



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

**(Three years Degree Course)**

## **Syllabus-2017**

**(Proposed Semester Wise Credit Distribution Scheme under CBCS )**



**Department of New Media Technology**

**Makhanlal Chaturvedi Rashtriya Patrakarita Evam  
Sanchar Vishwavidhyalay, Bhopal**

1/9/17

## Course Objective:

B.Sc. (Multimedia) is an Undergraduate course prepares 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. This is continuation of the skill learned in the Digital Technology. The course begins with the basic concept learning of computers, communicative languages, environmental studies, principles of art, social science and includes variety of software application. These software packages include the Internet, Adobe (Photoshop, After Effect, Illustrator, InDesign, Premiere, Flash and Dreamweaver), Coral Draw, Final Cut Pro, Page Maker, 3DS MAX, 3D MAYA, Web development languages, Sound Forge and open source software. Student gradually move towards professional skills for creating effective visual communication, global communication through a website, Advance Art, Pre-production, Video Editing, in order to specialize in Animation and Visual effect. This course is highly recommended for all students who desire state-of-the-art skills in multimedia, Graphics and Animation and for those whose goal is to become proficient in the use of current technology and software tools.

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, Media and Communication Industry, which will facilitate progress through the course.



## B.Sc. (Multimedia)

<b>Core Course Compulsory (CCC)</b>	<b>Core Course Elective (CCE)</b>	<b>Ability Enhancement Course (AEC)</b>	<b>Skill Enhancement Course (SEC)</b>	<b>Open Elective (OE)</b>	<b>Total Credits</b>
<b>(6 Credits Each)</b>	<b>(6 Credits)</b>	<b>( 3 Credits)</b>	<b>(3 Credits )</b>	<b>(3 Credits)</b>	
1. Principles of Art 2. Fundamentals of Multimedia 3. Science of Communication		1. Communicative English and Hindi		1. Fundamentals of Computers 2. PC Packages 3. Digital Art & Digital Photography	24
4. Internet & Web Site Development 5. Basic Mathematics 6. New Trends in DTP		2. Environmental Studies		4. Social Science 5. Website Development 6. Social Media	24
7. Sound Editing 8. Digital Art Designing & Image Editing	1. Multimedia Communication Technology / 2. Script Writing & Storyboarding		1. Data Visualization using Multimedia	7. 3D Design with MAYA - Advanced	24
9. Principles of Digital Film making 10. Design with 3D Max	3. Video Editing/ 4. Multi-platform Publishing for Different Media		2. Visual Content Design for Multimedia		24
11. 3D Design with MAYA 12. Authoring and Virtual Reality	5. Interactive Content for Social Media/ 6. Project Management for Multimedia		3. Interactive Media for Mobile Application		24
13. Project Portfolio Management	7. Project		4. Advertising for New Media		24
14. Multimedia Production Pipeline					
				<b>Total Credits</b>	<b>144</b>

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# Department of New Media Technology

## Scheme for B.Sc. (Multimedia)

### SEMESTER -1

Class and Paper	Course of Study	Numerical Code	Subject Name	Credit	Marks			
					Th.	P	IA	Total
1BSc(MM)1	CCC1	4221	Principles of Art	6	30	50	20	100
1BSc(MM)2	CCC2	4222	Fundamentals of Multimedia	6	50	30	20	100
1BSc(MM)3	CCC3	4223	Science of Communication	6	80	-	20	100
1BSc(MM)4	AEC1	4224	Communicative English and Hindi	3	40	-	10	50
1BSc(MM)5	OE	Select any one subject from Open Electives						

### SEMESTER -2

Class and Paper	Course of Study	Numerical Code	Subject Name	Credit	Marks			
					Th.	P	IA	Total
2BSc(MM)1	CCC4	4232	Internet & Web site development	6	50	30	20	100
2BSc(MM)2	CCC5	4233	Basic of Mathematics	6	80	-	20	100
2BSc(MM)3	CCC6	4234	New Trends in DTP	6	50	30	20	100
2BSc(MM)4	AEC2	4235	Environmental Studies	3	40	-	10	50
2BSc(MM)5	OE	Select any one subject from Open Electives						

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**SEMESTER -3**

Class and Paper	Course of Study	Numerical Code	Subject Name	Credit	Marks			
					Th.	P	IA	Total
3BSc(MM)1	CCC7	4236	Sound Editing	6	50	30	20	100
3BSc(MM)2	CCC8	4237	Digital Art Designing & Image Editing	6	50	30	20	100
3BSc(MM)3	CCE1	4238	a) Multimedia Communication Technology	6	50	30	20	100
	CCE2	4239	OR b) Script Writing & Storyboarding	6	50	30	20	100
3BSc(MM)4	SEC1	4240	Data Visualization Using Multimedia	3	40	-	10	50
3BSc(MM)5	OE	Select any one subject from Open Electives						

**SEMESTER -4**

Class and Paper	Course of Study	Numerical Code	Subject Name	Credit	Marks			
					Th.	P	IA	Total
4BSc(MM)1	CCC9	4241	Principles of Digital Film Making	6	50	30	20	100
4BSc(MM)2	CCC10	4242	Design with 3D MAX	6	50	30	20	100
4BSc(MM)3	CCE3	4243	a) Video Editing	6	50	30	20	100
	CCE4	4244	OR b) Multi Platform Publishing for different Media	6	50	30	20	100
4BSc(MM)4	SEC2	4245	Visual Content design for Multimedia	3	40	-	10	50
4BSc(MM)5	OE	Select any one subject from Open Electives						

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## SEMESTER 5

Class and Paper	Course of Study	Numerical Code	Subject Name	Credit	Marks			
					Th.	P	IA	Total
5BSc(MM)1	CCC11	4246	3D Design with MAYA	6	50	30	20	100
5BSc(MM)2	CCC12	4247	Authoring and Virtual Reality	6	80	-	20	100
5BSc(MM)3	CCE5	4248	a) Interactive Content for Social Media OR	6	50	30	20	100
	CCE6	4249	b) Project Management for Multimedia	6	50	30	20	100
5BSc(MM)4	SEC3	4250	Interactive Media for Mobile Application	3	40	-	10	50
5BSc(MM)5	OE	Select any one subject from Open Electives						

## SEMESTER 6

Class and Paper	Course of Study	Numerical Code	Subject Name	Credit	Marks			
					Th.	P	IA	Total
6BSc(MM)1	CCC13	4251	Project Portfolio Management	6	80	20	-	100
6BSc(MM)2	CCC14	4252	Project	6	-	80	20	100
6BSc(MM)3	CCE7	4253	Multimedia Production Pipeline	6	80	-	20	100
6BSc(MM)4	SEC4	4254	Advertising for New Media	3	40	-	10	50
6BSc(MM)5	OE	Select any one subject from Open Electives						

## OPEN ELECTIVES (Choose any one subject in each semester)

Class and Paper	Course of Study	Numerical Code	Subject Name	Credit	Marks			
					Th.	P	IA	Total
BSc(MM)5	OE1	4225	Fundamentals of Computers	3	40		10	50
BSc(MM)5	OE2	4226	PC Packages	3	-	40	10	50
BSc(MM)5	OE3	4227	Digital Art & Digital Photography	3	-	40	10	50
BSc(MM)5	OE4	4228	Social Science	3	40	-	10	50
BSc(MM)5	OE5	4229	Website Development	3	-	40	10	50
BSc(MM)5	OE6	4230	Social Media	3	40	-	10	50
BSc(MM)5	OE7	4231	Advanced 3D Design with MAYA	3	-	40	10	50

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Course	Subject	Marks			Credit
		T	P	I	
<b>1B.Sc.(MM)1</b>	<b>Principles of Art</b>	<b>30</b>	<b>50</b>	<b>20</b>	<b>6</b> (CCC1)

**Objectives:**

1. To understand the basic of art, drawing & sketching
2. To use digital art software & tools
3. To develop the artistic skills within students

**Unit 1: Basics of Art**

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

**Unit 2: Types of Art**

Calligraphy, Typography, Poster, Layout, Press and Magazine, Logo, Monogram Hording, Aesthetic, Shading, Object drawing, Human Anatomy, Memory drawing, Model drawing. Caricature: Definition and examples, cartoonists in India. Definition of Cartoon, Types of Cartoons, Cartoon Characters, Utility of Cartoons Face expression. Traditional Art Forms.

**Unit 3: Techniques of Drawing**

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.

**Unit 4: Sketching**

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.

**Unit 5: Adobe Illustrator**

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.

**Assignment**

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

**Text Books and Reference:**

1. The principles of art- by Robin George Collingwood, Susquehanna University Press, 2008
2. Elements of Art by Jane Castillo, Crystal Productions, 2008
3. Adobe Illustrator Bibles, Wiley, 2010
4. Anatomy & Drawing by Victor Perard, Grace Prakashan, 2006

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Course	Subject	Marks			Credit
		T	P	I	
<b>1B.Sc.(MM)2</b>	<b>Fundamentals of Multimedia</b>	<b>50</b>	<b>30</b>	<b>20</b>	<b>6</b> (CCC2)
<b>Objective:</b> <ul style="list-style-type: none"> <li>To learn about Multimedia</li> <li>To get the perspectives of Multimedia</li> <li>To understand the various elements of multimedia</li> </ul>					
<b>Unit 1: Introduction to Multimedia</b> Multimedia - Introduction, applications, Components, Hardware and Software requirements, Characteristics of effective multimedia presentation, Overview of Multimedia Authoring Tools, Interactive media, Hypermedia, Distributed Multimedia Applications, Multimedia Database Systems, Virtual Reality					
<b>Unit 2: Basics of Text and Graphics</b> Text - Introduction, Standards - ASCII, Unicode. Fonts Graphics - Introduction, Types, Color and color models, digital images, Image processing, Graphic file formats, Graphics input and output devices.					
<b>Unit 3: Introduction to Audio and Video</b> Audio - Introduction, attributes, Mono V/s Stereo audio, audio channels, Analog V/s Digital audio, Musical Instrument Digital Interface (MIDI), File formats, audio recording and editing - hardware and software. Video - Introduction, Video frames and frame rate, video recording and editing - hardware and software, File formats.					
<b>Unit 4: Basics of Animation</b> Animation - Introduction, Principles, Types and Uses, Animation Software Compression techniques - Introduction, need and types of compression - lossy and lossless, CODECs					
<b>Unit 5: Multimedia on the Web</b> Introduction, Bandwidth, Text on the web - Dynamic and embedded font technology, Audio and video on the web, buffering and streaming, webcasting, video conferencing					
<b>Assignment:-</b> <ol style="list-style-type: none"> <li>To be prepare presentation on Multimedia Medium</li> <li>To be prepare Presentation on File format.</li> <li>To be prepare presentation of cooperation Technology.</li> </ol>					
<b>Text Books and References:</b> <ol style="list-style-type: none"> <li>Computer Graphics &amp; Multimedia - by A.P.Godse, Technical Publications; SECOND edition (1 January 2011), ISBN-10: 9350381222, ISBN-13: 978-9350381229</li> <li>Multimedia: Making It Work, Eighth Edition - by Tay Vaughan, McGraw-Hill Osborne; 8 edition (1 January 2011), ISBN-10: 0071748466, ISBN-13: 978-0071748469</li> <li>Computer Graphics, Multimedia and Animation - by Pakhira (Author), Malay K (Author), Publisher: Prentice Hall India Learning Private Limited; 2 edition (2010), ISBN-10: 8120341279, ISBN-13: 978-8120341272</li> <li>Multimedia - by M.Mahalakshmi (Author), Publisher: Margham Publications (2013), ISBN-10: 9381430993, ISBN-13: 978-9381430996</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
1B.Sc.(MM)3	Science of Communication	80	-	20	6 (CCC3)

### Objectives:

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

### Unit 1: Communication Basics

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.

### Unit 2: Human Communication

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.

### Unit 3: Types of Communication

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.

### Unit 4: Communication Barriers & Modes

Different Barriers of communication, Removal of Barriers, Traditional modes of communication, Fax Communication, Telephone communication, Mobile communication, Television communication, Satellite communication, Internet, Multimedia communication.

### Unit 5: Communication(Theories & Models)

Brief introduction to Communication theories & Models, Different Communication theories(Multistep Theory, Selective Exposure, Selective Perception, Selective Retention, Play Theory, Uses & Gratification Theory, Cultivation Theory, Agenda Setting Theory), Different Models (SMCR Model, Shannon & Weaver Model, Wilbur Schramm Model, Lasswell Model, Gate Keeping Model, Sadharanikaran Model of communication)

### Assignment:

1. Discuss basic communication processes as well as self perception in communication
2. Discuss effective communication in organization
3. Other assignment given by the concerned faculty

### Text Books and References:

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
4. Barnlund, D. C. (2008). A transactional model of communication. In C. D. Mortensen (Eds.), *Communication theory* (2nd ed., pp47-57). New Brunswick, New Jersey: Transaction
5. Adhikary, N. M. (2007d). Hindu awadharanama gairashabdik sanchar. In N. M. Adhikary, *Sanchar shodha ra media paryavekshan* (pp. 139-180). Kathmandu: Prashanti Pustak Bhandar.

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Course	Subject	Marks			Credit
		T	P	I	
1B.Sc.(MM)4	Communicative English and Hindi	40	-	10	3 (AEC1)
<p><b>Unit 1: Language Skills and Presentation</b> Speaking Skills and Presentation: Presentation Design and Delivery, Monologue Dialogue, Group Discussion, Effective Communication/ Mis-Communication, Interview, Public Speech, Effective Writing, Report Writing, Resume, Circular, Notice and letter Writing</p> <p><b>Unit 2: Reading and Understanding</b> Importance of English as a vehicle of Spoken and written Communication, Close Reading Comprehension Summary Paraphrasing Analysis and Interpretation, Translation (from Indian language to English and vice-versa), Introduction to Articles of eminent Indian authors, Short Stories of eminent Indian authors</p> <p><b>Unit 3: हिन्दी भाषा का परिचय</b> भाषा की विकास यात्रा, हिन्दी भाषा की संवैधानिक स्थिति: समस्याएँ और समाधान, भाषा: विभिन्न बोलियाँ व स्वरूप, भाषा परिवार और भारतीय भाषाएँ, वर्तमान संदर्भों में हिन्दी की उपादेयता</p> <p><b>Unit 4: भाषा</b> शब्दों की संस्कृति एवं उनका इतिहास, भाषा एवं संस्कृति, भाषा एवं समाज, हिंदी में शब्द संरचना एवं उसके प्रयोगों की विशेषताएँ, संधि, समास, उपसर्ग, प्रत्यय, पर्यायवाची, विलोमार्थी, अनेकार्थक, समूहार्थक शब्द (व्यावहारिक, व्याकरण केवल परिचयात्मक), वाक्य, रचना एवं प्रकार, वाक्य रचना के कारक, वाक्य रचना की सामान्य विधियाँ</p> <p><b>Unit 5: Translation / अनुवाद</b> अनुवाद का अर्थ और परिभाषा, अनुवाद के प्रकार, अनुवाद के उपकरण एवं समस्या, भाव तथा प्रभाव के आधार पर अनुवाद एवं लेख, अनुवाद Hindi to English and English to Hindi</p>					
<p><b>Suggested Readings:</b></p> <ol style="list-style-type: none"> <li>1. Pathway to Greatness : APJ Abdul kalam</li> <li>2. Wise and Otherwise : Sudha Murthy</li> <li>3. The Serpents Revenue : Sudha Murthy</li> <li>4. World Myths and Legends : Anita Nair</li> <li>5. The Mother I Never Knew : Sudha Murthy</li> <li>6. The Jungle Book : R Kipling</li> <li>7. Malgudi Days : R K Narayana</li> <li>8. The Adventure of Rusty : Ruskin Bond (Collected Stories)</li> <li>9. अनुवाद विकास एवं संप्रेषण : डॉ. हरिमोहन</li> <li>10. अनुवाद कला सिद्धांत और प्रयोग : डॉ. कैलाश भाटिया</li> <li>11. व्यावहारिक हिंदी : डॉ. माखेन्द्र पाठक</li> <li>12. परिष्कृत हिंदी व्याकरण : बदरीनाथ</li> <li>13. अच्छी हिंदी : रामचंद्र वर्मा</li> <li>14. प्रेम चन्द्र एवं जयशंकर प्रसाद की कहानियाँ</li> </ol>					

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<b>Course</b>	<b>Open Elective</b>	<b>Credits</b>
<b>1BSc(MM)5</b>		<b>3 (OE)</b>

Choose any one subject in each semester -

OE1	Fundamentals of Computers
OE2	Pc Packages
OE3	Digital Art & Digital Photography
OE4	Social Science
OE5	Website Development
OE6	Social Media
OE7	Advanced 3D Design with MAYA

For detailed syllabus of Open Elective Subjects, please refer to "Open Electives" section on page no. 48.

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Course	Subject	Marks			Credit
		T	P	I	
2B.Sc.(MM)1	Internet and Web Site Development	50	30	20	6 (CCC4)

#### Objectives:

- To understand the basics of Internet and World wide web
- Understanding Web publishing
- Comparative study of HTML and XHTML
- Application of CSS & Style sheets to create WebPages.

#### Unit 1: Basics Of internet And Web Designing

Internet- HTTP,URLs, Domain names, websites and web Portals, dynamic and static websites, World wide web (www), Web Browsers, Its functions, Concept of Search Engines, Searching the Web, Web Servers, Web Protocols, Basic principles involved in developing a web site, Planning process, site map. Web layouts -Designing Home Page Layout, Page design, navigation bar, save and store web pages, web writing styles, understanding the use of various fonts and type issues with web designing, Creating the Web Site, Saving the site , Working on the web site, Creating web site structure

#### Unit 2: HTML

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 background, text, font, list, box and block properties, understanding the basic concepts of XHTML, creating and saving XHTML document.

#### Unit 3: Hyper linking & HTML Embedding Multimedia

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,

#### Unit 4: Introduction to Cascading Style Sheets

Concept of CSS, Creating Style Sheet, CSS Properties, CSS Styling(Background, Text Format, Controlling Fonts), Working with block elements and objects, Working with Lists and Tables, CSS Id and Class, Box Model(Introduction, Border properties, Padding Properties, Margin properties), Navigation Bar, Image Sprites, Attribute selector), CSS Color, Creating page Layout and Site Designs.

#### Unit 5: Web publishing, ethics and standards

Web publishing – Concepts, Domain name Registration, Space on Host Server for Web site database server FTP software for uploading web site, Issues in Web site creations & Maintenance. Ethics and Standards of Website - Identify and apply appropriate web standards (W3C),Concepts of Cyber, Cyber Crime and Law, Issues of New Media technology.

#### Assignments:

1. Create home page for Newspaper or Commercial Website
2. Creating web pages by embedding suitable audio/video files.

#### Text Books and References

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. Learning Web Design 4th Edition ( A Beginner's Guide to HTML, CSS, JavaScript and Web Graphicsby Jennifer Niederst Robbins

Course	Subject	Marks			Credit
		T	P	I	
2B.Sc.(MM)2	Basic Mathematics	80	-	20	6 (CCC5)

### Objectives:

- To have a clear understanding about the basic mathematics required for multimedia
- To understand about the basic geometry
- To learn how to interpolate or extrapolate any value for the given statistical data
- To understanding about the matrix, used in developing computer games etc.

### Unit 1: Vectors

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.

### Unit 2: Determinant & Matrix

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.

### Unit 3: Coordinate System

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.

### Unit 4: Points and lines

Conic section Standard and Polygons 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.

### Unit 5: Interpolation

Interpolation, Linear and Non Linear Interpolation. Curve fitting

### Text Books and References

- Coordinate Geometry M L Khanna.
- Engineering Mathematics B S Grewal
- Statistic, Ray and Sharma

Course	Subject	Marks			Credit
		T	P	I	
<b>2B.Sc.(MM)3</b>	<b>New Trends in DTP</b>	<b>50</b>	<b>30</b>	<b>20</b>	<b>6</b> (CCC6)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• To learn Desk Top Publishing.</li> <li>• To have work experience using Quark Express.</li> <li>• To understand and use Adobe InDesign</li> </ul>					
<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 Software. Introduction to Offset Printing Technology, Printers, Formatting of a text: Typography, Fonts, Point Size, Spacing, Breaks, Measurements etc.					
<b>Unit 2: Quark Express Basics</b> Specifying document setting, Creating and Opening Publications, Use of Palettes and Controls, Positioning, Resizing, Inserting and placing text and picture, Box and line manipulations, Choosing a measurement, Adjusting Layout, Creating Columns, Grouping and Locking subject, Wrapping text around pictures and graphics, Using Libraries, Creating Columns, Applying and Editing Colours, Creating Style and Alignment,					
<b>Unit 3: Quark Express Advanced features</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.					
<b>Unit 4: InDesign Basics</b> Introduction to Adobe InDesign CS6, Creating and Viewing Documents, Understanding Your Workspace, Pages, Working with Type, Working with Graphics, Formatting Objects, Working with Color					
<b>Unit 5: InDesign Advanced features</b> Points and Paths, Managing and Transforming Objects, Character and Paragraph Formatting, Using Styles, Tables, Long and Interactive Documents, Packaging and Printing					
<b>Assignments</b> <ol style="list-style-type: none"> <li>1. To prepare layout for print media.</li> <li>2. Page designing with Quark XPress.</li> <li>3. Designing different pages for News paper, magazine with Quark XPress.</li> <li>4. Wrap text around a graphic in InDesign.</li> <li>5. import text or image in Adobe InDesign.</li> <li>6. Different ways of adding text to the document in Adobe InDesign.</li> <li>7. Page designing with InDesign.</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>1. DTP - by Vikas Gupta - Published by Dreamtech Press, New Delhi, ISBN-10: 8177229273, 2010</li> <li>2. QuarkXPress 8: Essential Skills for Page Layout and Web, Design by Kelly Kordes Anton and John Cruise, Peachpit Press, ISBN: 032161691X, 2009</li> <li>3. Quarkxpress 8: Production Tricks And Experts' Tips, Cyndie Shaffstall, The Power XChange, ISBN-10: 0615249914, 2008</li> <li>4. QuarkXPress 8 Step by Step Training, Noble Desktop, Noble Desktop, ISBN-10: 1934624055, 2009</li> </ol>					

Course	Subject	Marks			Credit
		T	P	I	
2B.Sc.(MM)4	Environmental Studies	40	-	10	3 (AEC2)

### **UNIT-1: The Multidisciplinary nature of environmental studies and Natural resources**

Definition; Scope and importance, Need for public awareness. Natural resources and associated problems. Forest resources: Use and Over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, Case studies. Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles.

### **UNIT-2: Ecosystems, Biodiversity and its Conservation**

Concept, structure and function of an ecosystem, producers, consumers and decomposers, energy flow in the ecosystem, ecological succession, food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem: - Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries). Biodiversity introduction-Definition: genetic, species and ecosystem diversity. Bio-geographical classification of India. Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values, biodiversity at global, national and local levels, India as a mega-diversity nation, Hot-spots of biodiversity. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, endangered and endemic species of India. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

### **UNIT-3: Environmental Pollution**

Definitions. Causes, effects and control measures of: (a) Air pollution (b) Water pollution (c) Soil pollution (d) Marine pollution (e) Noise pollution (f) Thermal pollution (g) Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Pollution case studies. Disaster management: floods, earthquake, cyclone and landslides.

### **UNIT-4: Social Issues and the Environment**

From Unsustainable to Sustainable development. Urban problems related to energy. Water conservation, rain water harvesting, watershed management. Resettlement and rehabilitation of people; its problems and concerns. Case studies. Environmental ethics: Issues and possible solutions. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies. Wasteland reclamation, Consumerism and waste products. Environment Protection Act- Air (Prevention and Control of Pollution) Act, Water (Prevention and Control of Pollution) Act, Wildlife Protection Act.- Forest Conservation Act, Issues involved in enforcement of environmental legislation, Public awareness.

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**UNIT-5:****Human Population and the Environment**

Population growth, variation among nations. Population explosion-Family welfare Programme. Environment and human health, Human Rights, Value Education, HIV/AIDS, Women and Child Welfare. Role of information Technology in Environment and human health, Case Studies.

Field Work (Practical) 6 hrs = 3 Lectures

1. Visit to a local area to document environmental assets- river/forest/grassland/hill/mountain.
2. Visit to a local polluted site- Urban/Rural/Industrial/Agricultural.
3. Study of common plants, insects, birds.
4. Study of simple ecosystems-pond, river, hill slopes, etc.

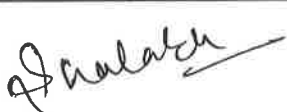
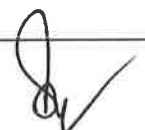

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Course	Open Elective	Credits
2BSc(MM)5		3 (OE)
Choose any one subject In each semester -		
OE1	Fundamentals of Computers	
OE2	Pc Packages	
OE3	Digital Art & Digital Photography	
OE4	Social Science	
OE5	Website Development	
OE6	Social Media	
OE7	Advanced 3D Design with MAYA	

For detailed syllabus of Open Elective Subjects, please refer to "Open Electives" section on page no. 48.

Course	Subject	Marks			Credit
		T	P	I	
3B.Sc.(MM)1	Sound Editing	50	30	20	6 (CCC7)

**Objectives:**

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

**Unit 1: Introduction of Digital Audio**

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, Definition of Digital Audio, Advantages of Digital Audio. 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.

**Unit 2: Audio Recording**

Introduction Recording Setup, Setting up Recording Software, File Formats Supported by Sound Forge, Exploring the recording software - Versions, Menus, default files. Conversion of audio files, Audio File Compression - Compressed file formats, Advantages & Disadvantages of compressed files, Audio file formats: Track, WAV, MP3 etc. MIDI files.

Working with Sound Recording Software :,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, Sound Recording system.

**Unit 3: Audio Editing**

Basic Editing in Audio: 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.

**Unit 4: Processing of Audio**

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, 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.

**Unit 5: Publishing of Audio**

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.

Open source audio editing software, Introduction of other editing software.

**Assignments:**

1. To prepare audio for various media.
2. To prepare audio for Radio.
3. Any other Assignment given by the concerned faculty.

**Text Books and References**

1. Sound Forge 9.0 in Simple Steps : Dreamtech Press, New Delhi (2010)
2. Sound Forge 8 Power!: The Official Guide by Scott R. Garrigus (2010)
3. Instant Sound Forge (Instant Series) by Jeffrey P. Fisher- January 2004; ISBN: 9781578202447
4. Designing Sound; Andy Farnell; MIT Press, ISBN :20100262014416, 9780262014410
5. Sound Design: The Expressive Power of Music, Voice and Sound Effects in Cinema; by David Sonnenschein ; ISBN:0941188264 (ISBN13: 9780941188265) ; 2001 by Michael Wiese Productions

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Course	Subject	Marks			Credit
		T	P	I	
3B.Sc.(MM)2	Digital Art Designing and Image Editing	50	30	20	6 (CCC8)

**Objectives:**

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

**Unit 1: Introduction of Digital Image**

Bitmap and Vector Image, Digital Image, Pixel and Resolution, Definition of Illustration, Introduction to Corel draw, Corel draw interface, Window management. Working with shapes, rectangle, Ellipse. Polygon and star, Drawing grids, spirals and perfect shapes.

**Unit 2: Text Editing**

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, Designing, Effects and Filters.

**Unit 3: Introduction of Photoshop**

Introduction of Photoshop: Interface, Tools and Templates, Workspace, Using Layers, Modes, Filters, Customizing preferences.

**Unit 4: Digital Image editing**

Editing Image, Colour mode in Photoshop, Making Color Adjustment, Image File Formats, 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.

**Unit 5: Effect and Filter**

Applying Filters, Creating and editing smart objects. The Filter Gallery, File Formats.

Text editing in Photoshop, reacting 3D artwork in Photoshop, Animation in Photoshop, Printing in Photoshop.

open source tools for design and image editing, Animation.

**Assignment:**

1. Create a Cartoon Character Using Corel Draw.
2. Create a collage.
3. Create a Mask Image.
4. Create GIF Animation.

**Text Books and References**

1. Straight to the point CorelDraw12, Firewall media(2009)
2. Straight to the point CorelDrawx3, Firewall media (2010)
3. Adobe Photoshop CS4 for Photographers: A professional Image Editors Guide By Martin Evening(2006)
4. Photoshop CS4 in Simple Steps by Kogent Learning Solutions Inc. Published by dremtech press(2008)
5. Photoshop CS4 The Missing Manual By Lesa Snider King; Publisher: O'Reilly Media, December 2008;
6. Understanding Adobe Photoshop: Digital Imaging Concepts and techniques By Richard M.Harrington; ISBN 0-321-36898-3;Published 2007 American Chemical Society
7. Photoshop in depth -Benjanim &David (2001)

Course	Subject	Marks			Credit
		T	P	I	
<b>3B.Sc.(MM)3</b>	<b>Multimedia Communication Technology</b>	<b>50</b>	<b>30</b>	<b>20</b>	<b>6</b> (CCE1)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>To understand Multimedia Communication Technologies.</li> <li>To understand TV and Satellite Technologies</li> </ul>					
<b>Unit 1: Introduction</b> Multimedia Communications introduction, Multimedia Information Representation- text, image, audio, video. Networks applications and terminologies used.					
<b>Unit 2: Compression Techniques and Networks</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.					
<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.					
<b>Unit 4: Entertainment Networks</b> Entertainment Networks - Cable TV, Satellite TV, Terrestrial TV, Internet TV, Comparison., Cloud computing,: Service mode, cloud clients, Architecture, Security, Advantage and Disadvantage, Basics of High-Speed Modems.					
<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.					
<b>Assignments:</b> <ol style="list-style-type: none"> <li>To prepare a MPEG compressed data.</li> <li>Case Study: Entertainment Network Cable TV Vs Satellite TV Vs Interne TV</li> <li>Any other Assignment given by the concerned faculty.</li> <li>Field visit and report submission .</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>MultimediaCommunication Technology - J.R.Ohm(2004)</li> <li>Multimedia Communication - Fred Halsall (2005)</li> <li>"Communication Infrastructures for Cloud Computing" by Hussein T. Mouftah and Burak Kantarci copyright:2014; ISBN13: 9781466645226</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
<b>3B.Sc.(MM)3</b>	<b>Script Writing and Storyboarding</b>	<b>50</b>	<b>30</b>	<b>20</b>	<b>6</b> (CCE2)
<b>OBJECTIVES:</b> <ul style="list-style-type: none"> <li>To impart knowledge of scripting for different new media</li> <li>To develop student's storyboarding skills.</li> <li>To impart skills of audio visual writer</li> </ul>					
<b>Unit 1: Introduction to Writing</b> Purpose and types of writing Forms of writing: Prose, Poetry, Letters, Essay, News, Article, Feature Review, Memoir, Travelogue, Writing a Play, Story and Novel <b>Unit 2: Introduction to Writing for Different Media</b> Basic principles of writing for Film and Television Basic principles of writing for animated movies Concepts of writing for Multimedia and Animation Movies The scriptwriter as Animation writer <b>Unit 3: Screenplay Basics</b> Film Genres: Drama, Melodrama, Comedy, Action, Tragedy, Fantasy etc. Theme and Plot, Beginning, middle and end Location, Music, From Scenes to Sequences <b>Unit 4: Scriptwriting for Movie and Animation</b> Screenplay, Shooting Script Concept- Goals and Objectives Structure- Flashback, Conflict, Climax, Style- Fade in, Scene Heading, Character, Action, Dialogue, Transition, <b>Unit 5: Introduction to Storyboard</b> Need and Importance of Storyboard Formats of Storyboard, Planning of visual storytelling, Shot Types, Continuity, Transitions and sequencing Introduction to Popular Storyboard software's					
<b>Assignment:</b> <ol style="list-style-type: none"> <li>Exercises of scripting on different format</li> <li>Write a script for Television</li> <li>Write a five minutes story on any current issue</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>Screenplay: The Foundations of Screenwriting: Syd Field</li> <li>Making a Good Script Great: A Guide for Writing &amp; Rewriting: Linda Seger</li> <li>Script Writing: How to Write a Screenplay: Aishley Foley</li> <li>From Word to Image: Storyboarding and the Filmmaking Process: <u>Marcie Begleiter</u></li> <li>Animation - The Art of Layout and Storyboarding: Mark Byrne</li> <li>Storyboarding: Turning Script to Motion: Stephanie Torta and Vladimir Minuty</li> <li>पटकथा लेखन: एक परिचय मनोहर श्याम जोशी</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
<b>3B.Sc.(MM)4</b>	<b>Data Visualization using Multimedia</b>	<b>40</b>	<b>-</b>	<b>10</b>	<b>3</b> <b>(SEC1)</b>

**Objectives:**

- Data visualization prepares student for interactive visible expel ration using multimedia technology
- It enable to highlight the relationship

**Unit 1:**

Basics of Data Visualization – Definition, Purpose, Usage  
 Classifications of Visualizations - Data Visualization Vs Infographics  
 Exploration Vs Explanation, Informative Vs Persuasive Vs Visual Art  
 Data visual forms  
 Sketching and Processing  
 Analyze Website visitor data example

**Unit 2:**

Stages of visualizing data - acquire, parse, filter, mine, represent, refine and interact  
 Examine Data, Relationship between variables  
 Data Organization  
 Linear, Tabular, Hierarchical, Networked, Geographical, others  
 Need to be communicated  
 Checklist for Data visualization

**Unit 3:**

Data Visualization patterns  
 Independent quantities - Bar chart,  
 Continuous quantitles - Line graphs, stacked area charts  
 Proportions - Pie charts, Ring charts,  
 Correlations - Scatter plots, Bubble charts  
 Hierarchies - Tree diagram  
 Networks - Diagram maps  
 Cartographic – Maps  
 Flows - Sankey diagram  
 Combined visual pattern

**Unit 4:**

Revealing the data  
 Design of individual elements  
 Preattentive variables  
 Information Aesthetics

**Unit 5:**

Multimedia for Data Visualization  
 Static and predefined, Dynamic and animated  
 Screen resolution  
 User interaction  
 Data visualization tools

**Assignments**

1. Creating a presentation of at least 4 pages to present the process of Data Visualization
2. Creating a presentation with charts & Diagrams explaining Data Hierarchies & Types of Networks

**Text Books and References**

1. Visualizing Data - Exploring and Explaining Data with the Processing Environment, Ben Fry, O'Reilly Media, 2007
2. Designing Data Visualizations - Intentional Communication from Data to Display, Noah Iliinsky, Julie Steele, O'Reilly Media, 2011

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Course	Open Elective	Credits
3BSc(MM)5		3 (OE)
Choose any one subject In each semester -		
OE1	Fundamentals of Computers	
OE2	Pc Packages	
OE3	Digital Art & Digital Photography	
OE4	Social Science	
OE5	Website Development	
OE6	Social Media	
OE7	Advanced 3D Design with MAYA	
For detailed syllabus of Open Elective Subjects, please refer to "Open Electives" section on page no. 48.		

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Course	Subject	Marks			Credit
		T	P	I	
4B.Sc.(MM)1	Principles of Digital Film Making	50	30	20	6 (CCC9)

**Objectives:**

- To understand the process of Digital Film Making
- Exploration of digital media and techniques to work on any project
- Training towards creative and technical competence.

**Unit 1: Basics of Digital Film Making:**

Concept of Digital Film Making, Industry Perspective of Digital Film  
Film and Society, Pre-Production, Production and Post  
Production, Genres and Audience

**Unit 2: Script writing and Digital Film for Digital Media& Storyboards:**

Research, Idea formation  
Writing a story for Film Format  
Story Boarding

**Unit 3: Digital Video Cinematography:**

Art of Cinematography, Types of Digital Cameras  
Composition, Lighting, Different Types of Shots, Camera Movements& Angles

**Unit 3: Digital Video Production:**

Production Crew  
Casting, Indoor & Outdoor Shooting  
Direction: Directing and working with the crew

**Unit 5: Digital Video Editing, Releasing:**

Non Linear Editing and Software, Editing Aesthetics, VFX, Software and Usage,  
Compositing, Colour Correction, Digital Video Formats, Conversion, Releasing to  
Various Platforms

**Assignments:**

1. Prepare a Sequence shoot
2. Plan a small Project of Digital Film
3. Prepare Social Documentary and Advertisement
4. Any Assignment given by concerned faculty

**Text Books and References**

1. Television Production: 15 Edition, Jim owner
2. Lighting for Television and Film Third Edition Gerald Millerson
3. The IFILM digital video filmmaker's handbook-, Volume 1-Maxie D. Collier
4. The Digital producer - getting it done with computer-based tools, Volume 1- Curtis Poole, Ellen Feldman

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Course	Subject	Marks			Credit
		T	P	I	
4B.Sc.(MM)2	Design with 3D Max	50	30	20	6 (CCC10)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• To impart knowledge of Modeling Techniques.</li> <li>• To impart training of idea generation for 3D Designing</li> <li>• To impart skills of Light and Shadow</li> <li>• To impart knowledge of Modeling</li> </ul>					
<b>Unit 1: Introduction of 3D &amp; 3D Max</b> Definition of 3D Design, Hardware and software technical specification, 3ds Max: interface, Terms and concepts, view Port, screen layout, menu bar, main tool bar, command panel, create panel, modify panel, hierarchy panel, motion panel, display panel, utilities panel.					
<b>Unit 2: Polygon Modeling</b> Working with primitive polygon objects, creating box and sphere, creating prism, modifying primitive ,selecting object: name, color, region, transforming objects, coordinate system in 3d max, transform Gizmos , moving an object, rotating an object, scaling an object, Hiding and freezing an object, cloning objects, grouping objects, Mirroring objects, Aligning objects.					
<b>Unit 3: Subdivision Modeling</b> Basic modeling techniques, Introduction to modifiers, modifiers types, modifier stack, using various modifiers, working with 2d Shapes, shapes primitive, 3D object,Using the Graphite Modeling tool, materials, Properties of materials, Modifier, Modeling concepts. Exploring NURBS Modeling, Creating a NURBS Curve Sub Object, Converting object to NURBS, Editing NURBS.					
<b>Unit 4: Texturing</b> Mesh Object and Sub Object, Exploring Subdivision Modeling, Applying the mesh smooth modifier, Applying the Turbo smooth modifier, Exploring Polygonal modeling, Creating Mesh Object, Converting and object into an Editable poly object, Collapsing an object, Advanced Materials, Subsurface Scattering, Texture Map, Layered Texture, Human Anatomy UV Coordinates Setup for Texturing, Maps - Color Maps, Bump Maps, Displacement Maps, Normal Maps, Specular Maps, Mask Maps, Occlusion map.					
<b>Unit 5: Lighting and Rendering</b> Basic concepts of lighting , Properties of light, 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, 3d Rendering , Rendering methods.					
<b>Assignments:</b> <ol style="list-style-type: none"> <li>1. To prepare various 3DModel.</li> <li>2. To prepare Animation..</li> <li>3. Exercise of Light and Texture for 3D Design</li> <li>4. Any other Assignment given by the concerned faculty.</li> </ol>					
<b>Text Books and References:</b> <ol style="list-style-type: none"> <li>1. Introducing 3ds Max 3D for Beginners by DariushDerakhshhahi, SYBEX (2003)</li> <li>2. 3ds Max 2010 IN Simple Steps,byKogent Learning Solution Inc. ,Dreamtech Press</li> <li>3. 3D Max Bbible(2006)</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
4B.Sc.(MM)3	Video Editing	50	30	20	6 (CCE3)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• To Equip Students with profound Video Editing Skills</li> <li>• To teach basics of Video Editing</li> <li>• To familiarize students with Video software commonly used for editing.</li> </ul>					
<b>Unit 1: Introduction to Video Editing</b> Principles of editing, Manipulation of time, Rhythm & Pace, Dramatic Continuity, Action Sequence / Cross Cutting / Parallel Cutting. Definition of Video, Frame, Concept Digital and Analog Video, Overview of computer video editing					
<b>Unit 2: Introduction to Adobe Premiere</b> Project Settings and Preferences, Understanding Adobe Premiere editing software (Project, Monitor, Timeline), Introduction to editing tools, Setting in and out points, Adding audio tracks,					
<b>Unit 3: Adobe Premiere Features</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 Synchronize audio, Introduction to transitions, Applying slow and fast motion effects.					
<b>Unit 4: Introduction of Final Cut Pro:</b> 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.					
<b>Unit 5: Final Cut Pro Features</b> Changing Motion Properties, Applying Filters, Multicam Editing, Adding Titles and Graphics, Finishing and Outputting, File Format of Video.					
<b>Assignments:</b> <ol style="list-style-type: none"> <li>1. Plan a small Project of Video Editing</li> <li>2. Develop Video for DVD and Internet</li> <li>3. Prepare various Programme format</li> <li>4. Any Assignment given by concerned faculty.</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>1. The Technique of Film and Video Editing: History, Theory, and Practice, Edition 5 Ken Dancyger 23 July 2014 CRC Press, ISBN NO. 978024081397</li> <li>2. Cutting Rhythms: Intuitive Film Editing, Edition 2 Karen Pearlman 10 December 2015 CRC Press, English ISBN 9781317516422</li> <li>3. Learn Adobe Premiere Pro CS5 by Video -By Video2Brain</li> <li>4. Adobe Premiere Elements 9 Classroom in a Book -By Adobe Creative Team.</li> <li>5. FINAL CUT PRO HD HANDS-ON TRAINING-by Larry Jordan</li> <li>6. Editing techniques with Final cut pro - Michael Wohl</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
4B.Sc.(MM)3	Multiplatform Publishing on Different Media	50	30	20	6 (CCE4)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>To learn elements of different media</li> <li>To learn concept creation &amp; conversion process for different platforms</li> <li>To gain experience and learn Improvements in content design</li> </ul>					
<b>Unit 1: Multiplatform: Basic Introduction</b> Digital Platforms: Need, Definitions, Basic Rules & Principles, Features. Multiplatform: Types, Differences & Creation Process, Features. Cross Platform: Need, Definitions, Examples & Samples, Features. Integration Services: API, Embedding of Media, Need, Examples & Samples, Features.					
<b>Unit 2: Multiplatform Content Creation</b> Structure and Work Flow: Different content models, Content creation workflow and Pipeline. Pre Production Process: Content Research, Brain Storming, Content Gathering, Content Indexing, Content Creation for Specific Platform Cost Calculation: Adapting Cost effective process					
<b>Unit 3: Digital Publishing</b> Publishing for Web & Social Media: Process, Research, Content creation & editing, Graphics editing, Cross Platform content editing. Publishing for Online Ads & Promotions: Types, Creation Process, Editing. Platform Research: Need, Growth research, Target User research, Multichannel consumer research, Technological Relevance Research. Digital Publishing: Tools, Online free platforms. Digital content management: CMS (Content Management Systems), Online Tools, Freeware.					
<b>Unit 4: Intelligent Content: Creation &amp; Publishing</b> Intelligent Content Creation: Conversion, Publishing Platforms, CMS adaptation. Intelligent Content Customization: Editing, Content management. Framework: Intelligent content Indexing, Linking, Search techniques.					
<b>Unit 5: Case Study</b> Multiplatform Publishing Future: Case Study Intelligent Content Future: Case Study Open Source publishing Future: Case Study					
<b>Assignments:</b> <ol style="list-style-type: none"> <li>E Book: Creation of a 6 page e-book.</li> <li>Article: Creation of a 2 page article for blog and Social Media.</li> <li>Ad Making: Creation of a Ad for Blog, Micro Blog, Social Media Website &amp; Instant Chat App.</li> </ol>					
<b>Text books and Reference</b> <ol style="list-style-type: none"> <li>The Multiplatform Publishing Strategy Handbook, 2014, (Free Download), Mequoda Handbooks</li> <li>Intelligent Content: A Primer, 2015, Ann Rockley, Charles Cooper, Scott Abel</li> <li>Multimedia: Making It Work, 9th 2014 Edition, Osborne Reserved</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
<b>4B.Sc.(MM)4</b>	<b>Visual Content Design for Multimedia</b>	<b>40</b>	<b>-</b>	<b>10</b>	<b>3 (SEC2)</b>
<b>Objective:</b> <ul style="list-style-type: none"> <li>To able to visualize content and to learn implementation of visualization in content</li> <li>To learn elements of content design for effective visualization</li> <li>To learn visual design of content for different platforms</li> </ul>					
<b>UNIT I: Basics of Visual Design:</b> <ul style="list-style-type: none"> <li>Visual Content – types, aesthetics and branding</li> <li>Elements of visual design- Line, shape, size ,texture, space, style</li> <li>Principles of design- Balance (formal balance, informal balance) rhythm, proportion</li> <li>Visual design process</li> <li>Aspects of design- Visual communication, function and information</li> </ul>					
<b>UNIT II: Color</b> <ul style="list-style-type: none"> <li>Basic of color and color wheel</li> <li>Color models</li> <li>Emotions with color</li> <li>Color palettes</li> </ul>					
<b>UNIT III : Typography</b> <ul style="list-style-type: none"> <li>Fonts- style, type and size, space management</li> <li>Encoding standards</li> <li>Basic typographic rules for print and new media</li> </ul>					
<b>UNIT IV Publishing Platforms</b> <ul style="list-style-type: none"> <li>Visual content for web</li> <li>Visual content in social media</li> <li>Visual content for Mobile apps</li> <li>Visual content for TV</li> </ul>					
<b>UNIT V : Visual Content Design</b> <ul style="list-style-type: none"> <li>Visual content formats</li> <li>Facebook promotional posts</li> <li>E-book design</li> <li>Corporate identity design</li> <li>ROI for visual content</li> </ul>					
<b>Assignments:</b> <ul style="list-style-type: none"> <li>create a presentation for aesthetics of visual content</li> <li>1. Create an E book explaining elements of visual content</li> <li>2. Create corporate identity design with logo</li> <li>3. Create an infographical chart for assigned subject</li> </ul>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>Los Logos7, Gestalten, ISBN: 978-3-89955-546-2</li> <li>The Elements of Graphic Design, Alex W. White, ISBN-10: 1581157622</li> <li>Typography Workbook (English), Samara Timothy, Rockport Publications, ISBN-13: 978-1592533015</li> <li>Package Design Workbook- The Art and Science of Successful Packaging, Steven DuPuis, John Silva, ISBN-10: 1592537081</li> <li>Art and print production N.N.Sarkar, ISBN-13: 978-0195692242.</li> </ol>					

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<b>Course</b>	<b>Open Elective</b>	<b>Credits</b>
<b>4BSc(MM)5</b>		<b>3 (OE)</b>

Choose any one subject in each semester -

OE1	Fundamentals of Computers
OE2	Pc Packages
OE3	Digital Art & Digital Photography
OE4	Social Science
OE5	Website Development
OE6	Social Media
OE7	Advanced 3D Design with MAYA

For detailed syllabus of Open Elective Subjects, please refer to "Open Electives" section on page no. 48.

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Course	Subject	Marks			Credit
		T	P	I	
<b>5B.Sc.(MM)1</b>	<b>3D Design with MAYA</b>	<b>50</b>	<b>30</b>	<b>20</b>	<b>6</b> (CCC11)
<b>Objective</b> <ul style="list-style-type: none"> <li>To impart knowledge of Modeling &amp; Texturing.</li> <li>To impart knowledge of Rigging &amp; Animation.</li> <li>To impart skills of Light and Shadow.</li> </ul> To impart knowledge of Dynamics Effects& Rendering.					
<b>Unit 1: Introduction to MAYA</b> Introduction to MAYA, Maya Interface, Creating a Scene, Manipulating a Scene in 3D, Texturing an Object, Lighting a Scene, Rendering a Still Frame.					
<b>Unit 2: Modeling &amp; Texturing</b> Basic of Clay modeling, Modeling with NURBS - NURBS topology, NURBS Modeling Tools, Attaching surfaces, Rebuilding Surfaces, Textures Coordinates, Polygon Modeling and Texturing - Modeling with Polygon Tools , Working with Symmetry, Using Image Planes, Block Modeling, Sculpturing Polygon Objects, UV Texturing, Paint Effects, Material's,Hyper shade.					
<b>Unit 3: Rigging &amp; Animation</b> Creating the Skeleton, Using Deformers,Constrain and utility's, Set driven key, Connection editor, Creating a rig using IK FK., Skinning, Animation introduction, Key frame,Animation principles, Graph editor,Dope Sheet,Animating objects along paths,Playblast, Ball bouncing ,Walk cycle					
<b>Unit 4: Dynamics Effects</b> Particle properties, fluids dynamics, fields, soft and rigid bodies. Basic of hair fur and cloth simulation.					
<b>Unit 5: Lighting and Rendering</b> The art and techniques of lighting, Three point lighting, Light links, camera shot, Types of Rendering in Maya, Material and light Interaction, Render Layers, Render with Alpha Channel.					
<b>Assignments:</b> <ol style="list-style-type: none"> <li>1. Prepare 3D Animation for Film</li> <li>2. Exercise of Light and Texture for 3D Design</li> <li>3. Prepare 3D Character.</li> <li>4. Create a desk lamp.</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>1. The Yucatan : A Guide to the Land of Maya Mysteries Plus Sacred Sites at Belize, Tikal &amp; Copan - by Antoinette May</li> <li>2. John Kundert - Gibbs, Eric Mick Larkins, Eric Keller, Boaz Livny, Mark E.A. De Soura, Mastering Maya 7 ; Wiley Kunzen Dort, DariushDerakhashani, Publishing Edition 2006.</li> <li>3. Maya - by Peter Schmidt (Editor), Enrique Nalda (Editor), Mercedes De LA Garza, Orefici</li> <li>4. Maya 8 : The Complete Reference, Tom Meade, ShinsakuArima</li> <li>5. Maya Character Modeling and Animation: Principles and Practices, Tereza Flaxman</li> <li>6. Introducing Maya 8: 3D for Beginners, DariushDerakhshani</li> <li>7. Understanding 3D Animation Using Maya, John Edgar Park</li> <li>8. The Animators Survival Kit, Originally published: 2001 Author: Richard E. Williams</li> <li>9. Stop Staring: Facial Modeling and Animation Done Right, Originally published: 2003 Author: Jason Osipa</li> <li>10.The Art of Rigging, Volume 1,2,3 Publish ed : 2006;Author:Kiaran Ritchie</li> <li>11.Advanced Maya Texturing and Lighting. Published: 2008; Author: Jeremy Blrn</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
<b>5B.Sc.(MM)2</b>	<b>Authoring and Virtual Reality</b>	<b>80</b>	<b>-</b>	<b>20</b>	<b>6</b> (CCC12))
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• To understand various authoring tools &amp; its components</li> <li>• To learn about the basics of Virtual Reality &amp; VRML.</li> </ul>					
<b>Unit 1: Introduction of Authoring</b> Introduction, Objectives, Different Authoring Styles - flow diagram, timeline, authoring language, interactive presentations Multimedia Development Tools - Presentation tools -Slide Presentation Environments, Interactive Presentation Environments and Authoring Environments.					
<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 - Icon Author, ImageQ, QuickTime, Comparison of the tools					
<b>Unit 3: Authoring tools and Virtual Reality</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.					
<b>Unit 4: Virtual Reality and Augmented reality</b> Virtual Reality Basics -Definition, VR Hardware 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. Augmented reality - Meaning, Components, Application, Challenges & Issues, Augmented Reality vs Virtual Reality, Future trends.					
<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.					
<b>Assignment:</b> <ol style="list-style-type: none"> <li>1. To prepare a CD of authoring project.</li> <li>2. To prepare an Interactive Presentation on Leading simulators and latest VR Devices.</li> <li>3. To prepare an assignment given by subject teacher.</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>1. Multimedia: Making it Work 7th Edition - by Tay Vaughan, Tata Mcgraw Hills.</li> <li>2. Multimedia in Action - James E Shuman - Vikas Publishing House.</li> <li>3. Principles of Multimedia- Ranjan Parekh - Tata McGraw-Hill</li> <li>4. Learning Virtual Reality,Developing Immersive Experiences and Applications for Desktop, Web, and Mobile,ByTony Parisi(2015)</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
5B.Sc.(MM)3	Interactive Content for Social Media	50	30	20	6 (CCE5)

### Objectives:

- To learn principles of interactivity and elements of interactivity
- To learn elements of interactive content creation
- To learn elements of human computer interface design

### Unit 1: Interactivity: Basic Introduction

Human Interaction: Need, Definitions, Basic Rules & Principles, Features.  
Human Interface: Need, Definitions, Basic Rules & Principles, Features.  
Digital Interactivity: Need, Definitions, Examples & Samples, Features.

### Unit 2: Interactive Content Overview

Interactive Content: Elements, Content & Graphics Creating Process.  
User Experience: UI/UX for Content, User Feedback Analysis.  
Interactive Conversion: Data to content, Content to Interactive Content

### Unit 3: Digital Interactive Content

Digital Content: Different content models, Tools and Creation techniques.  
Pre Production Process: Interactivity Analysis, Brain Storming, Content Gathering  
Improvements in Content Archive: Archive Content Conversion to Interactive Content.

### Unit 4: Interactivity on Various Platforms

Interactivity for Marketing: Graphical Conversion, Infographics, Ads.  
Interactivity for Education: Customization, Graphics Elements.  
Interactive Content on Social Media: Meme, Troll, Image Slides & Other Interactive elements.

### Unit 5: Case Study

Computer Human Interface: Case Study  
Interactivity for Academics: Case Study  
Interactive Content for Social Media: Case Study

### Assignments

1. E Book for Children: Creation of a 4 page interactive e-book.
2. Interactive Article: Creation of a 1 page Interactive article for Social Media.


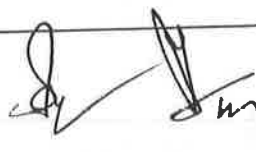
### Text and Reference books

1. Digital Content Creation, Springer; 2001 edition, ISBN-10: 1852333790, ISBN-13: 978-1852333799, by Rae Earnshaw, John Vince
2. Interactivity by Design, Adobe (1995), ISBN-10: 1568302215, ISBN-13: 978-1568302218, by Ray Kristof, Amy Satran
3. Interactivity, Collaboration, and Authoring in Social Media, Springer 2016 edition, ISBN-10: 3319259504, ISBN-13: 978-3319259505, by Krystina Madej
4. Interactivity: New Media, Politics and Society Peter Lang Ltd, ISBN-10: 1906165440, ISBN-13: 978-1906165444

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Course	Subject	Marks			Credit
		T	P	I	
<b>5B.Sc.(MM)3</b>	<b>Project Management for Multimedia</b>	<b>50</b>	<b>30</b>	<b>20</b>	<b>6</b> (CCE6)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• To impart skills of Planning and Costing of Multimedia Project</li> <li>• To impart skills of Goal Planning</li> <li>• To impart skills of Project Management</li> <li>• To impart skills of Multimedia Project.</li> </ul>					
<b>Unit 1: Introduction to Project management</b> Introduction to Multimedia Project, Team members - Multimedia Project Manager, Selecting the team, Identifying the skills, Skill set profiles - core team and extended team, Feedback.					
<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, Agreement. Stages of a project, Responsibilities. Importance of content, scripting for multimedia, general principles for establishing content.					
<b>Unit 3: Cost analysis</b> Costing of Project, Analysis: Need, cost, content, market, technology, delivery platforms & medium, Report and Target Define.					
<b>Unit 4: Legal Issues</b> Costing rights and clearances. Legal Issues. Rights, Copyright and Other Intellectual Properties, outsource legal Issues-NDA Document					
<b>Unit 5: Testing and Delivery</b> Testing strategies, platforms for development and testing, Prototype Development: Alpha development, Beta development, Delivery media and techniques - constraints, matching the media to the message, Packing, Marketing and Public Relation.					
<b>Assignment:</b> <ol style="list-style-type: none"> <li>1. Document for Multimedia Project</li> <li>2. Analysis Report for Multimedia Project</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>1. Multimedia-Based Instructional Design , Computer-Based Training, Web-Based Training, Distance Broadcast Training - William W. Lee, Diana Owens; ISBN: 978-0-7879-7344-5 ; April 200</li> <li>2. Getting Started in Multimedia Design - Gary: ISBN-13: 978-0891347163 ; Olsen; 1998</li> <li>3. People and Processes (Managing Multimedia: Project Management for Web and Convergent Media, Third Edition,(2001)</li> <li>4. A Project Management Model for Multimedia System Development, G. Joubert(2002)</li> </ol>					

Course	Subject	Marks			Credit
		T	P	I	
5B.Sc.(MM)4	Interactive Media for Mobile Application	40	-	10	3 (SEC3)

### Objectives :

- Knowledge of various interactive media and Exposure to mobile interfaces
- Designing a Mobile Application using Phonegap
- Publishing and launching mobile application

### Unit 1: Interactive Devices

Definition, Types of Interactive devices  
Impact of Interactive Media in Video games, Social Media, Websites  
Interactive Media in Mass marketing and non digital resources  
Participation and feedback of users

### Unit 2: Introduction to mobile application

Types of apps-native, web, hybrid, characteristics  
Mobile Vs web application  
App designing and development process  
Categories of app-entertainment, social, utility and productivity, educational, informative, creation

### Unit 3: Mobile devices and Platforms

Understanding the mobile devices-multi-touch display, still camera  
Video camera, microphone and speakers ,screen resolution  
Mobile platforms & Selection -Android, IOS, windows

### Unit 4: Visual design and patterns for mobile

Introduction to interface ( GUI,UI,UX,UD),  
Interface styles(native, custom), wireframes, types of wireframes, patterns of interaction-navigation, tabs, image gallery, drawer menu short cuts, edit list for different platforms, Visual identity-launch Icons and launch image, grid, typography, colour, visual details-empty screen, Ephemeral Graphics, Visual Secrets, App Animations

### Unit 5 : App development

Introduction Phonegap creating a app using Phonegap software  
Introduction to SDK android studio, Google API  
Testing, publishing and launching App  
Publishing the App In Official Stores, Publishing and Distributing, Promotion and Updates

### Assignment

- Develop an app using Phonegap

### Text Books and References

1. SMIL 3.0: Flexible Multimedia for Web, Mobile Devices and Daisy Talking Books  
Publisher: Springer; 2nd ed. 2009 edition (December 5, 2008)
2. Designing Mobile Apps by Javier Cuello, José Vittone.
3. A small book about designing mobile apps by Paula Borowska & Tomas Laurinavicius
4. PhoneGap By Example Learning Andrey Kovalenk
5. PhoneGap Mobile Application Development Cookbook (English, Paperback, Matt Gifford) ISBN: 9781849518581, 1849518580
6. Interactive Media Design and Development with Adobe CS6 By Sherry Bishop, Annessa Hartman

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Course	Open Elective	Credits
5BSc(MM)5		3 (OE)
Choose any one subject in each semester -		
OE1	Fundamentals of Computers	
OE2	Pc Packages	
OE3	Digital Art & Digital Photography	
OE4	Social Science	
OE5	Website Development	
OE6	Social Media	
OE7	Advanced 3D Design with MAYA	
For detailed syllabus of Open Elective Subjects, please refer to "Open Electives" section on page no. 48.		

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Course	Subject	Marks			Credit
		T	P	I	
6B.Sc.(MM)1	Project Portfolio Management	80	-	20	6 (CCC13)
<b>Objectives:</b> • To impart Project Planning and Execution					
<b>Unit 1: Portfolio Management Framework</b>  Portfolio Management Framework: create-select-plan-manage.					
<b>Unit 2: Creation</b> Create-Demand management, Team collaboration, Program management, Portfolio reporting.					
<b>Unit 3: Selection</b> Select-Portfolio, Financial Management Public Relation, Team Collaboration, Program Management.					
<b>Unit 4: Planning</b>  Plan-Capacity Planning, Resource Management Project Scheduling, Financial Management, Public Relation, Team Collaboration, Program Management					
<b>Unit 5: Management</b>  Manage-Resources Management, Project Scheduling, Financial Management Time reporting, Public relation, Team Collaboration, Program Management. Case Studies					
<b>Assignments:</b> 1. Prepare Small Project of given CG Complete 2. Any Assignment given by Concerned Faculty					
<b>Text Books and References</b> 1. Project Management Institute. (2006) The Standard for Portfolio Management. Newtown Square, PA: Project Management Institute. 2. Top 5 Project Portfolio Management Books by muydwriter Edited by: Ginny Edwards, 2010					

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Course	Subject	Marks			Credit
		T	P	I	
6B.Sc.(MM)2	Project	-	80	20	6 (CCC14)

### **Guidelines for submission of BSc(Multimedia /Graphics and Animation) Project**

All the candidates of BSc(MM/GA) are required to do a project as part of their curriculum and submit a project report based on the work done by him/her during the project period.

#### **THE GUIDE**

The Guide for BSc(MM/GA) will be a faculty in New Media Technology with 3 years teaching experience.

#### **PROJECT TIME / MAN-HOURS**

- The BSc(MM/GA) Projects would be approximately 225 man-hours (in a span of 2 months) and carries a total of 300 marks (240 Pr + 60 IA)
- Project work should be based on topics in syllabus to Identified situations.
- Number of students in a project group will not be more than three for BSc(MM/GA) .
- Synopsis of the project work should be submitted within the first 15 days of the duration.
- Project report should be submitted 10 days before the final exam for evaluation.

#### **PROJECT DEVELOPMENT:**

The project work shall be evaluated on two different parameters.

- I. The Product
- II. The Process

#### **I. The Product**

The final product developed during the project work should meet the following minimum criteria as mentioned below-

1. The product developed should have a meaningful Concept/Story implementing an idea with meaningful commentary
2. Incorporating background music
3. Minimum 5 to 10 minute clips
4. Minimum 20 sec live action clip
5. Still graphics
6. A 2D/3D animation must be incorporated
7. A project report in the specified format

#### **II. The Process**

The process shall be evaluated in the following areas:

1. Application of Production pipeline (Preproduction, Production, Postproduction)
2. Clarity in Need Identification/objectives (Converting this into Idea)
3. Idea - how to Implement/Evidence for each idea like text, image, sound/ minimum platform required to implement the same
4. Design and Development - looking to the Idea, storyboard/communication

strategy ,pedagogy, aesthetics/ Quality of Presentation of each piece of evidence Format ,Technical Quality, Readability, Software used/ Data management

5. Validation

6. Ability to defend the ideas through questioning and Viva

### **Sample Topics for project work**

1. Global warming
2. Prevent Deforestation
3. Documentary on health
4. Conservation of water
5. Conservation of power(Energy)
6. Good habits /bad habits.
7. Road traffic sense.
8. Pollution.
9. Right to education
10. Women Rights
11. Website Development
12. Game Development
13. Advertisement

### **Project Evaluation Guidelines.**

#### **A.)To be done by the Internal Examiner : (60 marks)**

The evaluation of Project will be done on the basis of following heads:

Synopsis/Internal Assessment	- 20% of total marks.
Product	- 30% of total marks.
Process and its in-process documentation	- 30% of total marks.
Final Project report and presentation	- 20% of total marks.

#### **B.)To be done by External Examiner : (240 marks)**

The evaluation of Project will be done on the basis of following heads:

Product	- 30% of total marks.
Process	- 20% of total marks.
Project report	- 20% of total marks.
Comprehensive Viva	- 30% of total marks.

### **SYNOPSIS**

All students must submit a synopsis separately with the project report. Synopsis preferably should be of about 3-4 pages. The content should be as brief enough to explain the objective and implementation of the project that the candidate is going to take up. The write up must adhere to the guidelines and should include the following:

- Name / Title of the Project
- Objective and scope of the Project
- Process Description
- Hardware & Software to be used
- What contribution would the project make?
- Target Audience.

**TOPIC OF THE PROJECT:** This should be explicitly mentioned at the beginning of the Synopsis. Since the topic itself gives a peep into the project to be taken up, candidate is advised to be prudent on naming the project. This being the overall impression on the future work, the topic should corroborate the work.

**OBJECTIVE AND SCOPE:** This should give a clear picture of the project. Objective should be clearly specified. What the project ends up to and in what way this is going to help the end user has to be mentioned.

**PROCESS DESCRIPTION:** The process of the whole multimedia/animation system proposed, to be developed, should be mentioned in brief.

**RESOURCES AND LIMITATIONS:** The requirement of the resources for designing and developing the proposed system must be given. The resources might be in form of the hardware/software or the data from the industry. The limitation of the proposed system in respect of a larger and comprehensive system must be given.

**CONCLUSION:** The write-up must end with the concluding remarks-briefly describing innovation in the approach for implementing the Project, main achievements and also any other important feature that makes the system stand out from the rest.

**The following suggested guidelines must be followed in preparing the Final project Report:**

Good quality white executive bond paper A4 size should be used for typing and duplication. Care should be taken to avoid smudging while duplicating the copies.

**Page Specification** : (Written paper and source code)

- Left margin - 3.0 cms
- Right margin- 2.0 cms
- Top margin 2.54 cms
- Bottom margin 2.54 cms
- Page numbers - All text pages should be numbered at the bottom center of the pages.

**Normal Body Text: Font Size:** 12, Times New Roman, Double Spacing, Justified. 6 point above and below para spacing

**Paragraph Heading Font Size:** 14, Times New Roman, Underlined, Left Aligned. 12 point above & below spacing.

**Chapter Heading Font Size:** 20, Times New Roman, Centre Aligned, 30 point above and below spacing.

**Coding Font size :** 10, Courier New, Normal

**Submission of Project Report to the University** : The student will submit his/her project report in the prescribed format. The Project Report should include:

- One copy of the synopsis//abstract.
- Two hard Copy of the Project Report.
- Soft copy of the final product on CD in a thick envelope pasted inside of the back cover of the project report.
- The Project Report may be of maximum 75 pages

**FORMAT OF THE STUDENT PROJECT REPORT ON COMPLETION OF THE PROJECT**

1. Cover Page as per format
2. Acknowledgement
3. Certificate of the project guide/Centre Manager as at Annexure III
4. Certificate of the Company/Organisation
5. Synopsis of the Project
6. Main Report
  - Objective & Scope of the Project
  - Details of Hardware & Software used
  - Production pipeline



- Product Validation
- Cost and benefit Analysis
- Conclusion

**Annexure:**

1. Brief background of the organization where the student has developed the project.
2. References

**Binding & Color code of the Report  
BSc(MM) and BSc(GA)**

Hard Bound Report  
Background of the cover page -Blue  
Letters in Black

**CERTIFICATE**

This is to certify that this project entitled " xxxxxx xxxxx xxxxx xxxx xxxx xxx" submitted under partial fulfillment of the degree of BACHELOR OF SCIENCE(Multimedia/ Graphics and Animation) to the Makhanlal Chaturvedi National University of Journalism and Communication, Bhopal, done by Mr./Ms. \_\_\_\_\_, Roll No. \_\_\_\_\_ is a project work carried out by him/her at \_\_\_\_\_ under my guidance. The matter embodied in this project work has not been submitted earlier for award of any degree or diploma to the best of my knowledge and belief.

Signature of the student

Signature of the Guide

*Signature of student* *Signature of Guide*

**Title of the report**  
(Times New Roman, Italic, Font size = 24 )

Submitted under partial fulfillment of the requirements  
for the award of the degree of B.Sc in Multimedia/Graphics and Animation  
(Bookman Old Style, 16 point, centre)

University Logo

Guide  
(Guide Name)

Submitted by:  
(Student's name)  
Roll No.:

Makhanlal Chaturvedi National University  
of Journalism and Communication, Bhopal,

**SELF CERTIFICATE**

This is to certify that the project report entitled  
"\_\_\_\_\_ " is done by me  
is

an authentic work carried out for the partial fulfillment of the requirements for  
the award of the degree of BSc in Multimedia / Graphics and Animation under  
the guidance of \_\_\_\_\_. The matter embodied in  
this project work has not been submitted earlier for award of any degree or  
diploma to the best of my knowledge and belief.

Signature of the student  
Name of the Student  
Roll No.  
Study Centre Name

*Handwritten signatures and marks at the bottom of the page.*

### **ACKNOWLEDGEMENTS**

In the "Acknowledgement" page, the writer recognises his indebtedness for guidance and assistance of the project advisor and other members of the faculty. Courtesy demands that he also recognise specific contributions by other persons or institutions such as libraries and research foundations. Acknowledgements should be expressed simply, tastefully, and tactfully.

### **References**

1. D.L. Carney, J.I. Cochrane, "The 5ESS Switching System: Architectural Overview," AT&T Technical Journal, vol. 64 , no. 6 , July-August 1985, pp. 1339-1356.
2. A. Stevens, C++ Database Development, MIS Press, New York, 1992, p. 34.
3. J. Martin, Computer Data-base Organization, Prentice-Hall, Englewood Cliffs, NJ, 1977, p. 53.
4. [www. Ibm.com/in](http://www.ibm.com/in)
5. [www.intel.com/india9](http://www.intel.com/india9)

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Course	Subject	Marks			Credit
		T	P	I	
6B.Sc.(MM)3	Multimedia Production Pipeline	80	-	20	6 (CCE7)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>To impart Project Planning and Execution</li> <li>To impart production process.</li> <li>To impart titling for project</li> <li>To impart publishing a project</li> </ul>					
<b>Unit 1: Pre-Production</b> Planning & Concept Design Ideas, writing, planning, Screenplay/Script (Writing/Editing), Storyboard, Feedback & Approval, Character and Prop design, backgrounds, and props, Key poses and animation, Animatics, Folder structure, Naming convention.					
<b>Unit 2: Production - 1</b> 2D/3D Animation: Using Model Sheets and Animatics, layout, Modeling, Texturing, Print Media: Layout Design					
<b>Unit 3: Production - 2</b> 2D/3D Animation: Lighting, Rigging, Animation, Character effects, 3D special effects, Authoring. Website: Layout Design, Frame, Form, Button					
<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					
<b>Unit 5: Delivery</b> After Effects, Adding SFX and Music after wards, Rendering and Publish					
<b>Assignments:</b> <ol style="list-style-type: none"> <li>Prepare Small Project of given CG Complete</li> <li>Any Assignment given by Concerned Faculty</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>Infiltrator Production Pipeline ,Vol 5 : Animation ebook available online</li> <li>Multimedia-Based Instructional Design , Computer-Based Training, Web-Based Training,</li> <li>Distance Broadcast Training - William W. Lee, Diana Owens</li> <li>Getting Started in Multimedia Design - Gary Olsen-2005</li> <li>John Lasseter, "Principles of Traditional Animation"-2007</li> </ol>					

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Course	Subject	Marks			Credits
6B.Sc.(MM)4	Advertising for New Media	T	P	I	3 (SEC4)
		40	-	10	
<b>Objective</b> <ul style="list-style-type: none"><li>• Knowledge of Advertising</li><li>• To learn online advertising</li><li>• Understand social media advertising</li></ul>					
<b>UNIT 1:Introduction to Advertising</b> <ul style="list-style-type: none"><li>• Definition, need, role and Importance</li><li>• Types and Classification of Advertising</li><li>• Advertising Media</li><li>• Types of Appeals and Advertising Messages</li><li>• Layouts of advertisements, Elements</li><li>• Advertising campaigns.</li></ul>					
<b>UNIT 2:Introduction to Online Advertising</b> <ul style="list-style-type: none"><li>• Defining Online Advertising: Evolution and Current Status</li><li>• Online Media Landscape</li><li>• Online Media Integration across Advertising, Market Research, Activation etc.</li><li>• Advent of Hybrid Advertising (Online merging with Offline)</li><li>• Advantages of Online Advertising</li></ul>					
<b>UNIT 3:E-Mail, Search Engine and Mobile Advertising</b> <ul style="list-style-type: none"><li>• Types of E-mail Advertising - <b>Email Newsletters, Transactional Emails, Direct Emails</b></li><li>• <b>Collecting e-mail addresses, Design e-mail Ad campaign, design look and feel of promotional e-mails, Track and evaluate e-mail ad campaign</b></li><li>• Search Engine Advertising (SEA): Definition, Objectives; Search Engine Optimisation (SEO) - Paid Search and Organic Search, Content Marketing, Google AdWords, Bing Ads , SEA Platforms</li><li>• Posting models - CPC, CPA, CPM, Cost per call</li><li>• Digital Media Integration across Advertising, Market Research, Activation etc.</li><li>• Elements of Mobile advertising, Advantages</li><li>• Mobile ad types, Rich media, Planning a mobile ad campaign</li></ul>					
<b>UNIT 4:Social Media Advertising (Facebook, Twitter and YouTube)</b> <ul style="list-style-type: none"><li>• Creating a Facebook Page, creating strategy for Facebook Ads, setting S.M.A.R.T. goals,</li><li>• Choosing target audience and ad spend, <b>Choosing ad look, Creating Facebook ads report</b></li><li>• Introduction to Twitter Advertising, Promoted Tweets vs. Promoted Accounts</li><li>• <b>Selecting Primary Targeting Criteria, Creating Tweets</b></li><li>• Introduction to YouTube Advertising, Video Marketing</li><li>• Designing a YouTube Ad Campaign</li><li>• Setting YouTube Account and Uploading</li></ul>					
<b>UNIT 5:Measuring effectiveness of Online Advertising</b> <ul style="list-style-type: none"><li>• Factors affecting Online Advertising</li><li>• Web Analytics: Introduction, Types, Metrics</li><li>• Websites to track website traffic</li><li>• Traffic cost</li></ul>					
<b>Assignments:</b> <ul style="list-style-type: none"><li>• Prepare an e-mail advertising campaign.</li><li>• Prepare a Facebook advertising campaign for admissions in an academic institution.</li><li>• Prepare a twitter/YouTube advertising strategy for an academic institution.</li></ul>					

**Text Book and References :**

1. Know Online Advertising: All Information about Online Advertising at One Place; Avinash Tiwary; Partridge India; ISBN-10: 1482872498, ISBN-13: 978-1482872491, (30 July 2016)
2. Learning Google AdWords and Google Analytics; Benjamin Mangold; Loves Data; ISBN-10: 0994390408, ISBN-13: 978-0994390400, 8 September 2015
3. Online Advertising; Ehsan Zarei; Lulu.co; ISBN-10: 1291728368, ISBN-13: 978-1291728361, 20 February 2014
4. Internet Advertising: Learn New Things About Internet Advertising; John Wright; CreateSpace Independent Publishing Platform; ISBN-10: 1505817129, ISBN-13: 978-1505817126, 29 December 2014
5. Beginners Guide to Digital Marketing: How to Flood Your Website With Traffic In 30 Days; Romuald Andrade; CreateSpace Independent Publishing Platform; ISBN-10: 1514263734, ISBN-13: 978-1514263730, 17 May 2015
6. Ways of Internet Advertising: Learn the Different Tactics of Online Advertising; Tim Deavin, CreateSpace Independent Publishing Platform; ISBN-10: 1505817412, ISBN-13: 978-1505817416, 29 Dec 2014
7. Internet Advertising: Theory and Research (Advances in Consumer Psychology); Shelly Rodgers (Editor), Esther Thorson (Editor); Psychology Press; ISBN-10: 0805851097, ISBN-13: 978-0805851090, 25 June 2007
8. Web Site Management & Internet Advertising Trends; Robin Webster; ISBN-10: 1563180677; ISBN-13: 978-1563180675, 15 Jun 2000

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<b>Course</b>	<b>Open Elective</b>	<b>Credits</b>
<b>6BSc(MM)5</b>		<b>3 (OE)</b>
Choose any one subject in each semester -		
OE1	Fundamentals of Computers	
OE2	Pc Packages	
OE3	Digital Art & Digital Photography	
OE4	Social Science	
OE5	Website Development	
OE6	Social Media	
OE7	Advanced 3D Design with MAYA	
For detailed syllabus of Open Elective Subjects, please refer to "Open Electives" section on page no. 48.		

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# OPEN ELECTIVES

(Syllabus)

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Course	Subject	Marks			Credit
		T	P	I	
<b>B.Sc.(MM)5</b>	<b>Fundamentals of Computers</b>	<b>40</b>	<b>-</b>	<b>10</b>	<b>3 (OE1)</b>

#### **Objectives:**

- To learn about Computer Devices
- To understand Software and Operating System
- To understand IT Communication
- To learn about Office Automation Package
- To learn about Document, creation, manipulation and storage of Chart and Slide Show Package

#### **Unit 1: Introduction to Computer, Software and Devices**

Computer System Concepts, Types Of Computers, Basic Components of a Computer System, Memory, Input Devices, Output Devices, Various Storage Devices, Software - Types - System software, Application software. System Software - Operating System, Utility Program, Assemblers, Compilers and Interpreter, Application Software - Word processing, Spreadsheet, Presentation Graphics, Database Management System.

#### **Unit 2: Introduction to Operating System and Network**

Introduction of Windows Linux and Mac. Windows - Features, Various versions, Working, My Computer & Recycle bin, Desktop Icons and Windows Explorer, Working with Files & Folders, Accessories and Windows Settings using Control Panel, Creating users, Internet settings, Start button & Program lists, 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.

#### **Unit 3: MS Word**

Introduction to MS Office MS Word: Features & area of use, Menus, Toolbars & Buttons, Creating a New Document, Different Page Views and layouts, Text Formatting, Paragraph and Page Formatting; Bullets, Numbering, Printing & various print options, Spell Check, Thesaurus, Find & Replace, Auto texts, Working with Columns, Creation & Working with Tables, Mail Merge.

#### **Unit 4: MS Excel**

Concepts of Workbook & Worksheets, 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.

#### **Unit 5: MS PowerPoint**


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.

#### **Assignments**

1. Presentation of Comparison of different Computers ,Memory &Devices
2. Comparison of types of Hardware
3. Preparation of Files and folders in different O/S.
4. To find out type of network done and software available in Computer Lab.
5. Presentation of paper Document.
6. Preparation of Chart, Table and Graph for various medium.
7. Preparation Slide for Presentation on given topic.
8. Any other assignments given by the concerned Faculty.

**Text Books and References:**

1. Computers Today, S.K. Basandra, Galgotia Publications, ISBN-10: 8186340742, 1995
2. Fundamentals of Information technology, Alexis Leon & Mathews Leon, Vikas Publishing House, New Delhi, ISBN-10: 8182092450, 2009
3. Computer Ek Parichay, V. K. Jain, and S Publishers, ISBN-10: 9381448426, 2009
4. Fundamentals of computer Peter Norton, McGraw-Hill Inc, ISBN-10: 0028043375, 1997
5. Fundamentals of computers , 4th Edition (Paperback) By V. Rajaraman, PHI, ISBN-10: 8120340116, 2010
6. Office XP: The Complete Reference, Julia Kelly, McGraw Hill Education, ISBN-10: 0070447233, 2001
7. Exploring Microsoft Office XP, I. Breeden, Bpb Publications, ISBN-10: 8176564486, 2005
8. Peter Norton's Complete Guide To MS Office 2000 Publisher: BPB, ISBN-10: 8176353124, 1999



Course	Subject	Marks			Credit
		T	P	I	
B.Sc.(MM)5	P.C Packages	-	40	10	3 (OE2)

**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.

**Unit 1: MS Word Basics**

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.

**Unit 2: Advanced Features of MS Word**

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.

**Unit 3: MS Excel**

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.

**Unit 4: MS PowerPoint**

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.

**Unit 5: MS Access**

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.

**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.

**Text Books and References:**

1. Windows XP Complete Reference. BPB Publications
2. MS Office XP complete BPB publication

3. MS Office Parichal BPB publication by Vishnu Singh.
4. Peter Norton's Complete Guide To MS Office 2000 Publisher: BPB
5. MS Office Documentation

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Course	Subject	Marks			Credit
		T	P	I	
<b>B.Sc.(MM)5</b>	<b>Digital Art and Digital Photography</b>	-	<b>40</b>	<b>10</b>	<b>3</b> (OE3)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Understanding digital camera its Components and Handling</li> <li>• Understanding basic concepts and practice of Photography including understanding and use of the camera, lenses, and other basic photographic equipment.</li> </ul>					
<b>Unit 1: Basics of DSLR/SLR Camera</b> Evolution of Camera, History of Photography, Photography Camera basics, Comparison of film Camera and digital camera, Types of DSLR/SLR camera, Parts of DSLR /SLR camera: Lens, Aperture, Shutter, Camera Sensor, ISO Setting .					
<b>Unit 2: Colour Aesthetics and Composition</b> Impact of colour in Photography, Association of colour moods hue, saturation, tone, shade, brightness, colour contrast, Complimentary colour Rule of Third, Balancing Elements, Leading lines, Texture, Viewpoint, Depth of field, Patterns, Colour, Symmetry, Background, Compositional Rules,					
<b>Unit 3: Lighting</b> Colour Temperature, White balance, Basic lighting technique, Three point lighting and its effects, lighting angles and directions, Lighting for set, atmosphere, Types of Photography lights					
<b>Unit 4: Photography Lenses and Equipments</b> Controlling The Image, Using different Focal Length Lenses, Filters and, its types, Close up equipments, Camera mounting device- Tripods, monopod, Storage media, Flash					
<b>Unit 5: Types of Photography</b> Sports & Action Photography, Product Photography, Wildlife & Nature Photography, Portrait Photography, Candid Photography, Archaeological Photography, Architecture Photography, Aerial Photography					
<b>Assignments:</b> <ol style="list-style-type: none"> <li>1. Digital Portfolio With Print(Nature photography, Product Photography, Candid Photography, , Architecture Photography,)</li> <li>2. Exercises of various types of Photography</li> <li>3. Any other assignment given by the concerned faculty</li> </ol>					
<b>Text Books and Reference:</b> <ol style="list-style-type: none"> <li>1. Handbook of Photography- Pradeep Tiwari- MCNUJC, Bhopal</li> <li>2. Langford's Basic Photography: The Guide for Serious Photographers, Edition 10 ISBN9781317964728</li> <li>3. The Digital Photography by Scott Kilby</li> <li>4. Digital Photography Quicksteps-by Doug Sahlin</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
<b>B.Sc.(MM)5</b>	<b>Social Science</b>	<b>40</b>	<b>-</b>	<b>10</b>	<b>3 (OE4)</b>
<b>Objectives:</b> <ul style="list-style-type: none"> <li>To provide social, psychological and environmental awareness to students.</li> </ul>					
<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.					
<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.					
<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.					
<b>Unit 4: Urban Sociology</b> Definition, Nature of Urban Sociology, Importance of Urban Sociology, Process of Urbanization					
<b>Unit 5: Rural Sociology</b> Origin And Development Of Rural Sociology In India, Importance Of Rural Sociology In India, Rural Social Structure, Panchayat Raj system					
<b>Assignments:</b> <ol style="list-style-type: none"> <li>To assess the present Process and social changes.</li> <li>To analyses the changes of Indian culture</li> <li>To find out Air pollution in your city.</li> </ol>					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>As Social Science by author R.S. Baweja Manohar Publications(November 1, 2010)</li> <li>Nagala B.K.Indian Sociological Thought Rawat Publications, Jaipur 2008</li> <li>Sociology Vidhiya Bhushan &amp;R.C Sachdewa</li> <li>Desai A. R. Rural Sociology in India, Popular Prakashan, Bombay (5th Edn) 1994.</li> <li>Mukharji Radhakamal The Dynamics of Rural Society, A. C. Mukharji Berlin 1957.</li> <li>Rajendra K. Sharma Urban Sociology, Atlantic Publishers and Distributors, New Delhi, 1997</li> </ol>					

Course	Subject	Marks			Credit
		T	P	I	
<b>B.Sc.(MM)5</b>	<b>Website Development</b>	-	40	10	<b>3</b> (OE5)
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• To understand Web Site Design Process.</li> <li>• To learn the basics of Web page Design using flash &amp; Dreamweaver</li> </ul>					
<b>Unit 1: Introduction to web design and web layouts</b> Design – Design aesthetic, characteristics for various websites(commerce, edutainment, IT, entertainment, games, online communities, etc) Introduction to interface ,types design and trends for different platforms, layouts for web- Symmetrical and asymmetrical layout ,Workflow for designing a site					
<b>Unit 2: Dreamweaver</b> Dreamweaver-Getting Started with Dreamweaver, Developing a Web Page, Working with Texts and Graphics, Image Placement, Aligning & Modifying, Page Properties. Link web content, using hyperlinks-mail links and named anchors ,Inserting rich media such as video, sound and animation in flash format, Importing tabular data to a web page, Creating Forms					
<b>Unit 3: Introduction to Flash</b> Flash: Getting started with macromedia Flash working with symbols and Interactivity, Creating animations, Crating special effects, Integration activity Insert and edit Macromedia Flash Movies in Dreamweaver.					
<b>Unit 4: Introduction to Java script and wordpress</b> Javascript Overview, syntax & conventions. Creating script, Hiding the script , Variables, Expressions, Branching & Looping statements, Objects, Events & Document Object Model - on Click, onMouseOver, onSubmit, on Focus, onChange, onBlur, OnLoad, onUnload, Alerts, Prompts & Confirms. Introduction to opensource software( wordpress).					
<b>Unit 5: Website Management and publishing</b> Choosing a domain name, components including domain extensions. Selecting a hosting company - business vs. personal. Understand the process of uploading, downloading a web site to from a web server. Using hosting management tools through the browser .Preparing to publish including adding meta tags to pages and general testing. Different types of FTP tools. Connecting to your host and transferring files effectively. Setting permissions on certain files to assist with security on your site. Understand the term copyright and its implications for text, images, audio, video available on websites.					
<b>Assignment</b> <ol style="list-style-type: none"> <li>1. design a web site using Dreamweaver</li> <li>2. embed a java script on to a web page</li> </ol>					
<b>Text Books and Reference :</b> <ol style="list-style-type: none"> <li>1. Learning Dreamweaver Cs 5 Paperback – by Bangia</li> <li>2. Dreamweaver CS5 in Simple Steps Paperback – by Kogent Learning Solutions Inc.</li> <li>3. Javascript: the Complete Reference Paperback – by Thomas Powell (Author), Fritz Schneider (Author)</li> <li>4. Javascript Testing: Beginner'S Guide Author : Eugene Publisher : Shroff - Packt Publishing ISBN13 : 9789350232644,ISBN10 : 9350232642</li> <li>5. WordPress: The Missing Manual, 2/e Paperback – 2014 by Matthew MacDonald (Author) Publisher: Shroff/O'Reilly; Third Edition edition (2014)ISBN-10: 935110706X; ISBN-13: 978-9351107064</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
<b>B.Sc.(MM)5</b>	<b>Social Media</b>	<b>40</b>	<b>-</b>	<b>10</b>	<b>3</b> (OE6)
<b>OBJECTIVES:</b> <ul style="list-style-type: none"> <li>To learn about basics of social media.</li> <li>To learn about social networking</li> </ul>					
<b>Unit 1: Development of Social Media</b> Introduction to New Media and Social Media, Types of Media (Print Electronic, Traditional and New Media), Traditional Media versus New Media, New Media as a communication tool, Pros & Cons of Social Media Types of New Media- Blog, micro-blogging, Forums, Internet Messaging, Social Bookmarking, Photo Sharing (Instagram, Picasa, Flickr), Video & Document Sharing (Slideshare, DocStoc, Scribd etc.) etc.					
<b>Unit 2: Social Networking and Smartphone Revolution</b> History of Social Media, Commonly used terms in Social Media, Networks and Social Networks: Information Society, Network Society, Social Networking sites MySpace, Facebook, Twitter, LinkedIn, Friendster, Mobile Communication introduction to cellphones, smartphones and tablets, Mobile media Technology and Apps, Photography on the web, Flickr, Video for the web, content repository- YouTube.					
<b>Unit 3: Social Collaboration &amp; Cyberspace</b> Online Community & Virtual reality: Social media for Community Development, Public Sphere in the Internet Era Collaboration: Collaborative Media- Wikipedia, Wikihow, Ask.com, Britannica etc. Cyberspace: The concept & Definitions, Crowd sourcing: Getting things done online, collective action and sharing, Crowdfunding, Crowdsourcing Media Convergence					
<b>Unit 4: Social Media for Business, P.R. &amp; Marketing</b> E- Governance, E- Banking, E-Wallet Mobile Phone for cashless economy Online Shopping- Amazon, Flipkart, E-bay etc. Social Media advertising & PR campaigns, Maintaining Online Communities, Social Media Start Ups					
<b>Unit 5: Net Neutrality &amp; Cyber Law</b> User Generated Content: ethics and credibility, Open Source, Free content and data Net Neutrality: TRAI rules, freedom and limitations, Introduction to Cyber Laws: Copyright & Privacy issues, Defamation Information Technology act- Law related to social media, Hacktivism, Ethical hacking, morphing, cyber bullying, Cyber Crimes & Security: Types and case studies					
<b>Text Books and References</b> <ol style="list-style-type: none"> <li>The Art of Social Media: Guy Kawasaki</li> <li>The New Rules of Marketing and PR: David Scott</li> <li>Media Law and Ethics: M. Neelamalar</li> <li>New Media: A Critical Introduction: Martin Lister and Jon Dovey</li> <li>Convergence: The Deepest Idea in the Universe: Peter Watson</li> <li>सोशल मीडिया: सम्पर्क क्रांति का कल आज और कल : स्वर्ण सुमन</li> </ol>					

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Course	Subject	Marks			Credit
		T	P	I	
B.Sc.(MM)5	3D Design with MAYA - Advanced	-	40	10	3 (OE7)

### Objectives:

- Knowledge of advance Modeling & Texturing .
- To improve knowledge of Rigging & Animation.
- To improve skills of Light and Shadow.
- To improve knowledge of Dynamics Effects& Rendering.

### Unit 1: Introduction to MAYA

Introduction to MAYA, Maya Interface, Creating a Scene, Manipulating a Scene in 3D, Texturing an Object, Lighting a Scene, Rendering a Still Frame.

### Unit 2: Modeling & Texturing

Props modeling, Background modeling, Biped modeling, Quarterped modeling, Blend shapes, Texturing - Shading network, Mental ray shaders, Advanced Materials, Subsurface Scattering, Texture Map, Layered Texture ,Human Anatomy UV Coordinates Setup for Texturing, Maps - Color Maps, Bump Maps, Displacement Maps, Normal Maps, Specular Maps, Mask Maps, Occlusion map etc.

### Unit 3: Rigging & Animation

Creating the Skeleton – Joint placement, Joint orientation, Machining rotation axis, Creating controls, Skinning with paint and component editor, Biped and Quarterped Character rigging, Dynamics rig, Facial rigging, Muscle system introduction, Animation –Character animation ,Blocking Techniques, Polishing Techniques, Lip syncing - Animating a Dialogue Scene, Walk cycle , Run cycle.

### Unit 4: Dynamics Effects

Emitter ,particles with collisions, Goal weight, Instancer,Fluid - 2D and 3D Container, Cashe, Fields - Air, Drag, Gravity, Newton, Radial, Turbulence, Uniform,Vortex,Volume Axis, Volume Curve, Soft and rigid body with constraints, N - Dynamics. N Cloth -Passive nCloth, Initial State, Pressure, Dynamic Curve, Cloth Cache , Hair - Hairstyle , Hair Simulation, Fur – Furstyle, Fur simulation.

### Unit 5: Lighting and Rendering

Lighting Theory - Colour Theory, Camera Composition - Rules of Thumb, Types of Shot, The Art of Lighting - 1, 2, 3 and 4 Point Lighting,Light,Decay,Spotlight,AreaLights,DecayRate,LightLinking,Artistic and Mood Lighting, Shadows - Depth Map Shadows ,Retries shadow, Mental Ray Sun and Sky, Image Based Lighting - IBL and HDR Theory, Simple Tone Mapping, Product Level HDRs, interior and exterior lighting, Types of Rendering in Maya, mental ray ,vray, arnold rendering, Render Layers.

### Assignments:

1. Create one character or background with texturing
2. Rig one Biped character
3. Light for exterior background
4. Create Dust storm.
- 5 Prepare 3D Animation for Film

### Text Books and References

1. The Yucatan : A Guide to the Land of Maya Mysteries Plus Sacred Sites at Belize, Tikal & Copan - by Antoinette May
2. John Kundert - Glibs, Eric Mick Larkins, Eric Keller, Boaz Livny, Mark E.A. De Soura, Mastering Maya 7 , Wiley Kunzen Dort, DariushDerakhashani, 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
8. The Animators Survival Kit, Originally published: 2001 Author: Richard E. Williams
9. Stop Staring: Facial Modeling and Animation Done Right, Originally published: 2003 Author: Jason Osipa
10. The Art of Rigging, Volume 1,2,3 Publish ed : 2006; Author: Kieran Ritchie  
Advanced Maya Texturing and Lighting, Published: 2008; Author: Jeremy Birn

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