

Diploma in Animation & Multimedia

(For the candidates admitted from the academic year 2020-2021 onwards)

Eligibility for Admission:

Candidates for admission to the Diploma course shall be required to have passed the Higher Secondary examinations (Academic or Vocational) conducted by the Government of Tamilnadu or any other examination accepted as equivalent thereto by the syndicate.

Duration of the course:

The course shall extend over a period of six months comprising of one semester.

Medium of instruction and examinations:

The medium of instruction and examinations shall be in English.

Passing minimum:

- a) A candidate shall be declared to have passed in a paper if he or she obtains not less than 40% of marks in that paper.
- b) A candidate failing to secure the minimum marks prescribed shall be required to reappear for the examination in that paper and obtain not less than the minimum marks required for passing the paper.

Classification of successful candidates

- a) Successful candidates passing the examinations by securing not less than 60% of total marks in all subjects shall be declared to have passed in First class.
- b) Successful candidates passing the examinations by securing not less than 50% of total marks in all subjects shall be declared to have passed in second class
- c) All other successful candidates shall be declared to have passed the examinations in Third class.

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SCHEME OF EXAMINATION

TITLE OF THE PAPER	EXAM DURATION	TOTAL MARKS
1. Introduction to Multimedia	3hrs	100 marks
2. 2D Animation	3hrs	100 marks
3. 3D Animation	3hrs	100 marks
4. Animation Practical	3hrs	100 marks
		Total 400 marks

Programme Objective:

1. To enable the students to be multimedia literates, which will prepare them to actively participate in various media related activities for strengthening their skills.
2. The Course will have scope for skill development in the field of Electronics and Media Production, which in turn make them employable in the media industry.

Paper 1

Introduction to Multimedia

Unit I

Introduction to Computers & Networks

Multimedia Hardware, Multimedia Software, Multimedia operating systems, Multimedia communication systems

Unit II

Content Development & Distribution

Desktop publishing (Coral Draw, Photoshop, Page maker), Multimedia Animation & Special effects (2D/3D animation, Flash), Social Networking & Publishing (Blogging, Facebook, Youtube, Instagram, etc.), Content Distribution Systems (CD/DVD, Internet, Radio, Television)

Unit III

Art & Science of Multimedia

Audio fundamentals (Audio quality, formats and devices), Understanding Image and Video (Resolution, Color, Video standards, formats), Film and Digital photography (technology, techniques, composition & lighting etc.), Introduction to Printing technology

Unit IV

Programme Production Techniques

The Media Industry: Structure and Strategies, Audio-Video programme production (Concept to Mastering), Compositing and Audio-Video Editing, Web Design and Publishing (Web design and development)

Unit IV

Media Management & Marketing

Ownership of Media, Media as Business & Media Economics, Income sources of Different Media, Government Policies for Media Ownership, Career avenues in multimedia

Recommended Books:

1. Tay Vaughan, Multimedia: Making it Work (with CD), 8th Edition, McGraw Hill Education 2011
2. Ranjan Parekh, Principles of Multimedia, 2nd Edition, McGraw Hill Education, 2013.
3. Rose Gonnella, Christopher Navetta, Max Friedman, Design Fundamentals: Notes on Visual Elements and Principles of Composition, 2015, 2nd edition, Peachpit Press
4. David A. Lauer, Stephen Pentak, Design Basics, 2012, Eighth edition, Wadsworth Cengage Learning. Reference Books

Paper II

2D Animation

Unit I

Introduction to 2D Animation

Introduction to 2D Animation, Drawing concept, Colour theory & basics, Incorporating sound into 2D animation

Unit II

Layout & Designing

Basic of sketching, still life and assignment of basic drawing, Composition of basic elements, Work in different media, such as drawing, collage, and painting, Explore the relationship between elements and principal, Pixel and resolution: Vector and Bitmap Graphics

Unit III

Graphics and advertising

Creating Digital Layout, Professional image editing (**PHOTOSHOP**), Advertising and relevant case , Graphics and illustration (**Corel Draw, Paint**), Vector Composition , 2D animation (**Macromedia Flash**)

Unit IV

Broadcast Design

Working with visual images, Story Boarding, Titles and Credit Making, Stop motion animation

Unit V

Production / Post-Production

Paint & animate (scanning, tracing, ink & Paint), Understanding Background composition, Basic Understanding of 2D animation and technique, Animation with flash, Portfolio Making

Recommended Books:

1. The Illusion of Life: Disney Animation - Frank Thomas and Ollie Johnston
2. Cartoon Animation - Preston Blair
3. The Animator's Survival Kit - Richard Williams
4. Chong, Andrew, Digital Animation, Ava Academia, 2008.
5. Welles, Paul. Fundamentals of Animation, Ava Publishing, 2006.

Paper III
3D Animation

Unit I

3D Modeling

Introduction to 3D space in Blender, Introduction to Modeling Techniques, In- organic Modeling, Organic Modeling

Unit II

3D Shading

Use of Materials & Shader, Shader and Texture editing, Shading organic Models, Shading In – Organic Models

Unit III

3D Animation and Rigging

Introduction to 3D Animation, Create, Edit and working with Animation Graph, Rigging using Blender, Setting up controllers for joints, Simple Skeleton structure with proper joint orientation.

Unit IV

3D Lighting and Rendering

Understanding Lighting in Cycles, Direct and Indirect Lighting, Light Linking, Final Composition, Creating composition and Light with the Shaded Models

Unit V

3D Dynamics

Introduction to Dynamics, Active and Passive Bodies, Creating basic Simulation and collision using Rigid body, Cloth Simulation, Simulation of Brick wall collision, Introduction to Fluid Effects, Creating fluid simulation

Recommended Books:

1. Ollie Johnston and Frank Thomas, "The illusion of life", First Edition, Abbeville press, 1981
2. Harold Whitaker and John Halas, "Timing for Animation", focal Press, Oxford, 2002
3. Maraffi, Chris (2004). Maya Character Creation: Modeling and Animation Controls. New Riders.
4. Oliverio, Gary (2006). Maya & Character Modeling. Jones & Bartlett Publishers
5. Allen, Eric & Murdock, Kelly L. (2008). Body Language: Advanced 3D Character Rigging. Sybex Publication.
6. Digital Lighting & Rendering, Second Edition by Jeremy Birn

Paper IV

Animation Practical

2D animation

1. Drawing fundamentals using lines
2. Sketching of cartoon characters
3. 2D Logo designing
4. Storyboarding of a 30 seconds film
5. Portfolio making of an organization

3D Animation

1. Exploring the Interface of 3D application & Basic Modelling
2. Create different types of Materials and create a Shading
3. Create a simple walk cycle using the character rigs
4. Create a composition and Light set up
5. Create a Fluid simulation & rendering