COMMUNITY COLLEGE

**Syllabus for Multimedia and Animation
(Certificate Level)
2020-2021**

Certificate in Multimedia and Animation

Duration: 6 Months

LIFE COPING SKILLS I

SUBJECT CODE: YC15G01   **CREDITS: 2**

TOTALHOURS: 30

Objective: To familiarize students with various Personal skills and to develop Life Coping Mechanisms

UNIT – I   **(3 hrs)**
Introduction and outline of the Programme

Unit-II   **(7hrs)**
Restructuring One's own life Story

UNIT – III   **(8 hrs)**
Self Esteem, Self Concept, Self Acceptance and Personality Development

Unit-IV   **(7 hrs)**
Positive Thinking

UNIT – V   **(5 hrs)**
Motivation and Self Actualization

TEXT BOOK:

S.No	Author	Title of the book	Publisher	Year & Edition
1.	Xaviour Alphonse	We Shall Overcome: A Textbook on Life Coping Skills	ICRDCE Publication	2nd Edition, 2011

REFERENCE BOOK:

S.No	Author	Title of the book	Publisher	Year & Edition
1.	Shiv Khera	You Can Win, New Delhi: Rajiv Beri	Macmillan	2nd Edition, 1998

BASICS OF COMPUTER

SUBJECT CODE:YM15G02   **CREDITS:5**

TOTAL HOURS:75

Objective: *To provide a thorough discussion of the fundamentals of Computer Software and provide knowledge of how to use softwares.*

UNIT I   **(15hrs)**

Computer Concepts: what is a computer? – Computer types - elements of computer – History of computers – classification of computers –advantages and disadvantages.

Input System: Types of input – keyboard – keys of computer keyboard – pointing device - mouse – trackball – game devices – pen input – touch screen – digitizers and graphics tablets – terminals. Output System: Types of output – categories of output – printer types.

UNIT – II   **(15 hrs)**

Computer Architecture – Introduction- CPU – Main memory unit- Interconnection of units- cache- Communication between various units- The instruction format – Instruction set-Processor Speed – Multiprocessor System.

UNIT – III   **(15hrs)**

Computer Program – Introduction – Developing a program – Algorithm – Flowchart – Decision Tables -Pseudo code – Program Testing and Debugging – Program Documentation – Programming Paradigms – Characteristics of good program.

UNIT– IV   **(15 hrs)**

Data Communication and Computer Network: Introduction-Data Communication-Transmission Media- Switching- Computer Networks-Network Communication-Network Topologies- Communication Protocol-Network Devices-Database Models – Introduction – Fundamentals of Database- Database Management System – DBMS Architecture – Database Models.

UNIT - V   **(15hrs)**

Internet Basics – Introduction – Evolution of Internet – Basic Internet terms – Getting Connected to Internet – Internet Applications- Electronic Mail – Searching the Web- Data over Internet – Internet and Viruses – Multimedia – Introduction- Building Blocks – Multimedia systems and applications – virtual Reality.

TEXT BOOK:

S. No	Author	Title of the book	Publisher	Year & Edition
1.	ITL Education Solutions	Introduction to Computer Science	Pearson	Second Edition 2012

TEXT BOOK:

"Introduction to Computer Science" by ITL Education Solutions Ltd., Pearson, Second Edition 2012.

REFERENCE BOOKS:

S. No	Author	Title of the book	Publisher	Year & Edition
1.	Donald E Knuth	The Art of Computer Programming	Addison-Wesley	Third Edition, 2007
2.	Alexis Leon, Mathews Leon	Introduction to Computers	Vikas Publication	1st Edition 1999

2D ANIMATION TECHNIQUES

SUBJECT CODE: YM19G03 **CREDITS: 5**
                          TOTAL HOURS: 75

Objective - To provide a thorough discussion of the fundamentals of 2D Design and Animation tools

UNIT I   **(15hrs)**

Introduction 2D Animation – 2D Design – Graphic Designing – Brochure Design-Standard Print Size – Color Bleed– 2D asset design for Animation – Layer based Character Designing in Illustrator– Vector Designs.

UNIT II   `   **(15hrs)**

Introduction to Adobe Animate CC – Keyframe Based Animation–Tools in Animate CC– Stroke, Fill and Gradient in Animate CC –Shape Tool- Importing Illustrator Files in Animate CC

UNIT III   **(15hrs)**

Perspective Design Using Illustrator– Path Finder – Align- Active Layer-Color Modes: RGB- CMYK -. Hue/Saturation: Hue Saturation shifts entire ranges of color within the image-Color modes. Color Theory - Bitmap images and vector graphics.

UNIT IV   **(15hrs)**

Image Manipulations – Exporting Formats – PNG – JPG – GIF. Introduction-Image Types-blending modes-Using filters-Previewing filters- applying a filter-To add a drop shadow to text– Rasterized image and Vector Image - convertingRasterized image into Vector

UNIT V   **(15hrs)**

KeyFrame based 2d Animation – Animation Workflow in Animate CC – Camera Animation–Shape tween–Motion Tween– Motion Editor-Creating Walk Cycle- Creating Gif Animations.-Exporting Video from Animate CC

TEXT BOOK:

S. No	Author	Title of the book	Publisher	Year & Edition
1.	Russell Chun	Adobe Animate CC help	Adobe	2018

REFERENCE BOOK:

S.No	Author	Title of the book	Publisher	Year & Edition
1.	Brian Wood	Adobe Illustrator CC Classroom in a Book	Adobe	2018
2.	Russell Chun	Adobe Animate CC Classroom in a book	Abobe	2018

3D MODELING & ANIMATION

SUBJECT CODE: YM19G04   **CREDITS: 4**
                                             TOTAL HOURS: 60

Objective: *To provide fundamentals of 3D theories and principles of computer modeling and Texturing*

UNIT – 1   **(12 hrs)**

Introduction to 3D – 3D space – Coordinates - Components of a 3D model – Edit mode and Object mode - Modeling methods – 4 Side view– Modeling with Primitives – Planning your Model – Subdivsion Modelling

UNIT – 2   **(12 hrs)**

Extrusion –Bridge Egde Loop – Fill Hole - Merge Vertices –Inserting Edge Loops - Quadrilate and Triangulate–Topology - Object duplication – Pivots and CV Surfaces – The Production Process – Hard Surface and Organic Models

UNIT – 3   **(12 hrs)**

Purpose and Modeller's Duty - Hardware and Software Considerations.Modelling for Games– Modelling for Movies – Low poly and High Poly models

UNIT – 4   **(12 hrs)**

Introduction to Shading – Render Engines – Components of a Render Engine – Different types of Render Engines– Vray – Mental Ray – Different Types of Materials – Material Attributes .

UNIT – 5   **(12 hrs)**

Introduction to Texturing – Texturing Workflow- Texturing Primitive objects – Types of Mapping – UV Mapping - Bump Map – Specular Map.

TEXT BOOK:

S.No	Author	Title of the book	Publisher	Year & Edition
1.	Andy Beane	3DAnimation Essentials	sybex	2012

REFERENCE BOOK:

S.No	Author	Title of the book	Publisher	Year & Edition
1.	Francesco Legrenzi	Vray The complete guide	Industrie Grafiche Stilgraf	2010
2	Frank Thomas, Ollie Johnston	The Illusion of Life: Disney Animation	Disney	1981
3	Peter Ratner	Mastering 3D Animation	Sybex	2011

BASIC ANIMATION TOOLS PRACTICAL - I

SUBJECT CODE: YM19P01   **CREDITS: 5**

                                                                            TOTAL HOURS: 75

PHOTOSHOP PROGRAMS

1. Cutting a particular part of an image and moving it to another screen using rectangular marquee tool, move tool, polygon lasso tool and magic wand tool.   **(3 hrs)**
2. Creating a damaged picture and modifying it into a perfect picture using clone stamp tool and healing brush tool.   **(3hrs)**
3. Developing a new picture by splitting and inserting two or more pictures.   **(3hrs)**
4. Creating Shadow effect for a Character Image   **(3hrs)**
5.   Creating own quotes by inserting natural pictures using horizontaltype tool.   **(3hrs)**

ADOBE ILLUSTRATOR PROGRAMS

1. Creation of a design using the blend effect.   **(4hrs)**
2. To create a 3D logo.   **(4hrs)**
3. Create a Perspective 2D Asset   **(4hrs)**
4. Designing a certificate .   **(4hrs)**
5. Creating a 2D character   **(4hrs)**

ADOBE ANIMATE CC PROGRAMS

1. Creating a moving object using motion tween.   **(4hrs)**
2. Creating Camera Animation   **(4hrs)**
3. Designing a ball bouncing animation.   **(4hrs)**
4. Using Shape tween converting one shape into another.   **(4hrs)**
5. Creating a moving car/bus/lorry on a road.   **(4hrs)**

DREAMWEAVER PRACTICAL

1. Creation of a Home Page. **(4 hrs)**
2. Developing a Title of the page. **(4 hrs)**
3. Creation of a web page by adding layers. **(4 hrs)**
4. Importing an image and aligning along with the text. **(4 hrs)**
5. Creation of a Dynamic Title. **(4 hrs)**

3D SMAX PRACTICAL - II

SUBJECT CODE: YM19P02   **CREDITS: 5**

                                                       TOTAL HOURS: 75

1. Designing a torch using editable poly.   **(5 hrs)**

2. Designing a door using editable poly.   **(5 hrs)**

3. Modelling a Ceiling Fan   **(5 hrs)**

4. Modelling a Pen and Applying Materials   **(5 hrs)**

5. Applying UV map for match box.   **(5 hrs)**

6. Creation of a glass and applying a material.   **(5 hrs)**

7. Using Vray to assign light to glass.   **(5 hrs)**

8. Designing an interior and Texturing   **(5hrs)**

9. Applying material and assigning lights to the interior.   **(5 hrs)**

10. Creating a night effect using lights in interior. **(5 hrs)**

11. Creation of a basic character using tools.   **(5 hrs)**

12. Creating a Exterior Scene   **(5 hrs)**

13. Creating Lighting for Exterior Scene using Vray   **(5 hrs)**

14. Creation of a cloth using cloth simulation.   **(5 hrs)**

15. Creating a Bouncing ball animation.   **(5 hrs)**