



CURRICULUM AND SYLLABUS

M.Sc Visual Communication (Animation and Design) - 2024

PROGRAMME OUTCOMES (PO)

PO1: Knowledge Proficiency in Visual Communication

Students will demonstrate proficiency in the essential concepts of Visual Communication within their program of study.

PO2: Creative and Effective Communication Skills

Students will demonstrate effective creative skills, along with proficient writing and listening skills for visual communication in personal, public, and media contexts.

PO3: Critical and Analytical Thinking

Students will develop the ability to use critical, analytical, and in-depth thinking in the field of Visual Communication.

PO4: Exploratory and Experimental Creativity

Students will be encouraged to be exploratory and experimental in developing their creative and designing skills.

PO5: Effective Communication Competency

Students will communicate effectively through oral, written, graphical, and technical means, demonstrating competency in visual languages.

PO6: Application of Communication Theories

Students will demonstrate the ability to apply communication theories and practical concepts to analyze contemporary issues.

PO7: Media Trend Analysis

Students will demonstrate the ability to understand and analyze the latest trends in media, critically examining how media shapes society.

PROGRAM SPECIFIC OUTCOMES (PSO)

PSO1: Foundational and Advanced Knowledge in Visual Communication

Impart fundamental and advanced knowledge of Visual Communication concepts to students, ensuring a strong foundational understanding.

PSO2: Adaptation to Media Production Procedures

Equip students to discover and adapt production procedures in contemporary Print, Electronic, and New Media industries.

PSO3: Innovation in New Media Trends

Acquaint students with the latest trends in new media, enabling them to innovate and develop new ideas and solutions to existing problems.

PSO4: Ethical and Responsible Media Content Design

Train students to design media content with professional ethics and social responsibility, meeting the demands of the media environment at regional, national, and global levels.

PSO5: Proficiency in Diverse Media Genres

Ensure students are familiar with the conventions of diverse genres, including filmmaking techniques, audiography, videography, and graphic designing.

M.Sc Visual Communication (Animation and Design) Curriculum (2024 Onwards)

Course Code	Course Title	L T P	Cr	E S	Course Code	Course Title	L T P	Cr	E S
SEMESTER 1					SEMESTER 2				
24VMC502	Introduction to Animation Filmmaking	2 1 0	3		24VMC575	2D Sketching and Animation Lab	0 2 2	3	
24VMC501	Introduction to Communication Theories	2 1 0	3		24VMC513	Creative Advertising and Branding	2 1 0	3	-
24VMC570	Digital Filmmaking Practice	0 2 2	3		24VMC576	Advanced Animation Techniques	0 2 2	3	
24VMC571	3D Modeling and Animation	0 2 2	3		24VMC577	UI/UX Designing Practice	0 2 2	3	
24VMC572	Illustration and Designing Lab	0 2 2	3		24VMC578	Compositing and Colour Correction Lab	0 2 2	3	
24VMC573	Photo Editing and Designing Lab	0 2 2	3		24VMC579	Page Layout Designing Lab	0 2 2	3	
24VMC574	Photography and Lighting Practice	0 2 2	3		24VMC580	Web Designing and Developing Practice	0 2 2	3	
22AVP103	Mastery Over Mind (MAOM)	1 0 2	2			Amrita Values Programme	1 0 0	1	
22ADM501	Glimpses of Indian Culture-IKS	2 0 1	P/F		24CUL100	IAM Tech		P/F	
	TOTAL		23			TOTAL		22	
SEMESTER 3					SEMESTER 4				
24VMC603	Intellectual Property Rights for Media	2 1 0	3		24VMC692	Internship		2	
24VMC684	Motion Graphics and VFX Lab	0 2 2	3		24VMC693	Portfolio Presentation		2	
24VMC602	Media Research Methods	2 1 0	3		24VMC699	Project (in Animation and Design)		8	
24VMC683	Responsive Web Designing Lab	0 2 2	3			TOTAL		12	
	Elective A	0 2 2	3						
	Elective B	0 2 2	3						
24VMC690*	Live in Lab* / Open Elective	2 0 0	2						
24VMC694	Mini Project (in Animation and Design)		3						
24SSK501	Life Skills		P/F						
	Total		23			Grand Total		80	

Elective A			
24VMC641	Virtual Reality and Augmented Reality	0 2 2	3
24VMC642	Game Design Fundamentals	0 2 2	3
24VMC643	Computer Aided Designing	0 2 2	3
24VMC644	Dynamics and Simulation Practice	0 2 2	3
24VMC645	Generative AI for Animation and Design Lab	0 2 2	3
Elective B			
24VMC651	Packaging Practice Lab	0 2 2	3
24VMC652	Visual Research Practice	0 2 2	3
24VMC653	Digital Marketing and Promotion Lab	0 2 2	3
24VMC654	Advertising Photography and Digital Design Practice	0 2 2	3
24VMC655	Components of Visual Designing Lab	0 2 2	3

Course Code	Course Title	L – T – P	Cr.	ES
24OEL631	Advanced Statistical Analysis for Research	2 0 0	2	D/E
24OEL632	Basics of PC Software	2 0 0	2	D/E
24OEL633	Computer Hardware and Networking	1 0 1	2	D/E
24OEL634	Consumer Protection Act	2 0 0	2	D/E
24OEL635	Corporate Communication	2 0 0	2	D/E
24OEL636	Design Studies	2 0 0	2	D/E
24OEL637	Disaster Management	2 0 0	2	D/E
24OEL638	Essentials of Cultural Studies	2 0 0	2	D/E
24OEL639	Foundations of Mathematics	2 0 0	2	D/E
24OEL640	Foundations of Quantum Mechanics	2 0 0	2	D/E
24OEL659	Glimpses of Life through Literature	2 0 0	2	D/E
24OEL660	Information Technology in Banking	2 0 0	2	D/E
24OEL643	Knowledge Management	2 0 0	2	D/E
24OEL644	Marketing Research	2 0 0	2	D/E
24OEL645	Media for Social Change	2 0 0	2	D/E
24OEL646	Media Management	2 0 0	2	D/E
24OEL647	Object-Oriented Programming	2 0 0	2	D/E
24OEL648	Painting and Sculpture	1 0 1	2	D/E
24OEL649	Personal Finance	2 0 0	2	D/E
24OEL650	Principles of Advertising	2 0 0	2	D/E
24OEL651	Principles of Packaging	2 0 0	2	D/E
24OEL652	Scripting for Rural Broadcasting	1 0 1	2	D/E
24OEL653	Social Media Website Awareness	1 0 1	2	D/E
24OEL654	Theatre Studies	1 0 1	2	D/E
24OEL655	Writing for Technical Purposes	2 0 0	2	D/E
24OEL656	Yoga and Personal Development	1 0 1	2	D/E
24OEL657	Fundamentals of Legal Awareness	2 0 0	2	D/E

Course Code	Title	L-T-P	Credits
22ADM502	Vedanta in day-to-day life	1-0-0	1
22AVP506	Message of Swami Vivekananda	1-0-0	1
22AVP508	Indian Arts and Literature	1-0-0	1
22AVP510	Appreciation of Kerala Mural Arts Forms	1-0-0	1
22AVP501	Message of Śrī Mātā Amritanandamayi Devi	1-0-0	1
22AVP502	Insights from the Ramayana	1-0-0	1
22AVP503	Insights from the Mahabharata	1-0-0	1
22AVP504	Insights from the Upanishads	1-0-0	1
22AVP505	Insights from Bhagavad Gita	1-0-0	1
22AVP512	Ancient Indian Science and Technology	1-0-0	1
22AVP507	Great Spiritual Teachers of India	1-0-0	1
22AVP509	Yoga and Meditation	1-0-0	1

ANIMATION and DESIGN STREAM
SEMESTER I

Introduction to Animation Film Making		
Course Code	L-T-P	Credits
24VMC502	2-1-0	3

Course Objective:

This course offers a comprehensive overview of animation filmmaking, covering its historical development, key principles, styles, and techniques. Students will gain a solid foundation in the theoretical aspects of animation, from storytelling and character design to the technical processes involved in bringing animations to life. The course will also delve into contemporary trends and the future of animation in various media.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the historical development and types of animation.
2. Analyze and apply the principles of animation in various contexts.
3. Explain the processes involved in pre-production, production, and post-production of animation.
4. Evaluate the role of visual effects and motion graphics in animation.
5. Discuss contemporary trends and future directions in animation filmmaking.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	1	2	1	1	1	3	1	1	2	1
CO2	3	3	3	3	3	2	2	3	3	2	2	2
CO3	3	2	2	3	2	2	2	3	3	2	2	2
CO4	3	3	3	3	3	3	3	3	3	3	2	2
CO5	3	2	3	3	3	3	3	3	3	3	3	3

Unit 1:

Introduction to Animation, History - Before cinematography, Silent era, Golden age, Features before CGI, Television, Switch from cels to computers, Animation articulation & performance - Advancement in Animation design & theory, Animation Types – 2D, 3D, Techniques – Traditional, Stop motion, Computer, Mechanical, Other. Software used for animation.

Unit 2:

Principles of Animation - 'Squash & Stretch' methodology, 'Anticipation' principle, 'Staging' concept of animation, Straight Ahead & Pose to pose' Animation. Advanced Principles of animation - 'Follow through & Overlapping' Animation, 'Slow out & Slow in' Animation, 'Arcs' principle of animation, 'Secondary Action' rule of animation. Advanced Principles of animation - Timing', an important principle of animation, Exaggeration' process of animating, 'Solid Drawing' principle , 'Appeal' principle

Unit 3:

Brief on Animation process – different departments involved in Pre- production / production / post production. Pre-Production - Idea-Story-Script Understand the Research & Development (R&D) department – Casting & Locations allotment - Character Design - Storyboarding & Animatic
A thorough work on complete Pre-production process. Understand the steps of Production process in 3D Animation – Modelling – Texturing – Lighting– Rigging and Animation – Animatronics

Unit 4:

Understand Visual Effects – Dynamics - Simulation & effects - different software required for visual effects– Motion Graphics - Camera Tracking & Stabilizing - Colour Corrections & Compositing

Unit 5:

Voice modulation –Dubbing – Rerecording – Music Production - Different Render Engines - Different output formats. New Trends and Techniques.

References:

1. "The Animator's Survival Kit" by Richard Williams
2. "Timing for Animation" by Harold Whitaker and John Halas
3. "The Illusion of Life: Disney Animation" by Frank Thomas and Ollie Johnston
4. "Character Animation Crash Course!" by Eric Goldberg
5. "Stop Motion: Craft Skills for Model Animation" by Susannah Shaw
6. "Understanding Animation" by Paul Wells
7. "The Art of 3D Computer Animation and Effects" by Isaac V. Kerlow
8. "Directing the Story: Professional Storytelling and Storyboarding Techniques for Live Action and Animation" by Francis Glebas

Introduction to Communication Theories		
Course Code	L-T-P	Credits
24VMC501	2-1-0	3

Course Objective:

To develop the knowledge of basic elements of Communication. To inculcate the knowledge of communication models. To introduce students to the theories of Communication. To acquaint students with the various types of Communication.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the basic theories of Communication.
2. Analyse the foundation for Communication models.
3. Apply basic elements of Communication.
4. Caregorise various types of Communication.
5. Incorporate these theories in mass media research.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	1	2	1	1	3	1	1	1	1	1	1
CO2	1	1	2	1	1	3	1	1	1	1	1	1
CO3	1	1	2	1	1	3	1	1	1	1	1	1
CO4	1	1	2	1	1	3	1	1	1	1	1	1
CO5	1	1	2	1	1	3	1	1	1	1	1	1

Unit 1:

Definition, nature and scope of communication; Communication variables; Process and functions of communication; Levels of communication - Intrapersonal, Interpersonal, small group, public, Intercultural and non-verbal communication; Communication barriers; Mass communication - meaning and concept of 'mass' - nature and scope; Media for mass communication; Functions and dysfunctions of mass communications.

Unit 2:

Communication Models - Aristotle’s model, Lasswell model, Shanon and Weaver model, Osgood and Schramm, Dance, Newcomb, Defleur, Gatekeeping and Gerbner.

Unit 3:

Theories of Communication - Dependency Theory, cultivation theory, Agenda Setting Theory, Use and Gratification Theory, Spiral of Silence Theory, Hypodermic Needle Theory; Diffusion of Innovation; Perception and Persuasion Theory

Unit 4:

Media systems and theories: Authoritarian, Libertarian, Socialistic, Social-responsibility, Development, Participatory; Interactive Theory - One step flow, Two-step flow (Opinion Leaders) and Multi step flow

Unit 5:

Mass media: public opinion and democracy. Media culture and its production; Media and Children; Violence and Obscenity in Media; Folk and Traditional Media

References:

1. Dennis Mc Quil: Mass Communication Theory: An Introduction
2. Melvin L. De Fleur and Sandra Ball – Rokeach: Theories of Mass Communication
3. Melvin L. De fleur and Evette Dennis: Understating Mass Communication
4. Berko and Wolvin: Communication
5. Surgeon General’s Scientific Advisory committee on Television and Social Behaviour Reports, USA.
6. Joshi P. : Culture, Communication and Social Change
7. Wilbur Schramm: The process and Effects of Mass Communication
8. Wilbur Schramm: Men, Message and Media
9. Dennis Mc Quail: Milestones in Mass Communication Research
10. Stephen W & Little John: Theories of Women Communication
11. S.J. Baran& D.K. Davis: Mass Communication Theory – Foundations Ferment & Future.

Digital Filmmaking Practice		
Course Code	L-T-P	Credits
24VMC570	0-2-2	3

Course Objective:

This course was designed to provide students with basic knowledge in digital filmmaking, equipping them with the necessary skills to write, plan, shoot with proper camera setting, shots-angles and deliver a film.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Write screenplay/script for films and breaking them down them into shots, scenes and sequences.
2. Direct actors and manage rest of the crew while producing a film.
3. Manage communication among different parties: audience and the crew.
4. Draw storyboards and depict shot division for a give scene.
5. Solve complex problems during a shoot, simulate the shoot in the pre-production

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3	1	3	3	3	3	3	3
CO2	3	2	3	1	2	1	1	3	3	1	2	3
CO3	3	1	3	1	1	1	1	3	3	1	1	3
CO4	3	1	3	1	1	1	1	3	3	1	1	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Direction

Overview of digital audio and video production processes
 Introduction to industry-standard equipment and software
 Basic principles of capturing and editing audio-video content
 Principles of sound recording and capturing high-quality audio
 Hands-on exercises in operating audio recording equipment
 Working on Dubbing & Foley
 Understanding basic audio editing
 Setting up Sound for Live event using Mixer & Amplifier

Module 2: Screenplay writing

Types of cameras and their features
 Camera operations
 Exposure triangle
 White balance
 Video composition and framing
 Hands-on exercises in operating video recording equipment

Module 3: Shot division, Scheduling and Budgeting

Working on Different types of shots and angles
 Composing shots using different camera movements
 Rule of 180-degree and 30-degree
 Understanding the Importance of Lighting
 Working with different types of lights
 Working with shadows & Reflectors
 Multi-point lighting techniques
 Mood lighting (RGB)

Module 4: Introduction to Post-Production

Overview of post-production workflow
 Basics of video editing software and tools
 Hands-on exercises in basic video editing techniques

Module 5: Project Development and Portfolio Compilation

Work on final projects demonstrating skills learned throughout the course.
 Compiling a professional portfolio showcasing diverse audio-video productions.

References:

1. The Filmmaker's Handbook: A Comprehensive Guide for the Digital Age" by Steven Ascher and Edward Pincus

3D Modeling and Animation		
Course Code	L-T-P	Credits
24VMC571	0-2-2	3

Course Objective:

This course introduces students to the foundational concepts and techniques of 3D modeling and animation using 3ds Max. Students will learn to create both organic and non-organic models, apply textures, set up lighting, and render scenes. The course emphasizes practical applications, allowing students to develop essential skills for creating basic 3D animations.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the basic concepts of 3D modeling and the 3ds Max interface.
2. Create non-organic models using basic modeling techniques.
3. Develop organic models with proper topology and sculpting tools.
4. Apply textures and shading techniques to enhance model realism.
5. Implement lighting and rendering techniques for high-quality output.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	1	2	2	1	1	3	1	1	2	1
CO2	3	3	2	2	2	1	1	2	2	1	1	1
CO3	2	2	3	3	1	2	1	2	3	1	2	1
CO4	2	2	2	3	3	2	2	2	2	2	2	1
CO5	2	1	3	2	3	2	3	3	2	2	2	1

Module 1: Introduction to 3D Modeling:

- **3D Modeling Basics:** Understanding polygons, meshes, vertices, and edges
- **Introduction to 3ds Max:** Interface, tools, and workspace customization
- **Creating Basic Shapes:** Cubes, spheres, cylinders, and other primitives
- **Editing Models:** Extrusion, beveling, and subdivision surfaces
- **Project:** Create a simple non-organic model (e.g., a chair, table)
- **Lab Work:** Hands-on exercises using 3ds Max to practice basic modeling techniques.

Module 2: Organic Modeling:

- **Introduction to Organic Modeling:** Understanding organic shapes and structures
- **Character Modeling:** Basic anatomy, creating a humanoid character
- **Sculpting Tools and Techniques:** Using sculpting tools in 3ds Max
- **Topology and Edge Flow:** Importance of proper topology in organic models
- **Project:** Model a basic organic shape (e.g., a human head, animal)
- **Lab Work:** Practical exercises on organic modeling

Module 3: Texturing and Shading:

- **Materials and Textures:** Introduction to different types of materials
- **UV Mapping:** Unwrapping models for texture application
- **Shading Techniques:** Using shaders to enhance realism
- **Texture Painting:** Creating custom textures
- **Project:** Texture and shade a previously modeled object
- **Lab Work:** Practical sessions on UV mapping and applying textures

Module 4: Lighting and Rendering:

- **Fundamentals of Lighting:** Types of lights (e.g., point, directional, spot)
- **Lighting Techniques:** Three-point lighting, global illumination
- **Rendering Basics:** Introduction to rendering engines in 3ds Max
- **Rendering Settings:** Adjusting settings for optimal output
- **Project:** Set up lighting and render a scene
- **Lab Work:** Experiment with different lighting setups and rendering techniques

Module 5: Basic Animation Techniques:

- **Principles of Animation:** Keyframes, timelines, and interpolation
- **Animating Objects:** Moving, rotating, and scaling over time
- **Simple Rigging:** Basics of creating and applying rigs to models
- **Character Animation:** Basic character movements (e.g., walk cycles)
- **Project:** Animate a simple object or character
- **Lab Work:** Practical exercises on animating models

References:

1. "3ds Max 2020 Complete Reference Guide" by Kelly L. Murdock
2. "Autodesk 3ds Max 2021 Fundamentals" by Ascent Center for Technical Knowledge
3. "Digital Modeling" by William Vaughan
4. "3D Lighting and Rendering" by Jeremy Birn

Illustration and Designing Lab		
Course Code	L-T-P	Credits
24VMC572	0-2-2	3

Course Objective:

This course provides a comprehensive exploration of digital illustration and designing using Adobe Illustrator. Students will learn essential skills for creating vector-based illustrations, including drawing, coloring, and adding effects. The course covers both basic and advanced techniques, enabling students to produce professional-quality digital artwork. Through practical projects and hands-on exercises, students will develop a strong foundation in digital illustration and design, preparing them for professional work in visual communication.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamental concepts of digital illustration and Adobe Illustrator tools.
2. Apply basic and advanced drawing and coloring techniques to create vector illustrations.
3. Design complex compositions using text, graphics, and advanced Illustrator features.
4. Develop professional-quality illustrations and designs for various media.
5. Present and critique digital artwork, incorporating feedback to improve design quality.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
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CO1	3	2	2	3	2	1	2	3	2	2	2	2
CO2	3	3	3	3	3	2	3	3	3	3	3	3
CO3	2	3	3	2	3	3	2	2	3	2	3	3
CO4	3	3	2	3	3	2	3	3	3	3	3	2
CO5	3	2	3	3	2	3	3	3	3	3	3	3

Module 1: Introduction to Adobe Illustrator:

- **Getting Started with Illustrator:** Interface, tools, and workspace customization
- **Basic Drawing Tools:** Using the pen tool, pencil tool, and shape tools
- **Working with Paths and Anchor Points:** Understanding paths, anchor points, and Bezier curves
- **Basic Coloring Techniques:** Applying fills, strokes, and gradients
- **Project:** Create a simple vector illustration using basic drawing tools
- **Lab Work:** Hands-on exercises to familiarize with Illustrator’s interface and basic tools.

Module 2: Advanced Drawing and Coloring Techniques:

- **Advanced Pen Tool Techniques:** Creating complex shapes and illustrations
- **Using Brushes and Patterns:** Applying brushes, creating custom brushes, and using patterns
- **Gradient Mesh and Blending Modes:** Creating smooth color transitions and blending effects
- **Layer Management and Organization:** Using layers for complex illustrations
- **Project:** Develop an advanced illustration incorporating brushes, patterns, and gradients
- **Lab Work:** Practical sessions on advanced drawing and coloring techniques

Module 3: Working with Text and Typography:

- **Adding and Formatting Text:** Using the text tool, formatting text, and text effects
- **Typography in Illustrations:** Integrating text with illustrations and creating typographic designs
- **Text on a Path and Text Wrap:** Applying text to paths and wrapping text around objects
- **Creating and Using Custom Fonts:** Designing custom fonts and using them in illustrations
- **Project:** Create a typographic illustration combining text and graphics
- **Lab Work:** Hands-on exercises on working with text and typography

Module 4: Effects and Advanced Techniques:

- **Applying Effects and Styles:** Using Illustrator’s effects, appearance panel, and graphic styles
- **3D Effects and Perspective Drawing:** Creating 3D objects and perspective illustrations
- **Working with Symbols:** Creating and using symbols for efficient illustration
- **Image Trace and Live Paint:** Converting raster images to vector and using live paint
- **Project:** Develop an illustration using advanced effects and techniques
- **Lab Work:** Practical sessions on applying effects and advanced illustration techniques

Module 5: Final Project and Portfolio Development:

- **Project Planning and Development:** Concept development, sketching, and planning for the final project
- **Illustration Production:** Creating the final illustration project using learned techniques
- **Editing and Refinement:** Polishing the illustration, adding final touches, and ensuring coherence
- **Portfolio Presentation:** Compiling and presenting a professional digital illustration portfolio
- **Final Project:** Create a comprehensive illustration project showcasing all learned techniques
- **Lab Work:** Final project development, testing, and peer review sessions

References:

1. "Adobe Illustrator Classroom in a Book (2021 Release)" by Brian Wood
2. "Vector Basic Training: A Systematic Creative Process for Building Precision Vector Artwork" by Von Glitschka
3. "Illustrator CC: Visual QuickStart Guide" by Elaine Weinmann and Peter Lourekas
4. "Adobe Illustrator CC Digital Classroom" by Jennifer Smith and AGI Creative Team
5. "Illustration that Works: Professional Techniques for Artistic & Commercial Success" by Greg Houston
6. "The Adobe Illustrator WOW! Book" by Sharon Steuer
7. "Vector Graphics and Illustration: A Master Class in Digital Image-Making" by Steven Withrow and John Foster

Photo Editing and Designing Lab		
Course Code	L-T-P	Credits
24VMC573	0-2-2	3

Course Objective:

This course covers the advanced skills of image production and manipulation, using the industry-standard software to work with digital images for both Web and print use. Understanding the structure of this application enables the student to systematically build confidence and skill in its use, and also apply its principles in related applications. This course surveys the breadth and depth of the software workspace and toolset through lecture presentations and lab exercises. An overview of the digital imaging workflow will be presented, with emphasis on image processing. Students must have basic computer literacy

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the tools of image production for different media

2. Build skill of applying different software
3. Apply color correction, layer and such other possible options in image editing
4. Work with 3D image production
5. Produce final and ready to be used image output

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	2	1	1	2	1	1	2	2	1	1	1
CO2	2	2	1	1	2	1	2	2	3	2	1	2
CO3	3	3	2	2	3	2	3	2	3	2	2	2
CO4	2	3	2	2	3	2	2	3	3	3	2	3
CO5	3	3	2	2	3	2	3	3	3	3	2	3

Module 1: Introduction and Workspace

Workspace, Tools, and Panels, Opening an existing document, Discovering the Tools panel, Accessing tools and their options, Using panels, Customizing your panels, Hidden tools, Navigating the image area, Using the Zoom features, Maximizing productivity with screen modes

Module 2: Working with Selections-

The importance of a good selection, Using the Marquee tools, Changing a selection into a layer, Working with the Magic Wand tool, The Lasso tool, Adding to and subtracting from selections, Adding to and deleting from the selection, Saving a selection, Feathering a selection, Using the Quick Selection tool, Making difficult selections with the Refine Edge feature, Using Quick Mask, Copying and pasting a selection, Using the Pen tool for selections, Converting a path to a selection

Module 3: Understanding Layers-

Background layers, Creating layers, Rearrange & editing layers, Opacity & Layer Blending Modes, Linking Layers, Applying Layer Styles, Flattening Layers, Layer Comps, Duplicating & Aligning Layers, Layer Groups, Preserve transparency, Creating a composition, Creating a layer mask, Editing the layer mask, Cloning layers, Filtering your layers, Smart layer, GIF animation

Module 4: Painting and Retouching

Setting up your color settings, Color primer, Understanding color gamut.,The RGB color model The CMYK color model, Editing color settings, Selecting colors, Starting to paint, Using the Color panel, Using the Brush tool, Changing opacity, Using the Brush Presets, Using the Airbrush feature, Applying color to an image, Changing blending modes., The Eyedropper tool, Retouching images, Using the Clone Stamp tool, Repairing fold lines, The History panel, The Spot Healing Brush, The Healing Brush, Using the Patch tool, Using the Clone Source panel, Cloning from another source

Module 5: Working with 3D images-

Creating a 3D shape from a layer, Manipulating 3D objects, Using 3D panels to adjust lighting and surface textures, Merging 2D onto 3D layers, Importing 3D Files, Painting onto a 3D object, Using Repoussé to create 3D text, All-new Smart Sharpen, Intelligent upsampling, Camera Shake Reduction, Editable rounded rectangles, Improved 3D painting, Improved type styles, Improved 3D Scene panel, Improved 3D effects, Automating and Scripting Workflow in Photoshop

References:

1. Adobe Photoshop Classroom in a Book (2021 release) Paperback – by Conrad Chavez (Author), Andrew Faulkner
2. Photoshop CC in Simple Steps Paperback – by DT Editorial Services
3. Evening, M. (2018). Photoshop CC for dummies (2nd ed.). Wiley.
4. Eckert, J. (2019). Adobe Photoshop CC Classroom in a book (2019 release). Adobe Press.
5. Andrews, P. (2017). Adobe Photoshop Elements 15 Classroom in a book. Adobe Press.
6. Walters, C., & Parsons, J. (2018). The Adobe Photoshop CC Book for Digital Photographers (2018 release). New Riders.
7. Smith, M. (2017). Adobe Photoshop Lightroom Classic CC Classroom in a book (2019 release). Adobe Press.

Photography and Lighting Practice		
Course Code	L-T-P	Credits
24VMC574	0-2-2	3

Course Objective:

This course aims to equip students with the knowledge and skills to effectively utilize digital cameras for capturing well-exposed images. Students will demonstrate mastery in composing visually appealing photographs through the application of different types of lenses and filters. Additionally, they will understand and apply various photography lighting techniques to capture engaging images in different lighting setups. Lastly, students will critically analyze and implement creative lighting solutions to create enhanced visually narrative photographs.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Use a digital camera to capture well-exposed images.
2. Demonstrate the application of different types of lenses, and filters to compose visually appealing photographs.

3. Understand photography lights and lighting techniques.
4. Capture engaging images in different lighting setups.
5. Critically analyze lighting setups and techniques and demonstrate proficiency in creating creative lighting setups.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	2	2	1	3	2	2	2	2
CO2	3	3	2	3	2	2	1	2	3	2	2	2
CO3	3	2	2	2	2	2	1	2	2	3	2	2
CO4	3	3	2	3	2	2	1	2	2	2	3	2
CO5	3	3	3	3	2	2	1	2	2	2	2	3

Module 1: Fundamentals of Light and Photography

Light and its properties: quality, direction, intensity and colour; Camera and its basics operations; Anatomy of a camera; Modes; Exposure triangle: Aperture, Shutter Speeds & ISO; Metering: TTL, Light Meter; Depth of Field; White Balance; Colour temperature; Focusing modes; Artificial lights; Digital Sensors; Storage devices; Digital image formats.

Module 2: Familiarizing with Lenses, Filters and Compositions

Focal length; Angle of view; Choosing Lenses: types of photography lenses; Family of angles; Filters: Types and application; Rules of compositions; Shots and Angles: Types and application.

Module 3: Photography Lights and Techniques

Natural and available light: Golden Hour and Blue Hour; Harsh Light vs. Soft Light; Reflectors and Diffusers. Artificial light: studio strobe light, continuous source of light and speed lights; Light modifiers: reflectors; snoot; soft box; strip; spot; beauty dish; Subjects and reflections: glass and metal; Portrait Posing: techniques.

Module 4: Mastering Lighting

Natural; Artificial; Mixed Lighting; Shooting in Low Light Conditions: Managing Noise, Utilizing Available Light Sources; Capturing motion; Lighting ratios; Lighting diagram; lighting setups: One-point, two-point, three-point lighting; Portrait lighting.

Module 5: Lighting for Visual Narratives

Lighting setups for different subjects: still life, product and people photography; Conceptual photography: Lighting and emotions: soft and hard light; Analysing lights and lighting; Histogram; Lighting and visual narratives: highlights, shadows and midtones; Creative lighting; Photography genre and lighting.

References:

1. Hunter, F., Biver, S., Fuqua, P. (2007). *Light--science & Magic: An Introduction to Photographic Lighting*. Germany: Focal Press.
2. Peterson, B., Schellenberg, S. H. (2017). *Understanding Color in Photography: Using Color, Composition, and Exposure to Create Vivid Photos*. United States: Clarkson Potter/Ten Speed.
3. Valenzuela, R. (n.d.). *Picture Perfect Flash: Using Portable Strobes and Hot Shoe Flash to Master Lighting and Create Extraordinary Portraits*. United States: Rocky Nook.
4. Peterson, B. (2010). *Understanding Exposure, 3rd Edition*. United States: Clarkson Potter/Ten Speed.
5. McNally, J. (2008). *The Moment It Clicks: Photography Secrets from One of the World's Top Shooters*. United Kingdom: Pearson Education.
6. Kelby, S. (2013). *The Digital Photography Book: Part 1*. United States: Pearson Education.
7. McNally, J. (2009). *The Hot Shoe Diaries: Big Light from Small Flashes*. India: Pearson Education.
8. Sontag, S. (2014). *On Photography*. United Kingdom: Penguin Books Limited.
9. Bübl, A. (n.d.). *Studio: Lighting Setups for Portrait Photography*. (n.p.): Rocky Nook.
10. Peterson, B. (2011). *Learning to See Creatively*. United States: Potter/TenSpeed/Harmony.
11. Freeman, M. (2012). *The Photographer's Story: The Art of Visual Narrative*. United Kingdom: Octopus.
12. Short, M. (2011). *Basics Creative Photography 02: Context and Narrative*. Switzerland: AVA Publishing.
13. *Telling Tales: Contemporary Narrative Photography*. (2016). United States: McNay Art Museum.
14. Adler, L. (2017). *The Photographer's Guide to Posing: Techniques to Flatter Everyone*. United States: Rocky Nook.
15. Carroll, H. (2014). *Read This If You Want to Take Great Photographs*. United Kingdom: Laurence King Publishing.
16. *Master Photography: Your Complete Guide to Photography*. (2023). (n.p.): Tracy Mccrackin Photography.
17. Company, E. K. (2023). *Studio Light: A Magazine Of Information For The Profession*. (n.p.): Creative Media Partners, LLC.
18. *Photography Fundamentals A Beginners Guide - by Coffee x Cameras*. (2023). (n.p.): Charlie Naebeck.
19. *PHOTOGRAPHY MASTER CLASS*. (2023). (n.p.): MR. BIG WEALTH.

20. Alton, J. (2023). *Painting With Light*. United States: University of California Press.
21. *Capturing the Perfect Shot Mastering Techniques for Stunning Photographs*. (2023). (n.p.): Charlie Naebeck.
22. *Journey of the Lens*. (2023). (n.p.): Amazon Digital Services LLC - Kdp.
23. *Capturing Moments: 52 Inspirational Photography Ideas: Unlock Your Creative Potential with Superb Subject Suggestions, Comprehensive Tips, Tricks, Techniques, and Camera Settings*. (2023). (n.p.): Rockwood Publishing.

SEMESTER II

2D sketching and Animation Lab		
Course Code	L-T-P	Credits
24VMC575	0-2-2	3

Course Objective:

This course provides a comprehensive introduction to 2D sketching and animation using Adobe Animate. Students will learn the fundamentals of 2D animation, from sketching to creating interactive animations with ActionScript. The course covers both basic and advanced techniques, preparing students to create professional-quality animations and interactive content.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamentals of 2D sketching and character design.
2. Apply basic animation principles to create simple animations.
3. Analyze advanced 2D animation techniques for dynamic actions.
4. Create interactive animations using ActionScript.
5. Evaluate and optimize animations for performance and publication.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	1	2	2	1	1	3	1	1	2	1
CO2	2	2	2	3	3	2	2	2	2	1	2	1
CO3	2	1	3	3	2	3	2	2	3	2	1	1
CO4	2	2	2	3	2	2	3	2	3	2	1	2
CO5	2	1	2	3	3	2	3	2	2	2	2	1

Module 1: Introduction to 2D Sketching:

- **Fundamentals of Sketching:** Basic shapes, lines, and forms
- **Character Design:** Proportions, anatomy, and gesture drawing
- **Background and Environment Sketching:** Perspective, landscapes, and interiors
- **Storyboarding:** Visual storytelling, scene planning, and shot composition
- **Project:** Create character sketches and a storyboard for a short animation
- **Lab Work:** Hands-on exercises in sketching characters and environments.

Module 2: Basics of 2D Animation:

- **Introduction to Adobe Animate:** Interface, tools, and workspace customization

- **Basic Animation Principles:** Squash and stretch, timing, and spacing
- **Creating Simple Animations:** Frame-by-frame animation, keyframes, and tweening
- **Animating Characters:** Walk cycles, facial expressions, and basic movements
- **Project:** Create a short character animation (e.g., a walk cycle)
- **Lab Work:** Practical exercises on basic animation techniques using Adobe Animate

Module 3: Advanced 2D Animation Techniques:

- **Complex Movements:** Running, jumping, and dynamic actions
- **Facial Animation:** Techniques for animating lip-sync and expressions
- **Special Effects Animation:** Adding effects like explosions, smoke, and water
- **Camera Movements:** Panning, zooming, and tracking shots
- **Project:** Create an advanced character animation incorporating complex movements and effects
- **Lab Work:** Practical sessions on advanced animation techniques

Module 4: Interactivity with ActionScript:

- **Introduction to ActionScript:** Basics of programming with ActionScript 3.0
- **Creating Interactive Animations:** Buttons, movie clips, and navigation
- **Event Handling:** Responding to user inputs and events
- **Animation Control:** Controlling animation playback with ActionScript
- **Project:** Create an interactive animation or game
- **Lab Work:** Practical exercises on adding interactivity using ActionScript

Module 5: Advanced Animation and Interactivity:

- **Advanced Scripting Techniques:** Using classes, objects, and functions in ActionScript
- **Data Handling:** Storing and retrieving data, working with XML and JSON
- **Integrating Multimedia:** Incorporating sound, video, and external assets
- **Optimization and Publishing:** Optimizing animations for performance, publishing for web and mobile
- **Final Project:** Create a comprehensive interactive animation or game incorporating all learned techniques
- **Lab Work:** Final project development and peer review sessions

References:

1. "Adobe Animate Classroom in a Book (2021 Release)" by Russell Chun
2. "Learning ActionScript 3.0: A Beginner's Guide" by Rich Shupe and Zevan Rosser
3. "The Animator's Survival Kit" by Richard Williams
4. "Character Animation Crash Course!" by Eric Goldberg
5. "ActionScript 3.0 for Adobe Flash Professional CS5 Classroom in a Book" by Adobe Creative Team

6. "Adobe Animate CC 2019: An Introduction to Adobe Animate for Creating 2D Animations" by Michael Morris

7. "Flash + After Effects: Add Broadcast Features to Your Flash Designs" by Chris Jackson

Creative Advertising and Branding		
Course Code	L T P	Credits
24VMC513	2-1-0	3

Course Objective:

This course aims at equipping students with practical skills and theoretical knowledge necessary for a successful career in creative advertising and branding.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Demonstrate the ability to develop creative and innovative advertising concepts and strategies for various brands and products.
2. Apply knowledge of consumer behavior, market research, and target audience analysis to inform advertising decisions and effectively reach the intended audience.
3. Create compelling advertisements for different media platforms, including print, digital, social media, and outdoor advertising.
4. Analyze the role of branding in building brand identity, awareness, and equity through effective advertising campaigns.
5. Evaluate ethical considerations in advertising practices and demonstrate an understanding of responsible advertising principles.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	1	1	1	2	2	3	1	3	2	1
CO2	2	2	3	1	2	2	2	3	1	3	3	2
CO3	2	3	3	1	2	2	2	3	1	3	2	3
CO4	2	2	2	1	1	1	2	3	1	3	3	3
CO5	2	1	2	1	3	2	2	3	1	3	3	3

Unit 1:

Introduction to Advertising and Branding: Definition of advertising and branding, history and evolution of advertising and branding, importance of creative advertising in building a brand, case studies of successful advertising campaigns

Unit 2:

Understanding Consumer Behavior: Psychology behind consumer decision making, market segmentation and targeting, consumer research and data analysis for effective advertising strategies, ethical considerations in consumer behavior analysis

Unit 3:

Creative Strategy Development: developing a creative brief for advertising campaigns, storytelling as a tool for brand communication, design thinking principles in creative strategy development, integrating digital media into creative strategies

Unit 4:

Visual Branding and Communication: The role of visual elements in branding, typography, color theory, and graphic design principles, creating visual identity systems for brands

Unit 5:

Campaign Execution and Evaluation: Media planning and budgeting, Corporate Image and Brand Management- IMC to build Brand Equity, Evaluating the Brand Performance, Design and Implementation of Brand Strategies, Brand Product Matrix and Hierarchy Levels, Achieving the Ideal the Brand Portfolio, Managing Brands over: Time, Market Segments and Geographic Boundaries, Revitalising and Changing the Brand Portfolio, Trade Promotion and Selling, CRM, Personal Selling and Digital marketing

References:

1. "Hey, Whipple, Squeeze This: The Classic Guide to Creating Great Ads" by Luke Sullivan
2. "The Art of Client Service: The Classic Guide, Updated for Today's Marketers and Advertisers" by Robert Solomon
3. "Ogilvy on Advertising" by David Ogilvy
4. "Building Strong Brands" by David Aaker
5. "Creative Strategy and the Business of Design" by Douglas Davis

Advanced Animation Techniques		
Course Code	L-T-P	Credits
24VMC576	0-2-2	3

Course Objective:

This advanced course explores sophisticated animation techniques using Maya and Blender. Students will work on complex character animation, dynamics, effects, and utilize cutting-edge technologies. The course covers both organic and non-organic modeling, integrating advanced rigging, facial animation, motion capture, and simulation effects.

Course Outcomes (COs):

After completing the course, learners should be able to:

- Understand advanced character animation techniques, including facial animation and motion capture.
- Apply dynamics and effects to create realistic animations.
- Develop advanced texturing and shading for complex models.
- Implement advanced lighting and rendering techniques for animation sequences.
- Integrate animations into various media, including film, TV, games, VR, and AR

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	3	3	2	2	3	2	2	2	2
CO2	3	2	3	3	2	3	3	2	3	2	2	2
CO3	3	2	3	3	3	3	2	3	3	2	2	2
CO4	3	2	2	3	3	3	3	3	3	3	2	2
CO5	3	3	2	3	3	2	3	3	3	3	3	3

Module 1: Advanced Character Animation:

- **Complex Character Movements:** Advanced walk cycles, running, jumping
- **Facial Animation:** Techniques for animating facial expressions and lip-syncing
- **Advanced Rigging:** Creating advanced rigs for complex characters
- **Motion Capture:** Introduction to motion capture and integration into animations
- **Project:** Animate a character with advanced movements and facial expressions
- **Lab Work:** Hands-on exercises in advanced character animation using Maya and Blender

Module 2: Dynamics and Effects:

- **Simulation of Physical Phenomena:** Gravity, collisions, and other physics-based effects
- **Particle Systems:** Creating and controlling particle effects (e.g., smoke, fire)
- **Fluid Simulations:** Water, liquid, and gas simulations
- **Hair and Cloth Simulation:** Realistic animation of hair, fur, and clothing
- **Project:** Create an animation incorporating dynamic effects
- **Lab Work:** Practical exercises on dynamics and effects using Maya and Blender

Module 3: Advanced Texturing and Shading:

- **Procedural Texturing:** Creating textures using procedural methods
- **Advanced UV Mapping:** Techniques for complex models
- **Advanced Shaders:** Using and creating complex shader networks
- **Subsurface Scattering:** Techniques for realistic skin and organic materials
- **Project:** Texture and shade a complex model with advanced techniques

- **Lab Work:** Hands-on sessions on advanced texturing and shading

Module 4: Lighting and Rendering for Animation:

- **Advanced Lighting Techniques:** HDRI lighting, light linking, light baking
- **Rendering for Animation:** Optimizing rendering settings for animation sequences
- **Compositing Basics:** Integrating rendered elements into final compositions
- **Rendering Engines:** In-depth look at rendering engines like Arnold, V-Ray, and Cycles
- **Project:** Render a short animation sequence with advanced lighting and effects
- **Lab Work:** Practical exercises on lighting and rendering for animations

Module 5: Integrating Animation into Various Media:

- **Animation for Film and TV:** Standards, practices, and workflows
- **Animation for Games:** Real-time animation techniques, integration into game engines
- **Virtual Reality (VR) and Augmented Reality (AR):** Creating animations for immersive experiences
- **Future Trends in Animation:** Exploring AI, machine learning, and other emerging technologies
- **Final Project:** Create an advanced animation project integrating multiple techniques
- **Lab Work:** Comprehensive project development and peer reviews

References:

1. "Mastering Autodesk Maya 2020" by Todd Palamar
2. "Blender Master Class" by Ben Simonds
3. "The Animator's Survival Kit" by Richard Williams
4. "Character Animation Crash Course!" by Eric Goldberg
5. "Advanced Maya Texturing and Lighting" by Lee Lanier
6. "Real-Time 3D Rendering with DirectX and HLSL" by Paul Varcholik

UI/UX Designing Practice		
Course Code	L-T-P	Credits
24VMC577	0-2-2	3

Course Objective:

This course provides an in-depth exploration of UI/UX design principles and practices using Adobe XD and Figma. Students will learn to design user interfaces and user experiences for web and mobile applications, covering both basic and advanced techniques. The course includes practical projects that enable students to apply their skills in real-world scenarios, preparing them for professional roles in UI/UX design.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamental principles of UI/UX design and the differences between UI and UX.
2. Apply basic and advanced visual design principles to create responsive and user-friendly interfaces.
3. Conduct user research and usability testing to inform and refine design decisions.
4. Develop interactive prototypes using Adobe XD and Figma.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	2	2	3	3	2	2	3
CO2	3	3	3	3	3	2	3	3	3	3	3	3
CO3	3	3	3	3	3	2	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to UI/UX Design:

- **Fundamentals of UI/UX Design:** Definitions, differences, and key concepts
- **Design Thinking and User-Centered Design:** Processes and methodologies
- **UI/UX Research Methods:** User research, personas, and user journey mapping
- **Introduction to Adobe XD and Figma:** Interface, tools, and workspace customization
- **Project:** Conduct user research and create user personas
- **Lab Work:** Hands-on exercises to familiarize with Adobe XD and Figma interfaces and tools.

Module 2: Basic UI Design Principles:

- **Visual Design Basics:** Layout, color theory, typography, and iconography
- **Wireframing and Prototyping:** Low-fidelity wireframes and interactive prototypes
- **Designing for Different Devices:** Responsive design principles
- **UI Components and Design Patterns:** Buttons, forms, navigation, and grids
- **Project:** Create wireframes and a low-fidelity prototype for a web application
- **Lab Work:** Practical exercises on wireframing and prototyping in Adobe XD and Figma

Module 3: Advanced UI Design Techniques:

- **High-Fidelity Prototyping:** Creating detailed and interactive prototypes
- **Advanced Visual Design:** Use of animations, micro-interactions, and transitions
- **Design Systems and Style Guides:** Creating and maintaining design systems
- **Usability Testing and Iteration:** Conducting tests and iterating designs based on feedback
- **Project:** Develop a high-fidelity prototype with advanced interactions
- **Lab Work:** Practical sessions on high-fidelity prototyping and usability testing

Module 4: UX Design and User Interaction:

- **User Experience Fundamentals:** Understanding user needs and behavior
- **Information Architecture:** Structuring content and navigation
- **Interaction Design:** Designing user flows and interactive elements
- **Accessibility in UX Design:** Ensuring designs are accessible to all users
- **Project:** Create a detailed user flow and interaction design for a mobile application
- **Lab Work:** Exercises on interaction design and accessibility in Adobe XD and Figma

Module 5: Advanced UX Design Strategies:

- **Advanced UX Research Methods:** A/B testing, card sorting, and heat maps
- **Designing for Emerging Technologies:** VR/AR, voice interfaces, and AI integration
- **Collaborative Design and Handoff:** Working with developers and other stakeholders
- **Portfolio Development:** Compiling and presenting a professional UI/UX design portfolio
- **Final Project:** Create a comprehensive UI/UX design project incorporating all learned techniques
- **Lab Work:** Final project development and peer review sessions

References:

1. "Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability" by Steve Krug
2. "Adobe XD Classroom in a Book (2020 Release)" by Brian Wood
3. "Figma: The Collaborative Interface Design Tool" by Kim Lennox
4. "The Design of Everyday Things" by Don Norman
5. "Lean UX: Designing Great Products with Agile Teams" by Jeff Gothelf and Josh Seiden
6. "Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days" by Jake Knapp, John Zeratsky, and Braden Kowitz
7. "About Face: The Essentials of Interaction Design" by Alan Cooper, Robert Reimann, David Cronin, and Christopher Noessel
8. "UX Research: Practical Techniques for Designing Better Products" by Brad Nunnally and David Farkas

Compositing and Colour Correction Lab		
Course Code	L-T-P	Credits
24VMC578	0-2-2	3

Course Objective:

To equip students with practical skills and comprehensive knowledge in colour correction and compositing using compositing software, enabling them to enhance visual storytelling and create professional-quality visual effects.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Demonstrate proficiency in navigating and utilizing Compositing software for colour correction and compositing.
2. Acquire skills in applying basic and advanced colour correction techniques to enhance visual aesthetics.
3. Develop advanced compositing skills, including keying, roto-scoping, and motion tracking.
4. Create and apply specific looks and colour grades, ensuring consistency across multiple shots.
5. Execute, and present a comprehensive compositing project, showcasing their ability to integrate color correction and compositing techniques

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	2	1	1	3	3	3	3	3
CO2	3	1	2	3	2	1	1	3	3	2	2	3
CO3	3	1	3	3	1	1	3	3	3	3	3	3
CO4	3	1	3	2	1	1	1	3	3	1	1	1
CO5	3	1	3	1	1	1	1	3	3	1	1	1

Module 1: : Introduction to Compositing software

Overview of compositing software interface and tools

Basic compositing principles

Importing and organising media

Basic node-based workflow in Compositing

Navigating the interface and exploring basic tools

Importing footage and organising nodes

Creating a simple composite using basic nodes (Merge, Transform, etc.)

Creating a galaxy scene (bg)

Understanding lighting in compositing software

Working with direct light, spotlight, point light, environment light

Module 2: Fundamentals of Color Correction

- Principles of color correction
- Understanding colour spaces and scopes
- Using color correction tools (ColorCorrect, Grade, HueCorrect, etc.)
- Balancing and matching colours between shots
- Applying colour correction to a single shot
- Balancing colours between two different shots
- Exploring color scopes and histograms
- Understanding blending modes
- Matching cg background with vfx plate

Module 3: Advanced Compositing Techniques

- Advanced node operations and expressions
- Keying and matte extraction (using Keyer, Primatte, etc.)
- Rotoscoping and masking techniques
- Motion tracking and stabilization
- Extracting a clean matte using keying tools
- Rotoscoping a moving object
- Applying motion tracking to a composite
- Camera projection in compositing software
- Creating a background using camera projection

Module 4: Advanced Color Correction and Look Development

- Advanced colour correction techniques
- Creating and applying LUTs (Look-Up Tables)
- Matching the colour grade across multiple shots
- Developing a specific look for a short sequence
- Creating and applying a custom LUT
- Ensuring colour consistency across multiple shots
- Creating effects in compositing software
- Water stimulation effect
- Lighting effect
- Fire and fire particles effects

Module 5: Final Project and Presentation

- Planning and executing a complete compositing project
- Integrating colour correction and compositing techniques
- Final touches and quality control
- Presenting and critiquing compositing work
- Plan and execute a complex compositing project using Compositing
- Apply advanced colour correction and compositing techniques
- Peer review sessions to provide and receive feedback

Page Layout Designing Lab		
Course Code	L-T-P	Credits
24VMC579	0-2-2	3

Course Objective:

This course provides an in-depth exploration of page layout design using Adobe InDesign. Students will learn to create professional-quality layouts for print and digital media, covering both basic and advanced techniques. The course includes practical projects that enable students to apply their skills in real-world scenarios, preparing them for careers in graphic design and visual communication.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamental principles of page layout design and the Adobe InDesign interface.
2. Apply advanced text and typography techniques to enhance the visual appeal of layouts.
3. Integrate images and graphics effectively within various types of documents.
4. Utilize advanced layout techniques for both print and interactive documents.
5. Develop a professional portfolio showcasing their layout design skills.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	3	1	1	3	2	1	2	2
CO2	3	3	3	3	2	2	2	3	3	2	2	2
CO3	3	2	2	3	3	2	2	3	3	2	2	2
CO4	3	3	3	3	3	2	3	3	3	3	2	2
CO5	3	2	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to Page Layout Design:

- **Basics of Page Layout Design:** Understanding principles of layout, composition, and grid systems
- **Introduction to Adobe InDesign:** Interface, tools, and workspace customization
- **Creating Basic Documents:** Setting up documents, understanding pages and spreads
- **Basic Text and Typography:** Working with text frames, basic typography, and text formatting
- **Project:** Create a simple one-page layout (e.g., a flyer or poster)

- **Lab Work:** Hands-on exercises to familiarize with Adobe InDesign interface and basic tools.

Module 2: Advanced Text and Typography:

- **Advanced Typography:** Character and paragraph styles, typographic hierarchy, and fine-tuning text
- **Working with Long Documents:** Master pages, sections, and table of contents
- **Text Flow and Linking:** Managing text flow across multiple pages, using text threads
- **Text Effects and Transformations:** Drop caps, text wrap, and text effects
- **Project:** Design a multi-page document (e.g., a brochure or booklet) with advanced typography
- **Lab Work:** Practical exercises on advanced text and typography techniques

Module 3: Working with Images and Graphics:

- **Placing and Formatting Images:** Importing images, fitting images within frames
- **Advanced Image Handling:** Clipping paths, transparency, and effects
- **Creating and Using Graphics:** Drawing tools, creating shapes, and using libraries
- **Integrating Text and Images:** Combining text and images effectively within layouts
- **Project:** Create a visually rich layout integrating text and images (e.g., a magazine spread)
- **Lab Work:** Practical sessions on working with images and graphics in InDesign

Module 4: Advanced Layout Techniques:

- **Grid Systems and Modular Design:** Using grids for consistent and balanced layouts
- **Interactive Documents:** Creating interactive PDFs, buttons, hyperlinks, and media
- **Advanced Design Elements:** Using layers, object styles, and effects
- **Prepress and Printing:** Preparing documents for print, understanding color modes and bleed
- **Project:** Design an interactive PDF document or a complex print layout
- **Lab Work:** Practical exercises on advanced layout techniques and prepress preparation

Module 5: Professional Practices and Portfolio Development:

- **Working with Clients:** Understanding client briefs, creating mockups, and getting feedback
- **Collaboration and Workflow:** Using InDesign in a collaborative environment, working with other Adobe software
- **Portfolio Development:** Compiling and presenting a professional design portfolio
- **Final Project:** Create a comprehensive layout project incorporating all learned techniques
- **Lab Work:** Final project development, peer reviews, and portfolio preparation

References:

1. "Adobe InDesign Classroom in a Book (2021 Release)" by Kelly Kordes Anton and Tina DeJarld
2. "InDesign CC: Visual QuickStart Guide" by Sandee Cohen
3. "Adobe InDesign CC Classroom in a Book (2020 release)" by Kelly Kordes Anton and Tina DeJarld

4. "InDesign Type: Professional Typography with Adobe InDesign" by Nigel French
5. "Real World Adobe InDesign CC" by Olav Martin Kvern, David Blatner, and Bob Bringhurst
6. "The Layout Book" by Gavin Ambrose and Paul Harris
7. "Designing with Type: The Essential Guide to Typography" by James Craig, Irene Korol Scala, and William Bevington

Web Designing and Developing Practice		
Course Code	L-T-P	Credits
24VMC580	0-2-2	3

Course Objective:

This course offers a comprehensive overview of web design and development, focusing on both basic and advanced concepts. Students will learn to create responsive, visually appealing, and user-friendly websites using HTML and CSS. Additionally, Adobe Dreamweaver will be used for efficient website development and management. The course covers the essential skills needed to design, develop, and deploy professional-quality websites.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamental principles of effective web design.
2. Apply advanced HTML techniques to create multimedia-rich web pages.
3. Utilize advanced CSS techniques to develop responsive web designs.
4. Develop complete websites using Adobe Dreamweaver.
5. Implement best practices in web development, including testing, debugging, and optimization.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	3	1	1	3	2	1	2	2
CO2	3	3	3	3	2	2	2	3	3	2	2	2
CO3	3	2	2	3	3	2	2	3	3	2	2	2
CO4	3	3	3	3	3	2	3	3	3	3	2	2
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to Web Design:

- **Fundamentals of Web Design:** Understanding the principles of effective web design

- **Introduction to HTML:** Structure of HTML documents, basic tags, and attributes
- **Basic HTML Elements:** Text formatting, links, lists, images, and tables
- **Introduction to CSS:** CSS syntax, selectors, and basic properties
- **Basic CSS Styling:** Colors, backgrounds, borders, and text styling
- **Project:** Create a simple web page using basic HTML and CSS
- **Lab Work:** Practical exercises in writing and styling basic HTML and CSS code.

Module 2: Advanced HTML Techniques:

- **HTML5 Semantic Elements:** Header, footer, section, article, and nav
- **Forms and Input Types:** Creating and styling forms, new HTML5 input types
- **Multimedia Elements:** Embedding audio and video
- **HTML APIs:** Canvas, geolocation, local storage
- **Accessibility and SEO:** Best practices for making web pages accessible and search engine optimized
- **Project:** Develop a multimedia-rich web page using advanced HTML features
- **Lab Work:** Hands-on exercises with advanced HTML techniques

Module 3: Advanced CSS Techniques:

- **CSS3 Enhancements:** Transitions, transformations, and animations
- **Responsive Design Principles:** Media queries, fluid grids, and flexible images
- **CSS Frameworks:** Introduction to Bootstrap and other frameworks
- **CSS Preprocessors:** Using SASS and LESS for efficient styling
- **Flexbox and Grid Layouts:** Advanced layout techniques
- **Project:** Create a responsive web page using advanced CSS techniques
- **Lab Work:** Practical sessions on creating responsive designs and using CSS frameworks

Module 4: Web Development with Dreamweaver:

- **Introduction to Adobe Dreamweaver:** Overview of the interface and tools
- **Site Management:** Setting up and managing websites within Dreamweaver
- **Design View and Code View:** Using both visual and code editors
- **Templates and Libraries:** Creating and using templates, snippets, and libraries for efficient development
- **Project:** Develop a complete website using Dreamweaver
- **Lab Work:** Exercises in website development and management with Dreamweaver

Module 5: Advanced Web Development Practices:

- **JavaScript Basics:** Introduction to JavaScript for adding interactivity
- **Integrating JavaScript with HTML and CSS:** DOM manipulation, events, and functions
- **Web Hosting and Deployment:** Domain registration, hosting services, and FTP
- **Testing and Debugging:** Tools and techniques for testing and debugging web pages
- **Optimization Techniques:** Improving website performance and load times
- **Final Project:** Create a fully functional, responsive, and interactive website

- **Lab Work:** Final project development and peer review sessions

References:

1. "HTML and CSS: Design and Build Websites" by Jon Duckett
2. "Adobe Dreamweaver Classroom in a Book (2021 Release)" by James J. Maivald
3. "Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics" by Jennifer Robbins
4. "Responsive Web Design with HTML5 and CSS" by Ben Frain
5. "CSS: The Definitive Guide" by Eric A. Meyer and Estelle Weyl
6. "JavaScript and JQuery: Interactive Front-End Web Development" by Jon Duckett
7. "Mastering CSS with Dreamweaver CS5.5" by Stephanie Sullivan Rewis and Greg Rewis

SEMESTER III

Intellectual Property Rights for Media		
Course Code	L-T-P	Credits
24VMC603	2-1-0	3

Course Objective:

This course provides an in-depth exploration of intellectual property rights (IPR) as they pertain to the media industry. It covers the fundamental concepts, legal frameworks, and practical implications of IPR in various media contexts. Students will gain a comprehensive understanding of how intellectual property laws influence the creation, distribution, and consumption of media content.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the basic principles and types of intellectual property rights.
2. Analyze the role and impact of IPR in the media industry.
3. Apply legal frameworks to protect media content.
4. Evaluate case studies and real-world scenarios involving IPR issues in media.
5. Develop strategies for managing and enforcing IPR in media contexts..

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	1	2	1	2	2	1	3	1	1	2	1
CO2	3	1	2	1	3	2	2	1	2	1	1	1
CO3	3	2	3	1	1	3	1	2	1	1	1	1
CO4	3	1	3	1	2	1	2	3	2	1	1	2
CO5	2	1	3	1	2	1	2	3	1	1	1	1

Unit 1:

Introduction: Introduction to the constitution and legal frameworks, fundamental rights and directive principles – freedom of speech and expression enshrined in the Indian constitution, identification of intellectual property, Types of intellectual property and their legal framework, Importance and theories of IP

Unit 2:

Patents - Elements of Patentability – Introduction to Patent Law, Definition and types of patents Patentable subject matter in media technology, Patent application process and requirements, Registration Procedure, Rights and Duties of Patentee, Surrender and Revocation of Patents,

Infringement, Remedies & Penalties - Patent office and Appellate Board Role of patents in protecting media technology and innovations

Unit 3:

copyright- Nature of Copyright - Subject matter of copyright: Copyright act, original literary, dramatic, musical, artistic works; cinematograph films and sound recordings - Registration Procedure, Term of protection, Ownership of copyright and license of copyright - Infringement, Remedies & Penalties – Related Rights, Piracy under Copyright Law, Copyright in Cyberspace.

Unit 4:

trademarks- Concept of Trademarks - Various kinds of marks (brand names, logos, signatures, symbols, well known marks, certification marks and service marks) - Non-Registrable Trademarks - Registration of Trademarks - Rights of holder and assignment and licensing of marks - Infringement, Remedies & Penalties - Trademarks registry and appellate board

Unit 5:

Other forms of IP related to the media industry and case studies - Design: meaning and concept of novel and original

Layout Design protection, Impact of digitalization on IPR enforcement India`s New National IP Policy, 2016, Role of Artificial Intelligence in media IPR, Case Studies and Practical Applications, Analysis of landmark IPR cases in the media industry

Reference:

1. Intellectual Property Law in India" by Justice P.S. Narayana "Intellectual Property in the New Technological Age" by Robert P. Merges, Peter S. Menell, and Mark A. Lemley
2. Copyright Law for the Digital Age" by Melissa A. Johnson
3. Trademark and Unfair Competition Law: Cases and Materials" by Jane C. Ginsburg
4. "Patent Law in Global Perspective" by Peter Drahos
5. Copyright Law: A Practitioner's Guide" by Arnold B. Kanter
6. Digital Copyright: Law and Practice" by Simon Stokes
- 7 Indian Copyright Law and Practice" by V.K. Ahuja
8. Law Relating to Intellectual Property Rights" by V.K. Ahuja
- 9 Intellectual Property Law in India" by T. Ramappa

Motion Graphics and VFX Lab		
Course Code	L-T-P	Credits
24VMC684	0-2-2	3

Course Objective:

To provide students with a comprehensive foundation for creating dynamic titles and visual effects, equipping them with the necessary skills and knowledge to succeed in the field

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Master industry-standard software tools for titling and visual effects (VFX) creation
2. To make the learner apply various titling techniques including motion graphics and typography animation.
3. To equip the learner to Gain hands-on experience in creating visually stunning visual effects such as compositing and motion tracking.
4. To make the learner Analyze and critique titling and VFX elements in existing digital media productions.
5. To compile a professional portfolio showcasing various titling and VFX projects

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	3	2	2	3	2	3	2	2	2	3
CO2	3	3	3	3	2	3	2	3	3	2	2	3
CO3	3	3	3	2	2	3	3	3	2	2	2	3
CO4	3	3	2	3	3	2	2	3	2	2	3	3
CO5	3	3	3	2	2	3	3	3	3	2	2	3

Module 1: Introduction to Titling and Visual Effects

- 1 Overview of titling and visual effects concepts
- Introduction to interface and tools
- Basic titling techniques using text layers
- Applying simple visual effects to video footage

Module 2: Advanced Titling Techniques

- Creating animated titles with text animations and presets
- Designing custom title sequences using shape layers and masks
- Automate title animations
- Incorporating 3D text and effects into titles

Module 3: Visual Effects for Video Enhancement

Understanding visual effects principles
Applying effects to enhance video quality
Using green screen compositing for visual effects
Creating realistic effects with particles and simulation
Creating Camera Projections

Module 4: Advanced Visual Effects and Compositing

Advanced compositing techniques for integrating visual effects
Creating complex effects with advanced techniques
Using 3D layers and cameras for visual effects
Integrating visual effects seamlessly into video footage

Module 5: Camera tracking and Camera Animation

Analyzing skill of camera tracking
Automatic camera tracking and manual camera tracking
Camera animation and techniques
Adding the composition layers to the camera tracking

References:

1. Designing with Motion: Handbook of Motion Graphics Design" by Chris Jackson
2. "The Visual Effects Producer: Understanding the Art and Business of VFX" by Charles Finance
3. "Creating Motion Graphics with After Effects: Essential and Advanced Techniques" by Chris Meyer and Trish Meyer
4. "Typography for Screen: How to Design Effective Typography for Film and TV" by Sarah Frost
5. "Digital Compositing for Film and Video" by Steve Wright
6. "The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures" by Jeffrey A. Okun and Susan Zwerman
7. "The Filmmaker's Guide to Visual Effects: The Art and Techniques of VFX for Directors, Producers, Editors, and Cinematographers" by Eran Dinur
8. "The Art and Science of Digital Compositing: Techniques for Visual Effects, Animation and Motion Graphics" by Ron Brinkmann

Media Research Methods		
Course Code	L-T-P	Credits
24VMC602	2-1-0	3

Course Objective:

To introduce students to basic principles associated with conducting Post graduate-level research, including identifying a research topic; accessing and critiquing scholarly research; writing a literature review; and research ethics.

Students are also introduced to research design and to qualitative and quantitative methodological approaches to collecting and analyzing data.

Given the nature of the discipline, the course provides some emphasis on participatory research methods.

To develop new scientific tools, concepts and theories to solve and understand scientific and non scientific problems.

To enrich the innovative framework towards communication research with a multidisciplinary approach.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the concepts of research and its application to media and communication.
2. Appreciate the various elements and tools of media research.
3. Understand the need and methods for hypothesis testing with statistical methods.
4. Develop a critical understanding of the different theories of media & communication that form the base for research proceedings.
5. Comprehend the relevance and need for writing various research reports, thesis, dissertation, research papers, articles, essays.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	1	2	1	3	2	2	3	2	1	1	1
CO2	3	1	3	2	2	1	2	2	1	1	1	1
CO3	2	1	1	1	1	1	2	1	2	1	1	1
CO4	3	3	3	3	1	1	2	3	3	1	3	3
CO5	1	3	1	1	1	2	3	1	2	1	1	1

Unit 1: Research Framework and Literature Study

Meaning and Concept of research – Motivation and Objectives – Research Methods Vs Methodology – Types of Research - Defining and formulating research Problem – research

questions- Importance of Literature Review. Qualities of a researcher. Ethical Issues – Ethical Committees – Reproduction of published material - Acknowledgement –Reproducibility and accountability.

Unit 2: Research Design & Statistics Tools:

Research Design - Execution of the research – Problem, Formation- Observation and data collection. Methods of Qualitative – Methods of quantitative research in media studies. Sampling – Types of Sampling – Validity – Measurement – construct validity - Reliability- Levels of Measurement – Types of Data – Scaling - Qualitative - Quantitative measures.

Unit 3: Hypothesis - testing:

Hypothesis - testing – Generalization – Variables - Types of Data – Unit of analysis - Statistical Analysis- Tabulation of data – interpretation – Graphical representation of data – Presenting statistical Data– content analysis–Case Study - non –parametric statistics –chi- square – contingency table analysis – parametric statistics – Mean, Proportion, ‘t’ test - analysis of variance (ANOVA) - Regression and Correlation.

Unit 4: Theoretical Framework for Research

Media theories – Philosophy of Research – Structurization of Research – Deduction – Induction - Communication theories - Aesthetics theory of visual communication – character and visual aesthetics – Perception theory – audience research – Semiotics – motion and frame semiotics – Cognitive theory – film theory – narrative theory - cultural aesthetic theories – behavioral theories – Social – New media.

Unit 5: Art of Research Writing and Research aids

Writing research paper – reviews - presentation of research - Bibliography – APA Style – In text- Citation- plagiarism-Utility of the study - Different steps in the preparation – Layout, structure and Language of typical reports – Illustrations and tables - referencing and footnotes. Use of visual aids - Preparing Research papers for journals, Seminars and Conferences –Calculations of Impact factor of a journal, citation.

References:

1. Mass Communication Theory – McQuail Denis (Sage Publication)
2. Audience Analysis – McQuail Denis (Sage Publication)
3. Mass Media Research – Roger Wimmer& Joseph Dominick
4. Methods in Social Research – Kothari C.R
5. Basics of Qualitative Research – Strauss Anselm, Corbin Juliet
6. Berger, Arthur, (2000), Media and Communication Research Methods: An Introduction to Qualitative and Quantitative Approaches, Sage Publications.

7. Visual Communication Theory and Research A Mass Communication Perspective SHAHIRA FAHMY, MARY ANGELA BOCK, AND WAYNE WANTA
8. Visual Communication- Research Designs by Keith Kenney
9. Social Media, Sociality, and Survey Research Edited by Craig A. Hill, Elizabeth Dean, Joe Murph
10. Research Design- Qualitative, Quantitative, and Mixed Methods Approaches, Fifth Edition- John W. Creswell, J. David Creswell

Responsive Web Designing Lab		
Course Code	L-T-P	Credits
24VMC683	0-2-2	3

Course Objective:

This course provides a comprehensive introduction to Responsive Web Design (RWD). Students will learn the fundamental principles and techniques required to create responsive websites that provide an optimal viewing experience across a wide range of devices, from desktop computers to mobile phones. The course covers essential concepts such as fluid grids, flexible images, and media queries, equipping students with the skills to develop modern, user-friendly web designs.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the basic principles and importance of responsive web design.
2. Apply flexible images and media queries to create responsive layouts.
3. Utilize advanced CSS techniques like flexbox and grid for responsive design.
4. Implement responsive web frameworks and customize them.
5. Test and optimize responsive websites for performance and usability.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	3	1	1	3	2	1	2	2
CO2	3	3	3	3	2	2	2	3	3	2	2	2
CO3	3	2	2	3	3	2	2	3	3	2	2	2
CO4	3	3	3	3	3	2	3	3	3	3	2	2
CO5	3	2	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to Responsive Web Design:

- **Basics of Responsive Web Design:** Definition, importance, and principles

- **Understanding Viewports:** Device width, viewport meta tag, and responsive units
- **Introduction to HTML and CSS:** Basic HTML structure, CSS syntax, and selectors
- **Fluid Grid Layouts:** Creating flexible grid layouts using percentages and relative units
- **Project:** Create a simple responsive web page using basic HTML and CSS
- **Lab Work:** Hands-on exercises in setting up responsive layouts.

Module 2: Flexible Images and Media:

- **Flexible Images:** Techniques for scaling images proportionally
- **Responsive Media:** Making videos and other media elements responsive
- **CSS Media Queries:** Introduction and syntax of media queries
- **Breakpoints and Responsive Design:** Setting and managing breakpoints for different devices
- **Project:** Develop a responsive image gallery
- **Lab Work:** Practical exercises on implementing flexible images and media queries

Module 3: Advanced CSS Techniques for RWD:

- **CSS Flexbox:** Understanding and using the flexbox layout module
- **CSS Grid:** Introduction to CSS grid layout and its application in RWD
- **Responsive Typography:** Techniques for scaling text and maintaining readability
- **Advanced Media Queries:** Using feature queries and advanced selectors
- **Project:** Create a multi-column responsive layout using flexbox and grid
- **Lab Work:** Practical sessions on using flexbox and grid for responsive design

Module 4: Responsive Web Frameworks and Tools:

- **Introduction to Frameworks:** Overview of popular frameworks (Bootstrap, Foundation)
- **Using Bootstrap for RWD:** Grid system, responsive utilities, and components
- **Customizing Frameworks:** Modifying and extending framework styles
- **Responsive Design Workflow:** Best practices and tools for responsive design
- **Project:** Build a responsive website using Bootstrap
- **Lab Work:** Hands-on exercises with Bootstrap and other frameworks

Module 5: Testing and Optimization for RWD:

- **Testing Responsive Designs:** Techniques and tools for testing across devices
- **Performance Optimization:** Best practices for optimizing responsive websites
- **Advanced Features:** CSS animations, transitions, and responsive design patterns
- **Future Trends in RWD:** Emerging technologies and future directions
- **Final Project:** Develop a fully functional, optimized responsive website
- **Lab Work:** Final project development and peer review sessions

References:

1. "Responsive Web Design with HTML5 and CSS" by Ben Frain

2. "Learning Responsive Web Design: A Beginner's Guide" by Clarissa Peterson
3. "Responsive Web Design: Enriching the User Experience" by Smashing Magazine
4. "Mobile First" by Luke Wroblewski
5. "HTML and CSS: Design and Build Websites" by Jon Duckett

Mini Project (in Animation and Design)		
Course Code	L-T-P	Credits
24VMC694		3

Course Objective:

This course provides students with the opportunity to apply their learned skills and knowledge to produce a significant project in their chosen area of specialization. The mini project will be an individual effort where students can choose from 2D animation, 3D animation, graphic designing and branding, web designing and online promotion, or UI/UX designing. Each project will require the creation of a final product that demonstrates proficiency in the selected field, culminating in a professional presentation of the work.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Develop a comprehensive project plan for their chosen area of specialization.
2. Apply advanced techniques and tools relevant to their project area.
3. Create a high-quality final product that demonstrates their skills and knowledge.
4. Analyze and refine their work through iterative testing and feedback.
5. Present their project professionally, showcasing their design and technical proficiency.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	3	2	2	2	3	2	2	2	2
CO2	3	3	3	3	3	3	2	3	3	3	3	3
CO3	3	2	3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Project Overview:

Any one of the following may be chosen by the students:

1. 2d animation (Individual / Group projects)

To enable the students to produce an animated film of 3 minutes duration using the different multimedia tools.

2. 3d animation (Individual / Group projects)

To enable the students to produce an animated film of 3 minutes duration using the different multimedia tools.

3. Graphic designing and branding (Individual projects)

To enable the students to produce various Graphic designing and branding models.

4. Web designing and online promotion (Individual projects)

To enable the students to produce various Web and online promotion models.

5. UI UX designing (Individual projects)

To enable the students to produce complete mobile UI prototype using latest multimedia tools.

SEMESTER IV

Internship		
Course Code	L T P	Credits
24VMC692		2

Objectives:

Internships present avenues for students to cultivate professional competencies, gain industry exposure, and foster personal development. By participating in practical experiences aligned with their academic pursuits, students can refine technical proficiencies such as programming languages and laboratory techniques, alongside nurturing transferable skills like communication, collaboration, and problem-solving.

Moreover, internships provide valuable insights into industry dynamics, corporate cultures, and networking prospects with seasoned professionals, empowering students to explore diverse career trajectories and potential prospects. Through the application of theoretical knowledge to real-world projects, students acquire pragmatic insights and foster self-assurance and autonomy in their capabilities.

Requirements

- Internship duration must be a minimum of 30 days.
- Offline internships are entertained
- Prior approval from the department is mandatory to begin the internship
- The selected organization for the internship must be registered.
- A comprehensive report in the specified format must be submitted upon completion of the internship
- A copy of the internship certificate must be attached
- To conclude the evaluation process, students are required to participate in the final viva voce.

Portfolio Presentation		
Course Code	L-T-P	Credits
24VMC693		2

Course Objective:

- This course is designed to guide students through the process of creating, refining and presenting a professional portfolio. The course will emphasise on effective demonstration of students' unique style, technical proficiency and conceptual development. Students will compile a diverse range of projects that highlight their abilities and creative vision.
- Students have to attend a Viva- Voce (Individual) on the date of submission of their projects with appropriate evidences as per the project guide's instruction.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Develop a cohesive and professional portfolio showcasing their skills and creative vision.

2. Refine their work based on critical feedback and self-assessment.
3. Present their portfolio effectively, demonstrating their technical proficiency and conceptual understanding.
4. Articulate the conceptual and technical aspects of their work during the Viva-Voce.
5. Demonstrate their unique style and creative vision through a diverse range of projects.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Project (in Animation and Design)		
Course Code	L-T-P	Credits
24VMC699		8

Course Objective:

This 8-credit course provides students with the opportunity to apply their skills and knowledge in a comprehensive project. Students can choose to work on individual or group projects in areas such as 2D animation, 3D animation, graphic designing and branding, web designing and online promotion, or UI/UX designing. Each project will require the creation of a final product that demonstrates proficiency in the selected field. The course will culminate in a professional presentation and evaluation of the work.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Develop a comprehensive project proposal, including objectives, scope, and deliverables.
2. Execute detailed pre-production planning, including storyboarding, design, and initial setup.
3. Produce high-quality work in their chosen specialization, adhering to professional standards.
4. Refine their work through post-production, ensuring a polished final product.
5. Present and defend their project professionally, demonstrating their technical and creative skills.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
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CO1	3	3	3	3	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Project Selection and Proposal:

- **Introduction to Project Options:** Overview of available project choices and expectations
- **Project Proposal Development:** Writing a detailed project proposal including objectives, scope, and deliverables
- **Research and Concept Development:** Conducting preliminary research and creating concept sketches
- **Project Timeline:** Developing a detailed timeline with milestones and deadlines
- **Proposal Presentation:** Presenting the project proposal to peers and faculty for feedback
- **Guidelines:** Proposal must include a clear project goal, methodology, and expected outcomes
- **Lab Work:** Developing project proposals and planning documents

Module 2: Pre-Production

- **2D Animation:**
Storyboarding, character design, and scene planning
Software: Adobe Animate
- **3D Animation:**
Storyboarding, character modeling, and scene setup
Software: Autodesk Maya, Blender
- **Graphic Designing and Branding:**
Logo design, brand identity creation, and marketing material planning
Software: Adobe Illustrator, Adobe Photoshop, Adobe InDesign
- **Web Designing and Online Promotion:**
Wireframing, prototyping, and content strategy
Software: Adobe Dreamweaver, HTML/CSS, JavaScript
- **UI/UX Designing:**
User research, wireframing, and prototyping
Software: Adobe XD, Figma
- **Guidelines:** Pre-production must include detailed planning documents and initial designs
- **Lab Work:** Practical sessions on pre-production techniques using relevant software

Module 3: Production

- **2D Animation:**
Keyframing, in-betweening, and final rendering
Project Work: Producing a 5-minute animated film
- **3D Animation:**

Modeling, rigging, animation, texturing, lighting, and rendering

Project Work: Producing a 5-minute animated film

- **Graphic Designing and Branding:**

Creating logos, brand identities, and marketing materials

Project Work: Producing various graphic design and branding models

- **Web Designing and Online Promotion:**

Designing and developing responsive websites and online promotional materials

Project Work: Producing various web and online promotion models

- **UI/UX Designing:**

Developing a complete mobile UI prototype

Project Work: Producing a complete mobile UI prototype

- **Guidelines:** Production phase must include regular updates and adherence to the project timeline

- **Lab Work:** Focused project development with regular reviews and feedback

Module 4: Post-Production and Refinement

- **2D and 3D Animation:**

Editing, adding sound effects, and final compositing

- **Graphic Designing and Branding:**

Finalizing designs, preparing for print, and digital distribution

- **Web Designing and Online Promotion:**

Testing, debugging, and optimization

- **UI/UX Designing:**

Usability testing and iteration

- **Guidelines:** Post-production must ensure high-quality output and readiness for presentation

- **Lab Work:** Finalizing projects and preparing presentation materials

Module 5: Presentation and Evaluation

- **Project Submission:** Submitting the final project for evaluation

- **Formal Presentation:** Presenting the completed project to a panel of faculty and peers

- **Evaluation Criteria:** Creativity, technical proficiency, adherence to project objectives, and presentation quality

- **Feedback and Reflection:** Receiving feedback and reflecting on the project process and outcomes

- **Guidelines:** Presentations must be professional and include all relevant project documentation

- **Lab Work:** Presentation rehearsal and final adjustments

ELECTIVE I

Virtual Reality and Augmented Reality		
Course Code	L-T-P	Credits
24VMC641	0-2-2	3

Course Objective:

This course provides a comprehensive introduction to the principles and applications of Virtual Reality (VR) and Augmented Reality (AR). Students will learn to design, develop, and implement immersive VR and AR experiences using industry-standard tools and technologies. The course covers both basic and advanced techniques, enabling students to create interactive and engaging VR and AR applications.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamental principles and differences between VR and AR.
2. Develop basic VR and AR applications using industry-standard development tools.
3. Design user experiences and interactive elements for immersive VR and AR environments.
4. Implement advanced scripting, animations, and performance optimization techniques.
5. Test and deploy VR and AR applications while considering ethical implications and future trends.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	3	2	2	3	2	2	2	2
CO2	3	3	3	3	3	2	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to VR and AR:

- **Fundamentals of VR and AR:** Definitions, differences, and key concepts
- **Historical Overview:** Evolution of VR and AR technologies
- **Applications and Use Cases:** Gaming, education, training, healthcare, and marketing
- **Introduction to VR and AR Hardware:** Headsets, controllers, and mobile devices
- **Project:** Research and present a case study on a VR or AR application
- **Lab Work:** Hands-on sessions with VR and AR hardware and basic setup.

Module 2: VR and AR Development Tools:

- **Overview of Development Platforms:** Unity, Unreal Engine, and ARKit/ARCore
- **Setting Up Development Environments:** Installing and configuring Unity and Unreal Engine
- **Basic Scripting for VR and AR:** Introduction to C# for Unity and Blueprints for Unreal Engine
- **Creating 3D Assets:** Importing and optimizing 3D models for VR and AR
- **Project:** Develop a simple VR or AR scene using Unity or Unreal Engine
- **Lab Work:** Practical exercises in setting up development environments and basic scripting

Module 3: Designing VR and AR Experiences:

- **User Experience Design for VR and AR:** Principles of immersive interaction and spatial design
- **Creating Interactive Elements:** Buttons, menus, and object interactions
- **Environment Design:** Building and optimizing virtual environments
- **User Interface in VR and AR:** Designing HUDs, menus, and information overlays
- **Project:** Design an interactive VR or AR environment
- **Lab Work:** Practical sessions on designing interactive elements and environments

Module 4: Advanced VR and AR Development:

- **Advanced Scripting and Interactions:** Creating complex interactions and behaviors
- **Physics and Realism:** Implementing physics engines and realistic interactions
- **Animation and Effects:** Adding animations, particle systems, and special effects
- **Optimizing Performance:** Techniques for optimizing VR and AR applications for smooth performance
- **Project:** Develop a fully functional VR or AR application with advanced features
- **Lab Work:** Hands-on exercises in advanced scripting, animations, and performance optimization

Module 5: Testing, Deployment, and Future Trends:

- **Testing and Debugging:** Techniques for testing VR and AR applications and fixing common issues
- **Deploying VR and AR Applications:** Publishing to VR headsets, mobile devices, and app stores
- **Ethical Considerations:** Privacy, safety, and ethical implications of VR and AR
- **Future Trends in VR and AR:** Emerging technologies and future directions
- **Final Project:** Create a comprehensive VR or AR application incorporating all learned techniques
- **Lab Work:** Final project development, testing, and peer review sessions

References:

1. "Unity Virtual Reality Projects" by Jonathan Linowes
2. "Augmented Reality for Developers" by Jonathan Linowes and Krystian Babilinski

3. "Learning Virtual Reality: Developing Immersive Experiences and Applications for Desktop, Web, and Mobile" by Tony Parisi
4. "Virtual Reality Insider: Guidebook for the VR Industry" by Sky Nite
5. "Augmented Reality: Principles and Practice" by Dieter Schmalstieg and Tobias Hollerer
6. "Unreal Engine 4 for Design Visualization: Developing Stunning Interactive Visualizations, Animations, and Renderings" by Tom Shannon
7. "Prototyping Augmented Reality: Designing and Developing AR Applications with Unity" by Tony Mullen

Game Design Fundamentals		
Course Code	L-T-P	Credits
24VMC642	0-2-2	3

Course Objective:

This course provides an introduction to the fundamental principles and practices of game design. Students will learn the essential skills needed to create engaging and interactive game experiences. The course covers game mechanics, level design, storytelling, and prototyping using industry-standard tools. Through practical projects, students will gain hands-on experience in designing and developing games, preparing them for advanced studies and professional roles in the game design industry.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamental concepts and history of game design.
2. Apply core game mechanics to create interactive and engaging gameplay experiences.
3. Design and develop game levels and environments using industry-standard tools.
4. Integrate storytelling and narrative techniques into game design.
5. Prototype and playtest game ideas, using feedback to refine and improve the design.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	1	2	2	1	2	3	2	1	2	2
CO2	3	3	3	2	3	2	2	3	3	2	2	2
CO3	3	2	2	3	2	3	2	3	3	2	2	2
CO4	3	2	3	3	3	3	2	3	3	3	2	2
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to Game Design:

- **Overview of Game Design:** History, genres, and key concepts
- **Game Mechanics:** Understanding core mechanics, rules, and player interaction
- **Tools for Game Design:** Introduction to game engines (Unity, Unreal Engine)
- **Game Design Documentation:** Creating a Game Design Document (GDD)
- **Project:** Create a basic GDD for a simple game concept
- **Lab Work:** Hands-on exercises in documenting game design ideas.

Module 2: Game Mechanics and Systems:

- **Core Mechanics:** Implementing movement, actions, and interactions
- **Game Physics:** Basic physics principles in game development
- **Artificial Intelligence:** Introduction to AI in games (pathfinding, behavior trees)
- **Balancing and Tuning:** Adjusting mechanics for fair and engaging gameplay
- **Project:** Develop a simple game prototype focusing on core mechanics
- **Lab Work:** Practical sessions on implementing and testing game mechanics

Module 3: Level Design and Environment:

- **Principles of Level Design:** Layout, pacing, and player guidance
- **Creating Game Environments:** Designing and building levels in game engines
- **Interactive Elements:** Adding puzzles, obstacles, and triggers
- **Playtesting and Iteration:** Gathering feedback and refining levels
- **Project:** Design and build a complete game level
- **Lab Work:** Hands-on exercises in level design and environment creation

Module 4: Storytelling and Narrative Design:

- **Narrative Techniques:** Story arcs, character development, and dialogue
- **Interactive Storytelling:** Branching narratives and player choices
- **Integrating Story with Gameplay:** Creating a cohesive experience
- **Cinematic Techniques:** Using cutscenes and in-game cinematics
- **Project:** Develop a narrative-driven game prototype
- **Lab Work:** Practical sessions on writing and implementing game narratives

Module 5: Prototyping and Playtesting:

- **Rapid Prototyping:** Techniques for quickly creating game prototypes
- **Playtesting Methods:** Conducting playtests and gathering feedback
- **Iteration and Refinement:** Using feedback to improve game design
- **Final Project:** Create a polished game prototype incorporating all learned elements
- **Lab Work:** Final project development, playtesting, and iteration

References:

1. "The Art of Game Design: A Book of Lenses" by Jesse Schell
2. "Level Up! The Guide to Great Video Game Design" by Scott Rogers
3. "Game Design Workshop: A Playcentric Approach to Creating Innovative Games" by Tracy Fullerton
4. "Rules of Play: Game Design Fundamentals" by Katie Salen and Eric Zimmerman
5. "Game Feel: A Game Designer's Guide to Virtual Sensation" by Steve Swink
6. "Unreal Engine 4 Game Development Essentials" by Satheesh PV
7. "Unity in Action: Multiplatform Game Development in C# with Unity 5" by Joe Hocking

Computer Aided Designing		
Course Code	L-T-P	Credits
24VMC643	0-2-2	3

Course Objective:

This course provides an in-depth introduction to computer-aided design (CAD) using industry-standard software such as AutoCAD and Revit. Students will learn to create precise and detailed architectural and engineering drawings, as well as 3D models. The course covers both basic and advanced techniques, enabling students to produce professional-quality designs and documentation.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the basic tools and techniques in AutoCAD for creating 2D drawings.
2. Apply advanced drawing and modeling techniques in AutoCAD to develop detailed architectural designs.
3. Develop basic building elements and modify components using Revit.

4. Implement advanced modeling and documentation techniques in Revit for comprehensive project development.
5. Collaborate on large projects using integrated workflows, ensuring accuracy and adherence to standards.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	3	1	1	3	2	1	2	2
CO2	3	3	3	2	2	2	2	3	3	2	2	2
CO3	3	2	2	2	3	2	1	3	3	2	2	2
CO4	3	2	3	2	3	3	2	3	3	3	2	2
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to AutoCAD:

- **Getting Started with AutoCAD:** Interface, tools, and workspace customization
- **Basic Drawing Tools:** Lines, circles, arcs, and polygons
- **Editing Tools:** Move, copy, rotate, scale, and mirror
- **Layers and Properties:** Creating and managing layers, setting properties
- **Dimensioning and Annotation:** Adding dimensions, text, and annotations
- **Project:** Create a basic 2D floor plan
- **Lab Work:** Hands-on exercises in basic drawing and editing using AutoCAD.

Module 2: Advanced AutoCAD Techniques:

- **Advanced Drawing Tools:** Polylines, splines, ellipses, and hatches
- **Blocks and Attributes:** Creating, editing, and managing blocks and attributes
- **External References:** Using Xrefs and managing external references
- **Layouts and Plotting:** Setting up layouts, viewports, and plotting drawings
- **3D Modeling Basics:** Introduction to 3D drawing and modeling in AutoCAD
- **Project:** Develop a detailed 2D architectural drawing
- **Lab Work:** Practical sessions on advanced drawing techniques and 3D modeling

Module 3: Introduction to Revit:

- **Getting Started with Revit:** Interface, tools, and project setup
- **Basic Building Elements:** Walls, doors, windows, and floors
- **Creating and Modifying Components:** Stairs, railings, roofs, and ceilings
- **Views and Visualization:** Creating and managing views, sections, and elevations
- **Dimensions and Annotations in Revit:** Adding dimensions, tags, and annotations
- **Project:** Create a basic 3D building model
- **Lab Work:** Hands-on exercises in creating and modifying building elements using Revit

Module 4: Advanced Revit Techniques:

- **Advanced Modeling Tools:** Massing, family creation, and in-place components
- **Structural Elements:** Beams, columns, foundations, and structural framing
- **MEP Systems:** Mechanical, electrical, and plumbing systems design
- **Detailing and Documentation:** Creating construction details and documentation
- **Rendering and Presentation:** Creating renderings, walkthroughs, and presentations
- **Project:** Develop a comprehensive 3D building model with detailed components
- **Lab Work:** Practical sessions on advanced modeling and documentation techniques in Revit

Module 5: Integrated Project Development:

- **Collaborative Workflows:** Working with multiple disciplines and file formats
- **Project Management:** Organizing and managing large projects, file management
- **Quality Control and Standards:** Ensuring accuracy, consistency, and adherence to standards
- **Final Project:** Develop a detailed and comprehensive architectural or engineering project incorporating both AutoCAD and Revit
- **Presentation and Review:** Presenting the final project to peers and faculty, receiving feedback
- **Lab Work:** Final project development, review, and refinement

References:

1. "Mastering AutoCAD 2021 and AutoCAD LT 2021" by Brian C. Benton and George Omura
2. "Mastering Autodesk Revit 2021" by Robert Yori, Marcus Kim, and Lance Kirby
3. "AutoCAD 2021: A Problem-Solving Approach" by Sham Tickoo
4. "Revit Architecture 2021 for Architects and Designers" by Sham Tickoo
5. "Architectural Design with SketchUp: Component-Based Modeling, Plugins, Rendering, and Scripting" by Alexander Schreyer
6. "AutoCAD 2021 for Beginners" by Cadfolks
7. "Building Information Modeling: Planning and Managing Construction Projects with 4D CAD and Simulations" by Willem Kymmell

Dynamics and Simulation Practice		
Course Code	L-T-P	Credits
24VMC644	0-2-2	3

Course Objective:

This advanced course delves into the principles and techniques of dynamics and simulation in computer graphics. Students will explore the creation and control of realistic physical behaviors in digital environments, including particle systems, fluid dynamics, cloth simulation, and rigid body dynamics. The course emphasizes practical applications using industry-standard software, enabling students to produce high-quality simulations for animation, visual effects, and interactive media.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the basic principles and applications of dynamics and simulation in computer graphics.
2. Apply advanced particle system techniques to create complex simulations.
3. Develop realistic fluid simulations using appropriate software tools.
4. Implement cloth and soft body simulations in digital environments.
5. Integrate various simulation techniques to produce comprehensive dynamic scenes.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	1	2	2	1	2	3	2	1	2	1
CO2	3	3	3	3	2	2	3	3	3	2	2	2
CO3	3	2	2	3	2	3	2	3	3	2	2	2
CO4	3	2	3	3	3	3	3	3	3	3	2	2
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to Dynamics and Simulation:

- **Overview of Dynamics and Simulation:** Concepts, history, and applications
- **Physics in Computer Graphics:** Basic principles of physics used in simulations
- **Introduction to Software Tools:** Overview of software such as Maya, Houdini, and Blender
- **Setting Up Simulations:** Project setup, scene layout, and initial conditions
- **Project:** Create a basic particle system simulation
- **Lab Work:** Hands-on exercises in setting up and running basic simulations.

Module 2: Particle Systems:

- **Advanced Particle Dynamics:** Emission, motion, and interaction of particles
- **Forces and Fields:** Applying gravity, wind, turbulence, and custom forces
- **Particle Shading and Rendering:** Techniques for rendering particles and creating effects like smoke, fire, and explosions
- **Scripting for Particles:** Using scripts to control and customize particle behavior
- **Project:** Develop a complex particle system with multiple forces and effects
- **Lab Work:** Practical sessions on creating and controlling advanced particle systems

Module 3: Fluid Dynamics:

- **Introduction to Fluid Simulation:** Concepts of fluid dynamics and their applications

- **Creating Fluid Simulations:** Setting up and simulating fluids using software tools
- **Controlling Fluid Behavior:** Adjusting parameters to achieve desired fluid motion
- **Rendering Fluids:** Techniques for rendering realistic water, smoke, and other fluid effects
- **Project:** Simulate a fluid interaction, such as water flowing and interacting with objects
- **Lab Work:** Hands-on exercises in creating and refining fluid simulations

Module 4: Cloth and Soft Body Simulation:

- **Cloth Simulation Basics:** Setting up and simulating cloth behavior
- **Advanced Cloth Dynamics:** Controlling properties like stretch, bend, and collision
- **Soft Body Simulation:** Simulating soft, deformable objects
- **Integration with Rigid Bodies:** Combining cloth and soft body simulations with rigid body dynamics
- **Project:** Create a cloth simulation that interacts with other objects
- **Lab Work:** Practical sessions on setting up and controlling cloth and soft body simulations

Module 5: Rigid Body Dynamics and Destruction:

- **Rigid Body Simulation:** Basics of rigid body dynamics and interactions
- **Advanced Techniques:** Fracturing, breaking, and simulating destruction
- **Dynamic Constraints:** Using constraints to control rigid body behavior
- **Combining Simulations:** Integrating rigid body dynamics with particle and fluid simulations
- **Final Project:** Develop a comprehensive simulation that includes rigid bodies, particles, fluids, and/or cloth
- **Lab Work:** Final project development, testing, and refinement

References:

1. "The Art of Fluid Animation" by Jos Stam
2. "Houdini Foundations" by Robert Magee
3. "Visual Effects Society Handbook: Workflow and Techniques" by Susan Zwerman and Jeffrey A. Okun
4. "Maya Visual Effects: The Innovator's Guide" by Eric Keller
5. "CGWorkshops: Dynamics and Effects in Maya" by Alias
6. "Real-Time 3D Rendering with DirectX and HLSL: A Practical Guide to Graphics Programming" by Paul Varcholik
7. "The Animator's Survival Kit" by Richard Williams

Generative AI for Animation and Design Lab		
Course Code	L-T-P	Credits
24VMC645	0-2-2	3

Course Objective:

This advanced course explores the integration of generative AI tools in animation, graphic design, UI/UX design, and web designing. Students will learn to harness the power of AI to enhance creativity, streamline workflows, and produce innovative designs. The course provides hands-on experience with cutting-edge AI technologies, preparing students to effectively incorporate AI into their professional practice.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamentals and applications of generative AI in creative fields.
2. Apply AI tools to create and enhance animations.
3. Utilize generative AI for innovative graphic design solutions.
4. Integrate AI-driven methods in UI/UX design processes.
5. Develop AI-enhanced web designs for dynamic and interactive user experiences.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	3	2	2	3	2	1	2	2
CO2	3	3	3	2	3	3	2	3	3	2	2	2
CO3	3	2	2	3	3	3	2	3	3	2	2	2
CO4	3	2	3	3	3	3	3	3	3	3	2	2
CO5	3	3	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to Generative AI:

- **Overview of Generative AI:** Understanding the fundamentals and applications in creative fields
- **Key AI Tools and Platforms:** Introduction to Adobe Sensei, Runway ML, OpenAI's DALL-E, and MidJourney
- **Ethical Considerations:** Responsible use of AI in design and animation
- **Setting Up AI Environments:** Installation and configuration of AI tools and software
- **Project:** Research and present a case study on AI in creative industries
- **Lab Work:** Setting up AI environments and exploring basic functionalities.

Module 2: Generative AI for Animation:

- **AI-Based Animation Tools:** Exploring Adobe Character Animator, Runway ML, and DeepMotion
- **Creating AI-Generated Animations:** Techniques for generating and enhancing animations with AI

- **Facial Animation and Motion Capture:** Using AI for realistic facial animation and motion capture
- **Automating Animation Workflows:** Streamlining animation processes with AI
- **Project:** Develop a short animated film using AI tools
- **Lab Work:** Practical sessions on creating and refining animations with AI

Module 3: Generative AI for Graphic Design:

- **AI in Graphic Design:** Using tools like Adobe Sensei, Canva's Magic Resize, and Artbreeder
- **Design Generation and Enhancement:** Techniques for creating and improving designs with AI
- **Automated Branding and Logo Design:** Utilizing AI for branding and logo creation
- **Style Transfer and Image Generation:** Applying AI for artistic style transfer and image synthesis
- **Project:** Create a branding package using AI tools
- **Lab Work:** Hands-on exercises in generating and enhancing designs with AI

Module 4: Generative AI for UI/UX Design:

- **AI Tools for UI/UX:** Introduction to Adobe XD's AI features, Uizard, and Sketch2Code
- **Prototyping and Wireframing:** Generating wireframes and prototypes using AI
- **User Experience Enhancement:** Implementing AI for user research and experience improvement
- **Responsive and Adaptive Design:** Creating responsive and adaptive interfaces with AI
- **Project:** Develop a complete mobile UI prototype using AI tools
- **Lab Work:** Practical sessions on AI-driven UI/UX design and prototyping

Module 5: Generative AI for Web Designing:

- **AI in Web Design:** Exploring tools like Wix ADI, Bookmark, and The Grid
- **Automated Website Creation:** Techniques for building and customizing websites with AI
- **SEO and Content Generation:** Using AI for SEO optimization and content creation
- **Interactive and Dynamic Websites:** Creating interactive web elements with AI
- **Final Project:** Create a fully functional, AI-enhanced website
- **Lab Work:** Final project development, testing, and refinement

References:

1. "Artificial Intelligence for Creativity: A Practical Guide" by Tony Veale and F. Amílcar Cardoso
2. "Generative Design: Visualize, Program, and Create with JavaScript in p5.js" by Hartmut Bohnacker, Benedikt Gross, Julia Laub, and Claudius Lazzeroni
3. "Deep Learning with Python" by François Chollet
4. "Artificial Intelligence for Games" by Ian Millington and John Funge
5. "Machine Learning for Designers" by Patrick Hebron

6. "Programming Design Systems" by Rune Madsen
7. "The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World" by Pedro Domingos

ELECTIVE II

Packaging Practice Lab		
Course Code	L-T-P	Credits
24VMC651	0-2-2	3

Course Objective:

This course provides an in-depth exploration of packaging design, focusing on the practical skills needed to create innovative and functional packaging solutions. Students will learn the principles of packaging design, materials, and production processes, as well as how to apply branding and marketing strategies to packaging. The course includes hands-on projects that cover various aspects of packaging design, from concept development to final production.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamental principles and importance of packaging design.
2. Apply design principles and branding strategies to create effective packaging.
3. Develop structural packaging designs and prototypes.
4. Explore advanced packaging techniques and materials.
5. Implement production processes and marketing strategies for packaging.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	3	1	1	3	2	1	2	2
CO2	3	3	3	3	2	2	2	3	3	2	2	2
CO3	3	2	2	3	3	2	2	3	3	2	2	2
CO4	3	3	3	3	3	2	3	3	3	3	2	2
CO5	3	2	3	3	3	3	3	3	3	3	3	3

Module 1: Introduction to Packaging Design:

- **Fundamentals of Packaging Design:** Definitions, functions, and importance
- **History and Evolution of Packaging:** Key developments and trends
- **Types of Packaging:** Primary, secondary, and tertiary packaging
- **Materials and Sustainability:** Common materials used in packaging and sustainable practices
- **Project:** Research and present a case study on an innovative packaging design
- **Lab Work:** Introduction to packaging materials and tools.

Module 2: Design Principles and Branding:

- **Principles of Design:** Balance, contrast, harmony, and hierarchy in packaging
- **Brand Identity and Packaging:** Integrating branding elements into packaging design
- **Typography and Graphics:** Effective use of typography and graphics in packaging
- **Color Theory:** Applying color theory to enhance packaging design
- **Project:** Create a packaging design that incorporates branding elements
- **Lab Work:** Practical exercises on integrating branding into packaging design

Module 3: Structural Design and Prototyping:

- **Structural Design Basics:** Understanding the structure and functionality of packaging
- **CAD for Packaging Design:** Using software tools for designing packaging structures (e.g., ArtiosCAD)
- **Prototyping Techniques:** Creating prototypes using different materials and methods
- **Testing and Evaluation:** Methods for testing the durability and functionality of packaging
- **Project:** Design and prototype a functional packaging solution
- **Lab Work:** Hands-on sessions on creating packaging prototypes

Module 4: Advanced Packaging Design:

- **Innovative Packaging Solutions:** Exploring advanced techniques and materials
- **Interactive and Smart Packaging:** Incorporating technology into packaging design
- **Luxury Packaging:** Designing high-end packaging for luxury products
- **Eco-friendly Packaging:** Creating sustainable and environmentally friendly packaging
- **Project:** Develop an advanced packaging design for a specific product
- **Lab Work:** Practical exercises on advanced packaging design techniques

Module 5: Production and Marketing:

- **Production Processes:** Overview of packaging production methods and technologies
- **Cost and Efficiency:** Managing costs and optimizing production efficiency
- **Marketing Strategies:** Packaging as a marketing tool and its impact on consumer behavior
- **Legal and Regulatory Considerations:** Understanding the regulations and standards in packaging
- **Final Project:** Create a complete packaging design, from concept to final production, and develop a marketing strategy
- **Lab Work:** Final project development, testing, and presentation

References:

1. "Packaging Design: Successful Product Branding from Concept to Shelf" by Marianne R. Klimchuk and Sandra A. Krasovec
2. "The Packaging Designer's Book of Patterns" by László Roth and George L. Wybenga
3. "Packaging Design Workbook: The Art and Science of Successful Packaging" by Steven DuPuis and John Silva

4. "Designing Sustainable Packaging" by Scott Boylston
5. "The Art of Package Design" by Grip
6. "Structural Packaging: Design Your Own Boxes and 3D Forms" by Paul Jackson
7. "Branding and Packaging Design: A Designer's Guide to Printing" by Gavin Ambrose and Paul Harris

Visual Research Practice		
Course Code	L-T-P	Credits
24VMC652	0-2-2	3

Course Objective:

The Visual Research Lab course is designed to equip students with advanced skills in visual research methodologies, focusing on both animation and graphics, as well as the application of these skills through case studies. Students will engage in hands-on projects, critically analyze visual media, and explore the impact of visual communication in various contexts.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Develop proficiency in visual research methodologies.
2. Gain advanced skills in animation and graphic design.
- 3 Analyze and interpret visual media through case studies.
- 4 Create research-based visual projects.
- 5 Understand the role of visual communication in various contexts.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	3	1	2	2	2	3	2	1	1	1
CO2	2	1	3	3	1	2	2	3	2	2	1	2
CO3	1	1	2	1	1	1	1	3	2	2	1	1
CO4	2	2	3	3	3	2	2	3	2	1	2	1
CO5	1	2	2	2	2	2	2	2	1	1	1	1

Module 1:

Overview of visual research methodologies, Designing a visual research project, Data collection methods: Surveys, interviews, observations, and content analysis, Data analysis techniques: Thematic analysis, visual analysis, and Ethical considerations in visual research, Presenting research findings

Present research findings in a visual format (e.g., infographics, posters)

Module 2:

Advanced graphic design principles: Layout, typography, and color theory, Visual storytelling techniques, Designing for different media: Print, web, and mobile

Design and produce infographics and data visualizations

Module 3:

Develop a branding and identity design project, use various tools to create visually compelling content Analysis of selected case studies, and create a visual project proposal that combines animation and graphic design elements

Module 4:

Case Studies in Visual Media, Case study examples: Iconic visual campaigns and their impact, Techniques and frameworks, Comparative case study analysis

Module 5:

Conduct a case study analysis of a chosen visual media campaign, Present findings and insights from the case study analysis, Compare and contrast different visual media campaigns, Develop a critical evaluation of the effectiveness of visual media campaigns, Structuring a case study report, Integrating research findings and practical insights, Writing a comprehensive analysis. Submission of case study

References:

1. Visual Communication: Images with Messages" by Paul Martin Lester - Provides a comprehensive overview of visual communication theories and principles.
2. The Animator's Survival Kit" by Richard Williams - A must-read for aspiring animators, covering essential principles and techniques.
3. Graphic Design School: The Principles and Practice of Graphic Design" by David Dabner, Sandra Stewart, and Abbie Vickress - Offers practical guidance on graphic design fundamentals.
4. Data Points: Visualization That Means Something" by Nathan Yau - Focuses on data visualization techniques and best practices.
5. Designing Brand Identity: An Essential Guide for the Whole Branding Team" by Alina Wheeler - Provides insights into branding and identity design processes.

Digital Marketing and Promotion Lab		
Course Code	L-T-P	Credits
24VMC653	0-2-2	3

Course Objective:

This course provides an in-depth exploration of digital marketing and promotional strategies, focusing on practical skills needed to plan, execute, and analyze digital marketing campaigns. Students will learn to use various digital tools and platforms to enhance brand visibility, engage with audiences, and drive conversions. The course covers key aspects of digital marketing, including SEO, social media marketing, email marketing, content marketing, and data analytics.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the fundamentals of digital marketing and its importance in the modern business landscape.
2. Apply SEO techniques to improve website visibility and ranking on search engines.
3. Develop and manage effective social media marketing campaigns.
4. Create and execute email and content marketing strategies to engage and retain customers.
5. Analyze and optimize digital marketing campaign performance using data analytics.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	1	2	3	1	2	3	2	1	2	2
CO2	3	3	3	2	2	2	2	3	3	2	2	2
CO3	3	2	2	2	3	2	1	3	3	2	2	2
CO4	3	3	3	2	3	2	2	3	3	3	2	2
CO5	3	3	2	3	3	3	3	3	3	3	3	3

Module 1: Introduction to Digital Marketing:

- **Overview of Digital Marketing:** Definitions, importance, and current trends
- **Digital Marketing Channels:** Understanding various channels (SEO, SEM, social media, email, content marketing)
- **Setting Up Digital Marketing Tools:** Introduction to essential tools (Google Analytics, Google Ads, Facebook Ads Manager)
- **Project:** Develop a digital marketing strategy for a hypothetical product
- **Lab Work:** Setting up digital marketing tools and exploring basic functionalities.

Module 2: Search Engine Optimization (SEO):

- **SEO Fundamentals:** Understanding search engines, keywords, and ranking factors
- **On-Page SEO:** Techniques for optimizing website content and structure
- **Off-Page SEO:** Link building, social signals, and other external factors
- **Technical SEO:** Website speed, mobile-friendliness, and technical audits
- **Project:** Conduct an SEO audit and optimize a website
- **Lab Work:** Hands-on exercises in keyword research, on-page, and off-page SEO techniques

Module 3: Social Media Marketing:

- **Social Media Platforms:** Overview of major platforms (Facebook, Instagram, Twitter, LinkedIn)
- **Content Creation and Management:** Creating engaging content, scheduling, and managing posts
- **Social Media Advertising:** Setting up and running paid campaigns on social media platforms
- **Analytics and Reporting:** Measuring social media performance and generating reports
- **Project:** Create and implement a social media marketing campaign
- **Lab Work:** Practical sessions on creating content, managing posts, and running ads

Module 4: Email and Content Marketing:

- **Email Marketing Fundamentals:** Building email lists, creating email campaigns, and automation
- **Content Marketing Strategies:** Planning and creating valuable content to attract and engage audiences
- **Content Distribution and Promotion:** Techniques for distributing and promoting content
- **Performance Measurement:** Tracking and analyzing the success of email and content marketing campaigns
- **Project:** Develop an email marketing campaign and a content marketing plan
- **Lab Work:** Hands-on exercises in creating and managing email campaigns, and developing content strategies

Module 5: Data Analytics and Performance Optimization:

- **Introduction to Data Analytics:** Understanding key metrics and KPIs
- **Using Google Analytics:** Setting up, tracking, and analyzing website data
- **Campaign Performance Analysis:** Techniques for analyzing and optimizing marketing campaigns
- **A/B Testing and Conversion Rate Optimization:** Methods for testing and improving campaign performance
- **Final Project:** Create a comprehensive digital marketing campaign, implement it, and analyze its performance
- **Lab Work:** Practical sessions on data analytics, campaign analysis, and performance optimization

References:

1. "Digital Marketing for Dummies" by Ryan Deiss and Russ Henneberry
2. "SEO 2021: Learn Search Engine Optimization with Smart Internet Marketing Strategies" by Adam Clarke
3. "Social Media Marketing All-in-One For Dummies" by Jan Zimmerman and Deborah Ng
4. "Email Marketing Rules: A Step-by-Step Guide to the Best Practices that Power Email Marketing Success" by Chad S. White
5. "Content Marketing: How to Get 12 Months of Content in 10 Days and Build an Audience that Buys" by George Pain
6. "Google Analytics Breakthrough: From Zero to Business Impact" by Feras Alhlou, Shiraz Asif, and Eric Fettman
7. "Digital Marketing Analytics: Making Sense of Consumer Data in a Digital World" by Chuck Hemann and Ken Burbary

Advertising Photography and Digital Design Practice		
Course Code	L-T-P	Credits
24VMC654	0-2-2	3

Course Objective:

This course aims to impart students a comprehensive understanding of the fundamental principles of advertising photography, allowing them to analyze and critique examples to identify successful strategies. They will then develop their creative prowess by generating innovative concepts tailored to advertising projects, honing their ability to translate these ideas into cohesive styling concepts through effective collaboration and attention to detail. Additionally, students will master the application of lighting principles and techniques to create impactful photographs that align with the vision of advertising campaigns. Finally, they will acquire essential post-production skills for advertising photography, enabling them to promote their services effectively and build professional portfolios to propel their careers forward.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Demonstrate a comprehensive understanding of the fundamental principles of advertising photography.
2. Develop creative concepts for creating advertising photography projects.
3. Conceptualise and execute cohesive styling concepts for advertising photography projects.

4. Create photographs for advertising photography projects by applying the lighting principles and techniques.
5. Apply the post-production techniques essential for advertising photography and effectively promote their advertising photography services and grow their professional portfolios.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	1	1	1	3	2	1	1	1
CO2	3	3	2	3	1	1	1	3	3	1	1	1
CO3	3	2	2	2	1	1	1	3	2	1	1	1
CO4	3	2	2	2	1	1	1	3	2	1	1	1
CO5	3	3	3	2	1	1	1	3	3	1	1	3

Module 1: Fundamentals of Advertising Photography

Aesthetics of photography: applying rules of composition, exposure triangle, depth of field; Specialised lenses: tilt-shift, macro; Advertising photography: subject, story and mood; Backgrounds; Props; Layout: balance, symmetry and visual flow; Colour theory in photography; Natural lights; Window lights; Tabletop; Artificial lights: light tent; strobe; portable flash; light modifiers; Advertising photography genres: product, commercial, lifestyle, packaging, architecture, food and beverage; jewellery and accessories; automotive; technology and electronics; fashion and apparel; cosmetics and beauty; home and décor. Colour correction and editing; Ethical considerations.

Module 2: Concept development

Creating narratives; Set and model considerations; Posing techniques & expressions; Placement and positioning; Scene and background elements; Lights and colours: evoke emotions and mood; Location aesthetics; Shot type; B&W vs Colour; Architecture: Choosing and researching the location; Different times of the day; Perspectives: shots and angles. Events: storyline, candid, decisive moment.

Module 3: Styling for Advertising Photography

Forming theme; Brand identity; Creating a narrative; Storyboarding; Colour palette; Patterns; Textures; Audience; Hair, Wardrobe, Accessories, Props; Composition: visual hierarchy; Set designing and staging; Detailing; Food styling; Presentation, Plating, Garnishing.

Module 4: Mastering Lighting

Lighting: Ambient and artificial; Environmental lighting; Key, Fill, Back and Background lighting; One point lighting setups; Directionality; Hard light & Soft light; Lighting ratios; Controlling highlights; Highlighting features; Specular lighting; Product separation; Lighting setups and angles; Creative light modifiers; Contextual and lighting.

Module 5: Post-production and Marketing

Colour corrections; Colour enhancements; Colour grading; Resizing and Cropping; White balance correction; RAW editing; Background clean up: removal/replacement; Compositing; Image enhancement; Image retouching methods and techniques; Text and Graphic integration; Image compression and optimisation; Metadata tagging; Versioning; HDR imaging; Correcting lens distortions and aberrations: perspective correction. Exposure blending, Sky replacement; Cloning and healing; Noise reduction; Photography Marketing; Social media networking; Portfolio development; Target audience and market research.

References:

1. Johnston, P. (2023). *Real Fantasies: Edward Steichen's Advertising Photography*. Germany: University of California Press.
2. Morse, R. (2022). *Objects of Desire: Photography and the Language of Advertising*. United States: Los Angeles County Museum of Art.
3. Nath-Sakura. (n.d.). *Product Photography: Lighting, Composition, and Shooting Techniques*. United States: Rocky Nook.
4. *Making Money From Photography: The Secrets*. (2023). United States: SJ Cutter.
5. *The Photographer's Guide to Posing: Techniques to Flatter Everyone* by Lindsay Adle
6. Lesko, L., Lane, B. (2008). *Advertising Photography: A Straightforward Guide to a Complex Industry*. United Kingdom: Thomson Course Technology.
7. Thomas, J. D. (2013). *The Art and Style of Product Photography*. Germany: Wiley.
8. Fitzgerald, M. (2013). *Zen of Postproduction: Stress-Free Photography Workflow and Editing*. Germany: Wiley.
9. Emery, J. (2015). *Lighting Design for Commercial Portrait Photography*. United States: Amherst Media, Incorporated.
10. Morrissey, R. (2013). *Commercial Photographer's Master Lighting Guide: Food, Architectural Interiors, Clothing, Jewelry, More*. United States: Amherst Media, Incorporated.
11. Allard, L., Andersen, J., Buddle, E., Caldwell, R., Cramer, S., David, G., Santamaria, S. G., Harris, D. (2022). *Food Instagram: Identity, Influence, and Negotiation*. United States: University of Illinois Press.
12. *Light Science & Magic: An Introduction to Photographic Lighting* by Fil Hunter, Steven Biver and Paul Fuquar
13. *All Marketers Are Liars* by Seth Godin

14. Advertising Photography: A Straightforward Guide to a Complex Industry Bobbi Lane (Author)
15. Parks-Whitfield, A. (2012). Food Styling and Photography For Dummies. Germany: Wiley.
16. Photography Marketing: 17 Unique Marketing Strategies, Providing Plenty Of Tips, Tricks, Ideas, And Ad Copy Examples. (n.d.). (n.p.): DMA4U.
17. Selman, R. (1997). Conceptual Still Life Photography: General Still Life, Food, Interiors. United States: New York Gold.
18. MacLeod, S. (2008). Basics Photography 04: Post Production Black & White. Switzerland: Bloomsbury Academic.
19. Siskin, J. (2011). Photographing Architecture: Lighting, Composition, Postproduction and Marketing Techniques. United States: Amherst Media.
20. Lavine, J., Bartholomew, B. (2013). Simple Post Processing: A Photographer's Guide to Workflow Options for All of Your Images in Lightroom. United Kingdom: Pearson Education.
21. Pinta, V. (2022). Photo Styling Applied to the Fashion and Objects: Creating a Fashion Message. United States: ESMOD.
22. Cox, S. L. (2010). Photo Styling: How to Build Your Career and Succeed. United States: Allworth Press.
23. Bellingham, L., Bybee, J. A. (2012). Food Styling for Photographers: A Guide to Creating Your Own Appetizing Art. Netherlands: Taylor & Francis.
24. Dixon, D. (2017). Fashion and Lifestyle Photography. United Kingdom: Octopus.
25. Brown, N. (2009). Digital Masters: People Photography - Capturing Lifestyle for Art and Stock. United States: Lark Books.
26. Wilkerson, S. (2015). Capture the Moment: The Modern Photographer's Guide to Finding Beauty in Everyday and Family Life. United States: Clarkson Potter/Ten Speed.
27. Valind, E. (2014). Portrait Photography: From Snapshots to Great Shots. United Kingdom: Pearson Education.

Components of Visual Designing Lab		
Course Code	L-T-P	Credits
24VMC655	0-2-2	3

Course Objective:

This course is designed to provide students with fundamental knowledge of visual compositions. By exploring existing designs and delving into their underlying meanings, students will develop a critical eye for design analysis. Additionally, the course equips students with the principles of design, empowering them to apply these principles effectively in their own creative projects.

Through comprehensive study of colors and their diverse combinations, students gain a deeper understanding of visual communication and its impact on design outcomes.

Course Outcomes (COs):

After completing the course, learners should be able to:

1. Understand the various elements of visual design.
2. Apply design principles to compose various elements aesthetically and functionally in a space.
3. Place the layout to enhance the readability of a design.
4. Apply the rules of composition and colour theory in visual design.
5. Create aesthetically superior and functionally efficient designs by blending photographs and graphic elements.

CO – PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	1	1	1	3	2	1	1	1
CO2	3	2	2	2	1	1	1	3	2	1	1	1
CO3	2	2	2	2	3	1	1	2	2	1	1	1
CO4	3	2	2	2	1	1	1	3	2	1	1	1
CO5	3	3	2	2	1	1	1	3	3	1	1	1

Module 1: Introduction to visual design

Elements of Visual Design: Texture, Color, Line, Value, Form, Shape, Space. Understanding masters and their body of work; Light and Shadow; Visual balance and types; Visual perspectives and types; Different types of projection views.

Module 2: Principles of Visual Design

Unity, Emphasis (Focal Point), Rhythm, Variety, Proportion, Balance, Movement, Contrast, Repetition; Gestalt; Hierarchy; Contrast; Scale; Dominance.

Module 3: Layout and Readability

Importance of layout: guiding viewer's eye; Readability factors; Grid systems; Whitespace (negative space); Visual hierarchy; Usability and accessibility of designs.

Module 4: Composition and Colour Theory

Rules of composition: rule of thirds, symmetry, asymmetry, golden ratio, triangular compositions, S curve, diagonal lines; Principles of colour theory: Hue, saturation, value, colour harmony, contrast; Additive and subtractive colour theory, Colour wheel: Analogous colours, Complimentary colours. Colour mixing.

Module 5: Blending photographs and graphic elements

Integration of photographs and graphic elements in design; Blending modes, Creating seamless blends and overlays, Layering and depth, Creating visual narratives, Typography integration, Visual integrity, Ethical considerations, Cross-media integration.

References:

1. Heller, S. (2022). *For the Love of Design*. United Kingdom: Allworth.
2. Malamed, C. (2015). *Visual Design Solutions: Principles and Creative Inspiration for Learning Professionals*. Germany: Wiley.
3. Wheeler, S. G., Wheeler, G. S. (2002). *The Visual Design Primer*. United Kingdom: Prentice Hall.
4. Adams, S. (2017). *The Designer's Dictionary of Color*. United States: ABRAMS, Incorporated.
5. Leborg, C. (2006). *Visual Grammar: A Design Handbook (Visual Design Book for Designers, Book on Visual Communication)*. United States: Princeton Architectural Press.
6. Malamed, C. (2011). *Visual Language for Designers: Principles for Creating Graphics that People Understand*. United States: Rockport Publishers.
7. Davis, M., Hunt, J. (2017). *Visual Communication Design: An Introduction to Design Concepts in Everyday Experience*. India: Bloomsbury Publishing.
8. Kress, G., Leeuwen, T. v. (2020). *Reading Images: The Grammar of Visual Design*. United Kingdom: Taylor & Francis.
9. White, A. W. (2022). *The Elements of Graphic Design: Space, Unity, Page Architecture, & Type*. United States: Allworth.
10. Mitchell, T. (2023). *Graphic Design Guide: A Beginner's Journey to Creativity*. (n.p.): Draft2digital.
11. Saltz, I. (2019). *Typography Essentials Revised and Updated: 100 Design Principles for Working with Type*. United States: Rockport Publishers.
12. Prieto, Rosi. *A Concise History of Art: The Western World*. Kendall Hunt Pub Co, 14 December 2009
13. Ball, Victoria Kloss. *The Art of Interior Design: A Text in the Aesthetics of Interior Design*. Literary Licensing, LLC, 1 October 2011
14. Read, Herbert. *The Meaning of Art*. Faber & Faber; Indian export edition, 20 November 2003
15. Moberg, Eric Michael. *The Art of Composition*. CreateSpace Independent Publishing Platform, 11 September 2012
16. Graves, Maitland E. *Art of Colour and Design*. McGraw-Hill Inc., US; 2nd Revised edition, 1 January 1951
17. Arnheim, Rudolf. *Art and Visual Perception*. University of California Press; 2nd Revised edition, 10 December 2004

22ADM501 Glimpses of Indian Culture

LTP:2 0 1

Credits: P/F

Learning Objectives

To identify and analyze the cultural practices, values, and beliefs of modern India, recognizing the ways in which cultural identities intersect with systems of power and oppression. Moreover, the students will be able to reflect on their own cultural biases and assumptions to work towards becoming more culturally competent and inclusive in their personal and professional lives.

Syllabus

Unit 1

What is Sanatana Dharma; The Heritage of Scriptures ; The idea of Īśvara; Guru Tattva and AvataraTattva

Unit 2

Theory of Karma; Purusharthas; Sanyasa; Yajna; Symbolism

Unit 3

Understanding Nataraja; Temples: The Cradle of Culture;

Unit 4

Other Heterodox Systems in India; Sadhana

References:

1. Glimpses of Indian Culture
2. Sanatana Dharma- The Eternal Truth (A compilation of Amma's teachings on Indian Culture)

Course Outcomes

CO1: Understand the relevance of legendary people who are involved with restoring balance and harmony or guiding humanity toward spiritual liberation.

CO2: Demonstrate an understanding of the historical and cultural contexts that have shaped the role of women in society.

OPEN ELECTIVES – PG

24OEL631

ADVANCED STATISTICAL ANALYSIS FOR RESEARCH

2002

Objective: To familiarize students in application of statistical tool to enable them to easily perform complicated quantitative analysis.

Unit 1

Relevance of statistical analysis in research – scope of analysis in research - types of research – types of analysis in different areas.

Unit 2

Test of hypothesis - hypothesis testing procedure – significance level – steps for testing.

Unit 3

Chi-Square – t Test.

Unit 4

Tools for statistical analysis – familiarising the tool window – common buttons – available menu – entering and editing data.

Unit 5

Different types of analysis using tool.

REFERENCE BOOK:

C, R Kothari, Research methodology – Methods and techniques, New Age International Publishers

24OEL632

BASICS OF PC SOFTWARE

2002

Objective: The main objective of this course is to familiarize the basic concepts of Microsoft Office 2007 applications which promote students to build their knowledge in business applications.

Unit 1

Word Processing Basic - An Introduction to Word Processing, Opening Word Processing package, menu bar, Using the help, Using the Icons below menu bar. Opening, saving and closing documents. Page setup, Page background, Printing of documents, Display/Hiding of Paragraph Marks and inter word Space. Moving around in a document - Scrolling the Document, Scrolling by line/paragraph, Fast scrolling and Moving Pages Text creation and manipulation - Paragraph and Tab setting, Text selection, cut, copy and paste, font and size selection, bold, italic and underline, Alignment of text: center, left, right and justify. Formatting the Text - Changing font, size and color, Paragraph indenting, bullets and numbering, Use of tab and Tab setting, changing case. Inserting – header and footer, page number, date & time, symbols, comments, auto texts, footnotes, citations, caption, index, pictures, files & objects, bookmark, hyperlink.

Unit 2

Handling multiple documents, Opening and closing of multiple documents, cut, copy and paste across the documents. Table Manipulation - Concept of table, rows columns and cells, draw table, changing cell width and height, alignment of text in cell, copying of cell, delete/insertion of row and columns, borders for table. Printing – printing, print preview, print a selected page. Language Utilities – spelling & grammar- Mail merge options, password locking, View – Macros, document views

Unit 3

Elements of Electronics Spread Sheet, Application/usage of Electronic Spread Sheet, Opening of spreadsheet, and menu bar, Creation of cells and addressing of cells, cell inputting. Insert – tables, charts. Illustrations, links, texts. Page Layout – Themes, set up, scale, sheet, arrange. Practicing auto formatting and conditional formatting - Spelling and auto correct – Arranging windows – Freeze panes – Hiding windows. Providing Formulas - Using basic functions/ formalism a cell, Sum function, Average, Percentage, Other basic functions Data – connections, sort & filter, data tools, outline

Unit 4

Inserting slides – new slides, existing slides, duplicate slides, slides from Auto layout. Slide views – normal, slider sorter. Slide layouts, design templates. Deleting slides. Slide show – start with first slide, current slide, customize show. Inserting header & footer, Date and Time, Hyperlink, Format – Font, Bullet & Numbering. Custom animation, slide Transition.

Unit 5

Internet: Introduction to networks and internet, history, working of Internet, Modes of connecting to internet, ISPs, Internet address, standard address, domain name, Modems.

World Wide Web-Introduction, Miscellaneous Web Browsers details, searching the w w w - Directories search engines and meta search engines, search fundamentals, search engines, working of the searchengines, Telnet and FTP.

TEXTBOOK:

Alexis Leon & Mathews Leon: Fundamentals of Information Technology, Vikas Publishing REFERENCE

BOOKS:

- 1. Microsoft Office 2000 Complete, BPB publications*
- 2. Dennis P.Curtin, Kim Foley, Kunal Sen, Cathleen Morin: Information Technology - The Breaking Wave, TATA McGraw-Hill Edition*

24OEL633

COMPUTER HARDWARE AND NETWORKING 1 0 1 2

Objectives: The course aims to give a general understanding of how a computer works. Students will be able to understand the basics of hardware and Networking technologies.

Unit 1

Hardware Basics - Basic Terms, Concepts, and Functions of System Modules, Front and rear panel view of system – Motherboards: Components and Architecture. Popular CPU Chips and their Characteristics, Processor Architecture - Processor specifications - installing and uninstalling processor - CPU Overheating issues –

common problems and solutions

Unit 2

Memory and Storage: Memory features – Types of memory – working - Installing and uninstalling memory modules – maintenance and troubleshooting – common problems and solutions. Storage devices – Hard disk details – Working and parts of hard disks – Installing hard disks – maintenance and troubleshooting.

Unit 3

Power supply – SMPS – features – types – installing SMPS – Specification for SMPS. Maintenance and Troubleshooting: Preventive Maintenance and Safety Procedures - Managing Replaceable Components.

Unit 4

Introducing Computer Networks: Overview - Types - Topology - Networks Defined by Resource Location - Client-Server Networks - Peer-to-Peer Networks - Dissecting the OSI Model - The TCP/IP Stack Layers of the TCP/IP Stack - Common Application Protocols in the TCP/IP Stack.

Unit 5

Networking Devices – Repeater, Hub, Switch, Router – Basics of Types of cabling – Crimping - Setting up a LAN.

TEXT BOOKS / REFERENCE BOOKS

1. James K L, "Computer Hardware: Installation, Interfacing Troubleshooting and maintenance", PHI Learning Press (Eastern Economy Edition, 2013)
2. Mark Dye, Rick McDonald, Antoon Ruffi, "Network Fundamentals: CCNA Exploration Companion Guide", Cisco Networking Academy, 2008
3. Kaveh Pahlavan, Prashant Krishnamurthy, "Networking Fundamentals: Wide, Local and Personal Area Communications ", Paperback, 2014

24OEL634

CONSUMER PROTECTION ACT

2002

Objective: To know about consumer rights and to understand the grievances redressal forums established under the Consumer Protection Act, 1986.

Unit 1

Consumerism in India (Historical Background), Consumers: the concept, definition and scope. Object of Consumer Protection Act, 1986.

Unit 2

Unfair Trade Practice, Restriction Trade Practice, Defect in goods, Deficiency in service: Medical, Lawyering, Electricity, Housing, Postal services etc.

Unit 3 Consumer rights and its protection; consumer protection councils, powers and functions.

Unit 4 Judicial Enforcement of Consumer Rights: Consumer Forum under C.P.Act - Jurisdiction, Powers and functions, Exceptions of order, Judicial Review, PIL, Class action, Remedies, Appeal, Administrative Remedies, C.P.Courts.

Unit 5 Appeals and orders: enforcement of orders of the consumer forum, Appeals against orders, Administrative

control; Dismissal of frivolous and vexatious complaints, Penalties.

REFERENCE TEXTS:

1. Saraf D.N., *Law of Consumer Protection in India, 1995*

2. R.K.Bangia, *Consumer Protection Act*

3. P.K.Majumdar, *The Law of Consumer Protection in India, 1998 Orient Publishing Co. Delhi*

24OEL635

CORPORATE COMMUNICATION

2002

Unit 1

Structure and characteristics of an organization; Factors influencing communication

- Flow of communication in an organization - Bottom step, top down vertical and horizontal barriers to communication; Organization of a PR department and counselling firms.

Unit 2

Role of PR in an organization; PR processes - image building - PR and various publics - internal & external; PR and crisis management- national community, labour unrest, and accidents.

Unit 3

PR tools - House journals - kinds and production of house journals; Open house; New media; Gossip, rumour mongering and criticism.

Unit 4

Media Relations - press conference, press releases, press visit, interviews, preparations and distributions of publicity materials to media.

Unit 5

PR for Govt. PR for Non Govt. organizations, PR for armed forces, PR for entertainment and sports, PR for tourism, PR for philanthropic organizations, PR for celebrities. Event management, Ethics in PR.

BOOKS RECOMMENDED:

Balan K.R.: Lectures on applied Public Relations.

Dennis L. Wilcox, Philip H. Ault & Warren K. Agee: Public Relations strategies & tactics.

Mehta D.S.: Handbook of Public Relations in India

Scott M. Cutlip, Allen H. Centre & Glen M. Broom: Effective Public Relations.

Philip Lesley: Lesley's Public Relations Handbook

Kaul J.M.: Public Relations Handbook.

Frank Jefkins: Planned Public Relations

Sam Black: The role of Public Relations in Management.

24OEL636

DESIGN STUDIES

2002

Objective: To introduce the students to the field of visual design.

Unit 1

Drawing and illustration.

Unit 2

Design basics.

Unit 3

Principles of composition.

Unit 4

Introduction to type design.

Unit 5

Usage of images, colour in terms of visual design.

REFERENCES:

1. *Thinking with Type* by Ellen Lupton

2. *How to be a Graphic Designer Without Losing Your Soul* by Adrian Shaughnessy

24OEL637

DISASTER MANAGEMENT

2002

Objectives: To appreciate the fundamentals of disaster management and to introduce the fundamentals procedure and working during the contingency.

Unit 1 Introduction & Dimensions of Natural & Anthropogenic Disasters, Principles/ Components of Disaster Management, Organizational Structure for Disaster Management,

Unit 2 Disaster Management Schemes/ standard operating procedures, Natural Disasters and Mitigation Efforts, Flood Control, Drought Management, Cyclones, Avalanches, Mangroves, Land Use Planning, Inter- Linking of Rivers, Role of Union/ States, Role of Armed Forces/ Other Agencies In Disasters, Important Statutes/ Legal Provisions, Improvised Explosive Device/ Bomb Threat Planning, Nuclear, biological and chemical threat And Safety Measures, Forest Fires, Oil Fires, Crisis In Power Sector, Accidents In Coal Mines, Terrorism And Emergency Management.

Operations Management (OM), Risk Assessment and Disaster Response, Quantification Techniques, NGO Management, SWOT Analysis based on Design & Formulation Strategies,

Unit 3 Insurance & Risk Management, Role of Financial Institutions in Mitigation Effort, Group Dynamics, Concept of Team Building, Motivation Theories and Applications, School Awareness and Safety Programmes, Psychological and Social Dimensions in Disasters, Trauma and Stress, Emotional Intelligence, Electronic Warning Systems, Recent Trends in Disaster Information Provider, Geo Informatics in Disaster Studies, Cyber Terrorism, Remote Sensing & GIS Technology, Laser Scanning Applications in Disaster Management, Statistical Seismology, Quick Reconstruction Technologies,

Unit 4 Role of Media in Disasters, Management of Epidemics, Bio-Terrorism, Forecasting/ Management of Casualties.

Unit 5 Case Studies - Natural Disaster and Man-made Disasters.

REFERENCES:

1) *Disaster Management - Harsh K Gupta*

2) *Disaster Management - Damon.P*

24OEL638

ESSENTIALS OF CULTURAL STUDIES

2002

Uniqueness of Indian culture.
Real Indian History.
Heritage – spiritual and cultural heritage.
Glory of ancient India – inventions and discoveries in all fields.
Importance of festivals.

REFERENCE TEXTS:

1. *Swami Harshananda – Hindu Culture*

2. *Amma – Eternal Truth*

24OEL639

FOUNDATIONS OF MATHEMATICS

2002

Objectives: To develop an understanding of problem solving methods, to understand the basic concepts of mathematics and to apply the results to real life business problems

Unit 1

Matrices: Type of matrices, addition, subtraction, multiplication of matrices, transpose, determinant of a matrix, adjoint and inverse of a matrix.

Unit 2

System of equations - Solution of equations in one(linear, quadratic), two and three variables, Solution of a system of linear equation having unique solution and involving not more than three variables by matrix method, Cramer's rule.

Unit 3

Financial mathematics: Simple interest and compound interest.

Unit 4

Simple differentiation: functions, simple differentiation of algebraic functions, first and second order derivatives, maxima and minima.

Unit 5

Elementary integral calculus: Integration of simple algebraic functions.

REFERENCES:

1. P.R Vittal - *Business mathematics and statistics*, Margham Publications, Chennai.
2. Dr. Amarnath Dikshit, Dr. Jinendra Kumar Jain - *Business mathematics*, Himalaya publishing House.
3. V.K Kapoor - *Introductory Business mathematics*, Sultan chand & Sons, New Delhi.

24OEL640

FOUNDATIONS OF QUANTUM MECHANICS

2002

Unit 1

Historical Perspective of Quantum Physics: Failure of classical mechanics - Planck-Einstein, Bohr-de Broglie-Heisenberg's Uncertainty.

Unit 2

Empirical confirmations of Wave Particle Duality. Schrödinger Equation - Particle in a box-Tunneleffect.

Unit 3

Paradoxes in QM - de Broglie paradox - Schrödinger's cat, Mach-Zhender type interferometers - EPR paradox
- Bell-type Inequalities.

Unit 4

Various interpretations - Statistical, Copenhagen, Bohm's formulation, Transactional, Wheeler's Participatory Universe, Many World, Decoherence, consciousness interpretation.

Unit 5

Uncertainty-Nonlocality, Holistic universe, Violations of causality-Retro influence-Philosophy of Advaita(non-Duality).

TEXT AND REFERENCES:

1. *Quantum Enigma: Physics Encounters Consciousness* by Bruce Rosenblum and Fred Kuttner (Aug 1, 2011)
2. *The New Physics and Cosmology* Zanjoc, Oxford 2004

Unit 1

- 1 Introduction – What literature is – Language and literature – Indian literature – Values through literature – Literature and culture – Enjoying literature
- 2 Father Giligan – WB Yeats

Unit 2

- 3 The West Wind – PB Shelley
- 4 Chicago Address – Swami Vivekananda

Unit 3

- 5 On Saying Please – AG Gardiner
- 6 My Lost Dollar – Stephen Leacock
- 7 The Importance of Being Earnest – Oscar Wilde (extracts)

Unit 4

- 8 The Refugee – AK Abbas
- 9 The Mirrored Hall – Swami Chinmayananda

Unit 5

- 10 The Windhover – GM Hopkins

24OEL660
2**INFORMATION TECHNOLOGY IN BANKING****200**

Objective: To provide an understanding on the technology enabled banking services and their applications.

Unit 1

Bank and Banking: Meaning and definition, development of banking in India, types banks, banking systems, types of banking systems, commercial banks, functions, nationalization of commercial banks in India.

Unit 2

Central Banking, functions, Reserve Bank of India, State Bank of India.

Unit 3

Banker and Customer, opening an account, Pass Book and Pay-in Slip, Cheques, types of cheques, crossing of cheques.

Unit 4

Role of information technology in banking services, Core Banking, Automated Teller Machine (ATM), Electronic Clearing Service (ECS), NEFT and RTGS, Mobile Banking.

Unit 5

Debit Card and Credit Card, banking and E-Commerce, Point of Sales (PoS), Online bill payment and ticket reservation – future of electronic banking.

REFERENCE BOOKS:

1. Sundaram and Varshney – *Banking Law, Theory and Practice*, Sultan Chand
2. B. Santhanam – *Banking and Financial Systems*, Margham Publications
3. S.N. Maheswari – *Banking Law, Theory and Practice*, Kalyani Publications
4. Parameswaran – *Indian Banking*, S.Chand and Co

24OEL643

KNOWLEDGE MANAGEMENT

2 0 0 2

Objective: To enable students to understand the basics of Knowledge Management and its applications in organizations

Unit 1

Knowledge management concepts – Introduction - Definitions of Knowledge – Data-information and knowledge - basic thoughts on knowledge - difference between wisdom and knowledge - information Management and knowledge Management - hierarchy model - knowledge types – explicitness – reach - abstraction level – propositionality – Earl’s schools of knowledge management.

Unit 2

Knowledge management and process - Becerra-Fernandez and Stevenson knowledge process - Nonaka’s Knowledge Spiral – dynamics of knowledge creation – knowledge management systems – knowledge management sub – processes – knowledge discovery – knowledge capture – knowledge sharing – knowledge application.

Unit 3

Organizational knowledge – Need – benefits - components and functions - Knowledge management in virtual organizations - knowledge management in professions - a study of IT and ITES business - knowledge management system requirements - Organizational knowledge measurement techniques - organizational implementation barriers.

Unit 4

Designing Enterprise Knowledge Management System architecture – Multi-layer architecture for Knowledge Management Systems - knowledge management in decentralized and heterogeneous corporations - Web based knowledge management support for document collections.

Unit 5

Recent Tools for KM - Intelligent support systems - intelligent systems and artificial intelligence - comparing artificial and neural intelligence - conventional vs. Artificial intelligence - Emerging technology - virtual reality - Intellectual capital.

TEXTBOOKS AND REFERENCES:

1. *Knowledge Management – Sudhir Warier, Vikas Publications.*
2. *Knowledge Management Systems – Stuart Barnes, Thomson Learning.*
3. *Key issues in the New Knowledge Management – J.M. Firestone, M.W. Mcelroy.*
4. *Developing Expert System for Business – Chandler/Liang.*
5. *Knowledge Management – Pankaj Sharma, APH Pub*

Objective: To provide a basic knowledge on research methodology and market research.

Unit 1

Definition of Marketing Research, Objective of Marketing Research, Application of Marketing Research, Limitation of Marketing Research, Marketing Research Process.

Unit 2

Research Design: Various Method of Research Design, Important Experimental Research Designs.

Primary and Secondary Data: Methods of Collecting Primary Data, Advantages & Disadvantages of Primary Data & Secondary Data, Essentials Characteristics for Selecting Secondary Data. Basic Methods of Collecting Data: Questionnaire Method/ Observation Method - Advantages & Disadvantages, Methods of Observation, Precautions in Preparation of Questionnaire & Collection of Data.

Unit 3

Measurement and Scaling: Types of Scales, Difficulty of Measurement, Sources of Error, Criteria for a Good Scale, Development of Marketing Measures.

Sampling: What is Sampling, Objective of Sampling, Steps in Sample Design, Various Techniques of Sampling, Advantages & Disadvantages of Different Techniques of Sampling, Difference between Probability and Non- probability Sampling, Problem Associated with Sampling, Determining Sample Size.

Unit 4

Data Processing, Analysis and Estimation

Unit 5

Report Preparation: Types and Layout of Research Report; Precautions in Preparing the Research Report, Bibliography and Annexure in Report, Drawing Conclusions, Giving Suggestions and Recommendation to the Concerned Persons.

REFERENCE TEXTS:

- 1. Nargundkar Marketing Research, Tata McGraw Hill, 2nd Ed.*
- 2. Luck and Rubin Marketing Research, Prentice Hall of India, 7th Ed.*
- 3. Tull & Hawkins Marketing Research: Measurement & Method, Prentice Hall of India, 6th Ed.*
- 4. Beri Marketing Research, Tata McGraw Hill, 4th Ed.*

Unit 1 Health Communication

Introduction to theories in Health Communication. Awareness on Health Issues – Epidemic Diseases, knowledge about vaccination for various diseases - Health campaign will be organized with the help of Medical Practitioner.

Unit 2 Radio for Social Change

Awareness on Edaphic Issues - Soil Pollution, Water Pollution and other forms of pollution. Anti-Pollution campaign will be organized with the help of Environmental Scientist or Journalist.

Unit 3 Social Media Activism

Awareness on Blood Donation – How a tiny red drop makes someone's life Green. Awareness campaign will

be organized based on Eye Donation.

Unit 4 Development Communication and Social Learning

Locating the remote village where basic amenities like Water, Toilet facilities are not available - A campaign with the involvement of government officials and social scientists.

Unit 5 Participatory Communication for Social Change

Organic Farming - Awareness of Organic Farming. Benefits of organic farming in the materialistic world. A campaign cum workshop will be conducted by inviting experts from Agricultural Husbandry.

REFERENCES

1. *Tillman, C. (2006). Principles of occupational health and hygiene: an introduction. Allen & Unwin.*
2. *Thayer, Lee, (2014) Mental Hygiene: Communication and the Health of the Mind.*
3. *Harrison, R. M. (2001). Pollution: causes, effects and control. Royal Society of Chemistry. Wilhelm, J. (2016). Environment and Pollution in Colonial India: Sewerage Technologies Along the Sacred Ganges. Routledge.*
4. *Charbonneau, J., & Smith, A. (Eds.). (2015). Giving Blood: The Institutional Making of Altruism. Routledge.*
5. *Agarwal, Arun K (2007) Standard Operating Procedures(sop) For Hospitals In India. New Delhi: Atlantic Publishers*
6. *Atlantic Publishers*
7. *Hall-Matthews, D. N. J. (2005). Peasants, Famine and the State in Colonial Western India.*
8. *Basingstoke: Palgrave Macmillan.*
9. *Thottathil, S. E. (2014). India's Organic Farming Revolution: What it Means for Our Global Food System. University of Iowa Press.*

Unit 1

Management concept – Principles of Management - Factors influencing Management decision in media – Structure and characteristics of media organizations – Newspapers and Magazines, Radio, Television, Cinema - Ownership in Media Industries – Merits and demerits.

Unit 2

Economics of newspaper – Advertising vs circulation – Management problems of small, medium, large newspapers: gathering, processing, printing, circulation, distribution, advertising, professionalism, tradeunionism, News room diversity.

Unit 3

Economics and Administrative concerns of government owned electronic media-market driven media:private channels – Social commitment vs Profit making.

Unit 4

Economics of film Industry – creativity, production, marketing distribution, exhibition, ownership vs piracy.

Unit 5

News agencies and syndicates: Ownership and organization structures – committees to study the problems of various media in India.

BOOKS RECOMMENDED:

1. *Aggarwal S.K : Press at the crossroads in India.*
2. *William and Rucker: Newspaper Organization and Management*
3. *Sarkar R.C: The press in India*
4. *Noorani A.G: Freedom of Press in India*
5. *Frank Thayer: Newspaper Management*
6. *Gulab Kothari: Newspaper Management in India*
7. *Reports of the enquiry committees appointed by the Ministry of Information and Broadcasting.*

24OEL647

OBJECT-ORIENTED PROGRAMMING

2 0 0 2

Unit 1

Introduction to OOPS: Object Oriented Programming features, Applications, History, Difference from structured Programming, Object Oriented Programming Languages, Program execution.

Unit 2

Object Oriented Concepts: Abstraction, Encapsulation, Polymorphism, Inheritance, Classes and Objects, Programming Basics - Data types, Conditional Statements, Loops, arrays, Functions, Structures.

Unit 3

Implementing Class, Object Data Types, User Defined Data Types, Defining a Class, e Access specifiers, The Scope Resolution Operator, Using Class Objects Like Built-in Types, Scope, Constructors, Member Initialization, Constructor Overloading, Destructors.

Unit 4

Inheritance: Introduction, The protected Access Level, Assignments Between Base and Derived Objects, Types of Inheritance, Compile-Time vs. Run-Time Binding, virtual Functions, Polymorphism, Abstract Base Classes.

Unit 5

The iostream Library, Predefined Streams, Stream States, Formatted I/O, Disk Files, Reading and Writing Objects.

TEXTBOOKS

1. E Balaguruswamy “Object Oriented Programming Using C++” 6th Edition, TMH Publications
2. Lalit Kishore Arora , Dr. Vikesh Kumar, “ Object Oriented Programming Using C++ “,S.K. Kataria & Sons;
2011 edition (2011)

24OEL648

PAINTING AND SCULPTURE

1 0 1 2

Objective: To make students develop critical thinking skill as well as make them creative in their field of painting and sculpture.

Unit 1

Pencil drawing, life study.

Unit 2

Basics of water colour painting, Clay modelling.

Unit 3

Anatomy and figure study, Basics of oil and acrylic painting.

Unit 4

Basics of Figure modeling.

Unit 5

Moulding and casting.

REFERENCE BOOKS

1. *Indian Sculpture and Painting – by E.B. Havell (Author)*
2. *Modern Painting And Sculpture: 1880 To Present From The Museum Of Modern Art – by JohnElderfield (Editor)*

24OEL649

PERSONAL FINANCE

2 0 0 2

Objective: To analyse the process of making personal financial decisions, develop personal financial goals and identify the strategies for their achievement.

Unit 1

Basics of Personal Financial Planning, Time Value of Money, Planning tax strategies.

Unit 2

Introduction to Consumer Credit, sources of credit, Consumer Purchasing, strategies for housingdecisions.

Unit 3

Insurance: types, selecting the right insurance policy, property and motor vehicle insurance, healthinsurance policies, Retirement Planning, NPS.

Unit 4

Investing fundamentals, investing in shares, bonds and mutual funds, investment in

gold and real estate.

Unit 5

Investing in Schemes of Government: National Savings Certificates, KVP, Post Office Recurring Deposits and term deposits, PPF.

REFERENCE TEXTS:

1. *Jeff Madura – Personal Finance, Pearson Education*
2. *Manish Chauhan – 16 Personal Finance Principles every Investor should know, Network 18 Publishers*
3. *Jack R Kapoor, Les R Dlabey – Personal Finance, McGraw Hill*

24OEL650

PRINCIPLES OF ADVERTISING

2002

Objective: The objective of this paper is to help student to make basic understanding on advertising, providing understanding on the processes behind successful advertising. The students are introduced to the processes, tools and techniques used in developing advertising concepts with the study areas including creative thinking and visualizing.

Unit 1 Introduction

History of advertising, Advertising-meaning and definition, Advertising as a tool of communication, Features of advertising.

Unit 2 Types of Media – Advantages & Disadvantages

Types of advertising, Types of media in advertising – Features – advantages – disadvantages – Print, Television, Radio, Internet, OOH.

Unit 3 Structure of an Advertising Agency

Structure of advertising agency – Small, Medium, National, In-house.

Unit 4 Other Promotion

Sales Promotion, Direct Marketing, Public Relations, Publicity and Corporate Advertising, Unconventional Promotional Media.

Unit 5 Case Studies

REFERENCE BOOKS:

Advertising, Frank Jefkins Revised by Daniel Yadin

Kleppner's Advertising Procedure

24OEL651

PRINCIPLES OF PACKAGING

2002

Objective: To analyse the process of making personal financial decisions, develop personal financial goals and identify the strategies for their achievement.

Unit 1

Packaging: Meaning and importance, functions, marketing considerations of packaging.

Unit 2

Design of package, materials used for packaging, selection criteria of packaging materials, packaging techniques.

Unit 3

Packaging systems, future of packaging.

Unit 4

Provisions of the Legal Metrology (Packaged Commodities) Rules 2011.

Unit 5

Provisions of Food Safety Standards (Packaging and Labelling) Regulations, 2011.

REFERENCE TEXTS:

1. Gordon Robertson – *Food Packaging: Principles and Practice*, CRC Press
2. Frank Paine – *A Handbook of Food Packaging*, Springer

24OEL652

SCRIPTING FOR RURAL BROADCASTING

1 0 1 2

Unit 1

Introduction to rural broadcasting. Rural life and issues. Cultural ecology - Anthropological approaches - traditional social activities-translocal ruralistic features. Practical: Visit any rural area for making detail analysis on the topics during weekends.

Unit 2

Rural communities. Analysis of social and political life in a rural community. Caste / class dynamics and regional influences.

Unit 3

Scope and Impact of broadcast journalism in rural development. Two day workshop by an external expert from the broadcast industry on the rudiments of script writing focusing on rural aspects/ communities.

Unit 4

Practice on Scripting. Focus on covering special issues concerning rural women, youth, farmers, self-help groups cottage industries etc.

Unit 5

Developing the final script for rural broadcasting that will have practical application in the field. Final evaluation by the external expert.

REFERENCES

1. Eschenbach, J. (1977). *The role of broadcasting in rural communication*.
2. Friedrich-Ebert-Stiftung. George, A. M. (2004). *India untouched: The forgotten face of rural poverty*. East West Books.
3. Kumar, K. (2003). *Mixed signals: Radio broadcasting policy in India*. *Economic and political weekly*, 2173-2182.
4. Maddison, J. (1971). *Radio and television in literacy*. Unesco.
5. Manyozo, L. (2011). *People's radio: communicating change across Africa*. Southbound Penang
6. Neurath, P. M. (1962). *Radio farm forum as a tool of change in Indian villages*. *Economic Development and Cultural Change*, 10(3), 275-283.
7. Onabajo, F. (2003). *37 Message Design & the Appropriateness of Language in Rural Broadcasting*. *Four Decades in the Study of Languages & Linguistics in Nigeria: O'Hare, K. (1992). Scripts: Writing for Radio and Television*. *Canadian Journal of Communication*, 17(4).

8. Sharma, A., & Kashyap, S. K. (2013). *Information need assessment for empowering rural women through community radio programmes: A study in Tarai region of Uttarakhand*. *Journal of Community Mobilization and Sustainable Development*, 8(2), 169-173.
9. *Community Mobilization and Sustainable Development*, 8(2), 169-173.

24OEL653

SOCIAL MEDIA WEBSITE AWARENESS

1 0 1 2

Objectives; To understand the history, theory, technology and uses of social media; to create, collaborate, and share messages with audiences of all sizes; to know and explore the possibilities and limitations of social media. Hands on experience with several forms of social media technology; to understand and use social media productively and to evaluating new tools and platforms.

Unit 1

Introduction to Social media; Definition - Social Media and Digital transformation; Social Networking and online communities; Social support and service; Wikipedia, Facebook, Instagram, Tagging, LinkedIn; Social mobile applications; Security settings in Facebook, Whatsapp.

Unit 2

Blogging – History; Creating blog, effect of blogging, micro blogging; Protocol, Platform, Content strategies.

Unit 3

Tweeting - Introduction, History, Protocol; Twitter; Twitter apps; Managing Twitter; #hashtag# creation and following; Security settings in Twitter.

Unit 4

Social media sharing – History, Protocol; YouTube, Flickr, Slide share, Social news; News apps – Newshunt and others; Bookmarking - History, Digg, Reddit, Delicious.

Unit 5

Social theory in the information age; Social Network for professional, business, Digital Marketing; Using social networking sites for research, Security aspects of social networking.

REFERENCES:

1. *Social Networking - Digital and Information Literacy Series* by Peter K. Ryan, The Rosen Publishing Group, 2011 ISBN 1448823463, 9781448823468
2. *The Social Media Marketing Book* Dan Zarrella "O'Reilly Media, Inc.", 13-Nov-2009

24OEL654

THEATRE STUDIES

1 0 1

2

Objective: To provide students with a firm grounding in the discipline of Theatre and Performance Studies.

Unit 1

Breathing exercises, warming up exercises.

Unit 2

Voice modulation, Monologue practice.

Unit 3

Facial expressions, emoting a character.

Unit 4

Stage direction, Makeup and costumes.

Unit 5

Choreography, Producing a play.

REFERENCES:

1. *Theatre as Sign System: A Semiotics of Text and Performance* by Elaine Aston, George Savona

2. *Theatre Semiotics: Text and Staging in Modern Theatre* by Fernando de Toro

3. *Acting For Real: Drama Therapy Process, Technique, and Performance* by Renee Emunah

24OEL655

WRITING FOR TECHNICAL PURPOSES

2 0 0 2

Overview: The course aims at developing skills that will enable students to produce clear and effective scientific and technical documents as required in their work-life. Though the focus of the course is on writing, oral communication of scientific and technical information forms an important part of the course.

Objectives: To familiarize the students with the requirements of effective technical writing; to enable students to independently work on their publication and presentation of papers; developing skills required for presentation of reports, papers and proposals

Unit 1

What is Technical Writing? - Purpose and characteristics of technical writing and need for developing technical writing skill. Use of Technical terms, Defining terms, Style and tone.

Unit 2

Use of resources, documentation style and citation; Standard operation procedures, Instruction Manuals and Handbooks.

Unit 3

Oral presentations, Analysis of published papers – format, content and style.

Unit 4

Drafting a research paper for publication; Grammar check and editing; proof reading.

Unit 5

Submission of term paper.

REFERENCE BOOKS:

1. McMurrey David, *Technical Writing*,

2. Manser Martin H. *Guide to Style: an essential guide to the basics of writing style*, Viva books

24OEL656

YOGA AND PERSONAL DEVELOPMENT

1 0 1

2

Objective: To give an understanding on the concept and advantages of yoga and simple yoga practices.

Unit 1

Yoga and Modern Life – Introduction - understanding Yoga – definition - four streams of yoga - Why yoga?

Unit 2

Breath – The Bridge – Introduction - Breathing Practices – Standing - Sitting – Supine.

Unit 3

Loosen Yourself – Introduction – Jogging – Bends - Twisting – Pavanamuktasana Kriya.

Unit 4

Asanas – Suryanamaskar - Standing Posture - Sitting postures - Prone Postures - Supine – Topsy Turvy -Relaxation techniques.

Unit 5

Pranayama, Meditation.

REFERENCE TEXTS:

1. N.S. Ravishankar – *Yoga for Health, Pustak Mahal*
2. BKS Iyengar – *Yoga: The Path to Holistic Health, DK Publishers*

24OEL657

FUNDAMENALS OF LEGAL AWARENESS

2 0 0

2

Objective: This course is intended to give the student the power to make a difference in personal and professional life through sound legal knowledge and to be aware of rights and responsibilities towards society and nation.

Unit 1

Law and classification: definition, meaning, functions, classification- public and private law, civil law and criminal law, substantive and procedural law, municipal and international law, written and unwritten laws

Unit 2

Law of contracts: overview of Indian Contract Act, definition, meaning, essentials-offer and acceptance, invitation to offer, cross offers, intention to create legal obligation, lawful consideration, lawful object, competency of parties, free consent, agreement not to be void, illegal, immoral or opposed to public policy, agreement v. contract, breach and remedies for breach.

Unit 3

Law of torts: Definition, meaning, essentials, damages- injuria sine damnum and damnum sine injuria, general defences in torts, exceptions to tortious liability: vicarious liability- master servant relationship, Principal- agent relationship, Partner- partnership firm, Major torts: Nuisance, Negligence

Tress pass: Tresspass to a person- Battery, Assault, False Imprisonment, defamation- libel and slander, essentials, defences to defamation, liability in torts- strict liability, absolute liability,

damages in torts- meaning, types of damages- nominal, compensatory, exemplary, aggravated, prospective, contemptuous

Unit 4

Criminal law: introduction of criminal law- subject matter, General introduction to the Indian Penal Code, Criminal Procedure code, Indian Evidence Act, mental element- stages of crime, guilty intention, General exceptions- Intoxication, Insanity, Mistake of Fact, Accident, Acts done under compulsion, public duty etc., Right of Private Defence, Major offences: Theft, Extortion, Robbery, Dacoity, Sedition, Abduction, Kidnapping, Unlawful Assembly, Dowry Death, Abetment, Murder, Culpable Homicide

Unit 5

Family law: subject matter and Introduction, Laws Involved, Marriage – validity and degree of prohibited relationship, Divorce Family Court, Grounds for divorce, orders- judicial separation, restitution of conjugal rights, maintenance, Section 125 Criminal Procedure code, Adoption- difference between guardianship and adoption, General outline of Hindu Adoption and Maintenance Act, Guardianship and Wards Act, Succession- Testamentary and Intestate- Testator, Executor, Administrator and Probate

Amrita Values Program

1 0 0 1

Amrita University's Amrita Values Program (AVP) is a new initiative to give exposure to students to the richness and beauty of the Indian way of life. India is a country where history, culture, art, aesthetics, cuisine, and nature exhibit more diversity than anywhere else in the world. Amrita Values Programs emphasize making students familiar with the rich tapestry of Indian life, culture, arts, science, and heritage which has historically drawn people from all over the world. Post-graduate students shall have to register for any one of the following courses, in the second semester, which may be offered by the respective school.

Courses offered under the framework of the Amrita Values Program:

22AVP501 Message of Śrī Mātā Amritanandamayi Devi

Amma's messages can be put into action in our life through pragmatism and attuning of our thought process in a positive and creative manner. Every single word Amma speaks, and the guidance received in matters which we consider trivial are rich in content and touches the very inner being of our personality. Life gets enriched by Amma's guidance, and She teaches us the art of exemplary life skills where we become witness to all the happenings around us keeping the balance of the mind.

22AVP502 Insights from the Ramayana

The historical significance of Ramayana, the first Epic in the world, influence of Ramayana on Indian values and culture, storyline of Ramayana, study of leading characters in Ramayana, influence of Ramayana outside India, misinterpretation of Ramayana by colonial powers and its impact on Indian life, relevance of Ramayana for modern times.

22AVP503 Insights from the Mahabharata

The historical significance of Mahabharata, the largest Epic in the world, influence of Mahabharata on Indian values and culture, storyline of Mahabharata, study of leading characters in Mahabharata, Kurukshetra War and its significance, importance of Dharma in society, message of the Bhagavad Gita, relevance of Mahabharata for modern times.

22AVP504 Insights from the Upanishads

Introduction: Sruti versus Smṛti, overview of the four Vedas and the ten Principal Upanishads, the central problems of the Upanishads, ultimate reality, the nature of Atman, the different modes of consciousness, Sanātana Dharma and its uniqueness, The Upanishads and Indian

Culture, relevance of Upanishads for modern times, a few Upanishad Personalities: Nachiketasa, Satyakama Jabala, Aruni, Shvetaketu.

22AVP505 Insights from Bhagavad Gita

Introduction to Bhagavad Gita, brief storyline of Mahabharata, context of Kurukshetra War, the anguish of Arjuna, counsel by Sri. Krishna, key teachings of the Bhagavad Gita, Karma Yoga, Jnana Yoga, and Bhakti Yoga, theory of Karma and Reincarnation, concept of Dharma, idea of the self and realization of the self, qualities of a realized person, concept of Avatar, relevance of Mahabharata for modern times.

22AVP506 Message of Swami Vivekananda

Brief sketch of Swami Vivekananda's life, meeting with Guru, disciplining of Narendra, travel across India, inspiring life incidents, address at the parliament of religions, travel in the United States and Europe, return and reception in India, message to Indians about our duties to the nation.

22AVP507 Great Spiritual Teachers of India

Sri Rama, Sri Krishna, Sri Buddha, Adi Shankaracharya, Sri Ramanujacharya, Sri Madhvacharya, Sri Ramakrishna Paramahansa, Swami Vivekananda, Sri Ramana Maharshi, Mata Amritanandamayi Devi

22AVP508 Indian Arts and Literature:

The aim of this course is to present the rich literature, culture of ancient India, and help students appreciate their deep influence on Indian life, Vedic culture, the primary source of Indian culture, brief introduction, and appreciation of a few of the art forms of India, arts, music, dance, theatre, paintings, sculpture and architecture, the wonder language, Sanskrit, and ancient Indian Literature.

22AVP509 Yoga and Meditation

The objective of the course is to provide practical training in YOGA ASANAS with a sound theoretical base and theory classes on selected verses of Patanjali's Yoga Sutra and Ashtanga Yoga. The coverage also includes the effect of yoga on integrated personality development.

22AVP510 Appreciation of Kerala's Mural Art Forms:

A mural is any piece of artwork painted or applied directly on a wall, ceiling, or another large permanent surface. In the contemporary scenario, Mural painting is not restricted to permanent structures and is being done even on canvas. A distinguishing characteristic of mural painting is that the architectural elements of the given space are harmoniously incorporated into the picture. Kerala mural paintings are frescos depicting mythology and legends, which are drawn on the walls of temples and churches in South India, principally in Kerala. Ancient temples, churches, and places in Kerala, South India, display an abounding tradition of mural paintings mostly dating back to the 9th to 12th centuries CE when this form of art enjoyed Royal patronage. Learning Mural painting through the theory and practice workshop is the objective of this course.

22AVP512 Ancient Indian Science and Technology

Science and technology in ancient and medieval India covered all the major branches of human knowledge and activities, including mathematics, astronomy, physics, chemistry, medical science and surgery, fine arts, mechanical, civil engineering, architecture, shipbuilding, and navigation. Ancient India was a land of sages, saints, and seers as well as a land of scholars and scientists. The course gives awareness of India's contribution to science and technology.

Course objective:

To bridge the gap between a student and a student becoming an employee or an entrepreneur. Aims to provide students with the knowledge and skills to understand and participate in the modern business scenario and the world of economics so as to prepare them to achieve success in their career.

Course outcomes:

CO1	Soft Skills: At the end of the course, the students would have developed self-confidence and positive attitude necessary to compete and challenge themselves. They would also be able to analyse and manage their emotions to face real life situations.
CO2	At the end of the course, the students shall learn to examine the context of a Group Discussion topic and develop new perspectives and ideas through brainstorming and arrive at a consensus.
CO3	At the end of the course, the students will have the ability to prepare a suitable resume. They would also have acquired the necessary skills, abilities and knowledge to present themselves confidently. They would be sure-footed in introducing themselves and facing interviews.
CO4	At the end of the course the students will have the ability to analyse every question asked by the interviewer, compose correct responses and respond in the right manner to justify and convince the interviewer of one's right candidature through displaying etiquette, positive attitude and courteous communication.
CO5	Aptitude: At the end of the course, the student will have acquired the ability to analyse, understand and classify questions under arithmetic, algebra and logical reasoning and solve them employing the most suitable methods. They will be able to analyse, compare and arrive at conclusions for data analysis questions.
CO6	At the end of the course, students will be able to interpret, critically analyse and solve logical reasoning questions. They will have acquired the skills to manage time while applying methods to solve questions on arithmetic, algebra, logical reasoning, statistics and data analysis and arrive at appropriate conclusions.
CO7	Verbal: At the end of the course, the students will have the ability to understand the nuances of English grammar and apply them effectively.
CO8	At the end of the course, the students will have the ability to relate, choose, conclude and determine the usage of right vocabulary.
CO9	At the end of the course, the students will have the ability to decide, conclude, identify and choose the right grammatical construction.

- Soft skills and its importance: Pleasure and pains of transition from an academic environment to work - environment. Need for change. Fears, stress and competition in the professional world. Importance of positive attitude, self-motivation and continuous knowledge upgradation.
- Attitude, Values, Motivation, Emotion Management, Steps to like yourself, Positive Mental Attitude, Assertiveness.
- Resume writing Group discussion, Concepts, Mock GDs. Interviews, Presentation skills – Guidelines.
- Vocabulary: Synonyms; Antonyms; Analogy; one-word substitutes; idioms; phrasal verbs; Grammar: Article and preposition; SV agreement; tenses; voices; modifiers; parallelism. Reading and comprehension; para jumble.

- Problem Solving: Problems on numbers; Percentages; Ratio, proportions and variations; Time and distance; Time, men and work.
- Data interpretation: Numerical Data Tables; Line Graphs; Bar Charts and Pie Charts; Case let Forms; Mix Diagrams; Geometrical Diagrams and other forms of Data Representation.
- Logical Reasoning: Family Tree; Linear Arrangements; Circular and Complex Arrangement; Conditionalities and Grouping; Sequencing and Scheduling; Selections; Networks; Codes; Cubes; Venn Diagram in Logical Reasoning.

Textbooks:

1. Geoffrey Leech, Jan Svartvik - A Communicative Grammar of English - Longman
2. Adair. J - Effective Team Building: How to make a winning team – Pan Books
3. Gulati.S. – Corporate Soft Skills – Rupa & Co.
4. Peggy Klaus - The Hard Truth about Soft Skills – Harper Business Publication.

Reference Books:

1. R S Aggarwal - Quantitative Aptitude – S. Chand
2. R S Aggarwal - Verbal and Non-Verbal Reasoning - S. Chand
3. R S Aggarwal – Data Interpretation - S. Chand
4. Quantitative Aptitude – The Institute of Chartered Accountants of India
5. Leslie Bendaly – More Games Teams Play – McGraw Hill
6. The BBC and British Council online resources
7. Owl Purdue University online teaching resources.
8. www.thegrammarbook.com online teaching resources
9. www.englishpage.com online teaching resources and other useful websites.