DEPARTMENT OF MEDIA SCIENCES
ANNA UNIVERSITY, CHENNAI

VISION

- To offer quality media studies and research, using state-of-the-art images for building an interdisciplinary knowledge base, so as to contribute to development and democracy.
- To produce creative and technically apt professionals for the media industry.
- The theoretical and practical media courses taught in the PG programme will improve, explore, innovate and implement core media techniques by “learn by doing” philosophy.
- The PG programme will continue to prepare students for professional and personal success in today’s exciting and innovative media landscape.

MISSION

- To create an enabling environment to nurture ideas, freedom of expression, creativity and scholarship, and develop leaders in the arena of media and mass communication.
- The mission of the PG programme is to excel in media education on fundamental media concepts, values and skills in various platforms that focus on problem solving, critical thinking, innovation and communications.
- To promote the understanding of ethical and legal implication of all forms of media and the importance of cultural and intellectual diversity, techno-savvy, civic engagement and social responsibility in preparing the students for leadership role in media industry.
- To enable students to understand the role of media in nation building.
- To instill a sense by creating and innovation among journal minds for better societal contribution.
M.Sc. MULTIMEDIA (specialization in VISUAL COMMUNICATION) (TWO YEARS)

REGULATIONS 2023

CHOICE-BASED CREDIT SYSTEM

I TO IV SEMESTERS CURRICULA & SYLLABI

1. PROGRAMME EDUCATIONAL OBJECTIVES (PEOs):

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<tr>
<th>I</th>
<th>To impart specialized skills required to design and develop interactive multimedia content.</th>
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<td>II</td>
<td>To empower multimedia students to focus on creating interactive experiences for users through engaging interfaces through digital media.</td>
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<td>III</td>
<td>To provide students with strong foundation in media studies, creativity and information technology.</td>
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<td>IV</td>
<td>To enhance their ability to effectively disseminate information and messages by incorporating vital multimedia elements that attract and retain the attention of the users.</td>
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<td>To prepare students to carry out multimedia research that will have benefits for the society.</td>
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2. PROGRAM OUTCOMES (POs):

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<td>1</td>
<td>An ability to independently carry out research/investigation and development work to solve practical problems.</td>
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<td>An ability to write and present a substantial technical report/document.</td>
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<td>3</td>
<td>Students should be able to demonstrate a degree of mastery over the area as per the specialization of the programme. The mastery should be at a level higher than the requirements of the appropriate bachelor programme.</td>
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<td>Students should be able to learn and apply various creative techniques &amp; critical thinking methods in multimedia production and problem solving.</td>
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<td>Students will be able to impart a technically-sound working knowledge of different multimedia software required for various purposes and able to demonstrate necessary skills required to produce interactive multimedia content.</td>
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<td>Students will have an ability to write and present them efficiently to provide novel and greater enhanced experiences to users and able to develop socially relevant products with multimedia elements by applying technical knowledge and ethical principles.</td>
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3. PEO/PO Mapping:

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*Attested*

**DIRECTOR**
Centre for Academic Courses
Anna University, Chennai-600 025
### M.Sc. MULTIMEDIA (specialization in VISUAL COMMUNICATION) (TWO YEARS)

**REGULATIONS 2023**

**CHOISE-BASED CREDIT SYSTEM**

**CURRICULA AND SYLLABI**

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**Total Credits: 56**

# Research Methodology and IPR Course (RMC)

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# PROFESSIONAL ELECTIVE COURSES (PEC) I, II, III & IV

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**ELECTIVES (THEORY) FOR PROGRAMME ELECTIVE - I**

11. MV3011 Traditional Art               PEC   | 2    | 0  | 2  | 4 | 3
12. MV3012 Advanced Audiography          PEC   | 2    | 0  | 2  | 4 | 3
13. MV3013 Editing Techniques            PEC   | 2    | 0  | 2  | 4 | 3
14. MV3014 Digital Filmmaking            PEC   | 2    | 0  | 2  | 4 | 3
15. MV3015 Documentary Filmmaking        PEC   | 2    | 0  | 2  | 4 | 3
16. MV3016 Lighting and Rendering        PEC   | 2    | 0  | 2  | 4 | 3
17. MV3017 Character Designing           PEC   | 2    | 0  | 2  | 4 | 3
18. MV3018 Motion Graphics               PEC   | 2    | 0  | 2  | 4 | 3
19. MV3019 Advanced Compositing Technique PEC   | 2    | 0  | 2  | 4 | 3
20. MV3020 Mobile Gaming                 PEC   | 2    | 0  | 2  | 4 | 3
21. MV3021 Programming for Gaming        PEC   | 2    | 0  | 2  | 4 | 3
22. MV3022 Introduction to R Programming  PEC   | 2    | 0  | 2  | 4 | 3
23. MV3023 Instructional Design for Digital Media PEC   | 2    | 0  | 2  | 4 | 3
24. MV3024 Social Media Analysis         PEC   | 2    | 0  | 2  | 4 | 3
25. MV3025 Human-Centered Interactive Design PEC   | 2    | 0  | 2  | 4 | 3
26. MV3026 Deep Learning                 PEC   | 2    | 0  | 2  | 4 | 3
### EMPLOYABILITY ENHANCEMENT COURSES (EEC)

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### SUMMARY

#### M.Sc. MULTIMEDIA (specialization in VISUAL COMMUNICATION)

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MV3101  SCRIPT WRITING AND STORY-BOARDING  L  T  P  C
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OBJECTIVES
- To impart knowledge on news reporting.
- To learn the art of script writing.
- To understand how to communicate through broadcast media.
- To identify best practices for script writing and story-boarding.
- To provide a knowledge of the Intellectual Property Rights and laws relevant to scripting and storyboarding.

UNIT I  WRITING

UNIT II  IDEATION AND CREATION
Concept creating Identifying suitable story concept/idea - Anatomy of a Screenplay - Beginning/middle/ end elaborating and breaking up the selected concept into scenes - Elaborating individual scenes - Slug line - Action – Dialogue - Creating a detailed script / screenplay.

UNIT III  SCRIPT WRITING FOR NON-FICTION AND FICTION-BASED PROGRAMMES
Understanding the plot of the story - Arch plot, mini plot, Anti-plot, Character age, education and socio-economic background of the characters, Types of scripts for fictional programmes, Writing for Documentaries, Print Research, Field Research and Interview Research.

UNIT IV  STORY-BOARDING
Sketching the characters' personalities/ costumes/ poses - Sketching the features of backgrounds / exteriors or interiors of buildings in different perspectives - Developing sketches of props /accessories/ weapons/ vehicles - Pairing and synchronizing dialogue with digital images.

UNIT V  IPR, LAW AND SCRIPT WRITING
Forms of Intellectual Property, The Copyright Act, Case studies on Copyright, Information technology Act, Digital Media Ethics.  TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Understand the nuances of writing for various media.
CO2. Efficiently develop and write scripts for fictional programmes and non-fictional programmes.
CO3. Use various commercial software for script and screenplay.
CO4. Design storyboards.
CO5. Understand the Intellectual Property Rights and laws that safeguard the rights of a scriptwriter.

Attested

DIRECTOR
Centre for Academic Courses
Anna University, Chennai-600 025
REFERENCES

CO-PO MAPPING

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MV3102
USER EXPERIENCE DESIGN

OBJECTIVES
- To identify the users and learn various methods to collect user behavior data.
- To develop a deep understanding of business-centered design.
- To create efficient prototype to communicate and validate the design definition.
- To apply UX process to web, mobile & small screen device.

UNIT I
INTRODUCTION TO DESIGN & CONCEPTUALIZING UX

UNIT II
USER RESEARCH TECHNIQUES
Need for data collection & prototyping – Different methods of data connection - User interview, Contextual enquiry, Heuristic Review, Survey, Empathy Map, Focus group, Research basics, User group definitions, Research techniques, Research analysis. Information Architecture Types
of Navigation, Card sorting, Reverse card sorting, Sorting Tools & data analysis – Person
creation – Preparing task list – Writing user story, Information Architecture & use cases.

UNIT III WIREFRAMING, PROTOTYPING
Wireframe & Prototyping : Low fidelity wireframes, Hi fidelity wireframes, Wireframes tool
(Balsamiq/Sketch), Prototype tool (Adobe XD, InvisionApp), Annotating essentials, Wireframing
essentials, Toolkits, Wireframing 101, Sample processing, Sketching, Digital wireframes, Visual
design, Responsive design, Wireframes vs Prototypes, Mocktypes.

UNIT IV USER TESTING
Fundamentals, Design & method of user and usability testing: Design User Testing: Preparation
for Usability test (Screeners, Scenario), How to create a Test Plan, Testing Tools, Usability
Testing, Remote Usability Testing, Usability Metrics, How to capture data & Prepare Test Report,
Visual design mockups exploration, Choosing a design testing approach, Qualitative and
quantitative research, In-person and remote research, Moderated and automated techniques,
Usability testing, Research, Logistics, Facilitation, Analyzing results, Crafting recommendations.

UNIT V UX FOR MOBILE & SMALL SCREENED DEVICE
UX for mobile device – Understanding small screen environment – Prototyping for Mobile devices
– Usability testing & heuristic for mobile device – Experience definition for multiple platforms &
form factor – Designing for small screen.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Understand the basic concepts, principles and fundamentals of user experience design.
CO2. Learn the research techniques for user research.
CO3. Learn strategies to create wireframes and prototypes for mobile application/product/website
CO4. Understand the principles and need of user testing
CO5. Design and develop content for multiple mobile resolutions.

REFERENCES
3. Steve Krug, Don't Make Me Think! A Common Sense Approach to Web Usability, Second
4. Ted Roden, Building the Real-time User Experience: Creating Immersive and Interactive
   Websites, Shroff/O'Reilly, 2010.
5. Christian Kraft, User Experience Innovation: User Centred Design that Works, Apress,
   2012.
7. Tom Tullis and Bill Albert, Measuring the User Experience: Collecting, Analyzing, and
MV3103 PROGRAMMING WITH PYTHON

OBJECTIVES
- To know the basics of algorithmic problem solving.
- To develop Python programs with conditionals and loops.
- To define and call Python functions, modules.
- To work with strings and files in Python.
- To use Python data structures – lists, tuples, dictionaries.

UNIT I INTRODUCTION TO PROBLEM SOLVING AND PYTHON

UNIT II DECISION CONTROL STATEMENTS AND LOOPING
Introduction to decision control statements – variations of If-elif-else constructs – Loop structures/iterative statements – While loop – For loop – Definite – Infinite loops - Nested Loops – Break – continue - pass statements – Else used with loop statements.

UNIT III FUNCTIONS, MODULES AND PACKAGES
UNIT IV  STRINGS AND FILE HANDLING  9

UNIT V  DATA STRUCTURES  9

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Develop algorithmic solutions to simple computational problems.
CO2. Develop and execute simple Python programs for solving problems.
CO3. Decompose a Python program into functions.
CO4. Represent compound data using Python lists, tuples, dictionaries etc.
CO5. Read and write data from/to files in Python programs.

REFERENCES

CO-PO MAPPING

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OBJECTIVES

- To understand the evaluation of audio and video production.
- To inculcate the sense of production aesthetics in terms of sound recording, compositions, and continuity.
- To gain knowledge of studio equipment usage and benefits.
- To understand the various equipment available for production and the selection of equipment for different production requirements.
- To inculcate an aesthetic sense in audio and video production.

UNIT I INTRODUCTION TO AUDIO AND VIDEO 12


Lab Component
- Practice with semi-professional video camera, Video switcher, Teleprompter, Audio switcher.
- Setting up the studio for video and audio production, Practice with camera format settings, Image control settings.
- Practice with wired and wireless microphones, setting up microphone – Synchronizing, sensitivity, pickup patterns, and audio decibels.

UNIT II AESTHETICS OF PRODUCTION 12

Types of shots and camera angles – Scene strategies: Changing the line of action, creating a visual point of view, group interactions, moving through space and time, cheating on film – Visual Pre-production: Aesthetics of production, principles of continuity, closed and open frame 5-Shot rule – Pick-up patterns of microphone – Types of the lens – Types of camera mounting equipment – Understanding Sound – Frequency (Pitch), Amplitude (Loudness), Quality (Timbre), and Velocity – Different types of camera movements.

Lab Component
- Practise with shot, angle, and composition – Assignment on in-camera editing.
- Practice on continuity, 180 degrees and 30 degrees.
- Activities on pre-visualization.

UNIT III COMPOSITION TECHNIQUES 12


Lab Component
- Practise with types of camera angles.
- Assignment to understand bridging time & space.
- Assignment on audio interview.

UNIT IV FUNDAMENTA OF LIGHTS AND SOUND 12


Lab Component
- Practicing with various styles of lighting setup.
- Lighting setup for indoor and outdoor – Three-point and five-point lighting setup.
• Understanding the concept of colour temperature and how to bounce natural light – Light setup of blue or green screens.

UNIT V INTRODUCTION TO STUDIO ATMOSPHERE

Video and audio monitors – Colourscope – Crew roles and responsibilities – Types of audio production scenarios – Video and audio studio management – Sound Control Room and Production Control Room – Mono and Stereo Sound – Different genres of video programmes.

Lab Component
• Production in Sound control room and Production control room.
• Produce programmes for various platforms like social media, television, and radio, commercial and corporate videos.

OUTCOMES
At the end of the course, the student will be able to:
CO1. Know how to write a script for various genres of production.
CO2. Practice with different types of microphones and audio equipment.
CO3. Handle the camera and related equipment with expertise.
CO4. Follow ethical and social values while representing society in a good way.
CO5. Produce socially responsible programmes to create change in society.

REFERENCES

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OBJECTIVES
- To create opportunities for professional and creative expression through the art of photography.
- To understand and explore photojournalism.
- To understand the genres of photography.
- To study different types of lighting techniques.
- To inculcate students with the aesthetic sense that is involved in creativity.

UNIT I INTRODUCTION TO PHOTOGRAPHY 12
Comparison of SLR, DSLR and Mirrorless cameras to learn the functioning of various camera. Understand semi-manual modes like shutter and aperture priority mode. Learn exposure triangle, Depth of field, and focal length. Practice in various cameras and various modes.

UNIT II COMPOSITION 12
Elements of monochrome and colour photography to understand contrast, texture, pattern, shapes, and perspectives. Framing and Composition with different shots and camera angles in various genres of photography. Capture black and white and colour photos with different shots and camera angles based on various themes.

UNIT III COLOUR AND LIGHTING 12

UNIT IV LENS AND FILTERS 12
Different types of Lenses and the use of different types of Lenses in various genres of photography. Practice in Photostory through basic research with multiple photographs.

UNIT V GENRES OF PHOTOGRAPHY 12
Introduction to various genres of Photography. Practice in fully manual and semi-manual modes for capturing sports events and moving objects. Practice in social themes and selected genres of photography like product photography, food Photography, Event Photography etc.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
- CO1. Learn the principles of good composition in photography.
- CO2. Create new lighting strategies.
- CO3. Compose the perfect shot in photography.
- CO4. Develop an individual style of representing society through photographs.
- CO5. Take photographs covering all the different genres in photography.

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MV3111 USER EXPERIENCE DESIGN LABORATORY

OBJECTIVES
- To develop skills required for analyzing the usability of a website.
- To impart the skills required to create an information architecture document needed for a website.
- To establish the requirements for User Experience Concept Designing using techniques such as use cases, personality development and task description.

UNIT I WEBSITE AND MOBILE APPLICATION ANALYSIS
The students must select different types of websites and analyze them critically using the design principles. The report has to be generated for each of the websites and an analysis of the result should be made. It delivers an understanding of the important features present on a website. In the same way, the mobile applications are to be chosen in different categories and the results should be summarized. In the end, students learn how to use and implement the design principles in websites and mobile applications.

UNIT II CONCEPT GENERATION & FIELD STUDY
Generating a new concept for the project. It can be a product/website/mobile application. After generating the concepts, the students should do the user research (Identifying user research methods, planning for field visits, understanding users, preparing the questionnaire, task list, and designing for users) and prepare the wireframing based on preliminary research and present it to the course instructor.

UNIT III PERSONA CREATION AND DATA ANALYSIS
Creating personas and scenarios, Creating user stories, red routes, and user journey maps, Applying interaction design principles.

UNIT IV DESIGNING INTERFACE AND PROTOTYPING
Designing the information architecture – Design for network effects, pattern libraries and social patterns – Designing Interfaces and wireframes, UX prototyping.

L T P C
0 0 4 2
UNIT V USABILITY TESTING & EVALUATION

The student will do the usability testing/heuristic analysis for the project they have undertaken and after the necessary corrections are made, the final product/website/mobile application will be submitted to the course instructor. The student must use HTML & CSS support for the completion of final product development.

SOFTWARE
- Adobe XD, Figma, Adobe Dreamweaver.

OUTCOMES
At the end of the course, the student will be able to:
CO1. Identify the users and learn the user experience lifecycle in its entirety.
CO2. Engage in user research and identify the user needs
CO3. Create an efficient prototype to communicate and validate the design definition.

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MV3112 PROGRAMMING WITH PYTHON LABORATORY

OBJECTIVES
- To learn the problem-solving approaches to perform different operations using Python.
- To work with strings and to carry out various operations related to file handling and data structures in Python.
- To explore Python Standard Libraries (pandas, numpy, Matplotlib, scipy) and Pygame tool.
UNIT I  INTRODUCTION TO PROBLEM SOLVING AND PYTHON  12
- Write algorithms to solve various scientific and technical problems.
- Draw Flowcharts for solving various problems.
- Write various python programs using simple statements, expressions and to perform different mathematical operations.

UNIT II  DECISION CONTROL STATEMENTS AND LOOPING STATEMENTS  12
- Write various python programs to solve problems using conditional statements.
- Write various python programs to write programs using iterative loops.
- Write various python programs by including exception handling.

UNIT III  FUNCTIONS, MODULES AND PACKAGES  12
- Write various python programs to create new module.
- Write programs using user-defined functions.
- Write various python programs using Python Standard Libraries (pandas, numpy, Matplotlib, scipy)

UNIT IV  STRINGS AND FILE HANDLING  12
- Write various python programs using strings and string methods.
- Write programs related to File handling.

UNIT V  USABILITY TESTING & EVALUATION  12
- To implement real-world applications using Lists and Tuples.
- To implement real-world applications using Sets and Dictionaries.
- Exploring Pygame tool.
- Developing a game activity using Pygame like bouncing ball, car race etc.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Develop algorithmic solutions to simple computational problems.
CO2. Decompose a Python program into functions and to represent compound data using Python lists, tuples, dictionaries etc.
CO3. Read and write data from/to files in Python programs.

REFERENCES
MV3113 DIGITAL ILLUSTRATION LABORATORY 12

OBJECTIVES
- To proficiency in image editing techniques and tools.
- To learn and understand the basics of vector graphics.
- To utilize advance vector and raster illustration techniques and build portfolio with industry insights.

UNIT I EXPLORING IMAGE EDITING TECHNIQUES 12

UNIT II INTRODUCTION TO VECTOR DESIGN 12
Overview of the Adobe Illustrator interface and tools - Introduction to vector graphics and the advantages of using them - Designing Logos - Creating info graphics - Drawing and Illustration techniques using Illustrator tools - Creating custom shapes and curves - Working with gradients and patterns - Exploring different styles of illustration - Creating custom icons and graphics – Illustrating.

UNIT III COMPOSITION TECHNIQUES AND LAYOUT 12

UNIT IV INTRODUCTION TO PAGE LAYOUT AND DESIGN 12
UNIT V  INDUSTRY INSIGHTS AND TRENDS

Building a portfolio of digital illustrations - Presenting and critiquing student work - Creating dynamic illustrations with lighting and depth - Final project that demonstrates understanding the principles and techniques of Illustrations.

TOTAL: 60 PERIODS

SOFTWARE
- Adobe Photoshop, Adobe Illustrator, Adobe InDesign.

OUTCOMES
At the end of the course, the student will be able to:
CO1. Understand the fundamentals of digital illustration and vector graphics.
CO2. Apply color theory, composition principles and typography.
CO3. Create portfolio, professional-quality digital illustrations and graphics suitable for a variety of applications, including print and web.

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MV3114  2D ANIMATION PRODUCTION LABORATORY  L T P C
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OBJECTIVES
- To appraise the knowledge and skills required to produce 2D animation sequences.
- To get familiarized with the principles of mechanics, anatomy, and physics of 2D animation.
- To impart the use of animation software in creating a range of productions.

UNIT I  INTRODUCTION TO 2D ANIMATION
- Create frame-by-frame animations.
- Create cutout animations / Flip books / Stop motion animations.
- Create tween animations – Classic tween, Motion tween and Shape tween.

Attested

DIRECTOR
Centre for Academic Courses
Anna University, Chennai-600 025
UNIT II PRINCIPLES AND STYLES IN ANIMATION 12
- Create animations that include all basic principles like bouncing ball, falling balloon, ball rolling on wooden ramp/coming to halt.
- Create a character and background design.

UNIT III MASKING 12
- Produce animations using static mask: text and image masking.
- Produce animations using dynamic mask: text and image masking.
- Produce animations for weighted object lifting, pushing, and pulling.

UNIT IV ANATOMY IN ANIMATION AND 2D ANIMATION FILM-MAKING 12
- Create animations involving anatomy: Character walk, run, pose.
- Animate various facial expressions and include Lip Sync, Sound, Audio effects.
- Create animations using 3D tools and IK bones.

UNIT V INTERACTIVE ANIMATION AND ITS APPLICATIONS 12
- Create animated advertisements.
- Design and develop a web banner.
- Create animated PSAs, mobile applications.
- Action Script: Website.
- Action Script: Quiz / Interactive presentation.
- Animation portfolio.

TOTAL: 60 PERIODS

SOFTWARE
- Adobe Animate

OUTCOMES
At the end of the course, the student will be able to:
CO1. Develop an understanding of the principles of animation, tools used for creating 2D graphics and animation.
CO2. Design 2D graphics, 2D character modelling and animation.
CO3. Create a portfolio that meets industry expectations and create interactive animations.

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OBJECTIVES

- To understand the nature and purpose of visual analysis.
- To explore how to blend different types of approaches and useful tools with visual content.
- To understand different types of visual breakdown and theories related to it.
- To study the models for analysis.
- To understand different types of visual analysis and evaluations.

UNIT I INTRODUCTION TO VISUAL ANALYSIS

Visual analysis: Definition and different perceptions – Methods of visual analysis – Scope of visual communication – Unit of analysis – Image analysis – Text, context, social practice in media.

UNIT II VISUAL AESTHETICS


UNIT III QUANTITATIVE APPROACH


UNIT IV VISUAL ANTHROPOLOGY


UNIT V CRITICAL ANALYSIS AND EVALUATION


TOTAL: 45 PERIODS

OUTCOMES

At the end of the course, the student will be able to:

CO1. Understand the scope and limitations of visual media.
CO2. Learn the different visual representation techniques and its applications.
CO3. Learn to apply the theoretical and empirical tools of visual analysis.
CO4. Understand the theories of visual analysis.
CO5. Learn to analyze and evaluate visual content.
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MV3202 USER INTERFACE DEVELOPMENT  L  T  P  C  3 0 0 3

OBJECTIVES
- To divulge the guidelines for creating an effective web page
- To impart the necessary skills for designing and developing a website.
- To learn the language of the web: HTML, CSS, JavaScript, jQuery, Angular JS.

UNIT I HYPER TEXT MARK-UP LANGUAGE (HTML)  9

UNIT II CASCADING STYLE SHEETS  9
Introduction to CSS, Different ways to incorporate Styles, Styles - Background, Text, Font, Link, Lists, Tables, Border, CSS Pseudo Elements, separate style sheets for print and screen, Print Media: controlling line breaks, The box model: Styling with content, padding, borders and margin. using margins to separate and position, CSS Positioning: static, relative and absolute. CSS Floating: Floated elements and their margin, Transparency Effects: CSS transparency and “see-through” effects, Colors, Gradients, Shadows, 2D Transforms, 3D Transforms, Navigation Bar,
Dropdowns, Tooltips, Counters, Animations, Buttons, Pagination, Multiple Columns, User Interface, Box Sizing, CSS3 Responsive.

UNIT III  JAVA SCRIPT  9

UNIT IV  JQUERY  9
Introduction to jQuery, Syntax, Selectors, Events, Effects, HTML Traversing, AJAX, Introduction to jQuery Mobile, Mobile pages, Transitions, Buttons, Icons, Popups, Toolbars, Navbars, Panels, Collapsible, Tables, Grids, Lists, Forms, Themes, Events.

UNIT V  BOOTSTRAP  9

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Define the fundamental terms and concepts related to web development.
CO2. Logically separate the content from style.
CO3. Develop a full-fledged website using HTML5, CSS and JavaScript.
CO4. Expose to the programs related to jQuery.
CO5. Understand and implement the bootstrap in website.

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Director
OBJECTIVES
- To explore the history of games and the gaming industry.
- To understand the fundamentals of game design and development.
- To learn the basics of C# game scripting for making a simple game.
- To learn and understand the functions of game engine software.
- To create a 2D game using game engine and design game mechanics that create engaging game play.

UNIT I INTRODUCTION TO COMPUTER GAMES
Introduction to gaming – Game play, Emergent and progressive gameplay – gamification – History of games, Gaming industry - Introduction to Android games and iOS games - Types of games: FPS, role playing games, platform, racing, design elements – game elements: strategies, actions, outcomes.

UNIT II GAME STORY AND GAME DEVELOPMENT PROCESS
Concept of games as stories, narrative in video game presentation – Uses of game theory - Campbell's Monomyth theory – The normal form, pure strategy – Nash equilibrium, dominated strategies and payoffs- Game design and development processes: Game identification, terminology, concepts, level design, and interface design.

UNIT III GAME SCRIPTING

UNIT IV GAME BEHAVIOUR

UNIT V GAME DEVELOPMENT WITH ENGINE
Introduction to Unity Game Engine Tools & navigation, Camera control in Unity, Scene Navigation, Project setting / Player setting, Game publishing using Unity Sprite Editor, Sprite Animation, 2D Physics, 2D Components, UI system, 2D Game Project Gameplay: game worlds, object models - Creating and destroying game objects – Access the components – Events for game objects – Dealing with vector variables and timing variables — Coroutine and return types – Physics components: coordinates, vectors, rigid bodies and forces – Colliders and collisions.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Describe and differentiate between different types of games.
CO2. Demonstrate an understanding of the overall game design process.
CO3. Design and implement basic levels, models, and scripts for games.
CO4. Understand the game design principles and techniques that can be applied to gameplay.
CO5. Design and build their own functional game using game-engine.
REFERENCES
2. Steve Rabin, *Introduction to Game Development*, 2010
3. Joe Hocking, *Unity in Action: Multiplatform Game Development in C#*, 2018

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**MV3204**

**3D MODELING AND ANIMATION**

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**OBJECTIVES**
- To learn the history of 3D animation.
- To understand the 3D animation film making techniques.
- To learn the 3D modeling and texturing methods.
- To understand the 3D rigging and animation process.
- To learn the concepts of lighting and rendering in 3D.

**UNIT I**

**INTRODUCTION TO 3D**


**UNIT II**

**3D ANIMATION FILM MAKING TECHNIQUES**

UNIT III  3D MODELING AND TEXTURING  9

UNIT IV  RIGGING AND ANIMATION  9
Overview of Rigging – Skeleton system – Bones and Joints – Parent and Child – Forward and Inverse Kinematics – Skinning methods: Direct skinning (Smooth and Rigid skinning) and Indirect skinning (Lattice and Wrap skinning) – Overview of Animation – 3D Animation methods – Keyframe – Graph Editor – Timeline – Animation with Deformers – Character animation. – Camera – Types of camera – Basic Camera attributes – Camera Animation.

UNIT V  LIGHTING AND RENDERING  9

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Understand the concepts of 3D animation.

CO2. Gain an understanding on the 3D animation film making techniques.

CO3. Learn the 3D modeling and texturing methods.

CO4. Understand the 3D rigging and animation process.

CO5. Learn the concepts of lighting and rendering in 3D.

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Attested
DIRECTOR
Centre for Academic Courses
Anna University, Chennai-600 025
OBJECTIVES

- To acquire the knowledge and skills to design and develop a website
- To acquaint with HTML, CSS, JavaScript, JQuery and Bootstrap
- To impart the skills required to construct a website that conforms to the web standards.

UNIT I  HYPERTEXT MARKUP LANGUAGES  12

1. Create a basic webpage using different presentation tags
2. Insert images and tables
3. Create different types of lists.
4. Create external and internal hyperlinks, Image Mapping, Mail Links
5. Create registration forms using all the form elements
6. Include Multimedia Elements in the website

UNIT II  CASCADING STYLE SHEETS  12

1. Create a CSS template for the website created above.
2. Create a box model using CSS
3. Skin a menu with CSS: Styling Navigational Links
4. Create a drop-down menu, image gallery, responsive design

UNIT III  INTRODUCTION TO JAVA SCRIPT  12

1. Validate the website using Javascript objects
2. Creating dynamic Calendar, TimeStamp and Banner
3. Programs related to Event handling, Events, and Error handlings
4. Programs related to Window and Document objects.
5. Programs related to javascripts objects and methods.
6. Design and develop a professional interactive and dynamic website

UNIT IV  INTRODUCTION TO J Query  12

1. Programs related to jQuery Selectors, jQuery Events, jQuery Effects, jQuery HTML, jQuery Traversing, jQuery AJAX, jQuery Misc.
2. Programs related to jQuery-Mobile Pages, Mobile Transitions, Buttons, Mobile Icons, Mobile Poppups, Toolbars, Navbars, Panels, Collapsible, Tables, Mobile Grids, Mobile Lists, Mobile Forms, Mobile Themes, Mobile Events.

UNIT V  BOOTSTRAP  12

1. Programs demonstrating Bootstrap Basics, Bootstrap Grids, Bootstrap Themes, Bootstrap CSS, JS.

TOTAL: 60 PERIODS

OUTCOMES

At the end of the course, the student will be able to:

CO1. Develop a full-functional website using HTML5, CSS and JavaScript.
CO2. Expose to the programs related to jQuery.
CO3. Implement the bootstrap in website and create responsive design websites.

REFERENCES


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**MV3212  2D GAME DESIGN AND DEVELOPMENT LABORATORY**

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**OBJECTIVES**

- To understand the physics and mechanisms involved in the 2D game development process.
- To plan and create a 2D game using a game-engine and to implement game physics and player controls using Unity’s physics engine and C# scripting.
- To design engaging game mechanics and levels that challenge players.

**UNIT I  INTRODUCTION TO 2D GAMES ART**

- Introduction to 2D game art
- Preparing a concept document.
- Developing game story, setting and characters.
- Developing key assets for games.
- Creating sprites

**UNIT II  GAMEPLAY**

- Developing gameplay.
- Design and create a traditional board game.
- Design and create a maze game.
- Design and create a puzzle game.

**UNIT III  INTRODUCTION TO UNITY AND 2D GAME DEVELOPMENT**

- Overview of Unity Interface
- Introduction to 2D game development
- Creating a simple 2D game
- Design and develop an Egg Catcher game.
- Design and develop shooting game.
UNIT IV  GAME MECHANICS AND PLAYER CONTROLS
- Designing game mechanics and player controls
- Implementing movement, jumping, and shooting using Unity’s physics engine and C# scripting
- Adding obstacles and challenge
- Adding sound effects and background music
- Implementing particle systems and visual effects

UNIT V  LEVEL DESIGN AND GAME ENVIRONMENTS
- Creating a 2D game world
- Designing game AI and enemy behavior
- Implementing enemy movement and attack behavior using Unity’s scripting language, C#
- Publishing for Desktop, Android, and iOS.
- Preparing a game design document.

SOFTWARE
- Unity, Adobe Animate

OUTCOMES
At the end of the course, the student will be able to:
- CO1. Create the design of a game and game play
- CO2. Design and implement basic levels, models, and scripts for games

REFERENCES

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TOTAL: 60 PERIODS
OBJECTIVES
- To create 3D model from scratch using reference.
- To learn the concepts of texturing, lights, rigging, animation and rendering.
- To create a simple 3D animation.

UNIT I INTRODUCTION TO 3D
- Introduction to 3D software interface.
- Learn to manipulate 3D objects.
- Create a model using polygon primitives.
- Learn to use extrude (with/without keeping faces together), wedge, bevel, bridge, cutting faces, editing with reflection, merging vertices, polygon booleans and nonlinear deformers.
- Create a model by modifying polygon objects.
- Create a polygon model with reference image.

UNIT II NURBS MODELING
- Create a model using NURBS primitives.
- Learn to manipulate NURBS surfaces.
- Learn to detach NURBS surfaces, sculpting surfaces.
- Learn to work with NURBS curves, manipulating curves, open/close curves, loft, planar, revolve, extrude, projecting curves on surfaces, NURBS Booleans and converting NURBS to polygon.
- Create a NURBS model with reference image.

UNIT III CREATING TEXTURES AND MATERIALS
- Introduction to basic materials.
- Learn to create and apply maps.
- Use bitmaps as texture for the models.
- Learn to use bump mapping and displacement mapping.
- Use bitmaps as texture for polygon surfaces.
- Learn to project texture on surfaces.
- Create texture map on polygon surfaces.
- Explore the basics of UV mapping.

UNIT IV RIGGING AND ANIMATION
- Introduction to Animation interface.
- Learn to animate objects, animate attributes, copying and adjusting keys, creating breakdown keys, modifying keys in the Graph editor.
- Create animation playback using Playblast.
- Animate an object along path.
- Learn to create motion trails.
- Create simple animation cycle.
- Introduction to basics of joints and skinning.
- Learn to fit skeleton to a mesh, deform the mesh using skin tool and paint skin weight.
- Create a simple animation by animating skeletons.

UNIT V LIGHTING AND RENDERING
- Explore the different types of lights.
- Learn to manipulate lights, add depth map shadow and use raytrace shadow.
- Learn to create camera, manipulate camera attributes, add depth of field.
• Introduction to Render setting window.
• Create a walkthrough animation using camera.

TOTAL: 60 PERIODS

SOFTWARE
• Autodesk Maya

OUTCOMES
At the end of the course, the student will be able to:
CO1. Create 3D models from reference images.
CO2. Learn the concepts of texturing, lights, rigging, animation and rendering.
CO3. Create a simple 3D animation.

REFERENCES

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OBJECTIVES
• To document the learning journey throughout the entire program.
• To develop materials that will aid in self-promotion and professional presentation.
• To learn job search and interview skills and become more comfortable presenting their work and discussing their own professional goals.

UNIT I  RESEARCH
• Collect examples of successful portfolios from professionals in your field and analyze their structure and content.
• Create a mood board that visually represents the aesthetics and themes you want to convey in your portfolio.
UNIT II DESGIN PRINT AND DIGITAL PORTFOLIO 12
- Get familiar with tools to create portfolio.
- Design portfolio in print format.
- Design portfolio in digital format.

UNIT III PERSONAL BRANDING 12
- Create a self-identity system including resume, cover letter, and business cards.
- Develop a strategy for incorporating testimonials or client feedback into your portfolio to enhance credibility.
- Ways to apply for job postings – writing emails.

UNIT IV PROFESSIONAL PRESENTATION TECHNIQUES 12
- Employ a variety of presentation techniques to display works.
- Present a short presentation (3-5 minutes) about self (Importance on body language, eye contact, and vocal projection).
- Demonstrate effective interpersonal skills in mock interview situations.

UNIT V PUBLISHING 12
- Promote portfolio digitally in social media platforms
- Publish portfolio in print and digital formats
- Exhibit the portfolio works.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Develop a complete print and digital portfolio.
CO2. Develop materials for self-promotion and professional presentation.
CO3. Develop job search and interview skills.

REFERENCES
1. Fig Taylor, How to create a portfolio and get hired, Laurence Kind Publishing, 2ns edition, 2013.

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OBJECTIVES

- To provide students with a comprehensive understanding of the principles, techniques, and tools used in creating visual effects.
- To merge a live action footage with the visual effects.
- To stimulate particle items.
- To develop the technical and artistic skills necessary to design and execute high-quality visual effects.
- To foster critical thinking and problem-solving abilities within the context of visual effects production.

UNIT I  INTRODUCTION TO VFX  

UNIT II  ART OF ROTOSCOPING  

UNIT III  PARTICLES AND TRACKER  

UNIT IV  CAMERA AND LIGHTING  

UNIT V  COMPOSITING  

TOTAL: 45 PERIODS
OUTCOMES
At the end of the course, the student will be able to:
CO1. Apply artistic principles, color theory, and visual storytelling techniques to enhance the overall visual impact of a project.
CO2. Demonstrate proficiency in using industry-standard software and hardware tools for visual effects production.
CO3. Understand the technical aspects of visual effects, including compositing.
CO4. Effectively design and execute visually compelling and realistic visual effects.
CO5. Demonstrate their technical proficiency, creative vision, and ability to solve visual effects challenges, thus enhancing their employability in the industry.

REFERENCES

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MV3302 DATA ANALYSIS

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OBJECTIVES
- To learn the data acquisition, data cleansing, data analytics and visualization techniques.
- To learn the method of doing various data analysis techniques.
- To understand the various qualitative data analysis techniques.
- To understand the importance of statistical models.
- To learn the social media analysis and other textual analysis formats.
UNIT I  DATA ANALYSIS – INTRODUCTION


Lab Component
1. Understanding the importance of primary and secondary data
2. Working with sample primary and secondary data
3. Understanding the interface of statistics software and learning different tools
4. Creating survey form (Questionnaire development)
5. Scale Development Process – Preliminary Work
6. Understanding Samples & Population - Finding sample from population
7. Sample size determination
8. Identifying Sample error
9. Sample Data Collection (Pilot)
10. Importing primary data
11. Data Purification process
12. Understanding and cleaning outliers
13. Classification and Tabulation
14. Frequency Distribution, Graphical Representation
15. Hypothesis Testing

UNIT II  DESCRIPTIVE ANALYSIS


Lab Component
1. Calculate mean for the given set of data using various methods for discrete and continuous data
2. Calculate weighted arithmetic average, Harmonic Mean, Geometric mean and positional averages
3. Calculate median, quartiles and percentiles for the given data using different methods for discrete and continuous data
4. Calculate mode for the given data for discrete and continuous data
5. Calculate Range, Co-efficient of range, Quartile Deviation and Co efficient of Quartile Deviation, and mean deviation
6. Calculate Standard Deviation for the given data
7. Calculate variance for the given data
8. Calculate Coefficient of Variation
9. Calculate Coefficient of Skewness
10. Measure of Kurtosis

UNIT III  INFERENTIAL ANALYSIS

Types of Hypotheses - Hypothesis Testing—Understanding the importance of p Value – Types of Inferential Tests – Understanding Parametric and Non-Parametric tests -- Anova, t-test, 1

Lab Component
1. Importing data and doing data purification process
2. Understanding when to use what test, and assumptions
3. Data Normality testing using graphical and statistical methods
4. Analysis of Variance (ANOVA)
5. T-test
6. Chi-square
7. Correlational Analysis
8. Regression analysis (Linear, Multiple and Logistic)
9. Factor Analysis & its related tests
10. Cluster Analysis
11. Discriminant Analysis
12. Running different non-parametric tests
13. Preparing a model based on the theoretical framework
14. Test the model using software (Exploratory and Confirmatory Factor Analysis)
15. Reliability and Validity testing
16. Using the same set of data and run the model using different software and understand the differences in the results
17. Path Analysis

UNIT IV QUALITATIVE DATA ANALYSIS
Understanding Qualitative Data -- Qualitative Analysis -- Managing data, Reading and annotating, creating categories, Splitting and splicing linking data, making connections -- Ormaps and matrices, Corroborating evidence, producing an account -- Introduction to Social Media Research – Analyzing Social Media Content using various software -- Retrieving data and doing text analysis, cloud mapping, word art creation, sentiment analysis, network analysis.

Lab Component
1. Understanding Qualitative data
2. Understanding the difference between deducting and inducting approach
3. Preparing Coding sheets (wherever necessary)
4. Data cleaning and labeling
5. Creating framework for analysis
6. Doing content analysis, narrative analysis and discourse analysis
7. Analyzing structured and unstructured text
8. Analyzing audio and video formats
9. Quality checking using credibility, validity and reliability of content
10. Social Media data analysis (Text analysis, Cloud mapping, Word art, Sentiment analysis)
11. Network Analysis

UNIT V GENRES OF PHOTOGRAPHY
& Story telling using visualization techniques – Visualization for different types of data: time-oriented, multivariate, tree, graphs and networks, visualization systems, Interaction concepts and techniques - Textual Data Visualization methods.

Lab Component
1. Understanding the design principles used in visualization techniques
2. Understanding the interface of the software
3. Understanding the need of analysis and requirement of results
4. Preparing the data for respective analysis
5. Creating common visualization charts (bar, line, pie, etc)
6. Dashboard development
7. Testing different tools for various types of data
8. Testing the interaction concepts
9. Advanced visualizations (multiple source tables etc)
10. Data Story telling (creating data story)

TOTAL: 60 PERIODS

SOFTWARE
- Microsoft Excel, SPSS, AMOS, SMART PLS, R Studio, NVIVO, Tableau

OUTCOMES
At the end of the course, the student will be able to:
CO1. Understand the importance and importance of different types of data analysis techniques
CO2. Learn the descriptive and inferential statistical methods.
CO3. Learn the qualitative data and social media analysis.
CO4. Understand the importance and implement different data visualization techniques.
CO5. Implement the various data visualization techniques to present results.

REFERENCES
2. James, G., Witten, D., Hastie, T., Tibshirani, R. *An Introduction to Statistical Learning with Applications in R*. Springer, 2013

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OBJECTIVES
- To understand the characteristics and scope of research.
- To explore new research techniques and methods.
- To understand data collection and analysis.
- To learn the statistical techniques required for analysis.
- To understand the processes and methods involved in research evaluation.

UNIT I INTRODUCTION TO RESEARCH METHODOLOGY

UNIT II REVIEW OF LITERATURE
Analysis of review of literature – Primary, secondary and web source – Critical literature review Identifying gap areas from literature review – Research questions – Research methods.

UNIT III QUANTITATIVE RESEARCH

UNIT IV QUALITATIVE RESEARCH
Qualitative research: Need/aim/scope – Types: Observation, interviews, in-depth interview, focus group discussion – Semiotics – Frame analysis – Visual ethnography (including autophotography and photo elicitation) - Discourse analysis – Cultural studies – Multimodal and multi-sensorial research – Formative Research and Participatory research.

UNIT V REPORT AND EVALUATION
Structure and types of report, technical report and dissertation, style manual, plagiarism – Citation and acknowledgement – Reproducibility and accountability.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Use both quantitative and qualitative research methods.
CO2. Carry out research in the fields of advertising, social media, journalism, communication, etc.
CO3. Apply statistical techniques and tools.
CO4. Write a research report.
CO5. Take up independent researches.
REFERENCES


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MV3311 VISUAL AND SPECIAL EFFECTS LABORATORY L T P C

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OBJECTIVES

- To develop the technical and artistic skills necessary to design and execute high-quality visual effects.
- To stimulate particle items and merge a live action footage with the visual effects.
- To foster critical thinking and problem-solving abilities within the context of visual effects production.

UNIT I LEARNING THE BASIC VISUAL ELEMENTS 12

- Understanding the transformations- translation and rotations duration, respeed, repositioning.
- Creating animations - ball bounce with footage using keyframes, motion blur, dope sheet.

UNIT II INTRODUCTION TO ROTO 12

- Compositing with multiple footage using roto.
- Creating clean plates using Photoshop, clone, denoise, degrain.
- Retouching with the Rotopaint.
UNIT III WORKING WITH PARTICLE EFFECTS

- Working with types of emitters and particles space.
- Creating rain, snow, leaves, dust and smoke.
- Compositing particles into footages.
- Working with tracking – single, double, four-point tracking, rotation and scaling, stabilizing footage.

UNIT IV WORKING WITH CAMERA AND LIGHTING

- Create camera animation.
- Mimicking camera movement from the real world.
- Creating three-point lighting set up.
- Setting up light for various shots.

UNIT V COMPOSING

- Compositing with multiple footage using roto.
- Composite 3D objects in live footage and match the light and atmosphere.
- Working with color correction and rendering.

TOTAL: 60 PERIODS

OUTCOMES

At the end of the course, the student will be able to:

CO1. Apply artistic principles, color theory, and visual storytelling techniques to enhance the overall visual impact of a project.

CO2. Demonstrate proficiency in using industry-standard software and hardware tools for visual effects production.

CO3. Demonstrate their technical proficiency, creative vision, and ability to solve visual effects challenges, thus enhancing their employability in the industry.

REFERENCES


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OBJECTIVES

- To understand the 3D game design and development process, tools and techniques.
- To develop skills in 3D modeling and asset creation through industry-standard software tools.
- To understand the physics and mechanisms involved in the 3D game development process and to inculcate the knowledge of effective programming in gaming.

UNIT I  INTRODUCTION TO GAME ENGINEERING  12
- Introduction to the 3D user interface of game engine
- Setting up Unity and exploring the interface basics of game development
- Exploring game mechanics and game design principles
- Importing 3D assets into Unity and implementing them in game development

UNIT II  UNDERSTANDING 3D GAME ENGINE  12
- Accessing various components such as Physics components Colliders and collisions
- Understand and implement the law of physics
- Create player characters
- Create Interactions with objects in the game
- Building a simple game prototype using Unity

UNIT III  SCRIPTING AND GAMEPLAY MECHANICS  12
- Introduction to C# scripting in Unity
- Implementing gameplay mechanics such as movement, collision detection, and physics
- Developing user interfaces for different game genres
- Developing game menus
- Create a health and damage system for the player character including power-ups or other mechanisms.

UNIT IV  GAME DESIGN AND LEVEL CREATION  12
- Introduction to Nonlinear level design
- Create engaging and interesting game environments
- Creating game levels using Unity's level editor tools
- Designing levels with specific goals and objectives
- Implementing enemy AI and gameplay challenges

UNIT V  BUILDING AND SHARING 3D GAME  12
- Introduction to 3D Canvas
- Adding and Updating UI Elements to Game Canvas
- Finalizing game development and polishing game mechanics
- Adapting for Web build
- Conducting play testing sessions and analyzing user feedback
- Publish and share the games, using various distribution platforms and methods, such as online game portals, app stores, and social media

TOTAL: 60 PERIODS
SOFTWARE
- Unity

OUTCOMES
At the end of the course, the student will be able to:

CO1. Demonstrate proficiency in using Unity's interface, basic game mechanics, and core design principles and import 3D models into Unity

CO2. Write and modify C# scripts to implement and customize gameplay design and create game levels that incorporate specific goals and objectives.

CO3. Manage game development projects effectively, present their final game projects with professionalism.

REFERENCES
1. Joe Hocking, *Unity in Action: Multiplatform Game Development in C#*, 2018

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MV3313 INDUSTRIAL PROJECT (SUMMER) L T P C

- - - 2

The students shall undertake an internship for a minimum of four weeks in any media organization during the summer vacation (after the end semester examination of the second semester) and submit a consolidated report of the work done within a fortnight after the beginning of the third semester. The students will be evaluated based on presentation and oral examination.
OBJECTIVES

- To explore the history of Augmented Reality (AR) and Virtual Reality (VR).
- To explore the assets for AR and VR.
- To impart the practical and conceptual knowledge on AR and VR development process.
- To familiarize students with publishing AR and VR.
- To get familiarized with interaction techniques for AR and VR.

UNIT I INTORODUCTION TO AR AND VR


UNIT II ASSETS FOR AR AND VR

Creating 3D objects for AR – Creating 3D objects and virtual space for VR – Meshes, Polygons and Vertices – Materials, Textures and Lights - Transforming models – Animation of objects for AR and VR – Particle system.

UNIT III DEVELOPING GEAR FOR AR AND VR

AR and VR development process - Positioning anchors for AR – Tracking AR anchors – Types of anchors - Positioning the virtual observer for VR – Perspective projection, Stereo perspective projection, Human vision – Virtual world physics, simulation, collision detection, object motion in VR.

UNIT IV PUBLISHING AR AND VR

Rendering the virtual world – visual displays, aural displays, haptic displays, vestibular and other senses - Publishing AR and VR prototype – Optimizing AR and VR prototype – Producing and publishing different types of AR – Producing and publishing different types of VR – Publishing 360° video into VR.

UNIT V EXPERIENCING AND EVALUATING

Structure and types of report, technical report and dissertation, style manual, plagiarism – Citation and acknowledgement – Reproducibility and accountability.

TOTAL: 60 PERIODS

SOFTWARE

- Unity

OUTCOMES

At the end of the course, the student will be able to:

CO1. Understand the concepts of AR and VR.
CO2. Develop assets for AR and VR.
CO3. Acquire the practical and conceptual knowledge on AR and VR development process.
CO4. Develop and publish AR and VR.
CO5. Experience and evaluate the AR and VR.
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MV3411 PROJECT WORK

OBJECTIVES
- The main objective is to instill research interest in students and allow them to explore the various research techniques of multimedia. The students will carry out research under the guidance of a faculty member and submit a dissertation.

GUIDELINES FOR STUDENTS CHOOSING RESEARCH TOPIC
The students will be allowed to choose a research topic of their choice under the supervision of a faculty member. The topic should be related to multimedia/media studies. Interdisciplinary studies are allowed only if there is a multimedia/media element in the research topic.

RESEARCH PROJECT REVIEWS
The students will present before a screening committee to finalize the topic. This is followed by the first review to present their aim, objectives, scope, and need for the study, second review to present their review of literature and methodology, third review to present their findings before the research review panel. The review panel will be constituted by the Project Coordinator with approval of the Head of the Department. The review committee consists of the Supervisor, subject expert and Coordinator.
FINAL VIVA-VOCE EXAMINATION AND DISSERTATION SUBMISSION

The final evaluation will be an external evaluation, where the students will present their research findings through a presentation and also by submitting a dissertation. The students have to follow the Anna University guidelines for dissertation preparation. The external evaluator will be from another University / College and will be approved by the Head and the Chairperson, Science and Humanities, Anna University. The student's dissertation will be scrutinized for plagiarism. Plagiarized works will not be considered for evaluation. The students are encouraged to present their research findings in conferences or publish their work in national / international journals with approval from their Supervisor.

OUTCOMES

- At the end of the semester, the students will understand the importance of research, the need to employ research techniques and tools, and they will gain confidence to work in a contemporary research area independently under guidance.

TOTAL: 360 PERIODS

MV3001 QUANTITATIVE APTITUDE

OBJECTIVES

- To be proficient in basic mathematical operations and concepts.
- To develop mathematical and analytical skills.
- To interpret and analyze numerical data.
- To improve problem-solving and decision-making skills.
- To apply mathematical principles in practical situations.

UNIT I NUMBER SYSTEM

Number system, Fractions, LCM and HCF, Square root and Cube root, Simplification, Averages, Surds and Indices, Percentages, Profit and Loss.

UNIT II MATHEMATICAL REASONING

Sequence and Number series, Letter series, Graphical Missing Number, Alphabet test, Analogy test, Classification test, Coding and Decoding (Number coding, Letter coding, Statement coding), Direction test, Blood Relation test, Seating Arrangements, Calendar, Clocks, Syllogism.

UNIT III MATHEMATICAL APTITUDE

Ratio and Proportion, Simple and compound interest, Chain Rule, Pipes and Cisterns, Time and Work, Speed, Time and Distance.

UNIT IV NUMERICAL ABILITY

Trigonometry, Coordinate Geometry, Geometry, Mensuration Area Volume and Surface Area, Permutation and Combination, Probability, Mixtures and Allegations.

UNIT V LOGICAL REASONING AND DATA INTERPRETATION

Argument structure, Types of reasoning within arguments, Inductive and Deductive reasoning, Reasoning logical diagrams (single-diagram, multi-diagram, Venn diagram), Data and its sources, Acquisition and Interpretation of data, Graphical data representation and analysis, Quantitative and Qualitative data analysis and interpretation.

TOTAL: 45 PERIODS
OUTCOMES
At the end of the course, the student will be able to:

CO1. Understand and apply the properties and operations of integers, fractions, decimals, and real numbers.

CO2. Apply logical reasoning and mathematical principles to solve problems and puzzles.

CO3. Understand and apply the principles of geometry, including concepts related to lines, angles, triangles, circles, polygons, and solid figures.

CO4. Understand the basic principles of probability and statistics, including concepts related to probability.

CO5. Interpret and analyze data presented in the form of tables, graphs, charts, and diagrams to extract relevant information and solve problems.

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**MV3002**

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OBJECTIVES
- To understand the functions of cinema as an institution for production and distribution of social knowledge and entertainment.
- To expose students to a variety of film styles, narrative conventions, visual styles, genres and analyze the dominant forms of popular cinema.
- To develop a critically informed sense of the history and development of film conventions, both mainstream and alternative.
- To impart knowledge on the historical development and cultural impact of film as an art form.
- To analyze the ideologies on ethics and social justice through representations of culture on film.
UNIT I INTRODUCTION TO FILMS

UNIT II FILM THEORIES

UNIT III WORLD CINEMA
Introduction to world cinema – Film movements from Soviet, France, Germany, Italy, Korean etc. – Hollywood and its history – Convergence and films production, distribution and consumption in digital era.

UNIT IV INDIAN CINEMA

UNIT V TAMIL CINEMA
History of Tamil cinema – Cinema as an institution – Cinema as popular culture – Influence of cinema on social, cultural economic, political milieu in India and Tamil Nadu – Understanding audiences – Censorship and regulation of films – Need for media literacy in society.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Demonstrate a broad knowledge on film history, world cinemas and national cinemas.
CO2. Understand, analyze, and critically evaluate films using various theories for its aesthetic as well as cultural constructs.
CO3. Recognize the social, economic, and technological factors that shape films from different historical periods, ideological perspectives and cultural contexts.
CO4. Demonstrate their understanding of the critical and technical language associated with film studies.
CO5. Understand how films as a cultural force, intersect with religion, politics, race, gender, values, and globalization.

REFERENCES

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MV3003  
MULTIMEDIA MARKETING  
L T P C  
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### OBJECTIVES
- To introduce the concept and process of advertising and its role in marketing.
- To educate the uses of digital advertising.
- To educate the student about the advertising campaign.
- To prepare professionals interested in careers in advertising, marketing, promotions, public relations or sales managerial jobs, or for individuals in the field.
- To educate the student about the types of writing for the advertisement.

### UNIT I  
ADVERTISING INTRODUCTION  
What is advertising, Evolution, Definition, Advertising as a Business process, Advertising as a Communication process, Audience categories and geographical factors, Types of advertising, Industrial products advertising, Product review.

### UNIT II  
ADVERTISING AND CAMPAIGN PLANNING  
How and when advertising works, Advertising- effective ads, Market effects and intensity of advertising, Effects of advertising, Brand management, Advertising Campaigns and Marketing.

### UNIT III  
ADVERTISING AGENCY  
Consumer behavior, Market behavior, Advertising Agencies role, function and structure, client agency relationship, New Advertising techniques, Integrating Advertising with other elements, IMC, appeals in advertising, Modern advertising.

### UNIT IV  
ADVERTISING ETHICS  
Ethics in advertising, Copy Writing, Responsibilities of Copy writer, Advertorial, Infomercial, Media planning and Buying, Ethics in debates in modern advertising, Do’s and Don’ts of advertising, Effective use of new media tools, Executing advertising process.

### UNIT V  
CREATIVITY
Creativity in Advertising, Writing for print, Radio, Digital, Advertising in ICT age, Branding, Media research, Advertising and marketing research.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Learn the concepts of advertising.
CO2. Know the opportunities available in the field of advertising.
CO3. Produce multimedia advertisements.
CO4. Learn the working pattern in an advertising agency.
CO5. Plan and execute an advertisement campaign.

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MV3004 MEDIA MANAGEMENT L T P C
3 0 0 3

OBJECTIVES
- To develop an understanding of the overview of media management.
- To introduce the various concepts, process, theories and terms of media management.
- To develop knowledge in human resource and financial management in media business
- To identify the various content/programming strategies, importance of audience research and its implication in media management.
- To prepare professionals interested in careers in media management, advertising, marketing, promotions, managerial jobs, or for individuals in the field.

UNIT I INTRODUCTION TO MEDIA MANAGEMENT

Attest 9
Media Management – Definition, history, scope. Different types of media and its exclusive features – Print, electronic and digital media. Understanding the different terms of media management – Overview of print, electronic and digital media industry and its role in media management – Understanding the management setups in different media houses – Levels of management function – Management roles - Skills required for various levels of media management team – Functions of media management – Strategies of media management – Ethical aspects to be followed in media management.

UNIT II MEDIA MARKET PLACE AND THEORIES OF MANAGEMENT 9

UNIT III HUMAN RESOURCE MANAGEMENT 9

UNIT IV FINANCIAL MANAGEMENT 9

UNIT V PROGRAMMING: STRATEGY AND DISTRIBUTION 9
Broadcast programming, sales, promotion and marketing strategies: Its implication in media business – Print media programming, radio programming, television programming, digital media programming and its challenges – Management issues in programming – Audience research & its importance: Research and analysis, source of audience research data, using audience data, intense competition for audiences, uses of audience research in media management – Media business: regulatory bodies, guidelines, and media ownership in India.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Acquire an understanding of the role, scope and purposes of media management.
CO2. Critically evaluate the potential of convergent products and Cross media business models in view of the latest international developments in the media.
CO4. Develop concepts, process, theories and terms of media management.
CO5. Identify careers in media management, advertising, marketing, promotions, managerial jobs, or for individuals in the field.

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MV3005 CONSTITUTIONAL MEDIA LAWS AND ETHICS  L  T  P  C 3 0 0 3

OBJECTIVES
- To provide a basic knowledge of the Indian constitution.
- To focus on various laws related to media in India.
- To throw light on Intellectual Property Rights.
- To educate the students on the ethics to be possessed by media professionals.
- To provide knowledge on Cyber law in India.

UNIT I OVERVIEW OF THE INDIAN CONSTITUTION

UNIT II MEDIA LAWS IN INDIA
Official Secrets Act, Working Journalists Act, Drugs and Magic Remedies Act, Press Council Act, Cinematograph Act, PrasarBharati Act, Cable TV Networks (Regulation) Act, Laws of defamation relevant to media in India.

UNIT III INTELLECTUAL PROPERTY RIGHTS

UNIT IV CODE OF ETHICS
Press council’s code of ethics for journalists, AINEC code of ethics, Ethics of broadcasting, ethics of telecasting, codes for radio and Television, ethics of advertising.
UNIT V  CYBER LAW IN INDIA

Press council’s code of ethics for journalists, AINEC code of ethics, Ethics of broadcasting, ethics of telecasting, codes for radio and Television, ethics of advertising.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Acquire a basic knowledge of the Indian constitution.
CO2. Be equipped with a thorough knowledge of laws related to media in India.
CO3. Get a clear understanding of the Intellectual property rights in India.
CO4. Acquire knowledge of cybercrimes and cyber law in India.
CO5. Well-versed in the ethical codes existing for various media in India.

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MV3006 ENTREPRENEURSHIP

OBJECTIVES

- To understand different media industries and their management challenges.
- To educate the broadcast promotion.
- To create awareness of the unique and pragmatic aspects of the media management process.
- To understand the marketing strategy.
- To gain insight into ethical decision-making and into the human relations aspects of managing people.

UNIT I  INTRODUCTION TO MEDIA MANAGEMENT
Introduction to Management – Definitions, Skills, roles, and functions – Levels of management, strategic alliances and the electronic media industries – Mergers & acquisition, media management issues including leadership, management, marketing and budget, current issues and trends within media.

UNIT II THEORIES OF MANAGEMENT
Management as process – Classical school of management – Administrative management – Bureaucratic management – Human relations school of management – Maslow’s Hierarchy of Needs – Herzberg’s hygiene and motivator factors’ theory x & theory y, theory z – Modern approaches to management – System approaches to management – Total quality management.

UNIT III HUMAN RESOURCE MANAGEMENT

UNIT IV BROADCAST PROMOTION AND MARKETING
Strategic Planning & Market Analysis, Social Media Strategies & Measurement, Audience Engagement & Metrics, Digital Disruption and Broadcasting, Mobile Strategies (How Online and Mobile Technologies Have Changed Broadcast), Emerging Technologies (Virtual, Augmented and Mixed Reality, Reuters Digital News Report), Diversity, Talent and Development, Market structure, Audience research and analysis, Sources of audience research data, Concentration in the market, Product differentiation.

UNIT V ENTREPRENEURSHIP

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Summarize and classify the essential concepts of media management
CO2. Analyze national and international media markets with reference to key parameters.
CO3. Reflect on the impact of digitalization and convergence on strategic markets and business processes.
CO4. Critically evaluate the potential of convergent products and Cross media business models in view of the latest international developments in the media market.
CO5. Work independently conduct and evaluate small-scale empirical research projects, and interpret the generated data with regard to theoretical insights.

REFERENCES
MV3007 DEVELOPMENT COMMUNICATION  L T P C  3 0 0 3

OBJECTIVES
- To introduce students to key concepts of development communication.
- To provide an in-depth understanding of the concept and process of development
- To introduce the new paradigms, theories of development & strategies for participatory process for social change
- To develop skills for effective, small and large scale C4D strategies and interventions for behavior change and social transformation that promotes human rights, social inclusion and accountability.
- Understand the dynamic connection between theoretical and practical aspects of the creative process involved in C4D.

UNIT I DEVELOPMENT & SOCIAL CHANGE: AN INTRODUCTION  9

UNIT II DEVELOPMENT COMMUNICATION & SOCIAL CHANGE THEORIES  9

UNIT III  APPROACHES TO DEVELOPMENT
Paradigms - Modernization, Dependency theory, Participatory approach – Levels, types, tools, and theories of participatory model, social, cultural and political perspectives in development, sustainable development, need based approach, human development approach, right based approach, participatory approach, development as freedom, Millennium and SDGs. C4D Practices and Policies in India, Need of alternative communication. Community Development-Resources, Community Planning Process, Community Capacity Building, Community Assets and Capacity Assessment, Process of Community Development.

UNIT IV  ISSUES & CHALLENGES

UNIT V  TOOLS AND PRACTICES
Interpersonal communication, Role of Media in Development: Folk Media, Printed & electronic media, new media/multimedia, use of social media for C4D, development Communication strategies, Importance of Social Marketing, Designing a holistic C4D project, Best Practices in C4D, success stories, case studies, role of international agencies, government, UN, universities & academia in development sector, employment opportunities for media professionals in C4D sector.

OUTCOMES
At the end of the course, the student will be able to:
CO1. Critically assess the needs for C4D interventions initiatives to achieve development goals.
CO2. Understand from historical perspective the role of communication in development.
CO3. Apply this knowledge to analyze root, structural and direct causes of a social issue and generate insights related to behavior and social change for communication interventions.
CO4. Gain insights into the need for using participatory approach in development initiatives.
CO5. Design, plan a communication strategy and also monitor, evaluate an intervention.

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MV3008 DIGITAL JOURNALISM  
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OBJECTIVES
- Students will increase their understanding of the importance of multimedia reporting and its effects on journalism.
- They will learn how to cover news assignments and develop storytelling skills using photojournalism, audio reportage and video journalism techniques.
- The course will help student recognize ethical dilemmas across different news platforms.

UNIT I INTRODUCTION TO MULTIMEDIA STORY TELLING  
What is Multimedia storytelling- story ideas – idea generation techniques – researching the story idea /angles – planning for the story – off beat story ideas - event based story ideas - visual stories.

UNIT II RADIO JOURNALISM  

UNIT III TELEVISION JOURNALISM  
UNIT IV  ONLINE JOURNALISM
Understanding difference between online and other types of journalism, emergence of social media- Development of the Online news media, Principles of Writing and editing for online media, e-magazines, Integration of text, video and graphics, Role of social media tools in news gathering, Search Engine Optimization (SEO) techniques- User centered design, Social media optimization- Live blogging and Mobile Journalism – cyber laws, copyright law, database rights, libel risks, privacy issues.

UNIT V  TECHNOLOGY ADVANCEMENT IN MULTIMEDIA JOURNALISM
OB van and its functions, Mobile technology and its role in aiding news coverage, Bi-media reporting, convergence newsroom, solo journalist and technology, broadcasting software. ChatGPT, Artificial Intelligence in Journalism.

MANDATORY ASSIGNMENT (Marks to be included in assessment):
1. At the end of Unit 2, 3, and 4, students will be asked to produce a news story for radio, television and online medium individually and submit for evaluation.
2. At the end of the semester the students will be assigned group assignment. They will produce either a half an hour news feature / issue based - radio news story or produce a half an hour news bulletin incorporating various issues. The students should write script, shoot and edit the news bulletin on their own (Which will be called ‘news day assignment’) and submit for evaluation, at the end of the semester.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Impart skills of news writing for radio, television and web media.
CO2. Expose to the latest technology in multimedia Journalism.
CO3. Build audiences and research by using social media.
CO4. Research, report and promote your work via Twitter, mobile platforms and the web.
CO5. Learn how to tell news stories via mobile devices.

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OBJECTIVES

- To understand the fundamentals of game psychology.
- To introduce social psychology theories and concepts for a better understanding of how people perceive, think and feel about the social world through the game.
- To understand the influence of gaming technologies on human behaviour, culture and society.
- To understand the mind of the gamer.
- To understand the psychology of the gaming world.

UNIT I INTRODUCTION TO GAME PSYCHOLOGY

Definitions – Foundations of game psychology – Positive psychology approach, pro-social & antisocial behavior learning through the game – Stereotyping, prejudice, and discrimination: causes, effects, and cures – Global gaming industry: game effects on society, individuals and cultures.

UNIT II GAME AND GAMER PERCEPTION

Learning social life lessons through the game – Understanding human values, Social representations, social norms, social cognition – Gamer attitude among people – Game psychology – History and development of the game and its engine – Game as an industry for earning.

UNIT III GAME INFLUENCE ON BEHAVIOUR & RELATIONSHIPS


UNIT IV SOCIAL INFLUENCE

Approaches – Prejudice, stigma, reducing intergroup conflict, aggression, attraction, altruism, application, propaganda and persuasion – The fine art of persuasion – Social Influence – Conformity – Bystander intervention through the game, learning of obedience to authority – Social facilitation – Social Status – Social roles – Social conformity, Interpersonal attraction, Behavioural influences on attitudes – Attitude formation – Cognitive dissonance.

UNIT V GAME WORLD

Understanding psychology & internet – Psychological issues in addressing through playing online games – Interactive & emerging technologies, social influence in the virtual world – Social connection & social capital, personal media – Mobile, progress and future scope.

TOTAL: 45 PERIODS

OUTCOMES

At the end of the course, the student will be able to:

CO1. Apply the appropriate psychological theory.
CO2. Analyze the complex gaming environment.
CO3. Develop skills towards all generalizations about game psychology.
CO4. Develop critical thinking attitude.
CO5. Evaluate game messages based on evidence.

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MV3010 BIG DATA ANALYSIS

OBJECTIVES
- To handle and processing Big Data.
- To know how and when data can be used to make key decisions.
- To learn data processing and create Algorithms.
- To introduce the data mining skills.
- To develop student skills on web mining.

UNIT I FUNDAMENTALS OF BIG DATA ANALYSIS
Introduction to Big Data and Big Data Analysis, Handling and Processing Big Data, Methodological Challenges and Problems, Example Applications, Big Data Analysis in Practice, Introduction to different big data analytical tools.

UNIT II DATA SCIENCE
Introduction to Data Science, Relational Databases and SQL, Data Cleansing and Preparation, Building a Data Model, Data Summarization and Visualization, Association Analysis and Cluster Analysis.
UNIT III DATA MINING 9
Pre-processing Data: Filters, Missing Value, Data Mining, Decision Trees, Classification / Regression Algorithms. Normalization, Distance, Correlations, Machine Learning, Compare Items, Predictive Revenue Model, Class Prediction Model.

UNIT IV LANGUAGE R 9

UNIT V WEB MINING 9
Case Study Session, Preparation of Case Study Report and Presentation and Case Study Presentation.

TOTAL: 45 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Apply the methods of data collection and data analytics to solve business and related problems in support of decision-making.

CO2. Develop the skills necessary to use related software tools to perform data collection, cleansing, and analytics.

CO3. Have deep knowledge about data consumer, recognizing the good and the bad in terms of data collection and applications.

CO4. Understand how leading companies are using analytics.

CO5. Learn about relevant legal and ethical issues and to explore the Machine Learning techniques.

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OBJECTIVES
- To engage in the creative process or interpretive performance required for a visual artist.
- To understand how lines can be used to describe, model, or translate all of visual reality.
- To make students understand the principles of art.
- To introduce them to the basics of logo designing.
- To make them aware of the different styles of painting.

UNIT I  INTRODUCTION TO DRAWING  12
The elements of art – Line – Horizontal, vertical, diagonal / slanting, zigzag, and curve shape & form – Geometric (square, circle triangle, rectangle, and oval); and Organic (Freeform), Space - Distance between, around, above, below and within things.

UNIT II  PRINCIPLES OF ART  12
Balance – Formal, informal and radial, variety – Combining one or more elements to create interest by adding slight changes – Harmony – Blending elements, emphasis – Stand out, contrast, proportion – Relationship between two or more objects – Movement – Viewer's eye throughout the work – Rhythm – Repeating an element to suggest vibration, pattern – Unity, completeness.

UNIT III  COLOUR AND COMPOSITION  12
Definition, Hue, Saturation and Brightness – Historical background – Additive and Subtractive colours – Theory of colours – Colour wheel – Warm and Cool colours – Primary, Secondary and Tertiary colours and the right combination of these colours for various purposes – Colour Symbolism and Psychology – Use of colours in painting, printing, creative production – Practice in different colour mediums and airbrushes – Composition, light and shade drawing.

UNIT IV  TYPES OF DRAWING  12
Introduction to Chiaroscuro – Principle of perspectives – Linear perspective, Vanishing point perspective – One, two, and three-point perspective – Lines and different strokes using different pencils and brushes – Cartoons, caricature, scale drawing – The practice of birds, animals, and human forms – Portraits and self-portraits.

UNIT V  HUMAN AND ANIMAL FORMS  12
The general form and gesture – Drawing from cast & figure light and shade, Basic Proportions, Balance – Standing still or motion – gravity and perspective, shape making – Basic Shapes and procedures – Study of eye, study of nose, study of ear and body – Importance of anatomy in animation.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Complete drawings that work on the basic principles of one and two-point perspective or linear perspective.
CO2. Understand the vocabulary which relates to each of the major elements of art, line, shape, value, colour, and texture.
CO3. Understand the principles of art.
CO4. Grasp the basics of logo designing.
CO5. Gain awareness of the different styles of painting.

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**MV3012 ADVANCED AUDIOGRAPHY**

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**OBJECTIVES**
- To make students aware of the basic principles of sound.
- To learn about sound designing.
- To impart knowledge on acoustics and psycho-acoustics.
- To get to know various functions of sound.
- To understand the basics of studio management.

**UNIT I PRINCIPLES OF SOUND**
The Human Ear; Characteristics of Sound: Compression & Rarefaction - Velocity, Amplitude and Acoustical Phase - Loudness, Frequency and Human Hearing - Timbre and Sound Envelope – Physical types of microphones – microphone selection and use.

**UNIT II SOUND AND ACOUSTICS**

**UNIT III DESIGNING SOUND**
The roles & responsibilities of a sound designer - Elements of Sound - Perception of various sounds. The steps involved in designing sound - Functions of Sound with respect to Dialogue – Sound aesthetics.

**UNIT IV SOUND-IMAGE RELATIONSHIP**
Function of Sound with respect to Picture - Functions of Sound with respect to Special Effects - Functions of Sound with respect to Music – Special effects and its functions; dubbing; creative usage of sound.

**UNIT V STUDIO MANAGEMENT**
The general form and gesture – Drawing from cast & figure light and shade, Basic Proportions, Balance – Standing still or motion – gravity and perspective, shape making – Basic Shapes and procedures – Study of eye, study of nose, study of ear and body – Importance of anatomy in animation.

**TOTAL: 60 PERIODS**

**OUTCOMES**

At the end of the course, the student will be able to:

CO1. Make use of sound in different dimensions.

CO2. Design innovative special effects and music.

CO3. Have control over the sound recorded inside the studio.

CO4. Get introduced to various functions of sound.

CO5. Understand the basics of studio management.

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**MV3013 EDITING TECHNIQUES**

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<td>To appreciate editing as a creative element of storytelling.</td>
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**UNIT I INTRODUCTION TO EDITING**

65
History of editing – Analog or Linear editing techniques, editing workflow – Principles of editing – Roles and responsibilities of editing – Skills required for a successful editor – Elements of an edit – assessing the footage – Selecting the best shots. Five shot rule – Types of edit, cut, Transition, Treatment of editing, Time manipulation within shot & sequence.

UNIT II VISUAL GRAMMAR 12
When to cut and why: Factors that lead to making an edit – Dimensions of edit – Order of shots – Duration of shots/ASL, Importance of tone, pace and rhythm – How to edit for different film genres – Montage - Color and culture Shot-reverse shot – Axial cut, B-roll, cutaway, Insert, Kuleshov effect – Parallel cutting, cross-cutting and dynamic cutting – Temporal editing, and associate editing – Components in sound design – Stylistic uses of sound.

UNIT III EDITING TECHNIQUES 12
Types and functions of edit and trim options – Rendering and previewing sequences, working with markers – Creating Freeze frame and its types - Time remapping - Adjusting layers – Nesting – Types of video transition, effects, and its usage in various work field- Adding, navigating, and setting key frames, animating effects – Masking and tracking – Basic Compositing - Blending mode options – Multi-camera editing workflow.

UNIT IV AUDIO, TEXT, GRAPHICS AND COLOR CORRECTION 12

UNIT V EXPORTING, MASTERING AND COPYRIGHT ISSUES 12
Exporting media – Workflow and overview for exporting – Encoding settings – Video Compressions – Copyright, broadcasting rights – Copyright infringements – Preparation for various medium distribution techniques behind it.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Know the workflow of the post-production process in various fields.
CO2. Produce various projects using different editing styles and layouts.
CO3. Produce professional-quality video projects for various platforms.
CO4. Produce videos without any copyright issues.
CO5. Inspire the audience with their skillful editing techniques.

REFERENCES
1. Alexis Van Hurkman, Colour Correction Look Book: Creative, 2013

CO-PO MAPPING
MV3014  
DIGITAL FILMMAKING  

L  T  P  C  
2  0  2  3

OBJECTIVES
- To brush up their technical knowledge towards production equipment.
- To transform the creative ideas into short films.
- To promote branding through corporate Videos.
- To understand the techniques of making biographic film.
- They have to create a PSA video and make it to bring some behavior change at least among a particular community.

UNIT I  
FRAMING AND COMPOSITION  
12
Practice in Various Camera movements, Capturing Shot, Scene, Sequence. Practice in various manual operations. Practice in 5C’s of Cinematography - Camera angles, Continuity, Cutting, Close – ups and Composition.

UNIT II  
SHORT FILM MAKING  
12

UNIT III  
SOCIAL AWARENESS FILMS  
12
Identifying social issues of various importance - Health Environment – Economic – social cultural and political issues. Doing film on any of the above interested and relevant themes.

UNIT IV  
CORPORATE FILMS  
12
To project the profile of the company behind the brand – showcasing the visual power- focusing the consumer. Production of safety videos, new product launch, promotional videos, testimonial videos. Practice in anyone of the above mentioned ideas.

UNIT V  
PLACE AND PERSONS OF HISTORICAL IMPORTANCE  
12
Identifying of Historically important persons and places – doing background research on the subject – planning for a photo shoot to get an idea for film making – relating the subject with cultural or historical importance- indirectly serve as a tourism promotion.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
- CO1. Promote our cultural and historical values through films.
- CO2. Create an alternative way to create awareness through social awareness films.
CO3. Become a professional’s in making short film, corporate video, etc.
CO4. Have a good sense of knowledge on casting, constructing shots, location hunting and maintain continuity.
CO5. Maintain an appropriate colour tone is much more important to convey the message and give the impacts; students might have a good sense of colour knowledge.

REFERENCES

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MV3015 DOCUMENTARY FILMMAKING L T P C

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OBJECTIVES
- Understand the functions, importance and forms of documentary films.
- Learn structure and story curve in documentary.
- Examine the techniques involved in factual storytelling and its applications.
- Learn the rudiments of creating a documentary.
- Introduced to preproduction (idea conception, research), production (camera work, interview), and postproduction (sound and picture editing) aspects.

UNIT I INTRODUCTION TO DOCUMENTARY 12

UNIT II DIFFERENT FORMS OF DOCUMENTARY 12

UNIT III DOCUMENTARY RESEARCH 12
Content research and conceptualizing the appropriate treatment and style, Ethical issues for documentaries, Structural analysis for documentaries. Interview technique of documentaries, Different microphones for different occasions/locations, Sound design in documentary video - Writing proposals.

UNIT IV DOCUMENTARY PRODUCTION 12

UNIT V APPRECIATION OF DOCUMENTARIES 12
Screening of world renowned documentaries - BBC Documentaries- Indian Documentaries – Local issue based documentaries, Analysing the documentaries through various media techniques. Interaction with documentary film makers.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Appreciate the importance of the documentary film formats.
CO2. Explore various documentary formats through viewing and analyses of important documentaries.
CO3. Develop an individual style in representing the society through documentary.
CO4. Examine the story structure and story formats.
CO5. Understand the steps involved in production of a documentary film.

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MV3016 LIGHTING AND RENDERING

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<td>• To introduce the basics of lighting in 3D.</td>
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<td>• To create photorealistic still imagery.</td>
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<td>• To impart knowledge on lighting and rendering techniques.</td>
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L T P C
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Attested

DIRECTOR
Centre for Academic Courses
Anna University, Chennai-600 025

69
• To introduce virtual lighting technologies and tools necessary to create photorealistic imagery.
• To inculcate enhanced techniques for lighting the scene.

UNIT I  LIGHTING THE 3D MODEL USING BASIC LIGHTING  12
Preview lights and to choose its colours – Point light and its properties – Direction light and its properties – Spotlight, penumbra angle, Barn doors and its settings – Area light and its implementation in a real-time environment.

UNIT II  LIGHTING TECHNIQUES AND MENTAL RAY RENDERING  12

UNIT III  PRODUCT LIGHTING AND ENVIRONMENT LIGHTING  12
Three-point lighting technique – Lighting a product using three-point lighting techniques – Photons and caustics lighting methods – global illumination and final gathering.

UNIT IV  ADVANCED RENDERING MATERIALS  12

UNIT V  EXTERIOR AND IBL RENDERING  12

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Learn the basic concepts of lighting in 3D.
CO2. Gain awareness of the physical and virtual technology of lighting.
CO3. Understand the interaction of lights with a 3D surface.
CO4. Use advanced rendering materials.
CO5. Incorporate lighting on a live reference.

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MV3017 CHARACTER DESIGNING

OBJECTIVES

- To learn basic anatomy of a character.
- To apply basic properties of physics to the scene.
- To create a character walk cycle.
- To work with poly to develop the characters.
- To create motion for a character.

UNIT I 3D SURROUNDINGS


UNIT II CHARACTERS

Construction of animal character – Pantomime horse construction, Cartoon four-legged construction, four types of animal locomotion – walking, trotting, cantering and galloping, walk cycle or run cycle.

UNIT III HUMAN ANATOMY


UNIT IV PHYSICS IN 3D

Emotions – Eight basic efforts: pressing, flicking, wringing, dabbing, slashing, gilding, thrusting, floating – Body language – body postures, basic modes, palm, hand-arm and leg gestures.

UNIT V EMOTION FOR THE CHARACTER


OUTCOMES

At the end of the course, the student will be able to:

CO1. Understand different principles involved in character animation.
CO2. Understand human anatomy in character animation.
CO3. Design the characters sketched by them.
CO4. Animate their characters.
CO5. Create animations. Independently create characters for the animation movie.

REFERENCES

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## OBJECTIVES

- To become visually literate and competent with the non-verbal languages of art and design.
- To develop visual, verbal and written responses to visual phenomena. To develop perception and create conceptualizations both rationally and intuitively.
- To learn the basic principles of storyboarding and project mapping.
- To learn the concept of tracking.
- To understand the usage of 3D in live-action.

### UNIT I INTRODUCTION TO GRAPHICS

- General principles of Motion Graphics – Different software used for motion graphics, Photoshop, Final cut pro, Premier Pro, After Effects, Combustion, Nuke – Creating a Pipeline for production.
- Exercises for different software – Creating a storyboard.

### UNIT II KEYING, ROTO AND TRACKING


### UNIT III GRADING


### UNIT IV 3D GRAPHICS

- Camera tracking in different software – Combining of graphics elements into live-action – Creating and modifying 3D objects, importing 3D materials to various software – Creating a 3D title.

### UNIT V EMOTION FOR THE CHARACTER

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MV3018 | MOTION GRAPHICS
---|---|---|---|---|---|---
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TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Shoot graphic videos on their own.
CO2. Understand the concept of grading.
CO3. Assemble the green /blue screen footage.
CO4. Work with 3D environment digitally.
CO5. Understand the concept of rendering.

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MV3019 ADVANCED COMPOSITING TECHNIQUE

OBJECTIVES
- To understand the pipeline of visual effects.
- To study the new techniques involved in Compositing.
- To understand the working of visual effect shots.
- To instill knowledge about colour correction.
- To make students work with particles.

UNIT I BASIC VISUAL ELEMENTS
To understand the UI of software, viewer, metadata, creating stick nodes, postage stamps, working with tracking – single, double, four-point tracking – rotation and scaling. To understand the x and y-axis of footage and to stabilize running footage. Match move an object to the footage and rendering.

UNIT II INTRODUCTION TO Rotoscoping

73
To understand and work with rotoscoping, Bezier, B – Splines, shapes, feather – Compositing with different footage using roto – Exporting and importing the alpha channel – Retouching with the Rotopaint – Working with wire removal shots – Creating and working with a clean plate, Working with Graph editors – Understanding and working with the match move process.

UNIT III MATTE AND COLOUR CORRECTION 12
Working with blue/green matte footage, Using different keyers, IBK colour, Key light, Chroma key, Alpha key – Creating a garbage mask – Matching light space and adjusting for brightness and colour, Copying channel and working with shuffle channel options – Adding noise in the live-action videos, Removing grain and dust – Creating and working with titles, Particles in compositing, Creating the digital crowd, Colour correction and Grading the footage – Time warping, Understanding and working with distorted images and videos.

UNIT IV WORKING WITH 3D 12
Working with 3D space in compositing – Creating the multiple pass render – Working with camera tracking – Applying the camera movement to footage – Creating an external geometry - Importing camera data and normalize it – Using HDRI images to light the source – Working with keyframe – Creating a Matte paint – Creating and merging the set extensions object to live- action – Obtaining the clean plate from the footage – Merging the multi-pass render to a single output – Matching the Lights and shadows.

UNIT V ADDING ELEMENTS 12
Creating the depth map – Understanding the Z-Depth – Composite stereoscopic 3D – Working with particles, creating particle simulation – Working with Smart vectors – Understanding and working with deep compositing – Animating using python script.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Understand the visual treat in the films.
CO2. Create new visual effects for their production.
CO3. Develop the 3D Environment.
CO4. Merge the live-action footage with visual effects.
CO5. Simulate particle items.

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MV3020 MOBILE GAMING

OBJECTIVES
- To understand the history and development of mobile games.
- To introduce the android mobile interface.
- To test several games in a mobile environment.
- To develop a user-friendly game in a mobile environment.
- To understand the best practices in mobile game development.

UNIT I INTRODUCTION TO MOBILE GAMING
Overview of mobile gaming industry and its growth-Historical development of mobile gaming-Mobile platforms and technologies-Business models and monetization strategies in mobile gaming-Trends and challenges in mobile gaming-Impact of mobile gaming on society and culture-Cross-platform development and considerations for mobile games.

UNIT II MOBILE GAME DESIGN
Principles of mobile game design-User interface (UI) and user experience (UX) design for mobile games-Game mechanics and gameplay elements in mobile games-Level design and progression systems in mobile games-Mobile game prototyping and playtesting-Storytelling and narrative design in mobile games-Game balancing and difficulty progression in mobile games-Gamification techniques for enhancing user engagement in mobile games.

UNIT III MOBILE GAME DEVELOPMENT
Mobile game development tools and platforms-Programming languages and frameworks for mobile games-Graphics and audio development for mobile games-Optimization techniques for mobile game performance-Publishing and distribution of mobile games-Augmented reality (AR) and virtual reality (VR) integration in mobile games-Multiplayer functionality and network programming in mobile games.
UNIT IV TESTING GAME

UNIT V PACKAGING AND DEPLOYING
Performance best practices – Android field service app – Active transactions – Mobile app development hurdles – Rendering – Deploying and hosting in server-User-generated content (UGC) and community engagement in mobile games-Mobile game pricing strategies and free-to-play (F2P) vs. premium models-App store optimization (ASO) for mobile games-User acquisition and retention in mobile gaming.

OUTCOMES
At the end of the course, the student will be able to:
CO1. Create a game prototype that mimics the mechanics and "game already exist".
CO2. Create an original game prototype.
CO3. Evaluate existing game technologies.
CO4. Deploy their prototype in the testing environment.
CO5. Recreate industry’s best practices.

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OBJECTIVES

- To understand the concepts of Game design and development.
- To learn the processes, mechanics and issues in Game Design.
- To understand the concepts of Game programming.
- To know about Game programming platforms, frameworks and engines.
- To enable student to develop games.

UNIT I  INTRODUCTION TO PROGRAMMING FOR GAMING  12
Overview of programming languages commonly used in game development - Basics of programming logic and problem-solving techniques - Introduction to game engines and development environments - Understanding game development frameworks and libraries - Introduction to version control systems for collaborative game development.

UNIT II  GAME PROGRAMMING  12
Data types, variables, and control structures in game programming - Functions and modular programming in game development - Object-oriented programming principles in game development - Debugging and error handling techniques in game programming - Introduction to game physics and collision detection algorithms.

UNIT III  GAME ENGINE DESIGN  12
Game engine architecture - Engine support systems - Resources, file systems, game loop, real-time simulation - Human interface devices - Collision and rigid body dynamics - Game profiling - Basics of computer graphics and rendering techniques.

UNIT IV  GAMING PLATFORMS AND FRAMEWORKS  12
Working with 2D and 3D graphics libraries and APIs - 2D and 3D Game development using Flash, DirectX, Java, Python, Game engines - Unity - DX Studio - games Introduction to shaders and GPU programming for visual effects - Sprite rendering and animation techniques.

UNIT V  GAME DEVELOPMENT  12
Game asset management and resource loading techniques - Publishing and distribution of games on different platforms - Developing 2D and 3D interactive games using DirectX or Python - Isometric and tile-based games - Puzzle games, Single player games, Multi-player games.

TOTAL: 60 PERIODS

OUTCOMES

At the end of the course, the student will be able to:

- CO1. Understand the concepts of game design and development.
- CO2. Design the game and use mechanics for game development.
- CO3. Explain the core architecture of the game's programming.
- CO4. Use game programming platforms, frameworks and engines.
- CO5. Create interactive games.

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**MV3022 INTRODUCTION TO R PROGRAMMING**

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**OBJECTIVES**

- To learn the fundamentals of R programming
- To perform quantitative analysis using R including data manipulation and visualization.
- To carry out different statistical analysis.
- To gain knowledge to perform text analysis and natural language processing.
- To facilitate data-driven decision making in media-related fields.

**UNIT I INTRODUCTION TO R PROGRAMMING**

12

Introduction to R and its applications in media studies - Installing R and RStudio - Basic R syntax and data types - Working with variables and data structures in R - Basic data manipulation and exploration in R.

**Practical Component:**

1. Programs to perform basic operations for given vector of numbers.
2. To create a user-defined function in R that performs certain task.
3. Programs to generate a sequence of numbers from 1 to 10 and calculate their sum.
4. Program to create a vector in R and to add/modify/delete an item from the vector.
5. Program in R to read a CSV file and display its contents.
6. Program in R to create a bar plot of the number of tweets per day for a given dataset.

**UNIT II DATA MANIPULATION AND VISUALIZATION**

12

Importing and exporting data in R - Data cleaning and pre-processing techniques - Manipulating and transforming data using dplyr package - Introduction to data visualization with ggplot2 package - Creating static and interactive plots for media analysis.

**Practical Component:**

1. Import a CSV file into R and remove any missing values from the dataset.
2. Use the dplyr package to filter a dataset based on a specific condition (e.g., select only rows where a certain variable is greater than a certain value).
3. Create a scatter plot using ggplot2 to visualize the relationship between two variables in a dataset.
4. Use dplyr to group a dataset by a categorical variable and calculate the average value of a numeric variable for each group.
5. Use ggplot2 to create a stacked bar plot to show the distribution of a categorical variable in a dataset.
6. Apply the lubridate package to manipulate and format dates in a dataset (e.g., extract month and year from a date variable).

UNIT III STATISTICAL ANALYSIS WITH R

Overview of statistical concepts for media studies - Descriptive statistics and data summarization - Hypothesis testing and statistical inference in R - Correlation and regression analysis for media data - Introduction to experimental design and A/B testing in R.

Practical Component:
1. Perform a t-test in R to compare the means of two independent groups in a dataset.
2. Calculate the correlation coefficient between two variables in a dataset and determine if it is statistically significant.
3. Conduct a chi-square test in R to analyze the association between two categorical variables in a dataset.
4. Fit a linear regression model to a dataset and interpret the coefficients and significance levels.
5. Use the ANOVA test in R to compare the means of multiple groups in a dataset.
6. Perform a logistic regression analysis in R to predict a binary outcome variable based on several predictor variables.

UNIT IV TEXT ANALYSIS AND NATURAL LANGUAGE PROCESSING

Introduction to text mining and NLP in media science - Text data pre-processing and cleaning techniques - Analyzing text sentiment and emotion in R - Text classification and topic modeling with machine learning algorithms - Working with social media data and sentiment analysis.

Practical Component:
1. Remove stop words from a given text string in R.
2. Calculate the term frequency-inverse document frequency (TF-IDF) for a corpus of text documents in R.
3. Perform sentiment analysis on a collection of tweets using the textblob package.
4. Apply topic modeling (e.g., Latent Dirichlet Allocation) to identify key topics in a corpus of news articles.
5. Use regular expressions in R to extract hashtags from a text string.
6. Build a classification model in R to predict the sentiment of movie reviews (positive or negative) using a text dataset.

UNIT V ADVANCED TOPICS IN R PROGRAMMING

Web scraping and data collection from online sources - Time series analysis and forecasting in media data - Network analysis and visualization of media networks - Introduction to machine learning in R - Building predictive models for media analytics.

Practical Component:
1. Scrape data from a website using the rvest package in R.
2. Create a time series plot to visualize the trend and seasonality in a media-related dataset.
3. Perform network analysis on a social media network to identify influential users using the igraph package in R.
4. Apply a machine learning algorithm (e.g., random forest or support vector machine) to predict user engagement on social media posts.
5. Use cross-validation techniques to evaluate the performance of a predictive model on a media dataset.
6. Implement a recommendation system in R to suggest personalized media content based on user preferences and behavior.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:

CO1. Efficiently write R programs for media studies related applications.
CO2. Apply data manipulation and visualization techniques using R for media-related datasets.
CO3. Perform statistical analysis and interpret results using R
CO4. Utilize R for text analysis and natural language processing tasks
CO5. Explore advanced topics in R programming to enhance data analysis and modeling capabilities in media science.

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Anna University, Chennai-600 025
OBJECTIVES

- To demonstrate a comprehensive understanding of the fundamental principles and theories of instructional design.
- To analyze the learning needs of the diverse audience for effective instructional material development and interface design.
- To design multimedia learning resources, experiences, and user interfaces for digital media platforms.
- To develop assessment strategies and methods to evaluate and assess learning outcomes in a digital learning environment.
- To apply ethical and legal considerations of instructional design for digital media, such as copyright, intellectual property rights, and data security.

UNIT I INSTRUCTIONAL SYSTEMS DESIGN


UNIT II MODELS OF INSTRUCTIONAL DESIGN


UNIT III TEACHING-LEARNING STRATEGIES


UNIT IV EVALUATION OF INSTRUCTIONAL SYSTEMS

Components of the instructional package — Selecting existing instructional materials — The designer's role in material development and instructional delivery — Developing instructional materials — Formative evaluation — Rough draft materials — Human-computer interaction — Validation of instructional material — Outcome-based education (OBE) assessment — Printed materials, still pictures, and graphics — One-to-one evaluation with learners — Small-group evaluation — Field trials — Educational Decisions Model (CIPP Model).

UNIT V DIGITAL TECHNOLOGIES FOR CONTENT DELIVERY

Introduction to Learning Management Systems — Web technologies for content delivery — Open educational resources — The learner and the intelligent tutoring systems — Research methods in instructional technology — Educational game design — Learning analytics — Educational data mining Strategies — Delivery and management — Production — The future of ISD — Instructional design and technology — Metacognition in instructional design.

TOTAL: 60 PERIODS
OUTCOMES
At the end of the course, the student will be able to:
CO1. To apply principles of instructional design.
CO2. To identify the steps and methods of the instructional design process.
CO3. To function independently and cooperatively in a multidisciplinary team.
CO4. To compare various instructional design models and perspectives.
CO5. To utilize emerging web technologies for online learning evaluation. To apply ethical and legal considerations related digital media platforms.

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MV3024 SOCIAL MEDIA ANALYSIS

OBJECTIVES
- Provide comprehensive understanding of social media analysis for media studies.
- Gain knowledge on collecting data from social media platform.
- Learn to perform sentiment analysis.
- Understand and perform social network analysis.
- Determine trend analysis and carry out predictive modelling to gain insights into media-related phenomena and audience behaviour.

UNIT I INTRODUCTION TO SOCIAL MEDIA ANALYSIS
Overview of social media platforms and their impact on society - Introduction to social media analytics and its applications - Understanding data collection and ethical considerations - Introduction to popular social media analysis tools and software.

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**Practical Component:**

1. Explore the demographics of social media users: Collect data on the age, gender, and location of users on different social media platforms and analyze the trends.
2. Conduct a content analysis of social media posts: Select a specific topic or hashtag and analyze the content of social media posts to identify common themes and sentiments.
3. Compare the engagement metrics of different social media platforms: Collect data on likes, shares, and comments for a set of posts on different platforms and compare their engagement levels.
4. Analyze the impact of social media influencers: Choose a popular influencer and examine their effect on brand awareness or product sales by analyzing engagement and sentiment around their posts.
5. Investigate the use of hashtags: Collect data on the usage of specific hashtags over time and analyze how they correlate with trending topics or events.
6. Study the evolution of social media platforms: Research the history and development of a social media platform, and analyze the changes in user behavior and features over time.

**UNIT II  SOCIAL MEDIA DATA COLLECTION**

Techniques for collecting social media data (e.g., APIs, web scraping) - Data preprocessing and cleaning for social media analysis - Handling challenges and limitations in social media data collection - Case studies and hands-on exercises for data collection.

**Practical Component:**

1. Scrape social media data using APIs: Utilize the API of a social media platform to collect a specific set of data, such as posts, comments, or user profiles.
2. Gather data from social media through web scraping: Use web scraping techniques to collect data from social media platforms that do not provide public APIs.
3. Perform hashtag tracking: Track the usage of specific hashtags over a period of time by collecting data from various social media platforms.
4. Capture real-time social media data: Develop a script or program to collect live data from social media platforms and store it for further analysis.
5. Collect user-generated content: Identify and retrieve user-generated content, such as reviews or testimonials, from social media platforms to analyze sentiment or customer feedback.
6. Conduct surveys or polls on social media: Design and deploy surveys or polls on social media platforms to collect data on user opinions or preferences.

**UNIT III  SOCIAL MEDIA SENTIMENT ANALYSIS**

Introduction to sentiment analysis in social media - Techniques for sentiment classification and sentiment lexicon creation - Understanding the challenges of sentiment analysis in social media - Applications of sentiment analysis in brand monitoring and customer feedback analysis.

**Practical Component:**

1. Classify social media posts as positive, negative, or neutral: Use machine learning techniques to train a sentiment analysis model and apply it to a dataset of social media posts.
2. Analyze sentiment around a specific brand: Collect social media data related to a brand and analyze the sentiment expressed in posts and comments to understand the overall perception of the brand.
3. Compare sentiment across different social media platforms: Gather data from multiple platforms and compare the sentiment expressed towards a particular topic or event.
4. Identify influential users based on sentiment: Analyze social media data to identify users whose posts or comments have a significant impact on the sentiment of others.
5. Detect sarcasm in social media posts: Develop a model or algorithm to identify sarcastic statements in social media posts by analyzing linguistic patterns and contextual cues.
6. Explore sentiment trends over time: Analyze sentiment scores over different time periods to identify shifts in public opinion or sentiment towards a specific topic or event.

UNIT IV  SOCIAL NETWORK ANALYSIS

Introduction to social network analysis and its importance - Concepts of nodes, edges, and centrality measures in social networks - Community detection and analysis in social networks - Practical applications of social network analysis in influencer - identification and network marketing

Practical Component:
1. Construct a social media network graph: Collect data on connections or interactions between users and visualize the network graph using social network analysis tools.
2. Identify key influencers in a social network: Analyze the network graph to identify users with the highest degree of influence or centrality within the network.
3. Measure the clustering coefficient of a social network: Calculate the clustering coefficient of a social network to assess the level of interconnectedness among users.
4. Analyze community detection in a social network: Apply community detection algorithms to identify distinct groups or communities within a social network.
5. Investigate the spread of information in a social network: Simulate the spread of information or rumors in a social network and analyze the patterns of diffusion.
6. Explore the relationship between network structure and user behavior: Analyze how the structure of a social network influences user engagement, information flow, or sentiment propagation.

UNIT V  TREND ANALYSIS AND PREDICTIVE MODELING

Identifying and analyzing trends in social media data - Time series analysis for trend detection and forecasting - Introduction to predictive modeling using social media data - Case studies and projects on trend analysis and predictive modelling

Practical Component:
1. Identify trending topics on social media: Collect data on hashtags or keywords and analyze their frequency or popularity to identify emerging trends.
2. Predict user behavior based on historical data: Use machine learning algorithms to build a predictive model that forecasts user actions, such as click-through rates or purchase behavior.
3. Forecast social media metrics: Analyze historical data on social media metrics (e.g., likes, shares, followers) and use time series forecasting techniques to predict future values.
4. Analyze the impact of social media campaigns: Collect data on campaign performance metrics and use statistical analysis to measure the effectiveness of social media marketing efforts.
5. Predict sentiment fluctuations during events: Gather historical data on sentiment during past events and build a predictive model to anticipate sentiment shifts during similar upcoming events.
6. Conduct trend analysis across different social media platforms: Collect data from multiple platforms and compare trends to identify common patterns or differences in user behavior and interests.

TOTAL: 60 PERIODS
OUTCOMES
At the end of the course, the student will be able to:

CO1. Acquire skills to collect and preprocess social media data for analysis.
CO2. Apply sentiment analysis techniques to evaluate public opinion and sentiment on social media platforms.
CO3. Perform social network analysis to uncover network structures and dynamics within media-related contexts.
CO4. Conduct trend analysis to identify patterns and predict future trends in social media data and utilize predictive modeling techniques to make data-driven predictions and forecasts in media science.
CO5. Critically evaluate and interpret the results of social media analysis in the context of media research and decision-making.

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OBJECTIVES

- To acquire knowledge on the fundamentals of Human-Centred Interaction Design.
- To understand the step-by-step process involved in the development of Human-Centred Design.
- To impart knowledge on the field of Interactive Experience Designing in media, products and computer application designs.
- To help students develop good analytical abilities to gain knowledge of specific techniques and to develop creative solutions.
- To sensitize students about the needs of Indian users and the Indian industry.

UNIT I

INTRODUCTION TO DESIGN

Historical evolution of the field – Interactive system design (theory and practice) – Concept of usability – definition and elaboration – HCI and software engineering – GUI design and aesthetics – Prototyping techniques.

UNIT II

MODEL-BASED DESIGN AND EVALUATION


UNIT III

EMPIRICAL RESEARCH METHODS

Motivation – issues – research question formulation techniques – Experiment design and data analysis – Task modeling and analysis – Hierarchical task analysis (HTA) – Engineering task models and Concur Task Tree (CTT).

UNIT IV

DIALOG DESIGN

Introduction to formalism in dialog design – design using Finite State Machines – State charts and Petri Nets in dialog design – Cognitive architecture – Introduction to CA, CA types, the relevance of CA in IS design – Model Human Processor (MHP) – Object-Oriented Programming.

UNIT V

IMPLEMENTATION AND EVALUATION


TOTAL: 60 PERIODS

OUTCOMES

At the end of the course, the student will be able to:

CO1. Understand the basic concepts in human-computer interaction.
CO2. Understand the process involved in the development of a human-centred design.
CO3. Comprehend the importance of design principles and the evaluation methods for user interfaces.
CO4. Develop creative solutions through good analytical abilities.
CO5. Devise creative solutions for issues and needs of Indian users and the Indian industry.
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MV3026 DEEP LEARNING

OBJECTIVES
- To present theoretical foundations, algorithms, methodologies, and applications of neural networks and deep learning.
- To train and test application-specific deep learning models and to provide the practical knowledge.
- To apply the deep learning models in various real-world applications.

UNIT I BASIC CONCEPTS OF DEEP LEARNING 12

UNIT II DEEP LEARNING IN IMAGE PROCESSING AND COMPUTER VISION 12
How deep learning can be applied in media and technology? — Introduction to computer vision — Introduction to Tensorflow and keras — Computer vision and their real-life applications — Scope of computer vision — Generating alternative texts using computer vision [applied examples with Facebook & Instagram.

UNIT III DEEP LEARNING IN TEXT & SPEECH ANALYSIS 12
Basic linguistics and terms — Language analysis — Natural Language Processing (NLP) projects: characteristics, planning, and other factors — Sentiment Analysis — Topic Modelling — Visualization of speech data — Transformations in speech data — Applications based on speech data.
UNIT IV APPLICATION OF DEEP LEARNING IN MASS MEDIA ENVIRONMENT

Deep learning and their applications in digital marketing -- Processing and manipulating structured and unstructured data -- Working with social media data -- Caches and cookies -- Introduction to AI-based recommendation systems -- Implementation of AI-based recommendation systems -- Working with Netflix metrics.

UNIT V DEEP LEARNING FOR BUSINESS ANALYTICS

Deep learning to evaluate TRP metrics and content performance -- Predicting content scope with regression models -- Analyzing product performance by processing user reviews -- Building predictive models with text data as an input.

TOTAL: 60 PERIODS

OUTCOMES
At the end of the course, the student will be able to:
CO1. Understand different methodologies to create application
CO2. Recognize the characteristics of deep learning models that are useful to solve real-world problems
CO3. Identify and apply appropriate algorithms
CO4. Design and implement different deep learning algorithms
CO5. Develop various models for real world problems solving and encoding the original data and reconstruct data.

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