

Maharashtra State Board of Skill Development Examination, Mumbai 400 051

1	Name of Course	Diploma Visual Design and Arts									
2	Course code	101419									
3	Max no. of Students	25 Students									
4	Duration	2 year									
5	Course Type	Full Time									
6	No. of Days per week	6 days									
7	No. of hours per day	7 Hrs									
8	Space require	Theory Class Room – 200 sq.ft, Lab/ Workshop – 400 sq.ft, Lab for Elective subjects – 400 sq.ft, Studio Room-200 sq.ft or MOU with well equipped studio = Total 1200 sqft									
9	Entry qualification	S.S.C. Pass									
10	Objective of syllabus	To get adequate knowledge in art forms that create works which are primarily visual in nature, such as ceramics, drawing, painting, sculpture, printmaking, design, crafts, product designing and modern visual arts (photography, video, and filmmaking) , 2D & 3d Animation, Augmented reality, virtual reality and architecture.									
11	Employment opportunities	To work as Computer Artist, Publications Designer, Art Director, Graphic Designer, Web Designer, Product Designer, Animator, Film designer, Audio visual Artist, Game designer, VFX artist, Modeler etc.									
12	Teachers Qualification	1) For Vocational Subject : Graduate with relevant subject with min 3 years experience / Diploma with relevant subject with min 5 years experience; 2) For Non Vocational Subject : Master Degree in Concern Subject.									
13	Teaching Scheme –										
	Sr.	Subject	Subject Code	Clock Hours / Week					Total		
				Theory		Practical					
	1	English (Communication Skill)	90000001	2 Hrs		1 Hrs				3 Hrs	
	2	Elective – I	--	2 Hrs		1 Hrs				3 Hrs	
	3	Elective – II	--	2 Hrs		1 Hrs				3 Hrs	
	4	Computer Fundamentals & Applications	10140001	3 Hrs		8 Hrs				11 Hrs	
	5	Graphic Design and 2D Animation		3 Hrs		8 Hrs				11 Hrs	
	6	Understanding Media & Culture part I		3 Hrs		8 Hrs				11 Hrs	
	Total									42 Hrs	
14	Internship	Two Month Internship per year is Compulsory									
15	Examination Scheme – Final Examination will be based on syllabus of both years.										
	Paper	Subject	Subject Code	Theory			Practical			Total	
				Duration	Max	Min	Duration	Max	Min	Max	Min
	1	English (Communication Skill)	90000001	3 Hrs	70	25	3 Hrs	30	15	100	40
	2	Elective – I	--	3 Hrs	70	25	3 Hrs	30	15	100	40
	3	Elective – II	--	3 Hrs	70	25	3 Hrs	30	15	100	40
	4	Visual Effects	10141911 10141921	3 Hrs	100	35	3 Hrs	100	50	200	85
	5	3 D Animation	10141912 10141922	3 Hrs	100	35	3 Hrs	100	50	200	85
	6	Understanding Media & Culture part II	10141913 10141923	3 Hrs	100	35	3 Hrs	100	50	200	85
	Total									900	375
17	a) For Elective I – Student can choose any one subject Code Subject Name 90000011 Applied Mathematics 90000012 Business Economics 90000013 Physical Biology (Botany & Zoology) 90000014 Entrepreneurship 90000015 Psychology b) For Elective II – Student can choose any one subject Code Subject Name 90000021 Applied Sciences (Physics & Chemistry) 90000022 Computer Application 90000023 Business Mathematics										

List of Equipment required for a batch of 50 students:

1. 25 Computers with the latest technology having at least Core I5, 7th Generation or above processor minimum.
2. Out of 25 Pcs one PC exclusively as a server with higher configuration
3. LAN with centralized network connected with hub
4. Internet connectivity with unlimited access
5. Scanner, Laser Printer, Desk Jet/Inkjet printer one each
6. 25 Computer tables with electrical and internet connectivity
7. One data projector for the presentations with sound system
8. Speaker sets at least 5sets
9. Digital Camera
10. Studio setup in Studio room

Subject Code : 10140001

Computer Fundamentals & Applications – 1st year

Theory	Practical
Detailed Syllabus : 1.0. Introduction 1.1. Basic idea about Computer 1.2. Applications of Computer 1.3. History of Computer generation 1.4. Computer types and their applications 1.5. Comparative table of capabilities as per the type	Detailed Syllabus 1.0. Computer basics 1. Identification of Keyboard, Printer, Monitor Scanner, Webcam, Microphone, Speaker
2.0. Computer Architecture & Organization 2.1. Concept of Computer as a System 2.2. The structural block diagram of a computer 2.3. Different blocks of a Computer and their functions 2.4. Different input devices and their uses & limitations 2.5. Different output devices giving their uses & limitations 2.6. Memory: definition, types. 2.7. Primary memory and its classification with applications 2.8. Secondary memory devices 2.9. Classification giving specifications of different secondary storage media 2.10 Data/ information, file, directory	2.0. Practice 1. Sample collection of various type of storage devices, specifications and charts
3.0 Computer Hardware & Software 3.1 Definition of Hardware & Software 3.2 Functions of hardware devices 3.3 Types Softwares and their applications 3.4 Introduction to Operating system 3.5 Study of MS Windows environment & Windows default icons 3.6 Windows explorer 3.7 Creating files & folders in Windows O.S.	1. Study of various type of printers 2. Study of dos, windows, windows xp. 3. Creation of directory, folders, files
4.0 Windows Accessories and MS office 4.1 Study of different features of Windows Accessories 4.2 Note Pad, Paint Brush, Word Pad 4.3 MS office 4.3.1 Word 4.3.2 Excel 4.3.3 Powerpoint	2.0. Practice 2.1 Create any document in notepad 2.2 Draw different shapes in paint 2.3 Create and edit document in word 2.4 Create and edit document in excel 2.5 Create presentation in Powerpoint
5.0 Software Installation 5.1 Installation procedure of different Softwares 5.2 Installation of Antivirus Softwares 5.3 Installation of Windows Operating System	1.Installation of antivirus 2.Installation of Windows xp
6.0 Installation of Hardware devices 6.1 Installation of Drivers 6.2 Installation of Printer 6.3 Installation of plug and play devices 6.4 Running Setup programs	1. Installation of printer 2. Installation of webcam

Subject Code – 10140004

Graphic Design and 2D Animation – 1st year

Theory	Practical
1.0. Sketching 1.1. Understanding perspective 1.2. Drawing texture and material 1.3. Drawing from Observation 1.4. Still Drawings	1.0. Practice 1.1. anatomy sketch
2.0. Concept of Graphics 2.1. Graphics and Types of Graphics 2.2. Color Theory 2.3. Principles of Design 2.4. Elements of Design 2.5. Crafting	
3.0. technology Tools Training 3.1. Intro to Photoshop 3.2. Intro to Corel Draw/ Illustrator 3.3. Intro to InDesign	3.0. visiting card, poster, hordings, logos and digital paintings (at least 5 designs)
4.0. Concept of 2D 4.1. Principles of Animation 4.2. Stop Motion Animation 4.3. Technique of Animation 4.4. Storytelling	4.0 Short Film
5.0 Technology Tools Training 5.1 Animate CC 5.2 Tools 5.3 Twining 5.4 Frame by Frame Animation 5.5 Exporting (SWF, EXE, MOV, AVI) 5.6 Sound 5.7 Video Shoot for Animating	1.0 Short film
6.0 Technology Tools Training 6.1 Stop Motion Explosion 6.2 Papermation 6.3 Claymation 6.4 Making Cutout	
7.0 Technology Tools Training 7.1 Adobe Premiere 7.2 Chroma Shot 7.3 CC/ DI	3.0 live action shooting
8.0 Learning by Application 8.1 Advertisement for Product 8.2 Creating Miniature, Click, Edit 8.3 Using Stop Motion Explosion, After Effects 8.4 Adobe Premiere	4.0 making short film on social issues

Culture and Media – 1st Year

Theory	Practical
1.0 Media and Culture 1.1 Intersection of American Media and Culture 1.2 The Evolution of Media 1.3 Convergence 1.4 The Role of Social Values in Communication 1.5 Cultural Periods 1.6 Mass Media and Popular Culture 1.7 Media Literacy	
2.0 Media Effects 2.1 Mass Media and Its Messages 2.2 Media Effects Theories 2.3 Methods of Researching Media Effects 2.4 Media Studies Controversies	
3.0 Books 3.1 Books 3.2 History of Books 3.3 Books and the Development of U.S. Popular Culture 3.4 Major Book Formats 3.5 Current Publishing Trends 3.6 The Influence of New Technology	
4.0 Newspapers 4.1 Newspapers 4.2 History of Newspapers 4.3 Different Styles and Models of Journalism 4.4 How Newspapers Control the Public's Access to Information and Impact American Pop Culture 4.5 Current Popular Trends in the Newspaper Industry 4.6 Online Journalism Redefines News	

Culture and Media – 2nd Year

Theory	Practical
1.0 Television 1.1 Television 1.2 The Evolution of Television 1.3 The Relationship Between Television and Culture 1.4 Issues and Trends in the Television Industry 1.5 Influence of New Technologies	
2.1 Electronic Games and Entertainment 2.2 Electronic Games and Entertainment 2.3 The Evolution of Electronic Games 2.4 Influential Contemporary Games 2.5 The Impact of Video Games on Culture 2.6 Controversial Issues 2.7 Blurring the Boundaries Between Video Games, Information, Entertainment, and Communication	
3.0 The Internet and Social Media 3.1 The Internet and Social Media 3.2 The Evolution of the Internet 3.3 Social Media and Web 2.0 3.4 The Effects of the Internet and Globalization on Popular Culture and Interpersonal Communication 3.5 Issues and Trends	
4.1 Advertising and Public Relations 4.2 Advertising 4.3 Public Relations	
5.0 Ethics of Mass Media 5.1 Ethics of Mass Media 5.2 Ethical Issues in Mass Media 5.3 News Media and Ethics 5.4 Ethical Considerations of the Online World	
6.0 : Media and Government 6.1 Media and Government 6.2 Government Regulation of Media 6.3 The Law and Mass Media Messages 6.4 Censorship and Freedom of Speech 6.5 Ownership Issues in the Mass Media 6.7 Media Influence on Laws and Government 6.8 Digital Democracy and Its Possible Effects	
7.0 : The Future of Mass Media 7.1 Changes in Media Over the Last Century 7.2 Information Delivery Methods 7.3 Modern Media Delivery: Pros and Cons 7.4 Current Trends in Electronic Media 7.5 Privacy Laws and the Impact of Digital Surveillance 7.6 Mass Media, New Technology, and the Public	

3D Animation – MAYA -2nd year

Theory	Practical
1.0 Introduction to 3D Animation (Technology Tools Training) 1.1 Autodesk Maya, Z Brush 1.2 WHAT MAYA DOES AND DOES <i>NOT</i> 1.3 The WORKFLOW WITHIN AND AROUND MAYA, Workflow of an animation project 1.4 Storyboarding 1.5 Maya Soundtracks 1.6 Video 1.7 Deploying Your Video	1.0 Organic & inorganic modeling maya
2.0 The Main Window 2.1 The Hyper shade 2.2 An Object and Its Attributes 2.3 Render Settings 2.4 Maya's Data Folders	
3.0. Meshes 3.1. Surface—And Not Solid—Modeling 3.2. Vector versus Raster Graphics 3.3. Polygon and NURBS Modeling 3.4. CORE TOOLS: TRANSLATE, SCALE, AND ROTATE IN MAYA	
4.0. Deliberate Modeling 4.1. Models and Objects 4.2. Top-Down Modeling 4.3. Adding Detail with Precision	4.0 modeling of basic shapes
5.0. Choosing the Model Hierarchy 5.1. Building Models in Separate Scenes and Using Display Layers 5.2. Create Versions of Models That You Can Retreat	5.0 modeling of basic objects
6.0. The Importance of the Outliner 6.1. USING BEVEL, EXTRUDE, DETACH, AND COMBINE TO MAKE A MAILBOX	6.0 working of options of 3d modeling
7.0. A Working Set of Polygon Modeling Tools 7.1. Creating a New Edge 7.2. Beveling 7.3. Extrusion 7.4. Detach	7.0 Working of options of 3d modeling
8.0. BEVELED LETTERS 8.1. MAKING A POLYGON MOAI 8.2. A Modeling Exercise: Making a Moai on Your Own 8.3. Making a Moai with Polygon Modeling	Making MOAI model
9.0. SMOOTHING A POLYGON MODEL: MANY CHOICES 9.1. Smooth Tool 9.2. Using the Smooth Tool Locally 9.3. Adding Faces and Manipulating New Faces, and Beveling Edges 9.4. Manipulating Normals to Smooth Edges 9.5. Smoothing with mental ray, without Changing the Geometry	Making an organic model
10.0. Merging Edges in a Single Piece of Geometry 10.1. Removing a Face with Merge to Center 10.2. Filling in a Hole in a Polygon Model with a Bridge Tool	10.1 inorganic model
11.0. Materials, Bump Maps, Lights, Projection versus 11.1. Normal Textures, Connecting NURBS Surfaces, and Layered Textures	11.0 texturing basic & uv mapping

12.0. WORKING WITH MAYA MATERIALS TO MAKE A TABLETOP	
13.0. Textures and Materials for the Maya Software Renderer 13.1. Bump Maps 13.2. Finishing the Table Scene 13.3. Materials or Textures?	
14.0. LIGHTS 14.1. Ambient Light and Shadows 14.2. Directional Light and Shadows 14.3. Point Light and Shadows 14.4. Spotlights and Shadows 14.5. Area Light	outdoor scene
15.0. mental ray Light Shaders 15.1. mental ray 2D and 3D Lights 15.2. Depth Map versus Raytraced Shadows	
16.0. Photographs for Textures 16.1. Working outside of Maya 16.2. The Uses of Bit-Mapped Images 16.3. Blending Layers 16.4. Rusty, Painted Metal	
17.0. Projection or Normal Texture? 17.1. Projecting Textures 17.2. Conversion to Polygons 17.3. Types of Projections 17.4. Tiling	
18.0. BUMP MAPS VERSUS DISPLACEMENT MAPS IN MAYA 18.1. Bump Maps 18.2. Displacement Maps 18.3. The Resulting Render: Comparing Bump Maps to Displacement Maps	
19.0. Particle Dynamics 19.1. USE EMITTERS SPARINGLY 19.2. SAVING RENDER TIME 200 19.3. ROCKET POLLUTION AND 19.4. 19.4 HARDWARE PARTICLES 19.5. The Attributes of the Emitter and the Particles	19.0 making a fire scene for rocket
20.0. nDynamics in Maya 20.1. Particle Dynamics Engines and Solvers 20.2. Emitting Trix into the Glass Bowl 20.3. Colliders 20.4. Scaling the Trix 20.5. Ramp Textures 20.6. The Trix's Ramp 20.7. Gravity 20.8. Action! 20.9. An Aside	20.0 making few cloths
21.0. CREATING A CLOTH FLAG WITH nDYNAMICS 21.1. 21.1 nDynamics Meets Geometry 21.2. 21.2 A Flag 21.3. 21.3 Putting a Texture on the Flag 21.4. 21.4 Making the Flag Flap	21.0 working of flag

22.0. The Timeline 225 22.1. Creating Keyframes 22.2. USING THE GRAPH EDITOR TO REUSE ANIMATION 22.3. The Graph Editor 22.4. Motion Cycles 22.5. Driven Keys	22.0 principle of animation, walkcycle & run cycle
23.0. mental ray Settings 23.1. A Bottle inside a Bottle 23.2. The Render	
24.0. The Scene 24.1. Fluid Containers 24.2. mental ray Glass 24.3. The Background 24.4. Rendering Settings	A Sidewalk and Street Scene with Fog
25.0. Controlling Lights 25.1. Why Control Lights Artificially? 25.2. Three-Point Lighting 25.3. Fill Lights in Maya 25.4. Placing and Positioning Models in a Scene 25.5. Controlling Lights from the Hypershade	
26.0. Skinning 26.1. The Rig	
27.0. THE MENTAL RAY SKY DOME 27.1. The Rendering	MAKING A TOON COW
28.0. SCULPTING APPLICATIONS AND SCULPTING WITH MAYA 28.1. 27.1ZBrush and Mudbox 28.2. Reducing Meshes in Maya 28.3. Maya's Soft Modification Tool	Sculpting a human, animal & few objects
29.0. AMBIENT OCCLUSION 29.1. GLOBAL ILLUMINATION AND FINAL GATHERING 29.2. CAUSTICS 29.3. LIGHT EMITTING MATERIALS: IRRADIANCE 29.4. COLORING MENTAL RAY'S GLASS MATERIAL 29.5. COLORING A MATERIAL WITH LIGHTS 29.6. USING ANISOTROPY WITH MENTAL RAY TO CONTROL THE 29.7. TRANSPARENCY OF FROSTED GLASS 29.8. USING THE PENUMBRA AND DROPOFF SETTINGS ON A MAYA 29.9. SPOTLIGHT 29.10. ADJUSTING THE RESOLUTION ATTRIBUTE OF A DIRECTIONAL LIGHT 29.11. IN MAYA 29.12. ADDING RAYTRACE SHADOWS AND MENTAL RAY SUN AND SKY TO 29.13. THE BOTTLE	working on interior / exterior scene and final output for our projects

Visual Effects (VFX) -2nd year

Theory	Practical
1.0 Introduction 1.1 Adobe Premiere Pro Interface Introduction 1.2 Introduction to the User Interface 1.3 Creating titles 1.4 Editing shots together	1.0 do title animation for movie /shortfilm
2.0 Working with sound 2.1 Introduction to Video Effects 2.2 Using Video Effects for Color Correction and tone 2.3 Utilizing Audio Effects 2.4 Exporting to various Media Formats	audio mixup with different audio & soundtrack
3.0 Final Cut Pro 3.1 Introduction to Final Cut pro Interface 3.2 Interface Introduction 3.3 Markers 3.4 Precision Editor 3.5 Video Effects 3.6 Audtions 3.7 Media Management 3.8 Compound Clips	shortfilm on live action
4.0 NUKE 4.1 Storylines 4.2 Introduction to the NUKE Interface 4.3 User Interface Basics and reading images 4.4 User Interface Basics and reading images into NUKE 4.5 Playing back Videos and changing project settings 4.6 Merging and Basic Track Creation	work on camera projection for film compositing multiple video and audio
5.0 Rotoscoping 5.1 RotoPaint 5.2 Color Correction 5.3 The use of Keyframes	work on roto sequence for shortfilm
6.0 Adobe After Effects 6.1 Introduction to Adobe After effects 6.2 Interface 6.3 Interface introduction 6.4 Use of layers 6.5 Use of masks 6.6 Using render queue 6.7 Compositing 6.8 Using blend Modes 6.9 Logo Animation 6.10 Use of Lens flare 6.11 Working with image sequences 6.12 Pass compositing	will composite clips for shortfile we will animate logo for canal id

6.13 Pre-compositions 6.14 Matting and Garbage masking 6.15 Tracking images 6.16 Color correction 6.17 Rendering 6.18 Match Moving 6.19 Compositing pipeline 6.20 Object tracking 6.21 Camera Tracking 6.22 Destructive composition techniques	
7.0 Scripting 7.1 Use of Script Editor 7.2 Understanding Python Commands 7.3 Coding Workflows	
8.0 Video Editing 8.1 Repairing and Enhancing video 8.2 Green Screen Work flow 8.3 Commercial editing Techniques 8.4 Color grading and Color correction.	
9.0 Documentary , 9.1 Commercials or Music Videos 9.2 Use 3D objects with real life footages 9.3 Create stunning, crisp and realistic Visual effects	shortfilm on social causes