design including website development and digital video post-production. In each of these areas, students will gain design skills, technical skills and develop their creative abilities.

The project work in the final year, is a unique experience and showcase for students' creativity, technological skills, and engagement with the field of Multimedia, Graphics and Animation. Students gain a wide range of experience and skills by creating independent and group projects utilizing audio, video, animation, digital games, web and graphic design, and programming. As a requirement, the student works towards a professional presentation that forms part of a final evaluation. This process is done in close collaboration with a Guide from the Department , who will facilitate progress through the course.

## **Career Opportunities**

Completing this programme will enable the student to work as a graphic designer, art director, desktop publisher, typography designer and illustrator in businesses such as graphic design studios, marketing consultancies, advertising agencies, and for newspapers, magazines and book publishers. In addition, employment may be found as an in-house designer for companies or state supported institutions, or you may choose to freelance or start your own graphic design business.

Also, Graduates will be sufficiently skilled and versatile to map their careers in the filming, broadcasting, advertising, new media and design industries as: Animators, Motion graphics designers, Information designers, Interaction designers, Web designers, Video editors, Video compositors, Digital photographers, etc.

## **Department of New Media Technology**

### **Scheme for B.Sc. (Multimedia)**

#### **SEMESTER -1**

Subject Code	Subject Name	Contact Hours			Marks			
		L	T	P	Th	P	IA	Total
1BSC(MM)1	Fundamentals of Computers & Operating System	4	1		80	-	20	100
1BSC(MM)2	Fundamentals of Multimedia	4	1		80	-	20	100
1BSC(MM)3	PC Packages	4	1	3	50	30	20	100
1BSC(MM)4	Principles of Art	4	1	3	50	30	20	100
1BSC(MM)5	Science of Communication	5			80	-	20	100

**\*\*L- Lecture, T-Tutorial, P-Practical, Th-Theory, IA - Internal Assessment**

#### **SEMESTER -2**

Subject Code	Subject Name	Contact Hours			Marks			
		L	T	P	Th	P	IA	Total
2BSC(MM)1	Digital Art & Digital Photography	4	1		80	-	20	100
2BSC(MM)2	Basic Mathematics	4	1		80	-	20	100
2BSC(MM)3	Desk Top Publishing	4	1	3	50	30	20	100
2BSC(MM)4	Internet & Web Designing	4	1	3	50	30	20	100
2BSC(MM)5	Communicative Hindi	5			80	-	20	100

**\*\*L- Lecture, T-Tutorial, P-Practical, Th-Theory, IA - Internal Assessment**

#### **SEMESTER -3**

Subject Code	Subject Name	Contact Hours			Marks			
		L	T	P	Th	P	IA	Total
3BSC(MM)1	Animation Technology	4	1		80	-	20	100
3BSC(MM)2	Digital Art Designing & Image editing	4	1	3	50	30	20	100
3BSC(MM)3	Sound Editing	4	1	3	50	30	20	100
3BSC(MM)4	Social Science	5			80	-	20	100
3BSC(MM)5	Script Writing and Story Boarding	5			80	-	20	100

**\*\*L- Lecture, T-Tutorial, P-Practical, Th-Theory, IA - Internal Assessment**

## SEMESTER -4

Subject Code	Subject Name	Contact Hours			Marks			
		L	T	P	Th	P	IA	Total
4BSC(MM)1	Multimedia Databases	4	1		80	-	20	100
4BSC(MM)2	3D Fundamentals & Design with 3D Max	4	1	3	50	30	20	100
4BSC(MM)3	Principles of Digital Film Making	4	1	3	50	30	20	100
4BSC(MM)4	Communicative English	5			80	-	20	100
4BSC(MM)5	Video Editing	4	1	3	50	30	20	100

**\*\*L- Lecture, T-Tutorial, P-Practical, Th-Theory, IA - Internal Assessment**

## SEMESTER -5

Subject Code	Subject Name	Contact Hours			Marks			
		L	T	P	Th	P	IA	Total
5BSC(MM)1	Multimedia Communication Technology	4	1		80	-	20	100
5BSC(MM)2	Social Media	4	1	3	50	30	20	100
5BSC(MM)3	Authoring & Virtual Reality	4	1	3	50	30	20	100
5BSC(MM)4	3D Design with Maya	4	1	3	50	30	20	100
5BSC(MM)5	Project management for Multimedia	5		3	50	30	20	100

**\*\*L- Lecture, T-Tutorial, P-Practical, Th-Theory, IA - Internal Assessment**

## SEMESTER -6

Subject Code	Subject Name	Contact Hours			Marks			
		L	T	P	Th	P	IA	Total
6BSC(MM)1	Multimedia Production Pipeline	4	1		80	-	20	100
6BSC(MM)2	Project Portfolio Management	4	1		80	-	20	100
6BSC(MM)3	Project			8	-	240	60	300

## 1BSc(MM)1 - Fundamentals of Computers and Operating System

Maximum Marks 100

Distribution of Marks: 80 Th. + 20 IA

### Objectives:

- To learn about History of Computer
- To learn about Computer Devices
- To understand Software and Operating System
- To understand IT Communication

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction to Computer</b>  Brief History of Computers, Computer System Concepts, Characteristics, Capabilities and Limitations, Types Of Computers- Analog, Digital, Hybrid, General, Special Purpose, Micro, Mini, Mainframe, Super, Personal Computer (PCs) - Types of PC- Desktop, Laptop, Notebook, Palmtop, Workstations etc. Basic Components of a Computer System - Control Unit, ALU, Input/Output Functions and Characteristics. Memory - RAM, ROM, EPROM, PROM.	6	1	-	-	1	-
<b>Unit 2: Introduction to Computer Devices</b>  Operational Overview - Keyboard, Mouse, Trackball, Joystick, Digitizing tablet, Scanners, Digital Camera, MICR, OCR, OMR, Bar code Reader, Voice Recognition, Light Pen, Touch Screen, Monitors - CRT, TFT, LCD characteristics, Size, Resolution, Refresh Rate, Interlaced / Non Interlaced, Dot Pitch, Video Standard - VGA, SVGA, XGA etc, Printers - Dot Matrix, Inkjet, Laser, Plotter, Sound Card and Speakers, Storage fundamentals - Primary Vs Secondary Data Storage and Retrieval methods - Sequential, Direct and Index Sequential, Various Storage Devices - Magnetic Tape, Hard Disk Drives, Floppy Disks, Zip and flash drive.	6	2	-	-	1	-
<b>Unit 3: Introduction to Software</b>  Software - Need, Types - System software, Application software. System Software - Operating System, Utility Program, Assemblers, Compilers and Interpreter, Operating Systems - Functions, Types- Batch, Single, Multiprogramming, Multiprocessing. Programming Languages- Machine, Assembly, High Level, 4GL, Application Software - Word processing, Spreadsheet, Presentation Graphics, Database Management System - characteristics and area of applications. Virus working principles, Types of viruses, virus detection and prevention	6	2	-	-	1	-

<b>Unit 4: Operating Systems</b>  Introduction of DOS, Windows, Linux and Mac. Windows - Features, Various versions, Working. My Computer & Recycle bin, Desktop, Icons and Windows Explorer, Screen description, Dialog Boxes & Toolbars, Working with Files & Folders, Shortcuts & Auto starts, Accessories and Windows Settings using Control Panel, setting common devices - modem, printers, audio, network, fonts. Creating users, internet settings, Start button & Program lists, Installing and Uninstalling new Hardware & Software program on your computer.	6	2	-	-	1	-
<b>Unit 5: Introduction to IT Communication</b>  Simple overview of Communication and IT, Communication types - Analog and Digital Signals, Modulation, Communication Process, Direction of Transmissions Flow - Simplex, Half Duplex, Full Duplex, Communication Software, Definition of Communication Protocol, Communication Channels - Twisted, Coaxial, Fiber Optic, Serial and Parallel Communication, Modem Types of Network - LAN, WAN, MAN, Topologies of LAN - Ring, Bus, Star, Mesh and Tree topologies, Components of LAN -Media, NIC, NOS, Bridges, HUB, Routers, Repeater and Gateways.	6	2	-	-	1	-

#### Assignments:

1. Presentation of Comparison of different Computers ,Memory &Devices
2. Installation of different types of Software
3. Comparison of types of Hardware
4. Preparation of Files and folders in different O/S.
5. To find out type of network done and software available in Computer Lab.

#### Reference:

1. Computers Today, S.K. Basandra, Galgotia Publications.
2. Fundamentals of Information technology, Alexis Leon & Mathews Leon, Vikas Publishing House, New Delhi
3. Computer Ka Parichai Vinod Jha
4. Fundamentals of computer Peter Norton
5. Fundamentals of computers ,4th Edition (Paperback) By V. Rajaraman

## 1BSc(MM)2 - Fundamentals of Multimedia

Maximum Marks 100

Distribution of Marks: 80 Th. + 20 IA

### Objectives:

- To learn about Multimedia
- To get the perspectives of multimedia
- To understand the various elements of Multimedia

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction to Multimedia</b>  Multimedia - Introduction, History, Components and Structure, Hardware and Software Specifications, Multimedia Input and Output Devices, Uses of Multimedia. Hypermedia, Multimedia presentation and production, Characteristics of a multimedia presentation. Overview of Multimedia Software and Multimedia Authoring Tools.	8	-	-	-	1	1
<b>Unit 2: Basics of Text and Images</b>  Text - Introduction, Standards - ASCII, Unicode, File formats, Hypermedia and Hypertext. Image -Introduction, Types, Color and color models, Specification of digital images, Overview of Image processing, File formats, Image output on monitor and printer. Graphics - Introduction.	8	-	-	-	1	-
<b>Unit 3: Introduction to Audio and Video</b>  Audio - Introduction, Characteristics, Nature of sound waves, Elements - Microphone, Amplifier, Speakers, Digital audio, instruments, Musical Instrument Digital Interface (MIDI), Sound card, File formats, Overview of audio recording devices and audio player software. Video - Introduction, Video frames and frame rate, File formats.	8	-	-	-	2	-
<b>Unit 4: Basics of Animation, Files and Disc formats</b>  Animation - Introduction, Types and Uses. File Compression - Introduction, CODEC, Types of compression, Overview of GIF, JPEG, MPEG. CD-Technology Working principles, speed, CD Formats, DVD, DVD Formats.	8	-	-	-	2	-
<b>Unit 5: Multimedia Architecture and Virtual Reality</b>  Introduction, User Interfaces, Windows Multimedia Support, Hardware Support, Distributed Multimedia Applications, Multimedia Database Systems - Introduction, Virtual Reality.	8	-	-	-	2	-

**Assignments:**

1. Presentation of paper in a seminar on the impact of Multimedia.
2. Identification of file formats.
3. Any other assignments given by professors concerned.

**Reference:**

1. Principles of Multimedia, Ranjan Parekh, Tata McGraw Hill, ISBN: 0-07-058833-3
2. Multimedia Making it Work" Tay Vaughan, Tata McGraw Hill, 7<sup>th</sup> Edition, ISBN:10:0-07-063681-8
3. Fundamentals of Multimedia, Ze-Nian Li and Mark S. Drew, PHI Learning ISBN: 978-81-203-2817-4
4. Multimedia at Run, Rajeshwar Shukla, Pragya Publication ISBN: 978-93-80038-26-1
5. Computer Graphics Multimedia and Animation, Malay K. Pakhira, PHI Learning, ISBN: 978-81-203-3344-4
6. Multimedia in Practice, Technology and Applications, Judith Jeffcoate, PHI Learning ISBN: 81-203-1276-7

## 1BSc(MM)3 - PC Packages

Maximum Marks 100

Distribution of Marks: 50 Th. + 30 Prac + 20 IA

### Objectives:

- To learn about Office Automation Package
- To learn about Document, creation, manipulation and storage of Chart and Slide Show Package
- To understand Database and Relational Database.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: MS Word Basics</b>  Introduction to MS Office. MS Word: Features & area of use, Menus, Toolbars & Buttons, Wizards & Templates, Creating a New Document, Different Page Views and layouts, Applying various Text Enhancements, Working with - Styles, Text Attributes; Paragraph and Page Formatting; Text Editing using various features, Bullets, Numbering, Auto formatting, Printing & various print options, Bullets, Numbering.	6	2	-	-	2	1
<b>Unit 2: Advanced Features of MS Word</b>  Spell Check, Thesaurus, Find & Replace, Headers & Footers, Inserting - Page Numbers, Pictures, Files, Auto texts, Symbols etc. Working with Columns, Tabs & Indents, Creation & Working with Tables including conversion to and from text, Margins & Space management in Document, Mail Merge, Envelops & Mailing Labels. Importing and exporting to and from various formats.	6	2	-	-	2	-
<b>Unit 3: MS Excel</b>  Introduction, concepts of Workbook & Worksheets, Using Wizards, Various Data Types, Using different features with Data, Cell and Texts, Inserting, Removing & Resizing of Columns & Rows, Working with Data & Ranges, Column Freezing, Labels, Hiding, Splitting etc. Use of Formulas, Calculations & Functions, Cell Formatting including Borders & Shading, Working with Different Chart Types, Printing of Workbook & Worksheets.	6	2	-	-	2	-
<b>Unit 4: MS PowerPoint</b>  Introduction, Creating a New Presentation, Working with Presentation, Using Wizards, Slides & its different views, Inserting, Deleting and Copying of Slides, Working with Notes, Handouts, Columns & Lists, Adding Graphics, Sounds and Movies to a Slide, Working with PowerPoint Objects, Designing & Presentation of a Slide Show, Printing Presentations, Notes, Handouts with print options. Outlook Express: Features and uses, Configuring and using Outlook Express for accessing e-mails in office.	6	2	-	-	2	-

<b>Unit 5: MS ACCESS</b>  Definition - Database ,table, field , record. Creating a new database, Saving a table Adding and renaming fields ,Using Datasheet View Adding Fields ,Design View Data Type - Descriptions ,Adding records to a table ,Navigating through records within a table Editing data within a record ,Deleting data within a record, Deleting a single record ,Deleting multiple records ,Deleting a table ,Defining a Primary Key Creating forms , Creating a simple query , Creating a simple report.	6	2	-	-	2	-
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#### **Assignments:**

1. Presentation of paper Document.
2. Preparation of Chart, Table and Graph for various medium.
3. Preparation Slide for Presentation on given topic.
4. Any other assignments given by the concerned Faculty.

#### **Reference:**

1. Windows XP Complete Reference. BPB Publications
2. MS Office XP complete BPB publication
3. MS Office Parichai BPB publication by Vishnu Singh.
4. Peter Norton's Complete Guide To MS Office 2000 Publisher: BPB
5. MS Office Documentation

## 1BSc(MM)4 - Principles of Art

**Maximum Marks 100**

**Distribution of Marks: 50 Th. + 30 Prac + 20 IA**

**Objectives:**

- To understand the basics of Art, drawing, sketching
- To use digital art software
- To develop the artistic skills within students.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Basics of Art</b>  Definition of Art, History of Art/Utility/Visual and Performing Art. Elements of Art : Point,Line,Curve, Form, Colour, Texture Tone, Space. Principles of Art : Unity, Rhythm, Harmony, balance, Perspective, Proportion Colour Theory,Colour Wheel Definition of Cartoon, Types of Cartoons, Cartoon Characters, Utility of Cartoons Face expression.	5	3	-	-	3	1
<b>Unit 2: Types of Art</b>  Calligraphy, Typography, Poster, Layout, Press and Magazine, Logo, Monogram Hording, Aesthetic, Shading, Object drawing, Anatomy, Memory drawing, Model drawing. Caricature: Definition and examples, cartoonists in India.	5	3	-	-	3	-
<b>Unit 3: 2D and 3D Drawing</b>  Definition, Techniques, Area of application, Tools used for Drawing, Pencil Tool: Importance, use etc. Difference between a photograph and pencil drawing. Mediums of drawing: Pencils, Wax Colour, Water Colours etc. Themes of Cartoons - Oil Paint, Portrait, landscape composition.	5	3	-	-	3	-
<b>Unit 4: Sketching</b>  Definition, Types of sketches, Area of application, Tools used for sketching, Features of real Photograph and sketching. Sketching: Practical steps, Use of Colours and shades. Converting techniques of photographs to sketches, software used for sketching, Preparation of pocket cartoons and strips.	5	3	-	-	3	-
<b>Unit 5: Adobe Illustrator</b>  Introduction, Vector Graphics, Interface - Menu, Tool bar, Option Bar, Palettes layer, Path and Anchor points, Curve Path, Crating Text, Text around the picture, Importing and placing graph; background border; Implementing Colours, File formats. prevention.	5	3	-	1	3	-

**Assignments:**

1. Presentation on drawing, and sketching
2. Performing art work using digital software.

**Reference:**

1. The principles of art- by Robin George Collingwood
2. Elements of Art by Jane Castillo.
3. Adobe Illustrator Bible

## 1BSc(MM)5 - Science of Communication

**Maximum Marks 100**

**Distribution of Marks: 80 Th. + 20 IA**

**Objectives:**

- To understand the Theory of Communication
- To understand the elements of Human Communication
- To understand the Barriers in Communication & Modes of Communication.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Communication Theory</b>  Introduction to communication theory, The fact of communication, Communication -Definition, Nature, Scope, Purpose. Process of Communication. Functions of Communication, communication and information, communication and languages, Evolution of Social Groups and organic structure of society, Essentiality of communication in social groups.	8	-	-	-	-	1
<b>Unit 2: Human Communication</b>  Definition and elements of human communication, Socialization and role of communication in Socialization Types of communication, Intrapersonal communication, Interpersonal communication, Focused and unfocused interactions, group communication, mass communication, Interactive communication ,Public Communication ,Corporate communication.	8	-	-	-	-	-
<b>Unit 3: Types of Communication</b>  Verbal communication, Non verbal communication, Importance of Body Language, Appropriate Body Postures, Oral communication, Written communication, Visual communication, Signs ,symbols and code system, communication skills , mannerism, accent and etiquettes, listening -important and art of developing listening habits.	6	2	-	-	1	-
<b>Unit 4: Communication Barriers</b>  Barriers of communication, physical barriers of communication, psychological barriers of communication, linguistic and cultural barriers of communication, Mechanical barriers of communication, Removal of Barriers.	6	2	-	-	1	-
<b>Unit 5: Modes of Communication</b>  Traditional modes of communication, Fax Communication, Telephone communication, Mobile communication, Television communication, Satellite communication, Internet, Multimedia communication.	6	2	1	-	1	-

**Assignments:**

1. To practice different types of communication
2. To participate in Group discussion
3. Assignment given by concerned faculty.

**Reference:**

1. Mass communication in India by Keval J . Kumar - A Jaico Book
2. Communication Mosaics: An Introduction to the Field of Communication, 2001.  
By Wood, Julia T, Wadsworth
3. Communication by C.S. Raidu, Himalaya Publishing House

## 2BSc(MM)1 - Digital Art and Digital Photography

Maximum Marks 100  
Distribution of Marks: 80 Th. + 20 IA

### Objectives:

- To understand the Basics of Camera, its Components and Handling
- To work with Digital Video.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Basics of Camera</b>  Origin of still camera, Types of still camera: compact and SLR camera, Difference between roll and digital camera, Parts of still camera: aperture, shutter speed, lens, filters and flash.	6	2	-	-	2	-
<b>Unit 2: Video Camera</b>  Basic technique of video camera, Various components of video camera, Types of video camera, Camera mountings.	6	2	-	-	2	-
<b>Unit 3: Digital Video</b>  Basics of Video - Analog and Digital Video, Types of Video, Hardware & Software resources requirement for Video on PC, Digitization of analog video to digital video, Interlacing and non-interlacing, Brief note on various video standards - NTSC, PAL, SECAM, HDTV, Introduction to video capturing Media & instrument - Videodisk, Camcorder, Introduction to digital video compression techniques and various file formats - AVI, MPEG, MOV etc.	6	2	-	-	1	-
<b>Unit 4: Camera Handling</b>  Basic shots, Shot composition, Camera angles, Camera movements, types of shots, Long shot, Close up, Angle.	6	2	-	-	2	-
<b>Unit 5: Camera Components</b>  Camera control UNIT, White balance, Resolution, Aspect ratio.	6	2	-	-	1	-

### Assignments:

1. Create Digital Video and store in different file formats
2. Exercises of various camera shots
3. Prepare analog and digital compression file
4. Any other assignment given by the concerned faculty.

### Reference:

1. The Digital Photography by Scott Kilby
2. Digital Photography Quicksteps-by Doug Sahlin

## 2BSc(MM)2 - Basic Mathematics

Maximum Marks 100

Distribution of Marks: 80 Th. + 20 IA

### Objectives:

- To have a clear understanding about the basic mathematics required for multimedia
- To understand about the basic geometry.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Vectors</b>  Vectors Notation, Scalar and Vector, Types of vector, Collinear and coplanar vector, Multiplying Vector by Scalar, Vector addition and Subtraction, Position Vector, Unit Vector, Cartesian vector, Vector Multiplication, The Right hand tool, Normal vector.	8	-	-	-	-	-
<b>Unit 2: Determinant &amp; Matrix</b>  Determinant Introduction, Properties of Determinant, Minors and Cofactors Matrix Introduction, Types of Matrix, Operation on Matrix, Transpose of Matrix, Symmetric and Skew Symmetric Matrix, Transformation of Matrix, Adjoint and inverse of Matrix, Solution of equation by matrix Method.	7	1	-	-	-	-
<b>Unit 3: Coordinate System</b>  Coordinate System, Cartesian coordinate system, Polar coordinate system, Points in a Plane, Distance between points, Equation of Line, Slope of a Line, Slope Intercept, Circle, Standard Equation of Circle, Intersection of circle with Line.	7	1	-	-	1	-
<b>Unit 4: Points and lines</b>  Conic section Standard Equation of parabola, Ellipse and Hyperbola, Coordinate of a point in Space, Direction cosine and Direction Ratio of a Line, Equation of Line in Space, Angle between two lines, Shortest distance Between Two lines. Co planarity of two lines, Angle between two Planes, Distance of a Point from a Plane Angle between Line and a Plane.	6	2	-	-	1	-
<b>Unit 5: Interpolation</b>  Interpolation, Linear and Non Linear Interpolation. Curve Tracing, Principles of Maxima and Minima, Continuity of curve.	6	2	-	-	1	-

### Assignments:

1. To work with data using Vectors & Matrix
2. To present an assignment on Interpolation
3. Any assignment given by the concerned Faculty.

**Reference:**

1. Coordinate Geometry M L Khanna.
2. Engineering Mathematics B S Grewal

## 2BSc(MM)3 - Desk Top Publishing

**Maximum Marks 100**

**Distribution of Marks: 50Th. + 30 Prac. + 20 IA**

### Objectives:

- To learn Desk Top Publishing
- To understand and use Adobe Page Maker, Aldus Additions
- To have work experience using Quark Express.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction to Desk Top Publishing</b>  Introduction, Definition, Need and Area of Application, Difference between a word processor and Publication, Use and importance of DTP in Publication & Newspaper Printing, Various DTP Softwares. Introduction to Offset Printing Technology, Printers, Formatting of a text: Typography, Fonts, Point Size, Spacing, Breaks, Measurements etc..	7	1	-	-	1	-
<b>Unit 2: Adobe Page Maker</b>  Introduction. Previous and current versions of Page Maker, Attribute settings: Toolbox, Styles, Menus, Templates. Alignments, Grids, and Guides etc. Page Layouts - Margins and Page Orientations with various page sizes, Text Editing and Manipulation - Filters, Import and Export and placing of text and files, Auto flow and Story Editor, Different Layout views.	7	1	-	-	1	-
<b>Unit 3: Aldus Additions</b>  Tab setting, Columns & Gutters. Import & Export of files. Use of - Styles, Palettes, Colours, Bullets, Column Balancing, Breaks. Text Wrapping, Widows & Orphan lines, Revert Command and its use, Using Drop Caps and various style formats, Editing of Graphics and Frames.	7	1	-	-	1	-
<b>Unit 4: Advanced features</b>  OLE & Embedding, Plugins, Mathematic Equation, Table Editor, Managing and Printing Publications - Tiles, multiple copies etc. Layers, Frame Options, Master Pages, Headers & Footers, Use of Page Maker in News paper and Magazines.	7	1	-	-	1	-
<b>Unit 5: Quark Express</b>  Introduction, Managing and Printing Quark Express Publications. Comparison of Quark Express with Page Maker. Use of Quark Express in News paper and Magazines.	7	1	-	-	1	-

### Assignments:

1. To prepare presentation on 'Use of Page Maker in News paper and Magazines'.
2. To prepare presentation on 'Use of Quark Express in News paper and Magazines'.

3. To prepare layout for print media.

**Reference:**

1. DTP - by Vikas Gupta - Published by Dreamtech Press, New Delhi.
2. QuarkXPress 8: Essential Skills for Page Layout and Web Design by Kelly Kordes Anton and John Cruise
3. Page Maker 6.5 Complete - R. Shamms Mortier - Published by Techmedia.

## 2BSc(MM)4 - Internet and Web Designing

Maximum Marks 100

Distribution of Marks: 50Th. + 30 Prac. + 20 IA

### Objectives:

- To understand the basics of Internet and World wide web
- To use Web publishing
- Compare HTML vs XHTML
- To use Hyperlink & Stylesheets to create Webpages.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Basics of Internet</b>  Internet- Evolution, Protocols, Interfaces, Concepts, Internet VS Intranet, Growth of Internet, ISP, connectivity- Dial-up, Leased line, VSAT etc., URLs, Domain names, Portals, Application, E-MAIL - Concepts, POP and WEB based E-mail, merits, address, Basics of Sending & Receiving, E-mail Protocols, Mailing List, Free E-mail services, INTERNET Protocols - Data Transmission Protocols, Client/Server Architecture & its Characteristics, FTP & its use, Telnet Concept, Remote Login Protocols, Terminal Emulation, Message Board, Internet chatting - Voice chat, text chat.	7	1	-	-	1	-
<b>Unit 2: Introduction to WWW and Web publishing</b>  World wide web (www) - History, Working, Web Browsers, Its functions, Concept of Search Engines, Searching the Web, HTTP, URLs, Web Servers, Web Protocols. Web publishing - Concepts, Domain name Registration, Space on Host Server for Web site, HTML, Design tools, HTML editors, Image editors, Issues in Web site creations & Maintenance, FTP software for uploading web site.	7	1	-	-	1	-
<b>Unit 3: HTML</b>  HTML - Concepts of Hypertext, Versions of HTML, Elements of HTML syntax, Head & Body Sections, Building HTML documents, Inserting texts, Images, Hyperlinks, Backgrounds and Color controls, Different HTML tags, Table layout and presentation, Use of font size & Attributes, List types and its tags, Use of Frames and Forms in web pages, Introduction of WYSIWYG Design tools for HTML, Overview of MS FrontPage, Macromedia Dream weaver, and other popular HTML editors, designing web sites using MS FrontPage ( using at least FrontPage 2000).	7	1	-	-	1	-
<b>Unit 4: Hyperlink</b>  Hyperlink, Setting hyperlink colors, linking different sections of a web page , Working with image , displaying alternate text for an image ,adding border to an image, aligning an image, using image as link, working with multimedia, embedding multimedia on the web pages, creating link to a multimedia file, using object tag to insert object, Understanding style sheets, working with styles, working with	7	1	-	1	1	-

background ,text, font, list, box and block properties, understanding the basic concepts of XHTML , creating and saving XHTML document.						
<b>Unit 5: Stylesheet XHTML &amp; Javascript</b>						
Understanding style sheets, working with styles, working with background ,text, font, list, box and block properties, understanding the basic concepts of XHTML , creating and saving XHTML document.	7	1	-	-	1	-
Javascript Overview, syntax & conventions. Creating script, Hiding the script , Variables, Expressions, Branching & Looping statements, Functions, Arrays Objects, Events & Document Object Model - on Click, onMouseOver, onSubmit, on Focus, onChange, onBlur, OnLoad, onUnload, Alerts, Prompts & Confirms.						

#### Assignments:

1. How to get internet connectivity?
2. Compare Internet Protocols
3. Creating webpages using hyperlink
4. Creating webpages by embedding audio/video files.

#### Reference:

1. HTML 4.0 in Simple Steps by Kogent Solutions Inc. Dreamtech
2. O.level Module - M1.2- Internet & Web paged designing by V.K.Jain-BPB Publications.
3. Internet for Everyone - Alexis Leon and Mathews Leon, Vikas Publishing House Pvt.Ltd., New Delhi
4. A Beginner's Guide to HTML available at: <http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimerAll.html>.

## 2BSc(MM)5 - Communicative Hindi

**Maximum Marks 100**  
**Distribution of Marks: 80 Th. + 20 IA**

mnn'; %& ;g v/;;u vfHkO;fDr dk'ky eaHkk"kk d ;kxнку d l{ke cuku rFkk dk'ky dk foLrkj  
dju ealgk;d gkxk

bll Hkkf"kd i;kx dh leFkrk fodflr dju ealgk;rk iklr gkxh A

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<p>;fuV 1</p> <p>fgUnh Hkk"kk dk lf{klr fodkl] fgUnh ds fyfi ,oa ckfy;ksa dk lf{klr ifjp;] 'kCndk'k &amp; mi;kx ,oa egRo ] fgUnh O;kdj.k] 'kCn jpuk] okD; jpuk] okD;ksa ds idkj] miokD; lf/k lekl] milx] iR;;] l;k;okph foykekFkhZvudkFkd] legkFkd 'kCn AA</p>	8	1	-	-	-	-
<p>;fuV 2</p> <p>nouxjh fyfi ds e[; fo'k"krk,sa oruh] 'kCn 'kf) ,oa okD; 'kf) ds fu;e] ie[k egkojks ,oa ykdkfDr;ksa dk i;kx] Nn ,oa vydkjksa dk mi;kx] fojke fpUgksa dk mi;kx</p>	8	1	-	-	-	-
<p>;fuV 3</p> <p>x  dks fofHkUu 'kfy;kW] lkfgR; ,oa lepkj lk=ksa dh Hkk"kk 'kyh] o.kZ foHkkx] Loj O;tu ] 'kCn foHkkx %&amp; ITkk] louke] fo'y"k.k fd;k] lc/k ck/kd lePp; ck/kd] foLe;f; ck/kd A</p>	8	1	-	-	-	-
<p>;fuV 4</p> <p>vuokn dk vFkZ vkj ifjHkk"kk] vuokn ds idkj] vuokn ds midj.k ,oa leL;k] Hkko rFkk iHkko ds vk/kkj ij vuokn ,oay[kA</p>	8	1	-	-	-	-

;fuV 5  fuc/k y[ku] fjikVZ y[ku] lk= y[ku] vuokn] xknku ]xou - eq'khizepn						
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### Assignments:

- vuoknu djusdk vH;kl
- lekpkj lk=ksadsfy, y[ku dk vH;kl
- fuc/k y[ku vkj fjikVZy[ku dk vH;kl
- fgUnh dsokD;ksdh jpuk djuk

### Reference :

- |    |                          |    |                  |
|----|--------------------------|----|------------------|
| 1- | vuokn fodkl ,oali"k.k    | %& | Mk- gfjekgu      |
| 2- | vuokn dyk fl)kr vkj i;kx | %& | MkWdyk'k HkkfV;k |
| 3- | O;ogkfjd fgUnh           | %& | Mk- ek[kUnzikBd  |
| 4- | lfj"dr fgUnh O;kdj.k     | %& | cnjhukFk         |

## 3BSc(MM)1 - Animation Technology

**Maximum Marks 100**

**Distribution of Marks: 80Th. + 20 IA**

**Objectives:**

- To teach basic elements and process of Animation
- To understand the basics of 2D & 3D animation.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction of Animation</b>  The power of motion, Need , History , Uses, Types , Principles, Techniques of Animation , Animation on the WEB , 2D versus 3D Animation.	8	2	-	-	2	-
<b>Unit 2: Features of Animation</b>  Traditional Animation, Animation by the computer, Introduction to various animation software, Features of animation software, animation file formats, Concepts of animation, frame, keyframe, modeling, 2D Animation and its concepts.	10	2	-	1	-	-
<b>Unit 3: Introduction of 3D Animation</b>  3D Animation & its Concepts - Types of 3D Animation , Skeleton & Kinetic 3D Animation, Texturing & Lighting of 3D Animation , Applications & Software of 3D Animation.	8	2	1	-	-	-
<b>Unit 4: Process of 3D Animation</b>  Script Animation Usage , Different Language of Script Animation among the Software.3D Rendering ,Motion Caption, Formats, Methods - Usages , Expression, Motion, Capture Softwares.	10	2	-	-	1	-
<b>Unit 5: Elements of Animation</b>  Concept Development, Story Developing ,Audio & Video , Color Theory, Device Independent Color Model, Gamma and Gamma Correction , 3D Animated Movies.	8	5	-	1	1	-

**Assignments:**

1. Participate in debate on the objectivity of Animation
2. Exercises of 2D/3D Animation
3. Any other Assignment given by the concerned faculty.

**Reference:**

1. Principles of Multimedia - Ranjan Parekh, 2007, TMH. (Unit I, Unit V)
2. Multimedia Technologies - Ashok Banerji, Ananda Mohan Ghosh - McGraw Hill
3. Multimedia Making it Work -Toy Vaughan - 7<sup>th</sup> edition, Tata McGraw Hill.

## 3BSc(MM)2 - Digital Art Designing and Image Editing

**Maximum Marks 100**

**Distribution of Marks: 50Th. + 30 Prac. + 20 IA**

**Objectives:**

- To impart skills of digital image Editing
- To impart skills of Text editing.
- To develop skills of Colour and effects.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction of Coral Draw</b>  Definition of Illustration, Introduction to <b>Corel draw</b> , Corel draw interface, Window management. Working with shapes, rectangle, Ellipse. Polygon and star, Drawing grids, spirals and perfect shapes.	6	3	-	-	2	-
<b>Unit 2: Layout of Page</b>  Page and document setup, working with rulers, setting the unit measurement Working with Color and fills. Color palette, adding pattern to object, and Texture fill Working With Paragraph Text, Special Text Effects, Object arrangement, special effect to object, interactive distortion tool, contour tool. Using Layers.	5	2	-	1	1	-
<b>Unit 3: Introduction of Photoshop</b>  Using Styles and Templates, Special Interactive Effects, Custom Creation Tools, Working With Bitmaps. Photoshop: Introduction, Exploring Photoshop Interface, Screen modes , Creating New Documents, Working with workspace, managing Palettes, Customizing preferences, Difference between Bitmap and Vector Image,.	6	3	2	1	1	-
<b>Unit 4: Colour and File format</b>  Editing Image, Colour mode in Photoshop, Making Color Adjustment, File Formats of Image, Working with Selection tools, Modifying and transforming Selections. Saving and Loading Selections, Using Drawing and Painting tools, Using Retouching tools, Setting foreground and background color, Working with Layers, Moving layers, Linking and Unlinking layers Working with adjustment Layers ,masking Layers, Applying layer style.	10	1	-	-	2	-
<b>Unit 5: Effect and Filter</b>  Applying Filters, Creating and editing smart objects. The Filter Gallery. Text editing in Photoshop, reacting 3D artwork in Photoshop, Animation in Photoshop, Printing in Photoshop.	3	2	1	1	3	-

**Assignments:**

1. Create and Design Illustration with Coral Draw
2. Create and Design logo with Coral Draw
3. Edit Digital picture for Medium using Photoshop
4. Exercises of Illustration on different formats
5. Exercises of picture on different formats
6. Any other assignment given by the concerned faculty.

**Reference:**

1. Straight to the point CorelDraw12, Firewall media
2. Straight to the point CorelDrawx3, Firewall media
3. Adobe Photoshop CS4 for Photographers: A professional Image Editors Guide By Martin Evening.
4. Photoshop CS4 in Simple Steps by Kogent Learning Solutions Inc. Published by dremtech press
5. Photoshop CS4 The Missing Manual By Lesa Snider King
6. Understanding Adobe Photoshop: Digital Imaging Concepts and techniques By Richard Harrington
7. Photoshop in depth -Benjanim &David.

### 3BSc(MM)3 - Sound Editing

Maximum Marks 100

Distribution of Marks: 50Th. + 30 Prac. + 20 IA

#### Objectives:

- To develop the Students skill as Digital Audio Editor
- To impart knowledge of Audio Editor and tools
- To impart skills of Publishing Audio for various medium and format
- To impart knowledge Digital Audio Effect.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction of Digital Audio</b>  Sound: Introduction to Audio components, Sound and its Attributes, Effect and use of in multimedia products, Analog V/s Digital sound, Basics of digital Sounds - Sampling, Frequency, Sound Depth, Channels, PC Sound card standards - FM & AM synthesis, Wave and MP3 files, 3D sounds, Capturing and Editing sound on Windows Sound Recorder. Audio Input/Output devices. Audio file formats: Track, WAV, MP3 etc. MIDI files, Definition of Digital Audio, Advantages of Digital Audio. Sound Recording system.	8	1	1	-	2	-
<b>Unit 2: Introduction of Sound Forge</b>  Sound Forge: Introduction, Setting up Sound Forge, File Formats Supported by Sound Forge, Exploring the Sound Forge - Versions, Menus, default files. Conversion of audio files, Audio File Compression - Compressed file formats, Advantages & Disadvantages of compressed files. Working with Sound Forge :,Introduction to Menus and important commands, Data Windows - Creating, Playing, Working, Editing, Mixing etc., Overview of Transport Control. Saving and Save as of an Audio File. Working with Markers, Regions. Recording a sound file with various options.	8	2	1	-	2	-
<b>Unit 3: Audio Editing</b>  Basic Editing in Sound Forge: Overview of Editing Tools - Selection, Cutting and Copying of Data, Pasting of Data, Paste Special, Multiple Paste, Deleing etc. Editing the Cut lists. Recording and Playback: Automatic Retake Recording, Multiple Takes Recording, Punch-in Recording, Automatic Recording, Playing an Audio File, Working with Playlist. Audio Effects in Sound Forge: Echo Effects, Pitch Effects, Volume Effects, Reverberation Effects, Wave Hammer Effect, Synthesis, Synthesizing Audio, Sampling, Batch Processing.	9	1	2	-	2	-
<b>Unit 4: Processing of Audio</b>  Working with Presets, Auto Trimming and Audio Data, Changing the bit depth of the Audio File, Changing Channels of the Audio Data, Setting the DC Offset, Audio Volume, Inserting Silence, Inverting,	9	2	-	1	1	-

Muting, length of audio data. Normalizing the Audio Volume, Panning/Expanding the Audio. Audio mixing and noise adjustments. New trends in digital audio - Audio streaming, Audios for Videos.						
<b>Unit 5: Publishing of Audio</b>						
Advanced Setting - Setting the Sample rate, Reversing the Audio Data, Smoothing/Enhancing the Audio Data, Setting the Graphic equalizer etc. Working with Video Files - Attaching Video to an Audio file, Editing Audio track of Video File, Previewing of Video. Preparing the audio for Internet and CDs. Introduction and briefing of other Audio editing software's. Compression of audio editing software's	4	2	1	1	1	1

**Assignments:**

1. Plan a small Project of Audio
2. Develop Audio for CD, Internet and Video
3. Prepare various Audio format of Audio
4. Any Assignment given by concerned faculty.

**Reference:**

1. Sound Forge 9.0 in Simple Steps : Dreamtech Press, New Delhi
2. Sound Forge 8 Power!: The Official Guide by Scott R. Garrigus
3. Instant Sound Forge (Instant Series) by Jeffrey P. Fisher

### 3BSc(MM)4 - Social Science

Maximum Marks 100

Distribution of Marks: 80Th. + 20 IA

**Objectives:**

- To provide social Psychological and environmental awareness to students.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Basics of sociology</b>  Concept, definitions and importance of sociology, Relation of sociology with other social sciences, Group-Community-Institution-organisation-Society-Humanity-Biosphere and their unity and inter-dependence, Meaning of family, kinship, class, caste, clan, tribe, marriage.	8	-	-	-	-	1
<b>Unit 2: Socialization</b>  Concept of socialization, social stratification, Concept, definitions and process of social change, Understanding of contemporary changes in India, Characteristics of Indian culture.	8	-	-	-	-	-
<b>Unit 3: Psychology</b>  Concept, definitions and importance of psychology, Relation of psychology with other social sciences, Importance of studying psychology for media students ,Psychology of social groups , Elements and process of human behavior, Theory of information Opinion and attitude formation.	8	-	-	-	-	-
<b>Unit 4: Environmental Study 1</b>  Environmental Study, Renewable and non-renewable resources: Natural resources and associated problems: (a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people. (b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. (d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies. (f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.	8	-	-	-	-	-

<b>Unit 5: Environmental Study 2</b>						
Environmental Study -Role of an individual in conservation of natural resources. Environmental Pollution: Definition, Causes, effects and control measures of, Air pollution ,Water pollution, Soil pollution, Marine pollution, Noise pollution Thermal pollution, Nuclear pollution, Role of an individual in prevention of pollution Public awareness, Understanding ecosystem, Environment and human health	8	-	-	-	1	-

**Assignments:**

1. To assess the present Process and social changes.
2. To analyses the changes of Indian culture
3. To find out Air pollution in your city.

**Reference:**

1. As Social Science by author R.S. Baweja
2. Sociology Vidhiya Bhushan &R.C Sachdewa

## 3BSc(MM)5 - Script Writing and Story Boarding

**Maximum Marks 100**

**Distribution of Marks: 80Th. + 20 IA**

### Objectives:

- To impart knowledge of Script for different new media
- To develop the Student's Story boarding skills
- To impart skills of Audio-Visual writer.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction of Script</b>  Purposes of writing- past and present, Languages- types and origins- scripts (only introductory), Basic principles of writing, Basic concepts of writing for Multimedia and Animation Movies.	8	1	-	-	1	1
<b>Unit 2: Element of Script and Visual script</b>  Concept of socialization, social stratification, Concept, definitions and process of social change, Virtual scripting, Characteristics of Virtual script, Tests of good writing, Introduction to readability tests, Writing for -reading, spoken word Virtual scripting, Characteristics of Virtual script	7	1	-	1	2	-
<b>Unit 3: Writing format</b>  Forms of writing: prose- poetry, letters, essays, news, articles, features analysis, reviews memoirs, travelogues, Actual writing - the craft of re-writing, The scriptwriter as Animation writer	7	-	-	1	3	-
<b>Unit 4: Translation</b>  Translation - need and relevance, Basic principles of translation, Aids for translation Exercises in translation - Hindi to English and English to Hindi	8	-	-	-	-	-
<b>Unit 5: Introduction Of Storyboard</b>  Definition of storyboard, Format of Storyboard What to know about - lessons from the pros - the other side -the story board - judging screen time - terminology used, story outline - proposal outline - script discussion - characterization - story treatment - master scene script - project presentation.	8	-	-	-	1	-

### Assignments:

1. Participate in debate on the issues relating to language and Communication
2. Exercises of scripting on different formats
3. Writing a five minutes story on any current issue
4. Any Assignment given by concerned faculty.

### Reference:

1. Dwight V Swain "Film Scriptwriting" Focal Press publishers
2. Steve Katz "Film Directing Shot" Focal Press publishers

3. Steven Katz "Film Directing: Cinematic Motion " Focal Press publishers
4. Antony Friedman "Writing for media" -Focal press
5. James Thomas- Script Analysis for Actors, Directors and Designers

## 4BSc(MM)1 - Multimedia Databases

Maximum Marks 100

Distribution of Marks: 80Th. + 20 IA

### Objectives:

- To understand the issues in Multimedia Databases
- To understand Multimedia Compression,
- To understand Multimedia Indexing, Querying and Retrieving.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction to Multimedia Data</b>  Media data - Introduction actual data representing images, audio, video & text Data capturing, digitizing, processing, compressing and storage. Types and Formats for Analog and Digital Audio, Image and Video.	7	1	-	-	1	-
<b>Unit 2: Multimedia Data structure</b>  Multimedia Data structure, Data storage, Memory allocation.	7	1	-	-	1	-
<b>Unit 3: Indexing Techniques</b>  Data retrieval mechanisms, Basic applications for Data retrieval, Multimedia Access methods, Indexing Techniques for Multimedia Databases.	7	1	-	-	1	-
<b>Unit 4: Advanced features</b>  Query - basics, creation, execution, Image and Video Query, Retrieval mechanisms, Image and video retrieval	7	1	-	-	1	-
<b>Unit 5: Content based Modeling</b>  Video modeling - characteristics, process, Content-based Video Modeling. Case Studies of Multimedia Databases	7	1	-	-	1	-

### Assignments:

1. To create a 'Multimedia Database Systems'.
2. To search a Multimedia Database based on content.

### Reference:

1. V S Subramanian, "Principles of Multimedia Database Systems", Harcourt India Pvt Ltd.
2. Christos Faloutsos, Searching Multimedia Databases by Content, Kluwer Academic Press, 1996

## 4BSc(MM)2 - 3D Fundamentals and Design with 3D Max

**Maximum Marks 100**

**Distribution of Marks: 50Th. +30 Prac. + 20 IA**

### Objectives:

- To impart knowledge of Modeling
- To impart training of idea generation for 3D Designing
- To impart skills of Light and Shadow
- To impart knowledge of Modeling Techniques.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction of 3D &amp; 3D Max</b>  Definition of 3D Design, Introduction to 3D Max, Hardware software consideration, 3ds Max Terms and concepts, 3DMax Interface, view Port , screen layout, The menu bar, main tool bar, command panel, create panel, modify panels, hierarchy panel, motion panels, display panels, utilities panels.	7	1	-	-	1	-
<b>Unit 2: 3D Modeling</b>  3D modeling software, working with primitive objects, creating box and sphere, creating prism ,modifying primitive ,selecting object, selecting object by name, selecting object by color, selecting object by region, transforming objects, coordinate system in 3d max, transform Gizmos , moving an object, rotating an object, scaling an object, rotating an object, Hiding and freezing an object, cloning objects, grouping objects, Mirroring objects, Aligning objects.	7	1	-	-	1	-
<b>Unit 3: Modeling Techniques</b>  Introduction to modifiers, modifiers types, modifier stack, using various modifiers, working with 2d Shapes, shapes primitive , Basic modeling techniques, Fundamental of 3D object, Basic concepts of lighting , Properties of light, materials, Properties of materials , Camera, Rendering , Texturing . Modeling concepts.	7	1	-	-	1	-
<b>Unit 4: Modifier and Mesh</b>  Polygons modeling, Primitives, Mesh Object and Sub Object, Using the Graphite Modeling tool, Exploring Subdivision Modeling, Applying the mesh smoothmodifier, Applying the Turbo smooth modifier , Exploring Polygonal modeling , Creating Mesh Object, Converting and object into an Editable poly object, Collapsing an object, Exploring NURBS Modeling, Creating a NURBS Curve Sub Object, Converting object to NURBS, Editing NURBS ,3d Rendering , Rendering methods	7	1	-	-	1	-
<b>Unit 5: Light and Camera</b>  Lights Shadows and Cameras, Light Types: Omni, Spot, Directional ,Creating Lights, Changing Light,Types, Creating a Sunlight System, Adjusting Illumination, On/Off, Exclusion, Intensity, Color, Hotspot						

and Falloff, Attenuation, Decay, Projector Maps , Volumetric Lighting, Casting Shadows, On/Off, Shadow Types, Shadow Color, Light Placement, Light Viewport Controls, Animating Lights, Camera Types, Target, Free, Creating Cameras, Aiming Cameras ,Changing ,Camera Types, Activating a Camera View, Adjusting Cameras, Focal Length, Field of View, Clipping Planes, Environment Ranges, Camera Placement, Aligning and Matching, Camera Viewport Controls, Animating Cameras.						
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#### **Assignments:**

1. Prepare 3D character animation for Film
2. Exercise of Light and Texture for 3D Design
3. Exercise of practical and particle Dynamics
4. Prepare a 3D character for New Media

#### **Reference :**

1. Introducing 3ds Max 3D for Beginners by Dariush Derakhshhani, SYBEX
2. 3ds Max 2010 IN Simple Steps,by Kogent Learning Solution Inc. ,Dreamtech Press
3. Basics of 3D Modeling -NIIT \_\_ PHI
4. 3ds Max 2011 - One Project from Start to Finish- By Autodesk (HardBack)
5. 3D Max Bbible

## 4BSc(MM)3 - Principles of Digital Film Making

Maximum Marks 100

Distribution of Marks: 50Th. +30 Prac. + 20 IA

### Objectives:

- To understand the process of Digital Film Making

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Basics of Film Making</b>  Concept of film Making, Computer based film and Cinematic film, Element of film, Film and society. Script for film, Pre-Production, Cinematography, People and place	7	2	-	-	1	-
<b>Unit 2: Writing and Scheduling for Film</b>  Writing and Scheduling - Screenwriting, Scheduling, Breaking Down a Script	8	2	-	-	2	-
<b>Unit 3: Digital Video Primer</b>  Digital Video Primer - Introduction to HD, Components of Digital Video, Working with Analog or SD Video, Digital Image Quality, Understanding Digital Media Files	7	3	-	-	2	1
<b>Unit 4: Production</b>  Choosing a Camera, Planning Your Shoot, Lighting, Using the Camera, Production Sound, Shooting and Directing,	6	2	-	-	1	-
<b>Unit 5: Post Production of Digital Film</b>  Editing using Editing Software, Color Correction, Titles and Effects, Finishing	7	2	1	-	1	-

### Assignments:

- Plan a small Project of Digital Film
- Prepare Social Documentary and Advertising
- Any Assignment given by concerned faculty

### Reference :-

- Digital filmmaking handbook - Ben Long, Sonja Schenk
- The IFILM digital video filmmaker's handbook-, Volume 1-Maxie D. Collier
- The Digital producer - getting it done with computer-based tools, Volume 1- Curtis Poole, Ellen Feldman

## 4BSc(MM)4 - Communicative English

**Maximum Marks 100**

**Distribution of Marks: 80Th. + 20 IA**

### Objectives:

- To inculcate communicative or interactive approach to the learning of English.
- Student acquires the ability to use the language fluently, confidently and naturally in real life situations.
- To encourage the students to formulate and express their ideas and offer ample scope for creativity.
- Development of the four basic skills -Listening, speaking, reading and writing.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Sentences</b>  Sentences: Simple, Compound, Complex, Assertive, Interrogative, Imperative, Exclamatory. Clauses: Co-ordinate, Sub-ordinate, Relative, Adverb, Comparative (Adverb + Adjective) Articles: Usage of 'A', 'AN', 'THE' Preposition: Position of Prepositions, Place Relations Time Relations and other relations.	6	2	-	-	1	-
<b>Unit 2: Tenses</b>  Tenses: Simple Present, Progressive Perfect, Present Perfect Progressive along-with Past Tense and indications of futurity. Reported speech Modals (Will, Shall Should, Would and others) Voice : Active and Passive.	6	2	-	-	1	-
<b>Unit 3: Comprehension of unseen passage</b>  Comprehension of unseen passage, short answer type questions to test understanding of the passage.	6	2	-	-	1	-
<b>Unit 4: Paragraph writing</b>  Paragraph writing based on expansion of given ideas Note taking /Note making	6	2	-	-	1	-
<b>Unit 5: Vocabulary</b>  Vocabulary: making sentences with idioms & phrases, corrections of sentences with words likely to be confused/Commonly Miss-spelled. Word formation like prefix suffix.	6	2	-	-	1	-

### Assignments:

1. Exercise on types of sentences
2. Comprehension of unseen passage
3. Paragraph writing & Note taking /Note making.

### Reference:

1. Written communication In English by Sarah Freeman Published by Orient Longman
2. A Practical English Grammar by Thomson and Martinet.
3. English Grammer by W.S. Allen

## 4BSc(MM)5 - Video Editing

**Maximum Marks 100**

**Distribution of Marks: 50 Th. + 30 Prac. + 20 IA**

**Objectives:**

- To Equip Students with profound Video Editing Skills
- To teach basis of Video
- To familiarize students with Video software commonly used for editing.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction to Video</b>  Definition of Video, Frame, Concept Digital and Analog Video, Overview of computer video editing, Premiere Project Settings and Preferences, Understanding main Premiere editing windows (Project, Monitor, Timeline) , Introduction to editing tools , Setting in and out points, Adding audio tracks, Using ripple edit to synchronize audio, Introduction to transitions, Applying slow and fast motion effects.	8	2	1	-	-	1
<b>Unit 2: Processing of Video Editing</b>  Razor edit cuts , Fade to black, Transparency layers in Premiere, Adding a super-imposed graphic logo with transparency, Animation paths, Camera blur filter, Exporting to Web, CD-ROM, Print to video and exporting to camcorders.	8	-	-	-	2	-
<b>Unit 3: Introduction of Final Cut Pro</b>  Basic working in Mac Final Cut Pro: Introduction and system requirements, Working with the interface Marking and Editing, Drag-and-drop Editing, Marking in the Timeline, Trimming Edit Points, Adjusting Edit Points, Other Editing Points.	5	3	-	-	2	-
<b>Unit 4: Special features</b>  Browser Basics and Project Customization, Capturing Footage, Applying Transitions Mixing Audio Tracks	5	3	-	-	2	-
<b>Unit 5: Publishing of Video</b>  Changing Motion Properties, Applying Filters, Multicam Editing, Adding Titles and Graphics, Finishing and Outputting, File Format of Video.	5	3	-	-	2	-

**Assignments:**

1. Plan a small Project of Video
2. Develop Video for CD, DVD and Internet
3. Prepare various Video format of Video
4. Any Assignment given by concerned faculty.

**Reference:**

1. Learn Adobe Premiere Pro CS5 by Video -By Video2Brain
2. Adobe Premiere Elements 9 Classroom in a Book -By Adobe Creative Team.
3. FINAL CUT PRO HD HANDS-ON TRAINING-by Larry Jordan
4. Editing techniques with Final cut pro - Michael Wohl

## 5BSc(MM)1 - Multimedia Communication Technology

Maximum Marks 100

Distribution of Marks: 80 Th. + 20 IA

### Objectives:

- To understand Multimedia Communication Technologies.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction</b>  Multimedia Communications introduction, Multimedia Information Representation- text, image, audio, video. Networks applications and terminologies used.	10	2	-	1	1	-
<b>Unit 2: Compression Techniques</b>  Overview of Text and Image Compression compression principles, text compression, image compression. Audio and Video Compression - audio compression, DPCM, ADPCM, APC, LPC, video compression, video compression principles, H.261, H.263, MPEG, MPEG-1, MPEG-2, and MPEG-4.	10	2	2	-	2	-
<b>Unit 3: Multimedia Networks</b>  Multimedia information networks: LANs, Ethernet, Token ring, Bridges, FDDI High-speed LANs, LAN protocol.. Standards for Multimedia Communications, Basics of Broadband ATM Networks, Enterprise Networks comparison.	10	1	1	-	2	1
<b>Unit 4: Entertainment Networks</b>  Entertainment Networks - Cable TV, Satellite TV, Terrestrial TV, Internet TV, Comparison. Basics of High-Speed Modems	10	-	1	1	1	-
<b>Unit 5: Multimedia Frame work and Architecture</b>  Multimedia Framework Overview, Multimedia architecture - filters, concepts of classification of filters - Reader, Parser, Decoder, Encoder, Writer.	10	1	1	1	-	-

### Assignments:

- Exercise on Transmission of Multimedia Project
- Any Assignment given by Concerned faculty.

### Reference:

- MultimediaCommunication Technology - J.R.Ohm
- Multimedia Communication - Fred Halsall

## 5BSc(MM)2 - Social Media

**Maximum Marks 100**

**Distribution of Marks: 50 Th. + 30 Prac. + 20 IA**

**Objectives:**

- To learn about basics of Social Media
- To learn about Social networking.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Development of Social Communications and Collaboration</b>  Introduction to Social Communications, Impact of Collaboration in Social Communications, Types of Media, relation of media and communication. Traditional media versus new media. Imagining community and discussing it virtually, Roots and visions of social cyberspace Collaborative media -Wikipedia, Wikis for Learning and Collaboration.	6	1	-	-	1	-
<b>Unit 2: Social networking</b>  Networks and Social Networks, "information society" to "network society. Introduction to social profile management products - MySpace, Facebook, LinkedIn, Friendster. Social networking analysis (SNA) - technologies, algorithms, discovery of people and expertise. Many-to-many asynchronous discussions: Forums, Public Sphere in the Internet Era, semi-synchronous media - twitter, Designing and Maintaining Online Communities - FaceBook.	6	2	1	-	1	-
<b>Unit 3: Social collaboration</b>  Virtual Community - using technologies like wikis, blogs, instant messaging, collaborative office, and crowdsourcing. Technology and community convergence - blogs, Blogging concepts, Blogging culture: authenticity, transparency, authority, influence, ethics, and credibility.	6	2	-	-	1	-
<b>Unit 4: Social publishing</b>  Copyright, Net Neutrality Photography on the web, Flickr, Video for the web, content repository - YouTube Recording an audio interview, editing, and uploading. Mediasnacks. Filming, editing, and publishing a short video online Designing and Maintaining Online Communities - FaceBook	6	2	-	-	1	-
<b>Unit 5: Social feedback</b>  Gaining feedback and opinion from the community on specific items, software used - YouTube, flickr, Digg, Del.icio.us, and Amazon. Getting things done online, collective action, and sharing economies. Overview of open source culture and software. Success factors Vs contributors motivation.	6	2	-	1	1	-

**Assignments:**

1. Create a blog
2. Publish two blog posts,
3. Create a face book login and invite your classmates to join it.
4. Contribute one comment to the blog post of another class mate each week
5. Post to Twitter.

**Reference:**

1. Knorr Cetina, K.D. and Bruegger, U. ( 2000). The Market as an Object of Attachment: Exploring Post-Social Relations in Financial Markets. *Canadian Journal of Sociology* 25(2): 141-68
2. Counts, S., & Stecher, K. (2009) Self-Presentation of Personality During Online Profile Creation. ICWSM '09.
3. Adams, Paul (2010). The Real Life Social Network. PDF document available online
4. Meeker, M., Devitt, S., Wu, L. (2010). Internet Trends. Morgan Stanley Research.
5. Social Media Bible-Lon Safko & David .K Brake

## 5BSc(MM)3 - Authoring and Virtual Reality

Maximum Marks 100

Distribution of Marks: 50 Th. + 30 Prac. + 20 IA

**Objectives:**

- To understand various authoring tools & its components
- To learn about the basics of Virtual Reality & VRML.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction of Authoring</b>  Introduction, Objectives, What is Authoring? Different Authoring Styles - flow diagram, timeline, old versus new styles, authoring language, interactive presentations Multimedia Development Tools - Presentation tools -Slide Presentation Environments, Interactive Presentation Environments, Authoring Environments.	8	1	1	-	1	-
<b>Unit 2: Authoring Software</b>  Integrating Multimedia Elements, Script Language Programs, Icon-based Programs, DLLs for Extending Features, Supporting CD-ROM or Laser Disc Sources, Supporting Video for Windows, Hypertext, Cross-Platform Capability, Run-time Player for Distribution Authoring Tools - Author ware, Everest Authoring System, Icon Author, ImageQ, Macromedia Director, QuickTime, Comparison of the tools Authoring Hyper text.	8	-	-	1	-	-
<b>Unit 3: Authoring tools and Multimedia Production</b>  Authoring tools Popular Authoring tools. Multimedia authoring program categories. Key factors of selecting CD based or Web-based multimedia, various plug-ins for Web. HTML and Multimedia. Various Stages in designing & producing multimedia products for CD and Web: Planning, Content Analysis, Instructional Design, Preparation of Media Elements, Integration of Media Elements Authoring. Evolution and Testing.	8	1	-	1	-	-
<b>Unit 4: Virtual Reality</b>  Virtual Reality Basics - Immersive and Non-immersive Virtual Reality, Applications of Virtual Reality, Advantages & Disadvantages. Head Mounts Display (HMD), Boom, Cave, Input Devices and Sensual Technology, Characteristic of Immersive VR Shared Virtual Environments.	6	2	-	-	2	-
<b>Unit 5: Virtual Reality Markup Language</b>  Virtual Reality Markup Language, VRML file support, environment. Building a VRML world - Conceptual Architecture, Visualization Aspects, Base Technologies Used in Implementation, Navigation.	8	1	1	-	1	-

**Assignments:**

1. Prepare multimedia products for CD
2. Prepare multimedia products for Web.

**Reference:**

1. Multimedia: Making it Work 7th Edition - by Tay Vaughan, Tata Mcgraw Hills.
2. Multimedia in Action - James E Shuman - Vikas Publishing House.
3. Principles of Multimedia- Ranjan Parekh - Tata McGraw-Hill

## 5BSc(MM)4 - 3D Design with MAYA

**Maximum Marks 100**

**Distribution of Marks: 50 Th. + 30 Prac. + 20 IA**

**Objectives:**

- To impart knowledge of Modeling
- To impart training of idea generation for 3D Designing
- To impart skills of Light and Shadow
- To impart knowledge of Modeling Techniques.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction to MAYA</b>  Introduction to MAYA, Basic Maya Interface, Creating a Scene, Manipulating a Scene in 3D, Texturing an Object, Lighting a Scene, Rendering a Still Frame.	7	2	-	1	1	-
<b>Unit 2: Lighting &amp; Modeling</b>  Lighting and Camera - The art and techniques of lighting, Light links, How to create a desk lamp, How to create a camera shot Polygon Modeling and Texturing - Modeling with Polygon Tools , Working with Symmetry, Using Image Planes, Block Modeling, Sculpturing Polygon Objects, UV Texturing.	8	2	-	1	2	-
<b>Unit 3: Animation &amp; Design in Maya</b>  Animation in Maya, Keyframe, Motion studies, Motion Curves, Storytelling And Design - The Project, Storytelling, Design, Color and Composition, Storytelling terms, Project Preparation.	7	3	1	2	2	-
<b>Unit 4: Modeling with NURBS</b>  Modeling with NURBS - NURBS topology, NURBS Modeling Tools, Attaching surfaces, Rebuilding Surfaces, Textures Coordinates Animating a NURBS Character - Creating the Skeleton, Using Deformers, Using reference footage	6	2	-	1	1	-
<b>Unit 5: Rendering</b>  Types of Rendering in Maya, Material and light Interaction, Render Layers, Render with Alpha Channel.	7	2	1	1	1	1

**Assignments:**

1. Prepare 3D Animation for Film
2. Exercise of Light and Texture for 3D Design
3. Prepare 3D Character for new media.

**Reference:**

1. The Yucatan : A Guide to the Land of Maya Mysteries Plus Sacred Sites at Belize, Tikal & Copan - by Antoinette May
2. John Kundert - Gibbs, Eric Mick Larkins, Eric Keller, Boaz Livny, Mark E.A. De Saura, Mastering Maya 7 , Wiley Kunzen Dort, Dariush Derakhshani, Publishing Edition 2006.
3. Maya - by Peter Schmidt (Editor), Enrique Nalda (Editor), Mercedes De LA Garza, Orefici
4. Maya 8 : The Complete Reference, Tom Meade, Shinsaku Arima
5. Maya Character Modeling and Animation: Principles and Practices, Tereza Flaxman
6. Introducing Maya 8: 3D for Beginners, Dariush Derakhshani
7. Understanding 3D Animation Using Maya, John Edgar Park

## 5BSc(MM)5 - Project management for Multimedia

**Maximum Marks 100**

**Distribution of Marks: 50 Th. + 30 Prac. + 20 IA**

### Objectives:

- To impart skills of Planning and Costing of Multimedia Project
- To impart skills of Goal Planning
- To impart skills of Project Management
- To impart skills of Multimedia Project.

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Introduction to Project management</b>						
Introduction to Multimedia Project, Multimedia Project Manager, Team members - Selecting the team, Identifying the skills, Skill set profiles - core team and extended team.	10	2	-	1	1	-
<b>Unit 2: Project Planning</b>						
Preparing proposal, aim of the proposal, Description of the components. Background to multimedia contracts, Refining the proposal into a contract document, Agreeing how to work together. Stages of a project, Responsibilities. Importance of content, scripting for multimedia, general principles for establishing content.	10	2	2	-	2	-
<b>Unit 3: Cost analysis</b>						
Costing of Project, Analysis: Need, cost, content, market, technology, delivery platforms & medium, Target Define.	10	1	1	-	2	1
<b>Unit 4: Legal Issues</b>						
Costing rights and clearances. Legal issues. Rights, Copyright and Other Intellectual Properties	10	-	1	1	1	-
<b>Unit 5: Testing and Delivery</b>						
Testing strategies, platforms for development and testing, media and techniques - constraints, matching the media to the message, Packing, Marketing and Public Relation.	10	1	1	1	1	-

### Assignments:

1. Planning small project of Multimedia
2. Prepare Logical Diagram of Multimedia Project
3. Application of various Testing.

### Reference:

1. Multimedia-Based Instructional Design, Computer-Based Training, Web-Based Training, Distance Broadcast Training - William W. Lee, Diana Owens
2. Getting Started in Multimedia Design - Gary Olsen

## 6BSc(MM)1 - Multimedia Production Pipeline

**Maximum Marks 100**  
**Distribution of Marks: 80 Th. + 20 IA**

### Objectives:

- To impart Project Planning and Execution

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Pre-Production</b>  Planning & Concept Design Ideas, writing, planning, Screenplay/Script (Writing/Editing), Storyboard, and Layout, Character and Prop design, backgrounds, and props, Key poses and animation.	6	2	-	-	1	-
<b>Unit 2: Production</b>  Using Model Sheets and Animatics. Modelling, Texturing.	6	2	1	-	1	-
<b>Unit 3: Authoring</b>  Lighting, Rigging, Animation, Authoring.	5	3	-	1	1	1
<b>Unit 4: Post-Production</b>  Compositing, Sound Editing, Voice recordings with Animation - Lip sync animation - syncing animation and voices together, Editing and sound effects, Music. Video Editing - Color Styling	4	3	-	-	2	1
<b>Unit 5: After Effects</b>  Adding SFX and Music afterwards, Publish	2	1	1	-	1	1

### Assignments:

1. Prepare Small Project of given CG Complete
2. Any Assignment given by Concerned Faculty

### Reference:

1. Infiltrator Production Pipeline , Vol 5 : Animation ebook available online
2. Multimedia-Based Instructional Design , Computer-Based Training, Web-Based Training, Distance Broadcast Training - William W. Lee, Diana Owens
3. Getting Started in Multimedia Design - Gary Olsen
4. John Lasseter, "Principles of Traditional Animation Applied to 3D Computer Animation", Computer Graphics, pp. 35-44, 21:4, July 1987 (SIGGRAPH 87).
5. The Animation Book, Laybourne, Kit , Crown Publishing, 1998
6. The Animator's Workbook, White, Tony, Watson-Guptill, 1988

## 6BSc(MM)2 - Project Portfolio Management

Maximum Marks 100

Distribution of Marks: 80 Th. + 20 IA

### Objectives:

- To impart Project Planning and Execution

	Lectures	Tutorial	Seminar	Workshop	Demo	Field Visit
<b>Unit 1: Portfolio Management Framework</b> Portfolio Management Framework: create-select-plan-manage.	6	2	-	-	1	-
<b>Unit 2: Creation</b> Create-Demand management, Team collaboration, Program management, Portfolio reporting.	6	2	-	-	1	-
<b>Unit 3: Selection</b> Select-Portfolio, Financial Management Public Relation, Team Collaboration, Program Management.	5	3	1	-	1	1
<b>Unit 4: Planning</b> Plan-Capacity Planning, Resource Management Project Scheduling, Financial Management, Public Relation, Team Collaboration, Program Management	6	3	-	1	1	1
<b>Unit 5: Management</b> Manage-Resources Management, Project Scheduling, Financial Management Time reporting, Public relation, Team Collaboration, Program Management. Case Studies	5	1	1	-	1	1

### Assignments:

- Prepare Small Project of given CG Complete
- Any Assignment given by Concerned Faculty

### Reference:

- Project Management Institute. (2006) The Standard for Portfolio Management. Newtown Square, PA: Project Management Institute.
- Top 5 Project Portfolio Management Books by muydwriter Edited by: Ginny Edwards, 2010