

**B.SC.,  
VISUAL COMMUNICATION**

**SYLLABUS**

**FROM THE ACADEMIC YEAR  
2023 - 2024**

**TAMILNADU STATE COUNCIL FOR HIGHER EDUCATION, CHENNAI – 600 005**

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## **B.Sc., VISUAL COMMUNICATION**

### **Program Overview**

Introducing the BSc. Visual Communication program, a cutting-edge undergraduate degree designed to provide students with a comprehensive education in the ever-evolving fields of visual communication and postproduction for Film, Television, Podcasts, Web Series, and TV. This multidisciplinary program covers a diverse range of core subjects, including Graphic Design and Typography, Digital Drawing and Painting, Digital Storytelling and Scriptwriting, Photography and Videography, Publication Design, Image Editing and Color Management, Audio-Visual Editing, 2D and 3D Modelling, Multimedia Content Packaging, Design Thinking, Animation and Character Design, Compositing and Visual Effects, Advertising and Brand Communication, User Experience Design, Advanced 3D Texturing and Sculpting, 3D Environment Design, Immersive Media Design, Media Entrepreneurship, Extended Reality Design, and a Capstone Project.

Upon completion of this comprehensive program, students will possess the skills to articulate their core postgraduate discipline clearly and precisely, formulate abstract ideas in the specific language of their discipline, and describe related concepts from multiple perspectives. They will also be able to explain the fundamental principles that underpin their chosen field.

In addition to fostering a strong foundation in visual communication, the BSc. Visual Communication program aims to enhance the employability of its graduates by preparing them for a wide variety of professional opportunities. Graduates will be well-equipped to join the teaching profession, secure government jobs, and pursue careers in numerous public and private enterprises across diverse industries.

By providing a holistic learning experience that combines theoretical knowledge with practical applications, the BSc. Visual Communication program empowers students to become innovative and adaptive professionals in the dynamic world of visual media. With the skills and expertise gained through this program, graduates will be prepared to excel in their chosen careers and contribute to the advancement of visual communication and postproduction across various media platforms.

<b>CHOICE BASED CREDIT SYSTEM AND LEARNING OUTCOMES-BASED CURRICULUM FRAMEWORK BASED B.A. ECONOMICS SYLLABUS</b>	
<b>Programme:</b>	<b>B.Sc., Visual Communication</b>
<b>Programme Code:</b>	
<b>Duration:</b>	<b>3 Years(UG)</b>
<b>Programme Outcomes:</b>	<p><b>PO1: Knowledge of Economics:</b> Ability to understand Economic Theories and functioning of Economic Models. To develop an adequate competency in the Economic Theory and Methods.</p> <p><b>PO2: Analytical Reasoning and Critical Thinking:</b> Critically Analyze and assess the way in which economists examine the real world to understand the current events and evaluate specific proposals.</p> <p><b>PO3: Logical Reasoning and Quantitative Ability:</b> Ability to understand how to collect and analyse data and use empirical evidence to evaluate the validity of hypothesis, using Quantitative Methodology and conduct data analysis to interpret results.</p> <p><b>PO4: Communication and Research Skills:</b> Communication and Research related skills. Developing a sense of capability for relevant/appropriate inquiry and asking questions, synthesising and articulating and reporting results and to efficiently communicate thoughts and ideas in a clear and concise manner.</p> <p><b>PO5: Gender, Environment and Sustainability:</b> Comprehend the Environmental issues and Sustainable Development and strive to achieving economic and social equity for women and be Gender Sensitive.</p> <p><b>PO6: Employability and Leadership Skills:</b> Become empowered individuals to be employed in various positions in industry, academia and research and have the potential to become Entrepreneurs and take leadership roles in their chosen occupations and communities.</p> <p><b>PO7: Social Interaction:</b> Acquire the ability to engage in relevant conversations and have the ability to understand the views of society that would help initiate policy making.</p> <p><b>PO8: Digital Literacy and Lifelong Learning:</b> Capability to use ICT tools in a variety of learning situation and use appropriate software for analysis of data - Ability to acquire Knowledge situations and skills for life through self directed learning and adapt to different learning environments.</p>

<b>Programme Specific Outcomes:</b>	<p><b>PSO1:</b> To enable students to apply basic microeconomic, macroeconomic and monetary concepts and theories in real life and decision making.</p> <p><b>PSO 2:</b> To sensitize students to various economic issues related to Development, Growth, International Economics, Sustainable Development and Environment.</p> <p><b>PSO 3:</b> To familiarize students to the concepts and theories related to Finance, Investments and Modern Marketing.</p> <p><b>PSO 4:</b> Evaluate various social and economic problems in the society and develop answer to the problems as global citizens.</p> <p><b>PSO 5:</b> Enhance skills of analytical and critical thinking to analyze effectiveness of economic policies.</p>
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	<b>PO 1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>PSO 1</b>	Y	Y	Y	Y	Y	Y	Y	Y
<b>PSO 2</b>	Y	Y	Y	Y	Y	Y	Y	Y
<b>PSO3</b>	Y	Y	Y	Y	Y	Y	Y	Y
<b>PSO 4</b>	Y	Y	Y	Y	Y	Y	Y	Y
<b>PSO 5</b>	Y	Y	Y	Y	Y	Y	Y	Y

**3 – Strong, 2- Medium, 1- Low**

### Consolidated Semester wise and Component wise Credit distribution

Parts	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Total Credits
Part I	3	3	3	3	-	-	12
Part II	3	3	3	3	-	-	12
Part III	13	13	13	13	22	18	92
Part IV	4	4	3	6	4	1	22
Part V	-	-	-	-	-	2	2
Total	23	23	22	25	26	21	140

\*Part I, II, and Part III components will be separately taken into account for CGPA calculation and classification for the under graduate programme and the other components. IV, V have to be completed during the duration of the programme as per the norms, to be eligible for obtaining the UG degree.

Methods of Evaluation		
Internal Evaluation	Continuous Internal Assessment Test	25 Marks
	Assignments	
	Seminars	
	Attendance and Class Participation	
External Evaluation	End Semester Examination	75 Marks
	Total	100 Marks
Methods of Assessment		
Recall (K1)	Simple definitions, MCQ, Recall steps, Concept definitions	
Understand/Comprehend (K2)	MCQ, True/False, Short essays, Concept explanations, Short summary or overview	
Application (K3)	Suggest idea/concept with examples, Suggest formulae, Solve problems, Observe, Explain	
Analyze (K4)	Problem-solving questions, Finish a procedure in many steps, Differentiate between various ideas, Map knowledge	
Evaluate (K5)	Longer essay/Evaluation essay, Critique or justify with pros and cons	
Create (K6)	Check knowledge in specific or offbeat situations, Discussion, Debating or Presentations	

## B.Sc., Visual Communication

I SEMESTER									
Part	Course Code	Courses	Title of the course	T/P	Credit	Hours/week	Maximum marks		
							CIA	Ext	Total
I	2311T	T/OL	தமிழ் இலக்கிய வரலாறு- I/ OtherLanguage	T	3	6	25	75	100
II	2312E	E	General English-I	T	3	6	25	75	100
III	23BVC1C1	CC	Introduction to Human Communication (Theory)	T	4	4	25	75	100
	23BVC1C2	CC	Visual Arts and Aesthetics	T	4	4	25	75	100
	-	Elective I- Allied	GraphicDesign and Typography	T	3	3	25	75	100
	-	Elective I- Allied(P)	GraphicDesign and Typography**(Practical)	P	2	3	25	75	100
IV	23BVC1S1	SEC-1	Digital Storytelling and Scriptwriting	P	2	2	25	75	100
	23BVC1FC	FC	Digital Drawing and Painting	P	2	2	25	75	100
					<b>23</b>	<b>30</b>	<b>175</b>	<b>525</b>	<b>700</b>

II SEMESTER									
I	2321T	T/OL	தமிழ்இலக்கிய வரலாறு-2 /Other Languages-II	T	3	6	25	75	100
II	2322E	E	General English - II	T	3	6	25	75	100
III	23BVC2C1	CC-III	Understanding Visual Communication (Theory)	T	4	5	25	75	100
	23BVC2P1	CC-IV	Photography and Videography (Practical)	P	4	4	25	75	100
	23BVCA2	Generic Elective (Allied)	Allied - II - Print and Publication	T	3	3	25	75	100
	23BVCA2		Allied Lab - Publication Design (Practical)	P	2	2	25	75	100
IV	23BVC2SP	SEC -II	Image Editing and Colour Management (Practical)	P	2	2	25	75	100
	23BVC2S1	SEC-III	Introduction to Study Skills	T	2	2	25	75	100
				Naan Mudhalvan Course					
Total					<b>23</b>	<b>30</b>	<b>200</b>	<b>600</b>	<b>800</b>

III SEMESTER									
I	2331T	T/OL	தமிழகவரலாறும்பண்பாடும்/ - Other Languages-III	T	3	6	25	75	100
II	2332E	E	General English – III	T	3	6	25	75	100
III	23BVC3C1	CC-V	Multimedia Technologies and Standards	T	4	5	25	75	100
	23BVC3P1	CC-VI	Audio-Visual Editing	p	4	4	25	75	100
	23BVCA3	Generic Elective (Allied)	Allied - 2D and 3D Modelling	T	3	3	25	75	100
	23BVCA3		Allied Lab - 2D and 3D Modelling	P	2	2	25	75	100

IV	23BVC3SP	SEC -IV	Multimedia Content Packaging	P	2	2	25	75	100
	233AT/ 23BVC3S1	SEC-V	Adipadai Tamil 1/ Design Thinking	T	2	2	25	75	100
			Naan Mudhalvan Course						
			<b>TOTAL</b>		<b>23</b>	<b>30</b>	<b>200</b>	<b>600</b>	<b>800</b>
<b>IV SEMESTER</b>									
I	2341T	T/OL	தமிழும்அறிவியலும்/Other Languages– IV	T	3	6	25	75	100
II	2342E	E	General English – IV	T	3	6	25	75	100
III	23BVC4C1	CC-VII	Film Appreciation and Analysis	T	4	4	25	75	100
	23BVC4P1	CC-VIII	Animation and Character Design	P	3	3	25	75	100
	23BVCA4	Generic Elective (Allied)	Allied - Compositing and Visual Effects	T	3	3	25	75	100
	23BVCA4P4		Allied Lab- Compositing and Visual Effects	P	2	2	25	75	100
IV	23BVC4SP	SEC-VI	Script Writing and Storyboard Development	P	2	2	25	75	100
	234AT/ 23BVC4S1	SEC-VII	Adipadai Tamil 2/ Life Skills	T	2	2	25	75	100
	23BES4	EVS	Environmental Studies		2	2	25	75	100
			Naan Mudhalvan Course						
			<b>TOTAL</b>		<b>24</b>	<b>30</b>	<b>225</b>	<b>675</b>	<b>900</b>
<b>V SEMESTER</b>									
III	23BVC5C1	CC-IX	Advertising and Brand Communication	T	4	5	25	75	100
	23BVC5C2	CC-X	User Experience Design	T	4	5	25	75	100
	23BVC5P1	CC-XI	Advanced 3D Texturing and Sculpting	P	4	5	25	75	100
	23BVC5P2	CC-XII	3D Environment Design	P	4	5	25	75	100
	23BVC5E1	DSE-I	Immersive Media Design	T	3	4	25	75	100
	23BVC5EP	DSE-II	Short Filmmaking (Fiction or Non-fiction)	P	3	4	25	75	100
	23BVC5SI/ 23BVC5IT		Summer Internship/Industrial Training	PR	2	-	25	75	100
IV	23BVE5		Value Education	T	2	2	25	75	100
			Naan Mudhalvan Course						
			<b>TOTAL</b>		<b>26</b>	<b>30</b>	<b>200</b>	<b>600</b>	<b>800</b>
<b>VI SEMESTER</b>									
IV	23BVC6C1	CC-XIII	Media Culture in Tamil Nadu	T	5	6	25	75	100
	23BVC6C2	CC-XIV	Media Entrepreneurship	T	4	6	25	75	100
	23BVC6P1	CC-XV	Extended Reality Design	P	4	6	25	75	100
	23BVC6PR	DSE-VII	Capstone Project	PR	5	10	25	75	100
	23BVC6S1	PCS	<b>Professional Competency Skill:</b> Cyber security Training for Media Professionals	T	2	2	25	75	100
	23BEA6		Extension Activity	P	1	-	25	75	100
			Naan Mudhalvan Course						
			<b>TOTAL</b>		<b>21</b>	<b>30</b>	<b>150</b>	<b>450</b>	<b>600</b>
					<b>140</b>		<b>1175</b>	<b>3525</b>	<b>4700</b>



- ❖ TOL-Tamil/Other Languages,
- ❖ E – General English
- ❖ CC - Core course –Core competency, critical thinking, analytical reasoning, research skill & teamwork
- ❖ Generic Elective(Allied)
- ❖ SEC-Skill Enhancement Course
- ❖ FC-Foundation Course
- ❖ T- Theory,P-Practical

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Chairperson details: Dr.S. Arulchelvan, Anna University, Chennai. Mobile No: 9444819958

FIRST YEAR - SEMESTER – I

<b>Title of the Course</b>	<b>Introduction to Human Communication</b>						
<b>Paper No.</b>	<b>Core I</b>						
<b>Category</b>	<b>Core</b>	<b>Year</b>	<b>I</b>	<b>Credits</b>	<b>4</b>	<b>Course Code</b>	<b>23BVC1C1</b>
		<b>Semester</b>	<b>I</b>				
<b>Instructional hours per week</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Lab Practice</b>		<b>Total</b>		
	3	1	-		4		
<b>Course Description</b>	This course introduces the field of communication and explores the foundational concepts of the discipline. Students will examine various types of communication, the importance of communication, and the nature of communication as an expression, skill, and process. They will also learn about the SMCR model, which explains communication in terms of its source, message, channel, and receiver. The course will cover different contexts of communication such as interpersonal, group, organizational, and mass communication. Students will also explore communication processes and language, including message, meaning, connotation, denotation, culture/codes, and communication barriers. The course will cover levels of communication such as technical, semantic, and pragmatic communication, and delve into the semiotic landscape, including language and visual communication and narrative representation. Students will also gain insight into nonverbal communication and listening skills. The course covers the types and functions of nonverbal communication, including body language, facial expressions, gestures, and posture. Students will learn the importance of active listening in effective communication, and strategies to improve listening skills. The course will cover principles of effective interpersonal communication, communication styles, conflict resolution, and negotiation skills. Students will learn about building and maintaining professional relationships through communication. The course also provides students with the basics of public speaking, including overcoming fear, audience analysis, speech organization, developing effective verbal and visual presentation skills, and using technology in presentations. The course concludes by examining strategies to evaluate and improve public speaking and presentation skills through feedback and practice.						
<b>Course Objective</b>	<ol style="list-style-type: none"> <li>1. Define and categorize various types of communication (Remembering)</li> <li>2. Analyze communication as a skill, expression, and process (Understanding)</li> <li>3. Evaluate barriers to communication and develop strategies to improve listening skills (Evaluating)</li> <li>4. Apply principles of effective interpersonal communication in relationship building (Applying)</li> <li>5. Create and deliver effective public speeches and presentations (Creating)</li> </ol>						
<b>Unit I</b>	<b>Foundations of Communication</b> Communication: Definition, types of Communication, Need for and the Importance of Human and Visual Communication Nature of communication, Communication as expression, skill, and process Understanding Communication: SMCR Model Communication in different contexts: interpersonal, group, organizational, and mass communication						

<b>Unit II</b>	<b>Communication Processes and Language</b> Communication as a process and a Product Message, Meaning, Connotation, Denotation, Culture/Codes, etc. Flow of Communication, barriers to Communication Levels of communication: Technical, Semantic, and Pragmatic The semiotic landscape: language and visual communication, narrative representation
<b>Unit III</b>	<b>Nonverbal Communication and Listening Skills</b> Introduction to nonverbal communication: types and functions Understanding body language, facial expressions, gestures, and posture The importance of active listening in effective communication Barriers to effective listening and strategies to improve listening skills.
<b>Unit IV</b>	<b>Interpersonal Communication and Relationship Building</b> Principles of effective interpersonal communication Communication styles: assertive, passive, aggressive, and passive-aggressive Conflict resolution and negotiation skills Building and maintaining professional relationships through communication.
<b>Unit V</b>	<b>Public Speaking and Presentation Skills</b> Basics of public speaking: overcoming fear, audience analysis, and speech organization. Developing effective verbal and visual presentation skills Using technology in presentations: PowerPoint, Prezi, and other tools Evaluating and improving public speaking and presentation skills through feedback and practice.
<b>Course Outcomes</b>	<ol style="list-style-type: none"> <li>1. Define and differentiate between different types of communication, evaluate the impact of communication on society, and create effective communication strategies for different contexts.</li> <li>2. Analyze communication processes and barriers, synthesize solutions to overcome communication barriers, and evaluate the effectiveness of communication strategies in real-world scenarios.</li> <li>3. Apply nonverbal communication and active listening skills to improve interpersonal relationships, evaluate the effectiveness of communication skills in relationships, and create communication plans for building and maintaining professional relationships.</li> <li>4. Evaluate different communication styles and their effectiveness in managing conflicts, design and implement effective conflict resolution strategies, and evaluate the effectiveness of negotiation strategies in different contexts.</li> <li>5. Develop and deliver persuasive public speeches and presentations, integrate appropriate technology tools to enhance the impact of the message, and evaluate the effectiveness of public speeches and presentations in real-world scenarios.</li> </ol>

## Mapping

PSO/CO	CO 1	CO 2	CO 3	CO 4	CO 5
PSO 1	2	2	3	1	1
PSO 2	1	1	2	1	2
PSO 3	1	2	3	1	2
PSO 4	1	1	1	3	1
PSO 5	1	1	2	2	2
PSO 6	3	1	1	1	1
PSO 7	2	2	2	1	1

### Key Textbooks

1. Berger, A. A. (2016). *Messages: An Introduction to Communication*. Routledge.
2. Bharadwaj, A., & Rath, P. (2021). *Public Speaking for Leaders: Communication Strategies for the Global Market*. Taylor & Francis Group.
3. McLean, S. (2005). *The Basics of Interpersonal Communication*. Pearson/A and B.
4. Mihir. (2021). *PUBLIC SPEAKING: Speak Effectively in Public*. Mihir Prajapati.
5. Nagendra, S. P. (2021). *Excellence in Communication Skills*. Shashi Prabha Nagendra.
6. Savithri, S. R. (2019). *Introduction to Communication Sciences*. Nova Science Publishers.
7. Turner, L. H., & West, R. (2018). *An Introduction to Communication*. Cambridge University Press.

### References

1. Bar-Am, N. (2016). *In Search of a Simple Introduction to Communication*. Springer.
2. Berger, A. A. (2016). *Messages: An Introduction to Communication*. Routledge.
3. Dickhaus, J., & Netzley, S. (2017). *Introduction to Communication (First Edition)*. Cognella, Incorporated.
4. *Evolution and Aesthetics: Visual Arts in Comparative Perspective*. (2018). Angelo Pontecorboli Editore.
5. Locher, P., Martindale, C., & Dorfman, L. (2020). *New Directions in Aesthetics, Creativity and the Arts*. Routledge.
6. Turner, L. H., & West, R. (2018). *An Introduction to Communication*. Cambridge University Press.
7. van Eck, C., & Winters, E. (2017). *Dealing with the Visual: Art History, Aesthetics and Visual Culture*. Routledge.
8. Dillow, M. R. (2022). *An Introduction to the Dark Side of Interpersonal Communication*. Cognella, Incorporated.
9. Gareis, J., & Cohn, E. (2021). *Communication As Culture: An Introduction to the Communication Process*. Kendall Hunt Publishing Company.
10. Roden, M. S. (2014). *Introduction to Communication Theory*. Elsevier.

### Web Resources

1. Communication Research - <https://journals.sagepub.com/home/crx>
2. Journal of Communication - <https://onlinelibrary.wiley.com/journal/14602466>
3. Communication Monographs - <https://www.tandfonline.com/toc/rcmm20/current>
4. Journal of Computer-Mediated Communication - <https://academic.oup.com/jcmc>
5. Human Communication Research - <https://onlinelibrary.wiley.com/journal/14682805>
6. International Association of Business Communicators - <https://www.iabc.com/>

Title of the Course	Visual Arts and Aesthetics						
Paper No.	Core II						
Category	Core	Year	I	Credits	4	Course Code	23BVC1C2
		Semester	I				
Instructional hours per week	Lecture	Tutorial	Lab Practice		Total		
	3	1	-		4		
<b>Course Description</b>	This course "Visual Arts and Aesthetics" provides an introduction to the study of history, philosophy, and theories surrounding the visual arts. It examines the various ways in which we understand and appreciate art and beauty, and how we communicate these ideas to others. The course explores the different techniques, styles, and media used in creating visual art, as well as the cultural and historical contexts that shape these works of art. During the course of study students will learn how to analyze, interpret, and critique visual art, and how to develop their own aesthetic sensibilities. Students will gain a solid foundation in the history and theory of visual art and aesthetics and also examine the relationship between art and society.						
<b>Course Objective</b>	1. To understand the concepts of aesthetics and the philosophy of beauty. 2. To study the evolution of art and the various styles and movements in Western and Eastern art. 3. To analyze the role of art in society and the artist as an agent of change. 4. To develop an understanding of the elements of art and principles of composition. 5. To explore the connection between art and everyday life, including the role of aesthetics in enhancing the human experience.						
<b>Unit I</b>	<b>Visual Art and Aesthetics</b> Aesthetic Experience, Objectivism vs. Subjectivism Elements of Visual Art Creativity and Expression in Art, Symbolism and Iconography Form and Function Form; Content and Composition; Form - Representational and Abstract Emerging Visual Context - Virtual Reality and Digital Culture						
<b>Unit II</b>	<b>Indian Art</b> Prehistoric cave paintings - Bhimbetka, Indus Valley Civilisation, Buddhist Art Murals – Ajantha, Ellora, Bagh and Sittanvasal Miniatures – Pala, Mughal, Rajathan, Pahari and Deccan Art Movements – Bengal School, Bombay Progressive Artist Group, Baroda Group of Artists Progressive Painters Association – Madras Art Movement						
<b>Unit III</b>	<b>Western Art</b> Pre-historic art, Greek, Romanesque, Byzantine, Gothic Renaissance, Baroque, Realism, Impressionism, Postimpressionism Pointillism, Symbolism, Cubism, Expressionism Futurism, Dadaism, Surrealism, Op, Pop, Minimal, Conceptual Art, Performance Art						
<b>Unit IV</b>	<b>Contemporary Movements and Artists</b> Street Art, Digital Art, Neo Pop Art, Installation Art, Afrofuturism <b>Internet Art, Posthuman Art, Data Art, Net.Art</b> Superflat Art, Contemporary Figurative Art, Data Sculpture, Data Painting						

	Anish kapoor, Sudarshan shetty, Nalini malani, Amar kanwar, Shilpa gupta, Atul dodiya, Jitish kallat, Bharti kher, Subodh gupta, CJ Anthony dass, Alphonso arul doss, RB Bhaskaran, KM Adimoolam, AP Santhanaraj, G Raman Golan levin, David Mccandless, Nathalie miebach, Aaron koblin, Chris jordan, Zach blas, Tega brain, Sam lavigne, Joel stern, James parker, Sean dockray, Refik anadol, Pipilotti rist, Bill viola, Lynn hershman leeson, Isaac julien, Hito steyerl, Arthur jafa
<b>Unit V</b>	<b>Visual Art Analysis and Appreciation</b> Description, Analysis, Interpretation, Judgment Heinrich Wölfflin – Principles of Art History Clive Bell – Significant Form Erwin Panofsky - Three levels of Iconography Roland Barthes – Rhetoric of the Image
<b>Course Outcomes</b>	<ol style="list-style-type: none"> <li>1. Identify and describe the different styles and movements in art history.</li> <li>2. Develop critical thinking skills in analyzing and interpreting artworks.</li> <li>3. Demonstrate the ability to communicate ideas and emotions through art.</li> <li>4. Engage in constructive critique and feedback of one's own and others' artwork.</li> <li>5. Recognize the significance of art in contemporary society and its impact on cultural and social issues.</li> </ol>

### Mapping

PSO/CO	CO 1	CO 2	CO 3	CO 4	CO 5
PSO 1	3	3	3	3	1
PSO 2	3	3	2	3	2
PSO 3	2	2	3	2	3
PSO 4	3	3	2	3	2
PSO 5	1	2	1	2	1
PSO 6	1	1	1	1	1
PSO 7	3	2	3	2	1

### Key Textbooks

1. Kleiner, F. S., Gardner, H. (2009). Gardner's Art through the Ages: A Global History. United States: Thomson/Wadsworth.
2. The Routledge Companion to Aesthetics. (2013). United Kingdom: Taylor & Francis.
3. Mitter, P. (1994). Indian Art. United Kingdom: Oxford University Press.
4. Huntington, J. C., Huntington, S. L. (2014). The Art of Ancient India: Buddhist, Hindu, Jain. Japan: Motilal Banarsidass.
5. Smith, V. A. (2015). Art of India. United Kingdom: Parkstone International.

6. Oxford Readings in Indian Art. (2018). India: Oxford University Press.
7. Audry, S. (2021). Art in the Age of Machine Learning. United States: MIT Press.
8. Reichle, I. (2009). Art in the Age of Technoscience: Genetic Engineering, Robotics, and Artificial Life in Contemporary Art. Austria: Springer.

#### **References:**

1. Pande, A. (2013). Masterpieces of Indian Art. India: Lustre Press.
2. Bahl, S. (2012). 5000 Years of Indian Art. India: Lustre Press.
3. Adams, L. (2005). A history of western art. Boston: McGraw-Hill.
4. Berleant, A. (2019). Aesthetics and Environment: Variations on a Theme. Routledge.
5. Barthes, R. (1977). Image-Music-Text. United Kingdom: Farrar, Straus and Giroux.
6. Panofsky, E. (2018). Studies In Iconology: Humanistic Themes In The Art Of The Renaissance. United Kingdom: Taylor & Francis.

#### **Web Resources:**

1. Title: The Art Story, URL: <https://www.theartstory.org/>
2. <https://philosophy.lander.edu/intro/articles/bell-a.pdf>
3. <https://williamwolff.org/wp-content/uploads/2014/08/Barthes-Rhetoric-of-the-image-ex.pdf>
4. [http://tems.umn.edu/pdf/Panofsky\\_iconology2.pdf](http://tems.umn.edu/pdf/Panofsky_iconology2.pdf)
5. Title: Tate Kids, URL: <https://www.tate.org.uk/kids>
6. Title: Khan Academy, Art History, URL: <https://www.khanacademy.org/humanities/art-history>
7. The Met, URL: <https://www.metmuseum.org/learn/educators/curriculum-resources/art-and-activities>.

Title of the Course		Digital Storytelling and Scriptwriting					
Paper No.	SEC						
Category	Core	Year	I	Credits	2	Course Code	23BVC1S1
		Semester	I				
Instructional hours per week	Lecture	Tutorial	Lab Practice		Total		
	1	1	-		2		
Course Description	<p>This course provides an introduction to digital storytelling and scriptwriting. Students will learn the terminology and principles of story design, as well as the structure of a story using the three-act structure, Freytag's pyramid, the Hero's Journey, and Dan Harmon's story circle. The course also covers the basics of scriptwriting, including the definition and meaning of a script, script preparation, and screenplay formatting.</p> <p>The development of a script is explored in detail, with an emphasis on the process of script development and strategies for successful scriptwriting. The course will also cover storytelling techniques and the different types of scripts, including those for fiction, non-fiction, documentaries, commercials, PSAs, news, radio, videogames, standalone scripts, and spec scripts.</p> <p>Additionally, students will learn about elements of story analysis, cultural practices in storytelling, and approaches to story analysis, such as McKee's story analysis approach and the narrative paradigm. Finally, the course will introduce Photovoice, a method of storytelling through slideshows and photographs with sound.</p> <p>By the end of the course, students will have developed a solid understanding of digital storytelling and scriptwriting, as well as the tools to create their own compelling scripts and stories across a variety of mediums.</p>						
Course Objective	<ol style="list-style-type: none"> <li>1. To understand the process involved in writing script and story development</li> <li>2. To demonstrate understanding of techniques, principles, genres of story, and scriptwriting</li> <li>3. To analyse the process of research concepts and elements of the script</li> <li>4. Develop a story, characters, and dialogues for the script</li> <li>5. Communicating clear ideas in the script, Review, Revision, and Edit scripts</li> </ol>						
Unit I	<b>Introduction to Story</b> Terminology of story design Principles of story design Story structure – Three-act structure Freytag's pyramid-Hero journal structure – Dan Harmon's story circle						
Unit II	<b>Elements of Script</b> Definition, Meaning of the script Script preparation Basics of scriptwriting – script and story ideas Screenplay formatting						
Unit III	<b>Development of Script</b> Process of script development Strategies for script development Structure of scripts Storytelling techniques						
Unit IV	<b>Types of Script</b> Writing for fiction and non-fiction						



	Documentary script format Commercial, PSA, News, and Radio scripts Script for videogame Standalone and Spec Script
<b>Unit V</b>	<b>Analysis of Story and Script</b> Elements of story analysis Culture and practices in the story McKee's Story Analysis Approach Narrative Paradigm Photovoice (Slideshow, Photographs with Sound)
<b>Course Outcomes</b>	<ol style="list-style-type: none"> <li>1. Learners can express ideas fluently in standard screenwriting formats.</li> <li>2. Learners will be able to craft characters – based stories with clear conflicts at an advanced level</li> <li>3. Learners will be able to analyse film and television structure</li> <li>4. Learners will be able to work with their creative ideas – input in writing full-length scripts</li> <li>5. Learners can understand how to write scripts for special budget</li> </ol>

### Mapping Course Objectives (CO) and Program Specific Objectives (PSO)

PSOs/COs	CO1	CO2	CO3	CO4	CO5
PSO 1	3	1	3	2	3
PSO 2	3	3	3	3	3
PSO 3	3	3	3	3	3
PSO 4	3	3	3	3	2
PSO 5	2	3	2	3	3

### Key Textbooks

1. Aronson, Linda: (2010) Scriptwriting Updated, Allen & Unwin.
2. Hauge, Michael: (2013) Writing Screenplays That Sell, Harper Resource
3. Dancyger, Ken, and Jeff Rush. 2012. Alternative Scriptwriting: Successfully Breaking the Rules. CRC Press.
4. Gitner, Seth. 2015. Multimedia Storytelling for Digital Communicators in a Multiplatform World. Routledge.
5. Gutierrez, Peter. 2014. The Power of Scriptwriting!: Teaching Essential Writing Skills through Podcasts, Graphic Novels, Movies, and More. Teachers College Press.

### References

1. Condy, Janet. 2015. Telling Stories Differently: Engaging 21st Century Students Through Digital Storytelling. AFRICAN SUN MeDIA.
2. Dunford, Mark, and Tricia Jenkins. 2017. Digital Storytelling: Form and Content. Springer.
3. Lambert, Joe. 2013. Digital Storytelling: Capturing Lives, Creating Community. Routledge.

4. Miller, Carolyn Handler. 2014. Digital Storytelling: A Creator's Guide to Interactive Entertainment. CRC Press.
5. McKee, R. (1997). Story: Style, Structure, Substance, and the Principles of Screenwriting. HarperCollins.
6. McKee, R., & Gerace, T. (2018). Storynomics: Story-Driven Marketing in the Post-Advertising World. Grand Central Publishing.
7. McClean, Shilo T. 2008a. Digital Storytelling: The Narrative Power of Visual Effects in Film. MIT Press.

### **Web Resources**

1. Journal of Screenwriting - <https://www.intellectbooks.com/journal-of-screenwriting>
2. Storytelling, Self, Society - <https://www.berghahnjournals.com/view/journals/storytelling-self-society/storytelling-self-society-overview.xml>
3. Journal of Digital Storytelling - <http://journals.sfu.ca/jds/index.php/jds/index>
4. The Journal of Popular Film and Television - <https://www.tandfonline.com/loi/vjpf20>
5. New Review of Film and Television Studies - <https://www.tandfonline.com/loi/rfts20>
6. International Documentary Association - <https://www.documentary.org/>

Title of the Course		Digital Drawing and Painting					
Paper No.	FC						
Category	Core	Year	I	Credits	2	Course Code	23BVC1FC
		Semester	I				
Instructional hours per week	Lecture	Tutorial	Lab Practice		Total		
	1	1	-		2		
Course Description	<p>The Digital Painting and Drawing course provides an in-depth understanding of the art and science of creating paintings and drawings for visual effects, film, and video game industries. This course is designed for artists, graphic designers, and animators who want to learn how to create realistic environments, landscapes, and backgrounds for film, television, and video games. The course starts with an introduction to digital painting and drawing and tools required for creating digital painting and drawing. The course covers various techniques of creating digital painting and drawing such as perspective drawing, color composition, texturing, and camera projection. In addition to these techniques, the course also focuses on creating various illustration styles, such as charcoal, pastel, and watercolor. The course also includes practical exercises that provide hands-on experience in creating digital painting and drawing for various genres like sci-fi, fantasy, and cyberpunk. Students will have an opportunity to work on projects like creating multi-plane parallax set-ups, camera projection, and transitions from day to night or changing seasons. Upon completion of the course, students will have a strong foundation in creating digital painting and drawing and will have a solid understanding of the tools and techniques used in the industry.</p>						
Course Objective	<ol style="list-style-type: none"> <li>1. Develop an understanding of Digital Painting and Drawing as an art form and as a visual effects technique, including the ability to differentiate it from other related disciplines such as concept art and fantasy art.</li> <li>2. Acquire practical skills in digital painting and drawing tools and techniques, including using a digitizing tablet, customizing brushes, and creating patterns and textures.</li> <li>3. Learn to apply fundamental principles of perspective, color, and lighting in the creation of paintings and drawings, including using atmospheric perspective, vanishing points, and different types of lighting.</li> <li>4. Gain proficiency in compositing and integrating matte paintings with live action or 3D elements, including using camera projection, multi-plane setups, and compositing techniques.</li> <li>5. Develop advanced skills in Digital Painting and Drawing, including creating environments and transitions, incorporating visual effects such as smoke and fire, and creating simulated natural phenomena such as precipitation.</li> </ol> <p>Note: While open source software for Digital Matte Painting such as GIMP/InkSpace, Krita is the recommended. However, each institution/college can choose to train the students in any other open source or commercial alternative such as Adobe Creative Cloud Suite Apps, Procreate, Mental Case etc.</p> <p><b>Detailed Syllabus</b></p> <p>Procedural Knowledge on Digital Painting and Drawing (Viva/Written Test Topics for Practical Examination)</p> <p><b>Students/College Can Alternatively Adopt Conventional Hand Drawing Techniques for Practical Exercises</b></p>						

	<p><b>Digital Painting and Drawing Record</b></p> <p>Students should to keep a record of their Digital Painting and Drawing works in the form of album or a slideshow. If reference images are used, both the original and recreated Digital Painting/Drawing should be presented side-by-side in the record. A minimum of five Digital Paintings from various genre will be the minimum requirement. A Description of Intent, Purpose and Vision for each Digital Matte Painting should be included.</p> <p><b>Practical Examination</b></p> <p>Practical examination could be in the form of viva, testing students procedural knowledge, evaluation of Practical Examination techniques. Students can also be asked to create a Practical Examination for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge on the Practical Examination software. Students should be able to explain what technique, brushes or pipeline/workflows were deployed.</p>
<b>Unit I</b>	<p><b>Introduction about Digital Painting and Drawing</b></p> <p>Basic geometrical shapes: circle, triangle, square, rectangle, and ellipse, Creating depth and volume using light and dark tones; Creating and drawing organic shapes; Gradients, Brush stroke, ruler and grid, Rule of third, Light and shadow.</p> <p>Understanding the difference between Concept Art and Fantasy Art, thumbnail sketching and ideation, working in software using the Pen Tablet, converting paper to digital, file format and file size, aspect ratio, 2K Resolution. Paint vs. pixels vs vector.</p> <p>Photoshop/GIMP Workspace, The Basic Tools for Painting in Photoshop/GIMP - layers concept, smudge, blur, Overlays, texture, various shapes and sizes of brushes, using and making custom brushes, brush palette, working with paint tools, mask and layer adjustments, setting up your workspace, Photoshop/GIMP Panels, working with image-based brushes, digitizing tablet.</p>
<b>Unit II</b>	<p><b>Perspectives, Color, Texturing</b></p> <p>Perspective basics - one point, two points and three points, understanding the significance of vanishing point and horizon line, eye level, above eye level, below eye level, working with atmospheric perspective, field of vision, overlapping objects and creating depth in the composition.</p> <p>Perspective Drawing - setting up your vanishing points, drawing the basic shapes in perspective, drawing buildings and environment, adding fine details.</p> <p>Colors - colour composition, effects of colour on perspective, colour shades by atmosphere lighting, highlight, mid tone, shadow, hue and saturation, working with colour correction, merge by colour tone and proportion.</p>

	Texturing and color correction, blending modes, finding and working with reference photos, levels and curves in color correction, lighting the scene, creating the sky, understanding different themes of patterns: floral, abstract, geometric, making your own patterns, applying pattern textures, texture libraries, creating texture in drawing: fur, hair, feathers, wood grain, Drawing surfaces: metal, glass, water, fabric.
<b>Unit III</b>	<p><b>Camera, Lighting and Composition</b></p> <p>Camera projection: Preparing Your Photoshop/GIMP File for Camera Projection in Blender/Maya/Unreal Engine, setting up for camera projection, adding the image plane, positioning the camera using the reference grid.</p> <p>Lighting techniques, day-for-night, preparing the daytime plate, preparing the night time plate, adding life to the city, relighting, the night sky.</p> <p>Image composition, background making, paint material and software layer distribution, understanding the depth of field, multi-plane set up in compositing, matte layers extractions matching with 3D objects or live action. Form, finding the light and dark sides, cast shadows, cores, final form layer, adding the line drawing using light and shadow to create form and volume.</p>
<b>Unit IV</b>	<p><b>Genres of Digital Painting</b></p> <p>Changing Seasons, the Summertime Plate, the Wintertime Plate, Dusk</p> <p>Charcoal Drawings in Photoshop/GIMP, Charcoal Techniques, Bridal Portrait with Tiny Charcoal Marks, Landscape Rendering with Smudgy Charcoal Look, Conte and Charcoal Rendering</p> <p>Pastel Drawing in Photoshop/GIMP, Pastel Techniques, Making a Pastel Brush, Printing Considerations</p> <p>Painting with Watercolors in Photoshop/GIMP, Watercolor Technique, Watercolor Brushes, Pattern Stamp Watercolor Technique, Brush Watercolor Technique, Simple Two-Layer Watercolor Painting</p> <p>Painting with Oil Paints in Photoshop/GIMP, Impasto Technique, Bevel and Emboss Layer Style Oil Painting, Portrait Painting Using Bevel and Emboss, Printing Considerations</p> <p>Illustration Techniques in Photoshop/GIMP, Stylize – Find Edges Illustration Technique, Faux HDR Illustration, Pen-and-Ink with Aquatint Illustration, Dreamy Soft Focus Effect, CutOut Illustration</p>
<b>Unit V</b>	<p><b>Advanced Techniques</b></p> <p>Using Third-Party Add on for enhancing drawing and painting quality.</p> <p><b>Detailed Practical Exercises for Digital Painting and Drawing (Any Five from the Following Exercise for Digital Record) Students/College Can Alternatively Adopt Conventional Hand Drawing</b></p>

	<p><b>Techniques for Practical Exercises</b></p> <p>Exercise 1: Create a concept environment using only 2 reference images.</p> <p>Exercise 2: Create a stylized painting of a sci-fi city using only basic shapes and custom brushes.</p> <p>Exercise 3: Create an transition from day to night of a landscape using color correction and lighting techniques.</p> <p>Exercise 4: Create a multi-plane parallax set up for a busy marketplace scene using 2D images.</p> <p>Exercise 5: Create a photo realistic castle environment for camera projection.</p> <p>Exercise 6: Create a stop motion effect using still frames of a character walking through different environments.</p> <p>Exercise 7: Create a 3 paintings of changing seasons using matte layers.</p> <p>Exercise 8: Create charcoal and pastel style matte paintings using custom brushes.</p> <p>Exercise 9: Create watercolor and oil painting style matte paintings using custom brushes and layer styles.</p> <p>Exercise 10: Create three different illustration styles like pen &amp; ink, stylized and soft focus using filters and effects.</p> <p>Exercise 11: Create visual effects like smoke, fire, clouds using third party plug-ins and compositing.</p> <p>Exercise 16: Create a sci-fi vehicle in a futuristic city environment.</p> <p>Exercise 17: Create a neon sign for a building at night in a cyberpunk city environment.</p>
<p><b>Course Outcomes</b></p>	<ol style="list-style-type: none"> <li>1. Create digital paintings and drawings using various painting techniques, software tools, and custom brushes.</li> <li>2. Analyze and evaluate digital paintings and drawings and identify the elements of perspective, color, texture, and lighting used in the artwork.</li> <li>3. Develop advanced skills in compositing, camera projection, and special effects using third-party software and compositing techniques.</li> <li>4. Synthesize their learning by designing and completing practical exercises in digital paintings and drawings, including creating a photo-realistic environment, a transition from day to night, and creating an concept environment.</li> <li>5. Apply critical thinking and problem-solving skills to develop original and creative digital paintings and drawings that demonstrate an understanding of the principles and techniques covered in the course.</li> </ol>

## Mapping

PSOs/COs	CO1	CO2	CO3	CO4	CO5
PSO 1	3	2	2	3	2
PSO 2	3	3	3	3	2
PSO 3	3	3	3	3	3
PSO 4	3	3	3	3	2
PSO 5	2	2	3	3	3

### Key Textbooks

1. Mattingly, D. B. (2011). The Digital Matte Painting Handbook. John Wiley & Sons.
2. 3dtotal Publishing. (2020). Beginner's Guide to Digital Painting in Photoshop 2nd Edition. 3DTotal Publishing.
3. Dinur, E. (2021). The Complete Guide to Photorealism for Visual Effects, Visualization and Games. Routledge.

### References

1. Bloom, S. R. (2012). Digital Painting in Photoshop. CRC Press.
2. Dinur, E. (2021). The Complete Guide to Photorealism for Visual Effects, Visualization and Games. Routledge.
3. Mattingly, D. B. (2011). The Digital Matte Painting Handbook. John Wiley & Sons.
4. Whitt, P. (2020). Practical Glimpse: Learn to Edit and Create Digital Photos and Art with This Powerful Open-Source Image Editor. Apress.
5. Kuhlman, G. (2019). *GIMP for Beginners: First 12 Skills*. Independently Published.

### Web Resources

1. Journal of Digital Painting: <https://www.tandfonline.com/loi/tjdp20>
2. Digital Art Online: <https://www.digitalartsonline.co.uk/>
3. Leonardo: Journal of the International Society for the Arts, Sciences and Technology: <https://www.mitpressjournals.org/loi/leon>
4. Journal of Applied Digital Art: <https://www.jada-art.org/>
5. The Journal of Computer Animation and Virtual Worlds: <https://onlinelibrary.wiley.com/journal/15464284>
6. . The Art Directors Club: <https://www.adcglobal.org/>
7. Society of Illustrators: <https://www.societyillustrators.org/>
8. The Animation Guild: <https://animationguild.org/>
9. Creative Industries Federation: <https://www.creativeindustriesfederation.com/>
10. National Association of Independent Artists: <http://naia-artists.org/>

Subject Code	Subject Name	Category	T/P	Credits	Inst. Hours	Marks		
						CIA	External	Total
23BVC2C1	Understanding Visual Communication	Core	T	4	5	25	75	100

### Course Description:

The course on Visual Communication is designed to provide students with a comprehensive understanding of the essential topics and concepts related to visual communication. With the guidance of an expert in the field, this 31-lesson course is divided into eight units that explore the foundations, theories, and practices of visual communication. Students will learn about the study of visual culture, the fundamentals of visual literacy, visual theories, critical viewing skills, and the grammar of visual design. They will also study theories of visual communication, introduction to visual media, visual language, and the art of visual storytelling. The course is designed to equip students with the skills needed to critically analyze and communicate with visual images, from print and film to public spaces and digital media. Students will learn about the role of visual communication in shaping cultural, social, and political narratives, and explore strategies for creating impactful and ethical visual communication. With a focus on developing a deep understanding of visual communication, this course will provide students with the tools needed to succeed in a range of visual design fields.

### Course Objectives:

1. Analyze and evaluate the visual elements and messages of various forms of media, from print and film to digital and public spaces.
2. Develop a critical understanding of the foundations, theories, and practices of visual communication, including visual literacy, visual theories, and the grammar of visual design.
3. Apply the principles of design and visual communication to create impactful and ethical visual communication that aligns with specific goals and objectives.
4. Demonstrate an understanding of the role of visual communication in shaping cultural, social, and political narratives, and critically evaluate the use of visual images in various contexts.
5. Develop and present a final project that showcases their ability to create effective visual communication, including narrative development, visual design, and ethical considerations.

<b>UNIT-I</b>	<b>Introduction to Visual Culture</b> Introduction to Visual Media, Understanding Visual Media, The Role of Visual Media in Society, Power of Visual Images Visual Language, Understanding Visual Language in Visual Media, The Role of Visual Language in Communication Overview of Framing, Understanding Framing in Visual Communication, The Role of Framing in Visual Communication Types of Narratives, Understanding Narrative Theory and Its Elements in Visual Communication, Understanding Different Types of Narratives in Visual Media, The Role of Narratives in Visual Communication, Understanding Traditional Narrative Media
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<b>UNIT-II</b>	<b>Fundamentals of Visual Literacy</b> Definition and Concepts of Visual Literacy, The importance of Visual Literacy, Visual Elements and Principles, Developing Visual Literacy Skills Visual Environment – Art, Print, Film, TV and Public Space, Understanding the Visual Environment, The role of Visual Communication in different contexts, Public Art and Social Responsibility Visual Persuasion and Propaganda, Understanding the power of Visual Persuasion, The use of Visual Propaganda in History, Ethical Issues in Visual Persuasion
<b>UNIT-III</b>	<b>Visual Literacy</b> Basic Visual Concepts and Principles, The Elements and Principles of Visual Design, Applying Basic Visual Concepts and Principles Physiological Aspect and Perceptual Aesthetics, The Physiology of Visual Perception, The Aesthetics of Perception Perceptual Theories - Sensation and Perception; Organization and Constancies, Sensation and Perception, Organizing Visual Information, Understanding Constancies in Visual Perception, Gestalt Theory and Constructivism, The Principles of Gestalt Theory, The Principles of Constructivism, Applying Gestalt Theory and Constructivism in Visual Communication, Sensual Theories – Gestalt and Construct Cognitive Understanding and Cognitive Theories in Visual Communication, The Role of Cognition in Visual Communication
<b>UNIT-IV</b>	<b>Theories of Visual Communication</b> Visual Literacy Eye, Developing the Visual Literacy Eye, Visual Analysis Techniques, The Gaze, Definition and types of Gaze, The Male Gaze, The Female Gaze Critically Analyzing Visuals and Designs, Understanding Form, Content, and Context in Visual Communication, Analyzing the Meaning and Message of Visual Communication Meaning and Message, Understanding the Relationship between Meaning and Message in Visual Communication, Understanding the Role of Context in the Interpretation of Visual Communication Form, Content, and Context, Understanding the Relationship between Form, Content, and Context in Visual Communication, Applying Form, Content, and Context in Visual Communication What is Visual Culture? Key themes and concepts in Visual Culture
<b>UNIT-V</b>	<b>The Grammar of Visual Design</b> Semiotics - Iconic, Indexical and Symbolic, Understanding Semiotics in Visual Communication, The Role of Iconic, Indexical, and Symbolic Signs in Visual Communication Colour Theories, The Science of Colour Perception, The Role of Colour in Visual Communication, The Psychological and Emotional Impact of Colour Principles of Design, The Basic Principles of Design, Applying the Principles of Design in Visual Communication Relationship of Elements, Understanding the Relationship between Visual Elements in Design, Creating Balance and Harmony in Visual Communication Visual Persuasion in Communication, Understanding the Role of Persuasion in Visual Communication, Techniques for Persuasive Visual Communication

**Key Textbooks**

1. Baldwin, J., & Roberts, L. (2019). Visual Communication: From Theory to Practice. Bloomsbury Publishing.
2. Aiello, G., & Parry, K. (2020). Visual Communication: Understanding Images in Media Culture. SAGE Publications.
3. Lester, P. M. (2010). Visual Communication: Images with Messages. Wadsworth.
4. Smith, K. L., Moriarty, S., Kenney, K., & Barbatsis, G. (2004). Handbook of Visual Communication: Theory, Methods, and Media. Routledge.
5. Aiello, G., & Parry, K. (2019). Visual Communication: Understanding Images in Media Culture. SAGE.
6. Josephson, S., Kelly, J., & Smith, K. (2020). Handbook of Visual Communication: Theory, Methods, and Media. Taylor & Francis.
7. Page, J. T., & Duffy, M. (2021). Visual Communication: Insights and Strategies. John Wiley & Sons.

**References**

1. Aiello, G., & Parry, K. (2020). Visual Communication: Understanding Images in Media Culture. SAGE Publications.
2. Baldwin, J., & Roberts, L. (2019). Visual Communication: From Theory to Practice. Bloomsbury Publishing.
3. Crow, D. (2017). Visible Signs: An Introduction to Semiotics in the Visual Arts. Bloomsbury Publishing.
4. Davis, M., & Hunt, J. (2017). Visual Communication Design: An Introduction to Design Concepts in Everyday Experience. Bloomsbury Publishing.
5. Edwards, M. (2015). The Visual Communications Book: Using Words, Drawings and Whiteboards to Sell Big Ideas. LID Publishing.

**Web Resources**

1. Visual Communication Quarterly - <https://www.tandfonline.com/toc/hvcq20/current>
2. Journal of Visual Literacy - <http://www.visualnarratives.org/jvl/index.html>
3. Information Design Journal - <https://benjamins.com/catalog/idj>
4. Journal of Design Communication - <https://journals.sagepub.com/home/dcn>
5. Communication Design Quarterly - <https://sigdoc.acm.org/publications/cdq/>
6. The Association for Computer Machinery (ACM) Special Interest Group on Design of Communication (SIGDOC) - <https://sigdoc.acm.org/>

**Course Outcomes:**

1. Analyze and evaluate visual elements and messages in different media forms and contexts, demonstrating an advanced understanding of visual communication concepts and principles.
2. Apply the principles of design and visual communication to create effective and ethical visual communication, considering the needs and goals of specific audiences and contexts.
3. Demonstrate an advanced understanding of the role of visual communication in shaping cultural, social, and political narratives, and analyze the use of visual images in different contexts to inform and persuade audiences.
4. Synthesize knowledge and skills related to visual communication, including visual literacy, design principles, and ethical considerations, to develop a final project that effectively communicates a narrative concept.
5. Evaluate the impact and effectiveness of visual communication, considering the social, cultural, and ethical implications of the use of visual images and messages, and apply this knowledge to their own visual communication practices.

**Mapping**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	2	1	3	1	1
CO 2	3	3	3	3	2
CO 3	2	3	2	3	1
CO 4	2	2	3	2	1
CO 5	1	3	2	2	3

Subject Code	Subject Name	Category	T/P	Credits	Inst. Hours	Marks		
						CIA	External	Total
23BVC2P1	Photography and Videography (Practical)	Core	P	4	4	25	75	100

### Course Description

This course provides an introduction to the fundamentals of photography and videography. Students will learn about the history and development of photography and videography as art forms. The course covers basic camera functions and equipment, including aperture, shutter speed, ISO, focal length, and different types of cameras and lenses. Students will gain hands-on experience with lighting, composition, and framing. They will explore techniques for capturing portraits, landscapes, action shots, and low light scenes. Students will also learn the basics of photo and video storytelling.

The course discusses the similarities and differences between human visual perception and what a camera captures. Students will compare image properties like color, contrast, and sharpness. They will analyze the aesthetics of effective photographs and videos. The course also covers new trends in mobile photography, including the rise of Instagram and social media.

Students will get the opportunity to put skills into practice through a series of practical exercises and assignments. By the end of the course, students will understand the technical and creative elements involved in photography and videography. They will be able to take visually compelling photographs and videos for both personal and professional use. The course provides a foundation for further study in commercial photography, photojournalism, videography, and related fields.

### Course Objectives

1. Explain the fundamental concepts and principles of photography and videography.
2. Demonstrate the proper use of cameras and equipment such as lenses, lighting, and composition.
3. Apply techniques for capturing portraits, landscapes, action shots, and low light scenes.
4. Analyze and critique photographs and videos for aesthetics and effectiveness.
5. Create a portfolio of photographs and short videos using skills and techniques from the course.

### Detailed Syllabus:

Procedural Knowledge on photography and videography  
(Viva/Written Test Topics for Practical Examination)

### Photography and videography Record

As a part of this course, students will be required to maintain a record of their photography and videography exercises. This record will help students keep track of their progress and allow them to reflect on their work. The record can be maintained in a digital format such as a blog, portfolio website or cloud storage. The digital record should have at least five photography and videography Exercises-one from each unit. Students should ensure that their record is organised, labelled clearly and includes any relevant details such as date of the exercise, software used, and a brief description of the exercise. This record should be submitted at the end of the course for evaluation.

### Practical Examination

Practical examination could be in the form of viva, testing students procedural knowledge, evaluation of photography and videography. Students can also be asked to create a photography and videography work for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge. Students should be able to explain what technique or pipeline/workflows were deployed.

<b>UNIT-I</b>	<b>Introduction to photography and videography:</b> History of photography and videography, Composition and framing in photography and videography, The rule of thirds, Leading lines, understanding the principles of composition (balance, contrast), Manual and autofocus, Camera Movements and angles: Wide, Close up, Zoom, Pan, Tilt, and Aerial; Settings and subjects: Selecting the right setting for your subject and how to choose the right subject for your setting. Importing images: Pictographic Learning how to transfer images from your camera to your computer and organize them.
<b>UNIT-II</b>	<b>Understanding the Camera, Visual Perception and storytelling:</b> Comparing Human Eye and Camera: Similarities and differences in visual perception; Aesthetics, The role of storytelling in photography and videography, Techniques for crafting compelling visual narratives
<b>UNIT-III</b>	<b>Camera Design, Structure, and Operations:</b> Mastering Camera Settings: Aperture, shutter speed, focal length, and depth of field, Exploring Camera Modes: Manual, aperture priority, shutter priority, and program modes; Using long exposures, panning, and other techniques to create creative photographs; Basics for the Preparation of Panoramic Picture; Focus: Understanding the importance of choosing the right focus point for your subject, Exploring the pros and cons of manual and autofocus; Selecting autofocus points: Understanding how to choose the right autofocus points for your subject., Focusing for effect: Creating interesting and creative photos by controlling the focus in different ways.
<b>UNIT-IV</b>	<b>Equipment Familiarisation:</b> Hands-on practice with different cameras, lenses, filters, Colour Correcting Filters, Diffusion Filters. and mobile photography; Film Camera Types: RED, ARRI, Sony, Blackmagic, and their Characteristics; Camera Working: Understanding Camera Operations and Movements, Measuring Devices. Types of lenses and their uses: normal, close up lens, telephoto, macro special lenses - mechanism and structure extensions. Functions of Sensor, Menus and Options in DSLR, Memory Card, Types of Memory Card, Memory Card Speed Class, Accessories, Format: JPEG, RAW Usage of Filters: Day, Night, Light meters and filters, Light Accessories: Light Meter, Flash Trigger, Modifiers - Umbrella, Soft box, Strip box, Octa box, Reflector, Snoot, Barn Door, Beauty Dish, Grid, Gels, Flags, Studio Accessories: Stands, Backdrops etc.
<b>UNIT-V</b>	<b>Light, Light sources and Lighting techniques</b> Properties of Light – Additive and Subtractive Light – Contrast and Lighting Ratios – Direct and Indirect Light; <i>Lighting Techniques</i> : Three point and Five Point Lighting; Techniques for controlling lighting, color temperature control; <i>Outdoor Lighting</i> : Techniques, Challenges, and Solutions, Studio Lighting: Equipment, Techniques, and Accessories, <i>Light Sources</i> : Natural and Artificial Lights, <i>Understanding Light</i> : Direct Light, Diffused Light, Reflected Light, Hard Light, Soft Light, <i>Photography Lighting</i> : Flash, Strobe and Continuous Light, Lighting Setup: Hard Light, Fill Light, Back Light, Rim Light, Background Light, Three Point Light Setup, Advanced Light Setup, Portrait Lighting Setup. Techniques for capturing action and movement, capturing portraits, capturing landscapes, capturing low light scenes, Using light to create impact and mood in photographs

### **Suggested Practical Exercises for Photography:**

1. Create a series of photographs that capture a single moment in time from different angles.

Have students take multiple photos of a single moment (like someone jumping in the air) from different angles (side view, front view, back view, below, above, etc.)

2. Capture a series of photographs that tell a story without any words.

Have students take a series of 3-5 photos that show a simple story or sequence of events without using any words.

3. Create a series of photographs that use light and shadow to create a mood.

Have students take a series of 3-5 photos experimenting with different types of lighting (natural, artificial) and angles to create different moods (dramatic, joyful, somber, etc.)

4. Create a series of photographs that capture a scene from different perspectives.

Have students take a series of 3-5 photos of the same scene (landscape, city street, building, etc.) from different perspectives (close up, far away, high angle, low angle, etc.)

5. Create a series of photographs that capture a single subject from different angles.

Have students take a series of 3-5 photos of a single subject (person, object, animal) from different angles (side view, front view, back view, below, above, etc.)

6. Practice landscape photography by taking photos of various landscapes and experimenting with different compositions and lighting conditions.

Have students take a series of landscape photos using different compositional techniques (rule of thirds, symmetry, framing) and lighting (sunrise, sunset, midday, overcast)

7. Practice portrait photography by taking portraits of friends or family members, experimenting with different poses and lighting setups.

Have students take a series of portrait photos using different poses, facial expressions, and lighting setups (Rembrandt, loop, split)

8. Practice action photography by taking photos of moving subjects (e.g. sports, animals) and experimenting with different shutter speeds to freeze or blur motion.

Have students take a series of action photos using fast and slow shutter speeds to capture motion in different ways.

9. Practice street photography by taking candid photos of people and scenes in a public setting.

Have students shoot a series of candid street photos capturing spontaneous moments, interesting scenes, and intriguing subjects.

10. Practice architectural photography by taking photos of buildings and experimenting with different compositions and techniques for capturing the structure and design of the buildings.

Have students shoot a series of architectural photos using different compositions (symmetrical, rule of thirds) and angles (below, straight on, above) to capture the details and geometry of buildings.

**Suggested Practical Exercises for Videography:**

1. Create a short video that tells a story without any words.
2. Have students create a 1-2 minute video that shows a simple sequence of events and tells a visual story without any dialogue.
3. Create a short video that uses light and shadow to create a mood.
4. Have students create a 1-2 minute video using different types of lighting (natural, artificial) and lighting angles to create a particular mood or tone.
5. Create a short video that captures a scene from different perspectives.
6. Have students create a 1-2 minute video showing the same scene or landscape from multiple different angles (close-up, far away, bird's eye view, worm's eye view, etc.)
7. 4. Create a short video that captures a single subject from different angles.
8. Have students create a 1-2 minute video capturing a single subject (person, animal, object) from multiple different angles.
9. Create a short video that captures a single moment in time from different angles.
10. Have students create a short 10-30 second video showing a single moment (someone jumping, ball being hit, etc.) from multiple simultaneous angles.
11. Create a short video using only one type of shot (close-up, medium, wide, etc.).
12. Have students create a short 1 minute video using only one type of camera shot (close-up, medium, or wide).
13. Create a short video using only one type of lighting (natural, artificial, etc.).
14. Have students create a short 1 minute video using only one type of lighting, either natural or artificial.
15. Create a short video using only one type of camera movement (pan, tilt, etc.).
16. Have students create a short 1 minute video using only one type of camera movement, such as panning, tilting, tracking or zooming.
17. Create a short video using only one type of visual effect (slow motion, time-lapse, etc.).
18. Have students create a short 1 minute video using only one visual effect like slow motion, time-lapse, fast motion, etc.
19. Create a short video using only one type of editing technique (cut, dissolve, etc.).
20. Have students create a short 1 minute video using only one type of editing technique (cut, dissolve, fade, wipe, etc.) to transition between all clips.

**Photography and Videography: Records and Examination**

*Photography Record:* Students should keep a record of their photographic works in the form of album or a slideshow. A minimum of 30 photographs from various genre of photography will be minimum requirement. IPTC Metadata related to each photograph should be included for each photograph.

*Videography Record:* Students should keep a record of video shots they have taken as a part of their practical exercises. A minimum of ten stock videos (length 15-30 Second, Max One Minute) should be uploaded to cloud storage or available in a USB drive/college hard drives for examiners to review. Practical examination could be in the form of viva, testing students procedural knowledge, evaluation of photography records and stock videos. Students can also be asked to take photography or shoot short clips (indoors or outdoors) for practical demonstration of their competency in photography or videography. Viva or Written examination can be based on the Procedural Knowledge on photography or videography.

### **Course Outcomes**

1. Students will be able to describe the key technical and creative concepts in photography and videography.
2. Students will be able to operate cameras and utilize equipment proficiently to achieve photographic and videographic effects.
3. Students will be able to apply appropriate techniques for photographing and filming different subjects, scenes, and styles.
4. Students will be able to evaluate and critique photographs and videos for visual effectiveness and quality.
5. Students will be able to create visually compelling photographs and short videos by synthesizing skills and concepts from the course.

### **Key Textbooks**

1. Bull, S. (2020). *A Companion to Photography*. John Wiley & Sons.
2. Carucci, J. (2013). *Digital SLR Video and Filmmaking For Dummies*. John Wiley & Sons.
3. Andersson, B. (2015). *The DSLR Filmmaker's Handbook: Real-World Production Techniques*. John Wiley & Sons.
4. Cheng, E. (2015). *Aerial Photography and Videography Using Drones*. Peachpit Press.
5. Ducker, R. (2019). *Tell Your Story with Light: The Basic Guide to Great Photos and Video*. Amazon Digital Services LLC - KDP Print US.
6. Freeman, N. (2019). *Film Noir Photography*. The Crowood Press.
7. Greig, R. (2021). *Professional Photography Collection: All the Best Articles, All the Best Photographers*. Future Publishing Limited.

### **References**

1. Tasabehji, Y., & Tasabehji, M. (2022). *The Ultimate Guide to iPhone Photography: Learn How to Take Professional Shots and Selfies the Easy Way*. Page Street Publishing. [L1T1]  
[SEP1SEP]
2. Valenzuela, R. (2020). *The Successful Professional Photographer*. Rocky Nook, Inc.
3. Cheng, E. (2015). *Aerial Photography and Videography Using Drones*. Peachpit Press.
4. Davenport, A. (1999). *The History of Photography: An Overview*. UNM Press.
5. Davis, H. (2011). *Creative Landscapes: Digital Photography Tips and Techniques*. John Wiley & Sons.
6. Frohlich, D. M. (2004). *Audiophotography: Bringing Photos to Life with Sounds*. Springer Science & Business Media.
7. Higgins, M. (2016). *Time-Lapse Photography: Art and Techniques*. The Crowood Press.

### **Web Resources for Photography**

1. Professional Photographer Magazine - <https://ppmag.com/>
2. Popular Photography Magazine - <https://www.popphoto.com/>
3. American Photo Magazine - <https://www.americanphotomag.com/>
4. Aperture Magazine - <https://aperture.org/>
5. Digital Photo Pro Magazine - <https://www.digitalphotopro.com/>
6. Professional Photographers of America (PPA) - <https://www.ppa.com/>

### **Web Resources for Videography**

1. National Association of Broadcasters - <https://www.nab.org/>
2. Society of Camera Operators - <https://soc.org/>
3. International Documentary Association - <https://www.documentary.org/>
4. Wedding and Portrait Photographers International - <https://www.wppiexpo.com/>
5. Producers Guild of America - <https://www.producersguild.org/>



## Mapping

PSOs/Cos	CO1	CO2	CO3	CO4	CO5
PSO1	2	3	3	1	1
PSO2	1	3	2	3	2
PSO3	3	3	3	2	2
PSO4	1	3	3	1	2
PSO5	2	1	1	1	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	Internal	Total
23BVC2SP	Image Editing and Colour Management (Practical)	SEC	2	2	25	75	100

#### Course Description:

This comprehensive course on Image Editing and Color Management is designed to equip learners with the knowledge and practical skills required to excel in the field of digital photography. The course is divided into five units, each containing four lessons that cover a wide range of topics including the fundamentals of photo editing, advanced photo editing techniques, color management, workflow optimization, and output. The course also includes fifteen practical exercises that provide learners with hands-on experience in using various photo editing software and tools to enhance and manipulate digital images. Through this course, learners will gain a deep understanding of the importance of photo editing and color management in digital photography. They will learn how to use different photo editing software and tools to adjust exposure, color, contrast, and sharpness to achieve the desired results. They will also learn how to manage color profiles and optimize images for different output formats including print and web. Overall, this course is ideal for anyone looking to pursue a career in digital photography or enhance their existing knowledge and skills in photo editing and color management.

#### Course Objectives:

1. Understand the fundamental principles of digital photography and the importance of photo editing in enhancing digital images.
2. Master the use of various photo editing software and tools to manipulate images, including cropping, exposure and color correction, black and white conversion, and advanced retouching techniques.
3. Develop advanced photo editing skills and techniques such as selective color correction, split toning, and creative color grading to enhance the visual impact of digital images.
4. Demonstrate the ability to manage color profiles and optimize images for different output formats, including print and web, while maintaining color accuracy and consistency.
5. Apply critical thinking and problem-solving skills to identify and resolve common issues in digital images, such as lens distortion, perspective distortion, and noise, using a range of photo editing techniques and tools.

#### Image Editing and Color Management Record

As a part of this course, students will be required to maintain a record of their Image Editing and Color Management exercises. This record will help students keep track of their progress and allow them to reflect on their work. The record can be maintained in a digital format such as a blog, portfolio website or cloud storage. The digital record should have at least five Image Editing and Color Management Exercises-one from each unit. Students should ensure that their record is organised, labelled clearly and includes any relevant details such as date of the exercise, software used, and a brief description of the exercise. This record should be submitted at the end of the course for evaluation.

#### Practical Examination

Practical examination could be in the form of viva, testing students procedural knowledge, evaluation of Image Editing and Color Management. Students can also be asked to create a Image Editing and Color Management work for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge. Students should be able to explain what technique or pipeline/workflows were deployed.

## **Records and Examination**

Image Editing Record: Students should to keep a record of their image editing works in the form of album or a slideshow. Both Original and Edited Photos should be presented side-by-side in the record. A minimum of twenty edited photographs from various genre of photography will be minimum requirement. IPTC Metadata related to each photograph should be included for each photograph. Students should be able to explain what editing technique and color collection methods were deployed.

<b>UNIT-I</b>	<b>Introduction to Photo Editing</b> Fundamentals of Photo Editing: Understanding the basics of digital photography, Overview of different image formats and file types, Introduction to photo editing software and tools, Understanding the importance of photo editing in digital photography; Understanding RAW files and their importance in photo editing. Exposure and Color Correction: Techniques for adjusting exposure and brightness, Implementing color correction techniques in photo editing software; Cropping and Composition: Techniques for cropping and resizing images, Implementing cropping and composition techniques in photo editing software
<b>UNIT-II</b>	<b>Advanced Photo Editing Techniques</b> Advanced Color Correction Techniques: Techniques for correcting color casts and color balance, Introduction to selective color correction. Retouching and Restoration: Overview of retouching and restoration techniques, Techniques for removing blemishes, wrinkles, and imperfections, Introduction to skin retouching techniques, Implementing retouching and restoration techniques in photo editing software; Sharpening and Noise Reduction: Understanding the importance of sharpness in digital photography, Black and White Conversion: Overview of different black and white conversion techniques, Implementing black and white conversion techniques in photo editing software
<b>UNIT-III</b>	<b>Advanced Editing Tools and Techniques</b> Layers and Blend Modes: Introduction to layer blend options, Implementing layers and blend modes in photo editing software; Lens Correction and Transform Tool: Overview of lens distortion and perspective distortion, Techniques for correcting lens distortion and perspective distortion, Introduction to the transform tool, Implementing lens correction and transform tool in photo editing software; Local Adjustment and Masking: Techniques for creating masks and selections, Introduction to gradient masking and adjustment brushes, Implementing local adjustment and masking techniques in photo editing software;
<b>UNIT-IV</b>	<b>Color Management</b> Understanding Color Grading: Introduction to color grading and its importance in photo editing, Techniques for achieving a consistent color grade across a series of images; Color Correction Techniques: Techniques for correcting color casts and color balance, Introduction to selective color correction, Overview of split toning and cross-processing techniques, Understanding the use of curves and levels for color correction, Implementing color correction techniques in photo editing software; Creative Color Grading: Techniques for creating stylized and creative color grades, Techniques for creating vintage, retro, and other creative looks, Implementing creative color grading techniques in photo editing software; Skin Tone Correction: Techniques for correcting skin tones in portraits, Batch Color Correction and Grading: Techniques for achieving a consistent color grade across a series of images, Implementing batch color correction and grading techniques in photo editing software
<b>UNIT-V</b>	<b>Workflow Optimization and Output</b> Batch Processing and Workflow Optimization, Overview of workflow optimization techniques, Implementing batch processing and workflow optimization techniques in photo editing software; Printing and Color Management: Implementing color management for print output in photo editing software; Web Output and Optimization: Implementing web output and optimization techniques in photo editing software; Presentation and Display: Introduction to color calibration for display, Implementing presentation and display techniques in photo editing software

## Detailed Practical Exercises

*Exercise 1: Cropping and Composition*, Take a set of photos and crop them to improve the composition, Experiment with different aspect ratios and rule of thirds, Use photo editing software to adjust brightness, contrast, and color balance, Save the final images for print and web output

*Exercise 2: Exposure and Color Correction*, Take a set of photos with different exposure settings, Use photo editing software to correct exposure and adjust brightness and contrast, Apply color correction techniques to correct any color casts or imbalances, Save the final images for print and web output

*Exercise 3: Sharpening and Noise Reduction*, Take a set of photos with different levels of sharpness and noise, Use photo editing software to apply sharpening and noise reduction techniques, Experiment with different sharpening and noise reduction settings to achieve the desired results, Save the final images for print and web output

*Exercise 4: Black and White Conversion*, Take a set of photos and convert them to black and white, Experiment with different black and white conversion techniques, Use photo editing software to adjust contrast, brightness, and tone, Save the final images for print and web output

*Exercise 5: Raw Processing and Color Management*, Take a set of RAW images and process them using RAW processing software, Apply color management techniques to ensure accurate colors and a consistent color profile, Use photo editing software to adjust brightness, contrast, and color balance, Save the final images for print and web output.

*Exercise 6: Advanced Color Correction Techniques*, Take a set of photos with challenging color casts or imbalances, Use selective color correction and split toning techniques to correct the colors, Experiment with different color grading techniques to create a consistent look and feel, Save the final images for print and web output

*Exercise 7: Retouching and Restoration*, Take a set of photos with imperfections or blemishes, Use photo editing software to retouch and restore the images, Experiment with different retouching and restoration techniques, Save the final images for print and web output

*Exercise 8: Compositing and Masking*, Take a set of photos and create a composite image, Use masking techniques to blend the images seamlessly, Experiment with different layer blending modes and options, Save the final images for print and web output  
*Exercise 9: Advanced Layers and Blend Modes*, Take a set of photos and create a multi-layered image, Experiment with different layer blending modes and options, Use layer masks and adjustment layers to fine-tune the image, Save the final images for print and web output

*Exercise 10: HDR and Panorama*, Take a set of photos and create an HDR image or panorama, Use photo editing software to stitch the images together, Experiment with different tone mapping and exposure fusion techniques, Save the final images for print and web output

*Exercise 11: Color Correction and Grading*, Take a set of photos with different color casts or imbalances, Use photo editing software to correct the colors and apply a consistent color grade, Experiment with different color grading techniques and styles to achieve the desired results, Save the final images for print and web output

*Exercise 12: Color Management and Calibration*, Calibrate your monitor using a colorimeter or other calibration tool, Use photo editing software to adjust the color profile of a set of photos, Experiment with different color spaces and profiles to achieve accurate colors and a consistent color profile, Save the final images for print and web output

*Exercise 13: Skin Tone Correction and Grading*, Take a set of portraits and correct any skin tone imperfections, Use photo editing software to apply a skin tone correction and grading, Experiment with different skin tone correction and grading techniques and styles to achieve the desired results, Save the final images for print and web output

*Exercise 14: Batch Color Correction and Grading*, Take a set of photos and apply a batch color correction and grading, Use photo editing software to automate the process using presets or templates, Experiment with different batch processing and automation techniques to achieve the desired results, Save the final images for print and web output

*Exercise 15: Color Grading for Different Display Technologies*, Take a set of photos and apply a color grade for different display technologies, Use photo editing software to adjust the color profile for each display technology, Experiment with different color grading techniques and styles for each display technology, Test the final images on different displays and evaluate the color accuracy and quality

*Exercise 16: Print Output*, Select a set of photos and prepare them for print output, Apply color management techniques to ensure accurate colors and a consistent color profile, Use photo editing software to adjust brightness, contrast, and color balance for print output, Print the final images and evaluate the print quality

*Exercise 17: Web Output and Optimization*, Select a set of photos and prepare them for web output, Optimize the images for speed and quality, Experiment with different web image formats and sizes, Test the final images on different devices and web browsers

*Exercise 18: Presentation and Display*, Select a set of photos and prepare them for a digital presentation or display, Apply color management techniques to ensure accurate colors and a consistent color profile, Experiment with different display technologies and devices, Test the final images on different displays and evaluate the color accuracy and quality

*Exercise 19: Exercise 1: Restoring a Damaged Photograph*, Find an old photograph that has been damaged or degraded over time., Scan the photograph at a high resolution to create a digital copy., Use photo editing software to restore the photograph, paying close attention to areas that have been damaged or degraded, such as scratches, dust, or faded colors, Enhance the overall quality of the image.,

*Exercise 20: Use advanced restoration techniques such as cloning, healing, and patching to restore areas that have been damaged or removed., Experiment with different restoration techniques and compare the results to determine the most effective method for each area of the photograph., Save the final restored image as a high-quality digital file and create a print for preservation.*

**Course Outcomes:**

1. Demonstrate a comprehensive understanding of digital photography principles and the importance of photo editing, and apply this knowledge to produce high-quality digital images.
2. Utilize a range of photo editing software and tools to manipulate digital images, and demonstrate proficiency in basic and advanced photo editing techniques, including color correction, retouching, and composition.
3. Apply critical thinking and problem-solving skills to analyze and address common issues in digital images, such as color imbalances, exposure problems, and lens distortion.
4. Apply color management principles to achieve consistent and accurate color profiles across different output formats, including print and web.
5. Develop a strong creative vision for digital image editing, and demonstrate the ability to create unique and compelling images using a range of creative techniques, such as selective color grading and split toning.

**Key Textbooks**

1. Kuhlman, G. (2019). GIMP for Beginners: First 12 Skills. Independently Published.
2. Abbott, J. (2021). The Digital Darkroom: The Definitive Guide to Photo Editing. Octopus Publishing Group.
3. Whitt, P. (2020). Practical Glimpse: Learn to Edit and Create Digital Photos and Art with This Powerful Open Source Image Editor. Apress.

**References**

1. Celebi, E., Lecca, M., & Smolka, B. (2015). Color Image and Video Enhancement. Springer.
2. Nichols, R. (2020). Mastering Adobe Photoshop Elements 2020: Supercharge your image editing using the latest features and techniques in Photoshop Elements, 2nd Edition. Packt Publishing Ltd.
3. Sharma, A. (2018). Understanding Color Management. John Wiley & Sons.
4. Whalley, R. (2015). Photoshop Layers: Professional Strength Image Editing. Lenscraft Photography.
5. Crathers, M. (2021). Photo Editing Basics: Powerful Photoshop Techniques Of The Professional Image Editor: Step By Step Photoshop Tutorials For Beginners. Independently Published.

**Web Resources**

1. Journal of Photography & Video. <https://www.journalofphotography.com/>
2. Popular Photography. <https://www.popphoto.com/>
3. Digital Photography Review. <https://www.dpreview.com/>
4. Professional Photographer Magazine. <https://ppmag.com/>
5. British Journal of Photography. <https://www.bjp-online.com/>

**Mapping:**

<b>PSO</b>	<b>CO 1</b>	<b>CO 2</b>	<b>CO 3</b>	<b>CO 4</b>	<b>CO 5</b>
PSO 1	2	3	3	2	1
PSO 2	3	3	3	2	2
PSO 3	3	3	3	3	3
PSO 4	3	3	2	3	2
PSO 5	1	1	1	1	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	Internal	Total
23BVC2S1	Introduction to Study Skills	SEC	2	2	25	75	100

**Objectives:** The Introduction to Study Skills course is designed to equip students with essential techniques and strategies for effective studying and learning. This course will cover various aspects of study skills, including time management, note-taking, active reading, critical thinking, and exam preparation. Students will develop a solid foundation of study habits and learn how to optimize their learning potential.

<b>UNIT-I</b>	<p>Time Management and Goal Setting</p> <p>Understanding the importance of time management in academic success - Setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals - Prioritizing tasks and creating a study schedule - Overcoming procrastination and managing distractions</p>
<b>UNIT-II</b>	<p>Effective Note-Taking</p> <p>Different note-taking methods and systems - Active listening and capturing key information - Organizing and summarizing lecture and textbook notes - Annotating and highlighting techniques</p>
<b>UNIT-III</b>	<p>Active Reading Strategies</p> <p>Pre-reading techniques and previewing materials - Strategies for reading comprehension and engagement</p> <p>- Marking and highlighting important information - Summarizing and synthesizing information from readings</p>
<b>UNIT-IV</b>	<p>Critical Thinking and Problem Solving</p> <p>Developing critical thinking skills for analysis and evaluation - Identifying biases and logical fallacies - Applying problem-solving techniques to academic tasks - Engaging in reflective thinking and metacognition.</p>
<b>UNIT-V</b>	<p>Exam Preparation and Test-Taking Strategies</p> <p>Strategies for efficient exam preparation - Creating effective study guides and flashcards - Managing test anxiety and stress - Approaches to multiple-choice, essay, and short-answer questions - Reviewing and analysing exam results for future improvement</p>



## References

1. "How to Become a Straight-A Student: The Unconventional Strategies Real College Students Use to Score High While Studying Less" by Cal Newport
2. "The Study Skills Handbook" by Stella Cottrell
3. "Essential Study Skills: The Complete Guide to Success at University" by Tom Burns and Sandra Sinfield
4. "The Cornell Note-taking System" by Walter Pauk
5. "Make It Stick: The Science of Successful Learning" by Peter C. Brown, Henry L. Roediger III, and Mark A. McDaniel
6. "A Mind for Numbers: How to Excel at Math and Science (Even If You Flunked Algebra)" by Barbara Oakley
7. "How to Read a Book: The Classic Guide to Intelligent Reading" by Mortimer J. Adler and Charles Van Doren
8. "The Power of Mindful Learning" by Ellen J. Langer
9. "The Organized Student: Teaching Children the Skills for Success in School and Beyond" by Donna Goldberg
10. "The Exam Skills Handbook: Achieving Peak Performance" by Stella Cottrell

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	terrna	Total
23BVC3C1	Multimedia Technologies and Standards (Theory)	Core	4	5	25	75	100

### Course Description

The course "Multimedia Technologies and Standards" provides an in-depth understanding of the fundamental concepts and standards used in the creation, storage, retrieval and delivery of multimedia content. The course covers a wide range of topics, including multimedia compression and coding, multimedia file formats, multimedia security and protection, and multimedia networking. The course provides hands-on experience with a variety of multimedia technologies and software tools. Students will learn how to create, edit and publish multimedia content using digital cameras, image and video editing software, and multimedia authoring tools. They will also gain a thorough understanding of multimedia delivery protocols, such as HTTP and RTSP, as well as multimedia content management systems and the architecture of multimedia databases. The course concludes with an overview of current trends in multimedia technology and the future direction of multimedia research. Upon completion of the course, students will have the skills and knowledge required to create, manage and deliver multimedia content in a professional setting.

### Course Objectives:

1. To introduce students to the fundamental concepts of multimedia technologies and standards.
2. To develop students' understanding of the different file formats used in multimedia.
3. To provide students with hands-on experience in creating and manipulating multimedia content.
4. To discuss the impact of multimedia technologies on society, including social, cultural, and ethical issues.
5. To explore the potential future trends and developments in multimedia technologies.

<b>UNIT-I</b>	<b>Introduction to Multimedia</b>  What is Multimedia? Components of Multimedia, Multimedia: Past and Present. Early History of Multimedia, Hypermedia, WWW, and Internet. Multimedia in the New Millennium, The Future of Multimedia  Multimedia Software Tools ( Music Sequencing and Notation, Digital Audio Graphics and Image Editing, Video Editing, Animation, Multimedia Authoring Multimedia Broadcasting)  Multimedia Tasks and Concerns, Multimedia Presentation, Data Compression, Multimedia Production, Multimedia Sharing and Distribution Some Useful Editing and Authoring Tools (Adobe Premiere, HTML Canvas, Adobe Director, Adobe XD)  What Is a Computer?] How Computers Process Information, Operating Systems, Input/Output Devices, Storage Devices, Motherboards and BIOS, Graphics Cards, eGPU, Cooling and Over, clocking,  How Graphics and Image Data Are Represented, Types of Graphics and Image Representation, Vector Graphics Representation, Bitmap Graphics Representation, 3D Graphics Representation, Compression and Data Reduction Techniques, Color Management, image Processing and Analysis
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<b>UNIT-II</b>	<p><b>How Display Technologies Work?</b></p> <p>Understanding the Different Components of a Television Display, How a Television Display Generates an Image, Exploring Different TV Display Resolutions and Refresh Rates,</p> <p>Exploring the Benefits of LED Display Technology, Understanding OLED Display Technology, Considering the Different Size Options for TV Displays, 4K and 8K Resolution, Wide Color Gamut (WCG)</p> <p>Understanding Television Display Connections, Different Cable Connectivity Options for TV Displays, Wireless Connectivity for Television Displays, Analyzing Trends in Television Display Technology, OLED Displays</p> <p>Television Display Resolution, Television Display Features, Color Gamut and HDR, Motion smoothing and Interpolation, Viewing Angle and Brightness, Contrast and Black levels</p>
<b>UNIT-III</b>	<p><b>Camera and Audio</b></p> <p>Camera Technology Basics, Digital Camera Sensor Technology, Camera Connectivity Features, Camera System Ergonomics, Camera System Maintenance, Camera Resolution and Image Quality, Post-Processing Techniques, Storage and Backup,</p> <p>Digital Audio Fundamentals, Digital Audio File Formats, Digital Audio Sampling and Bit Depth, Digital Audio Data Representation, Digital Audio Quality and Metrics, Audio Signal Processing, Audio Filtering and Equalization, Audio Dynamics Processing, Audio Time-domain Processing, Audio Frequency-domain Processing, Audio Effects and Modulation</p> <p>Audio Compression, Lossless Audio Compression, Lossy Audio Compression, Audio Compression Standards, Audio Interfaces and Connectivity, Audio Routing and Mixing, Audio Networking and Streaming, Audio Synchronization, Audio for Virtual Reality and Augmented Reality, Spatial Audio and Ambisonics</p>
<b>UNIT-IV</b>	<p><b>Mobile and Consumer Devices</b></p> <p>How Mobile phone Works? Various components of smartphones, Connectivity Standards, OS and Mobile Accessories</p> <p>Mobile Devices and Computing, Mobile Device Hardware, SoCs and Processors, Memory and Storage,</p> <p>Mobile Display Technology, Camera Hardware, Battery Technology, Mobile Display Technologies,</p> <p>Consumer Electronics Standards, HDMI and DisplayPort, USB and Thunderbolt, Wi-Fi and Bluetooth, NFC and RFID, Energy Efficiency Standards</p> <p>Gaming Technology, Game Engines and Development, Game Graphics and Shaders, Game Input and Control, Mobile Gaming, Mobile Accessories for Gaming, How Gaming Console works</p>

<b>UNIT-V</b>	<p data-bbox="229 192 491 226"><b>Networking and IoT</b></p> <p data-bbox="229 259 1455 365">Networks: Networking, Network Topologies, Network Security, Troubleshooting Networks. Network Services and Protocols for Multimedia Communications, Protocol Layers of Computer Communication Networks</p> <p data-bbox="229 398 1500 504">Local Area Network (LAN) and Access Networks, LAN Standards, Ethernet Technology, Access Network Technologies, Internet Technologies and Protocols, Network Layer: IP, Transport Layer: TCP and UDP, Network Address Translation (NAT) and Firewall</p> <p data-bbox="229 537 1519 689">Multicast Extension, Router-Based Architectures: IP Multicast, Non Router-Based Multicast Architectures, Quality of Service (QoS) and Quality of Experience (QoE), QoS and QoE for Multimedia Communications, Internet QoS Architecture: IntServ and DiffServ, Network Softwarization and Virtualization: SDN and NVF, Rate Control and Buffer Management</p> <p data-bbox="229 723 882 757">Protocols for Multimedia Transmission and Interaction</p> <p data-bbox="229 790 1519 936">Home Appliances and Smart Home Technology, Home Automation and Control, IoT Hardware, Smart Home Protocols and Standards, Sensors and Actuators, Gateways and Hubs, Voice Control and AI, Security and Privacy in Smart Homes, Camera System Integration, CCTV Camera System, Monitors and Display Technologies</p> <p data-bbox="229 969 1476 1037">Wearable Devices as Multimedia, Smart Watches, Visual Reality and Augmented Reality Glasses, Lence and Display Systems in AR/VR</p>
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### Key Textbooks

1. Li, Z.-N., Drew, M. S., & Liu, J. (2016). Fundamentals of Multimedia. Springer International Publishing.
2. Lewis, R., & Luciana, J. (2020). Digital Media Foundations: An Introduction for Artists and Designers. Routledge.
3. Costello, V., Youngblood, S. A., & Youngblood, N. E. (2012). Multimedia Foundations: Core Concepts for Digital Design. Taylor & Francis.

### References

1. Lefebvre, A. (2017). Multimedia systems and techniques. John Wiley & Sons.
2. Liu, Y. (2015). Multimedia compression and communication. Springer.
3. Martinez, A. (2018). Multimedia content analysis and mining. Cambridge University Press.
4. Bovik, A. C. (Ed.). (2017). Handbook of image and video processing. Academic Press.
5. Aggarwal, J. K. (Ed.). (2016). Multimedia data mining and knowledge discovery. Springer.
6. Marschner, S., & Shirley, P. (2018). Fundamentals of Computer Graphics. CRC Press.
7. Chopra Rajiv, Computer Graphics with An Introduction to Multimedia, 2017
8. Marina Gavrilova, Jian Chang, Nadia Magnenat Thalmann, Advances in Computer Graphics, 2019

### Web Resources:

1. Wikipedia, "Multimedia Technology" ([https://en.wikipedia.org/wiki/Multimedia\\_technology](https://en.wikipedia.org/wiki/Multimedia_technology))
2. The Multimedia Standards for Internet and Mobile (<https://www.w3.org/standards/techs/multimedia>)
3. The Internet Multimedia Resource Guide (<https://www.digitalmediahub.net/multimedia-technology-standards>)
4. The International Multimedia Association (<https://ima.org>)
5. The Multimedia & Entertainment Industry Association (<https://www.meia.org>)

**Course Outcomes**

1. Students will be able to describe the fundamental concepts of multimedia technologies and standards.
2. Students will be able to differentiate between different file formats used in multimedia.
3. Students will be able to create and manipulate multimedia content using authoring tools.
4. Students will be able to analyze the impact of multimedia technologies on society.
5. Students will be able to predict future trends and developments in multimedia technologies.

**Mapping**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	3	2	2	1	1
CO 2	3	2	2	1	1
CO 3	2	3	3	3	2
CO 4	2	1	2	1	3
CO 5	1	1	2	2	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	ter rna	Total
23BVC3P1	Audio-Visual Editing (Practical)	Core	4	4	25	75	100

### Course Description

This course provides an introduction to audio and visual editing using Audacity and DaVinci Resolve. It is designed to provide students with a comprehensive overview of the fundamentals of audio and video editing, as well as the tools and techniques used to create professional-level audio and video projects. Additionally, they will learn how to edit and color grade video footage, and how to create titles, transitions, and other video elements. By the end of the course, students will have the skills and knowledge to create professional-quality audio and video projects. The course is divided into five units, each containing five lessons. Each lesson will provide an overview of the topics covered, as well as hands-on activities and projects to help students gain a better understanding of the Audio and Video Editing.

### Course Objectives

1. Recall the basics of audio and video editing using Audacity and DaVinci Resolve or equivalent software
2. Identify the tools and techniques used in audio and video editing
3. Demonstrate the ability to use Audacity and DaVinci Resolve or equivalent software to create audio and video projects
4. Analyze the effects of different audio and video editing techniques
5. Evaluate the quality of audio and video projects
6. Procedural Knowledge on audio and visual editing
7. (Viva/Written Test Topics for Practical Examination)

### Records and Examination

**Audio Editing Record:** Students should to keep a record of their audio editing works in the form of short clips. A minimum of twenty edited audio clips from various genre of audio recordings will be minimum requirement. Students should be able to explain what editing technique were deployed. Students will be tested on on their knowledge of audio editing software. Practicals may also include demonstration of their ability to edit audio clips like dialogues, sound effects, noise removal and other common tasks. Viva or Written examination can be based on the Procedural Knowledge on audio. Record should contain sample mini editing projects like:

Create a Advertisement

Create a PSA

Create a Storybook

Create a Jingle

Create a Interview program

Create a audio effects

<p><b>Video Editing Record:</b> Students should to keep a record of their video editing works in the form of short clips. A minimum of twenty edited audio clips from various genre of video recordings will be minimum requirement. Students should be able to explain what editing technique were deployed. Students will be tested on on their knowledge of video editing software. Practicals may also include demonstration of their ability to edit video clips like dialogues, various editing techniques,and other common video editing tasks. Viva or Written examination can be based on the Procedural Knowledge on video editing and color management. Record should contain sample mini editing projects like:</p> <p>Create a Title card</p> <p>Create a video song (the available movie songs can be used)</p> <p>Create a collage (the available movie songs/ clips can be used)</p> <p>Create a video clip using various Transitions</p> <p>Create a video clip using various Effects</p> <p>Create a video clip using matte(Blue/Green) removal technique</p>
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<p><b>Audio and visual editing Record</b></p> <p>As a part of this course, students will be required to maintain a record of their audio and visual editing exercises. This record will help students keep track of their progress and allow them to reflect on their work. The record can be maintained in a digital format such as a blog, portfolio website or cloud storage. The digital record should have at least five audio and visual editing Exercises-one from each unit. Students should ensure that their record is organised, labelled clearly and includes any relevant details such as date of the exercise, software used, and a brief description of the exercise. This record should be submitted at the end of the course for evaluation.</p> <p><b>Practical Examination</b></p> <p>Practical examination could be in the form of viva, testing students procedural knowledge, evaluation of audio and visual editing. Students can also be asked to create an audio and visual editing work for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge. Students should be able to explain what technique or pipeline/workflows were deployed.</p>
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UNIT-I	<p><b>Basic Editing Techniques</b></p> <p>Creating a simple video montage from a selection of clips, adjusting the timing and adding transitions.</p> <p>Editing a sequence to music, matching the visuals to the rhythm and tempo of the audio.</p> <p>Creating a split-screen effect to show two or more scenes side-by-side, adjusting the framing and timing to maintain coherence.</p> <p>Adding basic text and graphics to a video, including lower thirds, titles, and captions.</p> <p>Using basic color correction tools to adjust the overall look of a video, including brightness, contrast, saturation, and white balance.</p>
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<b>UNIT-II</b>	<p><b>Advanced Editing Techniques</b></p> <p>Creating a complex video montage with multiple layers and advanced transitions, including wipes, fades, and dissolves.</p> <p>Editing a long-form video, such as a documentary or feature film, with multiple scenes and storylines.</p> <p>Using advanced audio editing tools to mix and master sound effects, dialogue, and music, including noise reduction, EQ, and compression.</p> <p>Creating advanced visual effects, such as motion graphics, green screen compositing, and 3D animation.</p> <p>Using advanced color correction tools to match shots from different cameras, create a consistent look and feel, and enhance the mood and atmosphere of a scene.</p>
<b>UNIT-III</b>	<p><b>Post-Production Workflow</b></p> <p>Creating a rough cut, fine cut, and final cut of a video project, including organizing and selecting footage, creating a storyboard, and collaborating with a team.</p> <p>Creating an efficient post-production workflow, including managing files, backups, and archiving, and optimizing the use of hardware and software resources.</p> <p>Creating a sound design for a video project, including Foley effects, ambient sound, and music, and syncing the audio with the visuals.</p> <p>Creating a polished final product, including exporting, encoding, and delivering a video project in different formats and resolutions, including web, broadcast, and theatrical.</p> <p>Understanding the legal and ethical considerations of audio-visual editing, including copyright, fair use, and privacy issues.</p>
<b>UNIT-IV</b>	<p><b>Specialized Editing Techniques</b></p> <p>Editing a music video, including syncing the visuals to the music, creating a storyline, and using visual effects to enhance the mood and atmosphere.</p> <p>Editing a trailer or teaser for a film or TV show, including selecting the most compelling footage, creating a sense of suspense, and using sound and music to create anticipation.</p> <p>Editing a promotional video, including creating a message, targeting a specific audience, and using visual and audio elements to create a persuasive and memorable story.</p> <p>Editing a social media video, including creating short-form content, using captions and subtitles, and optimizing the format and aspect ratio for different platforms.</p> <p>Editing a virtual reality or augmented reality experience, including creating a 360-degree video, using spatial audio, and enhancing the immersion and interactivity of the experience.</p>



<b>UNIT-V</b>	<p><b>Advanced Editing Theory</b></p> <p>Understanding the principles of storytelling, including structure, pacing, conflict, and character development, and applying them to audio-visual editing.</p> <p>Understanding the principles of cinematography, including framing, lighting, composition, and camera movement, and using them to create effective and impactful visuals.</p> <p>Understanding the principles of sound design, including dialogue, music, and sound effects, and using them to create a dynamic and immersive audio experience.</p> <p>Understanding the principles of color theory, including hue, saturation, and value, and using them to create a mood and atmosphere that enhances the story</p>
<p><b>Key Textbooks</b></p> <ol style="list-style-type: none"> <li>1. Jackson, W. (2015). Digital Audio Editing Fundamentals. Apress.</li> <li>2. Langford, S. (2013). Digital Audio Editing: Correcting and Enhancing Audio in Pro Tools, Logic Pro, Cubase, and Studio One. CRC Press.</li> <li>3. Baker, D. (2020). The Audacity to podcast: Learn audio and video podcasting, music mixing, and editing with Audacity. Focal Press.</li> <li>4. Frierson, M. (2018). Film and Video Editing Theory: How Editing Creates Meaning. Routledge.</li> <li>5. Goodman, R. M., &amp; McGrath, P. (2002). Editing Digital Video: The Complete Creative and Technical Guide. McGraw Hill Professional.</li> </ol> <p><b>References</b></p> <ol style="list-style-type: none"> <li>1. Chandler, G. (2021). Editing for Directors: A Guide for Creative Collaboration. Michael Wiese Productions.</li> <li>2. Dancyger, K. (2018). The Technique of Film and Video Editing: History, Theory, and Practice. Routledge.</li> <li>3. Baker, D. (2020). The DaVinci Resolve 17 book: Professional editing and color correction. Focal Press.</li> <li>4. Gillespie, T. (2020). Audacity: The ultimate guide to audio editing and podcasting with Audacity. Apress.</li> <li>5. Hanson, J. (2020). Audacity: How to record and edit audio like a pro. Apress.</li> </ol> <p><b>Web Resources</b></p> <ol style="list-style-type: none"> <li>1. Audacity Tutorials: <a href="https://www.audacitytutorial.com/">https://www.audacitytutorial.com/</a></li> <li>2. DaVinci Resolve Tutorials: <a href="https://www.davinciresolvetutorials.com/">https://www.davinciresolvetutorials.com/</a></li> <li>3. Audacity Wiki: <a href="https://wiki.audacityteam.org/">https://wiki.audacityteam.org/</a></li> <li>4. DaVinci Resolve Wiki: <a href="https://www.blackmagicdesign.com/support/family/davinci-resolve/">https://www.blackmagicdesign.com/support/family/davinci-resolve/</a></li> <li>5. Creative Commons - <a href="https://creativecommons.org/">https://creativecommons.org/</a></li> </ol>	
<p><b>Course Outcomes</b></p> <ol style="list-style-type: none"> <li>1. Create professional-level audio and video projects using Audacity and DaVinci Resolve (Creation)</li> <li>2. Synthesize audio and video editing techniques to create unique projects (Synthesis)</li> <li>3. Utilize advanced audio and video editing tools and techniques (Utilization)</li> <li>4. Compare and contrast different audio and video editing techniques (Comparison)</li> <li>5. Design audio and video projects that meet industry standards (Design)</li> </ol>	

### Mapping

<b>PSO</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>
PSO1:	2	3	3	1	1
PSO2:	3	3	3	1	3
PSO3:	3	3	3	1	3
PSO4:	2	2	3	1	1
PSO5:	1	2	2	1	3
PSO6:	1	2	2	2	2
PSO7:	2	2	2	2	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks			
					CIA	LA	ter	rnal
<b>23BVC3SP</b>	<b>Multimedia Content Packaging(Practical)</b>	<b>SEC-IV</b>	<b>2</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>	

#### Course Description:

The multimedia content packaging course provides students the skills to create content for various platforms. Students will learn about eContent, digital media and benefits of creation. Explanatory videos are covered, including benefits and best practices for developing and publishing them. A focus on whiteboard animations teaches planning, creating and tips for engagement. Geo-animations utilizing geographical data to illustrate concepts or tell stories are explored. Best practices for creating and publishing animated infographics are presented.

Practical exercises provide hands-on experience, such as creating a website/blog with multimedia content, explanatory videos, whiteboard animations, geo-animations, and animated infographics. The course covers multimedia content types, packaging formats, and delivery mechanisms. Students will learn to create multimedia packages for web, mobile and media players.

The course teaches creating and publishing engaging multimedia content for platforms. Different eContent and digital media types are learned, along with the benefits of eContent creation and publishing. How to plan and create them, offering tips for making them engage. Geo-animations explore using geographical data to illustrate concepts or stories. The course is for those interested in multimedia content creation, including web designers, digital marketers, and content creators. Students gain skills to package multimedia content for delivery platforms.

**Note: While open-source software for multimedia content development is the recommended software, each institution/Colleges can choose to train the students in any other commercial alternative such as Adobe Creative Cloud Suite Apps or Procreate etc.**

#### Course Objectives:

1. Understand the basic concepts of multimedia content packaging.
2. Learn the different types of digital media and the tools used to create them.
3. Develop skills in planning, creating, and publishing multimedia content packages.
4. Gain knowledge on how to create engaging videos, animations, and infographics.
5. Analyze data and present it effectively in a multimedia package.

#### Multimedia content packaging Record

As a part of this course, students will be required to maintain a record of their Multimedia content packaging exercises. This record will help students keep track of their progress and allow them to reflect on their work. The record can be maintained in a digital format such as a blog, portfolio website or cloud storage. The digital record should have at least five Multimedia content packaging Exercises-one from each unit. Students should ensure that their record is organised, labelled clearly and includes any relevant details such as date of the exercise, software used, and a brief description of the exercise. This record should be submitted at the end of the course for evaluation.

#### Practical Examination

Practical examination could be in the form of viva, testing students procedural knowledge, evaluation of Multimedia content packaging. Students can also be asked to create a Multimedia content packaging work for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge. Students should be able to explain what technique or pipeline/workflows were deployed.

<b>UNIT-I</b>	<b>eContent</b> Introduction to eContent Types of eContent Types of Digital Media Benefits of eContent How to Create and Publish eContent Incorporating user Interactions
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<b>UNIT-II</b>	<b>Explanatory Video</b> What is an Explanatory Video? Benefits of Using Explanatory Videos Creating an Explanatory Video Tips for Making Engaging Explanatory Videos Best Practices for Publishing Explanatory Videos
<b>UNIT-III</b>	<b>White Board Animation</b> What is White Board Animation? The Benefits of Whiteboard Animation How to Plan and Create a Whiteboard Animation Tips for Making Engaging Whiteboard Animations Best Practices for Publishing Whiteboard Animations
<b>UNIT-IV</b>	<b>Geo-Animations</b> What is Geo-Animation? Benefits of Using Geo-Animation How to Plan and Create a Geo-Animation Tips for Making Engaging Geo-Animations Best Practices for Publishing Geo-Animations
<b>UNIT-V</b>	<b>Animated Infographics</b> What is Animated Infographics? Benefits of Using Animated Infographics How to Plan and Create an Infographic Tips for Making Engaging Infographics Best Practices for Publishing Animated Infographics. <b>Practical Exercises</b> <ol style="list-style-type: none"> <li>1. eContent: Create a website or blog featuring multiple pieces of multimedia-rich content on a chosen topic.</li> <li>2. Explanatory Video: Create an explanatory video explaining a concept in students own own words.</li> <li>3. Whiteboard Animation: Create a whiteboard animation illustrating a story or concept.</li> <li>4. Geo-Animation: Create a geographical animation demonstrating how two countries interact on a political, economic, or societal level.</li> <li>5. Animated Infographics: Create an animated infographic presenting data on a chosen topic.</li> <li>6. Multimedia Presentation: Create a compelling presentation using all elements of multimedia-(Text, Images, Short Video,Voice Sound, Interactions) on any subject/topic of choice.</li> </ol>

**Key Textbooks**

1. Van Tassel, J., Murphy, M., & Schmitz, J. (2020). *The New News: The Journalist's Guide to Producing Digital Content for Online & Mobile News*. Routledge.
2. Hernandez, R. K., & Rue, J. (2015). *The Principles of Multimedia Journalism: Packaging Digital News*. Routledge.
3. McAdams, M. (2012). *Flash Journalism: How to Create Multimedia News Packages*. Taylor & Francis.

**References:**

1. Kordic, D., & Stewart, J. (2018). *Rethinking content creation: A practical guide to writing, design, and multimedia production*. Oxford: Chandos Publishing.
2. Sorensen, C. O. (2017). *Multimedia learning and teaching*. London: Routledge.
3. Wells, P. (2015). *Creating multimedia for learning and teaching*. Guildford: Facet Publishing.
4. Hatti, N., & Bhatkhande, S. (2016). *Handbook of elearning, multimedia and mobile technologies*. New Delhi: CBS Publishers & Distributors.
5. Lin, M. F. (2017). *Multimedia teaching and learning with digital*

**Web Resources**

1. The Basics of Multimedia Content Packaging, <https://www.fpeusa.com/the-basics-of-multimedia-content-packaging/>
2. 10 Creative Uses of Multimedia Content Packaging, <https://www.knowledgeplus.in/10-creative-uses-of-multimedia-content-packaging/>
3. 10 Tips for Creating Effective Multimedia Content Packaging, <https://themecurve.com/blog/10-tips-for-creating-effective-multimedia-content-packaging/>
4. The Power of Multimedia Content Packaging in E-Learning, <https://elearningindustry.com/the-power-of-multimedia-content-packaging-in-e-learning>
5. Benefits of Using Multimedia Content Packaging in E-Learning, <https://www.imaginopro.com/resources/benefits-of-using-multimedia-content-packaging-in-e-learning/>

**Course Outcomes:**

1. Create a professional quality multimedia package that adheres to industry standards.
2. Assess the effectiveness of a multimedia package in meeting communication objectives.
3. Compare traditional methods of presenting information with multimedia presentation techniques.
4. Evaluate multimedia packages for accuracy, validity, and credibility.
5. Integrate multimedia into existing educational settings.

**Mapping**

PSO	CO1	CO2	CO3	CO4	CO5
PSO 1	2	1	1	3	1
PSO 2	3	2	2	2	3
PSO 3	3	3	3	3	2
PSO 4	3	2	3	1	1
PSO 5	1	1	1	1	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	EX	Ter rna
<b>23BVC3S1</b>	<b>Design Thinking (Theory)</b>	<b>SEC-V</b>	<b>2</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>

### Course Description

Design Thinking is a problem-solving methodology that uses a human-centered approach to develop innovative solutions. This course will provide an introduction to Design Thinking, exploring its background and business uses. It will also cover the variety within the Design Thinking discipline and its mindset, which includes fundamental concepts like empathy, ethnography, divergent thinking, convergent thinking, and visual thinking.

The course will examine the mechanics and resources of Design Thinking, including assumption testing, design criteria, curator, design brief, and designing for growth process. We will also explore the stages of the Designing for Growth process and overview of prototyping, wireframing, and resources like people, place, materials, and organizational fit.

We will cover different approaches to Design Thinking, including disruptive solutions, double diamond process, stage school process, human-centered design, and user-centered design. We will also examine affordances and usability, Design Thinking tools, visualization, and aesthetics principles for designers.

Moreover, the course will cover Design Thinking methods, including journey mapping, archetype mapping matrix, archetype persona, value chain analysis, customer co-creation, and competitive advantage. We will also explore the concept development, mind mapping, brainstorming, and Design Thinking practices such as the role of project management in the Design process, minimal marketable feature, minimal viable ecosystem, minimal viable product, and napkin pitch.

Finally, the course will explore the application and execution of Design Thinking, including user interface as communication, basic principles of UI design, and apps for prototyping, rapid prototyping, and wireframing, communicating results effectively. This course aims to equip students with a robust understanding of Design Thinking to apply it in real-world scenarios effectively.

### Course Objective

1. Describe design thinking, its approaches and mindset
2. Explain fundamental Concepts, Resources and processes involved in design thinking
3. Comprehend stages of Design thinking for growth,
4. To explain strength and weakness of different design thinking tools and methods
5. Understand various applications of design thinking

### UNIT-I

#### Design Thinking Background

Definition of Design Thinking.

Business uses of Design Thinking.

Variety within the Design Thinking Discipline.

Design Thinking Mindset-Problem Solving Approach.

Fundamental Concepts: Empathy, Ethnography.

Divergent Thinking, Convergent Thinking, Visual Thinking.

### UNIT-II

#### Design Mechanics and Resources

Assumption Testing- Design Criteria, Curator, Design Brief.

Designing for Growth Process- Process Stages of Designing for Growth.

Overview of Prototyping-, Wireframing.

Resources (People, Place, Materials, Organizational Fit).

Varied Design Thinking Approaches: Disruptive Solution, Double Diamond Process, Stage School Process-Human-Centered Design, Stanford School 5-Stage Approach, User-Centered Design.

Affordances and Usability.

<b>UNIT-III</b>	<b>Design Thinking Tools</b> "What Wows? What Works? What Is?, What If?" Purposeful Use of Tools and Alignment with Process. Visualization-Aesthetics Principles for Designers.
<b>UNIT-IV</b>	<b>Design Thinking Methods</b> Journey Mapping, Archetype Mapping Matrix, Archetype Persona. Value Chain Analysis, Customer Co-creation, Competitive Advantage. Concept Development, Mind Mapping- Brainstorming.
<b>UNIT-V</b>	<b>Design Thinking Practices</b> Role of Project Management in Design Process- Aids. Minimal Marketable Feature (MMF), Minimal Viable Ecosystem (MVE), Minimal Viable Product (MVP), Napkin Pitch. Design Thinking Application and Execution-User Interface(UI) as Communication. Basic Principles of UI Design. Apps for Prototyping, Rapid Prototyping, and Wireframing-Communicating Results Effectively.
<b>Key Textbooks</b> 1. Beausoleil, A. M. (2022). Business Design Thinking and Doing: Frameworks, Strategies and Techniques for Sustainable Innovation. Springer International Publishing. 2. Branson, S. (2020). Design Thinking: A Modern Approach For Making Crucial Business Decisions, Create Great Products And Manage Successful Startups And Companies. Independently Published. 3. Brenner, W., & Uebernickel, F. (2016). Design Thinking for Innovation: Research and Practice. Springer. 4. Cross, N. (2011). Design Thinking: Understanding How Designers Think and Work. Berg. 5. Cure, S., & Seggio, B. (2019). Graphic Design Play Book: An Exploration of Visual Thinking (Logo, Typography, Website, Poster, Web, and Creative Design). Laurence King Publishing.	
<b>References</b> 1. Curedale, R. (2019). Design Thinking Process & Methods 5th Edition. Design Community College Incorporated. 2. Dan O'Hair, H., & O'Hair, M. J. (2020). The Handbook of Applied Communication Research. John Wiley & Sons. 3. den Dekker, T. (2020). Design Thinking. Routledge. 4. Hillmann, C. (2021). UX for XR: User Experience Design and Strategies for Immersive Technologies. Apress. 5. Lewrick, M., Link, P., & Leifer, L. (2018). The Design Thinking Playbook: Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems. John Wiley & Sons.	
<b>Web Resources</b> 1. Design Studies - <a href="https://www.journals.elsevier.com/design-studies/">https://www.journals.elsevier.com/design-studies/</a> 2. Design Issues - <a href="https://www.mitpressjournals.org/loi/desi">https://www.mitpressjournals.org/loi/desi</a> 3. Design and Culture - <a href="https://www.tandfonline.com/toc/rfdc20/current">https://www.tandfonline.com/toc/rfdc20/current</a> 4. Industrial Designers Society of America (IDSA) - <a href="https://www.idsa.org/">https://www.idsa.org/</a> 5. Interaction Design Association (IxDA) - <a href="https://ixda.org/">https://ixda.org/</a> 6. Design Management Institute (DMI) - <a href="https://www.dmi.org/">https://www.dmi.org/</a> 7. DesignSingapore Council - <a href="https://www.designsingapore.org/">https://www.designsingapore.org/</a>	
<b>Course Outcomes</b> 1. Adopt a problem solving mindset to reframe design challenges 2. Enumerate and select appropriate design thinking approach for specific design problem 3. Use design thinking tools and methods to solve real-world problems 4. Apply design thinking principles to develop plan of action and wireframe for specific problem domain 5. To create prototypes for specific design problem using available design tools and apps.	

**Mapping Course Objectives (CO) and Program Specific Objectives (PSO)**

<b>PSOs/COs</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>
PSO 1	3	3	3	3	3
PSO 2	3	3	3	3	3
PSO 3	3	3	2	3	3
PSO 4	3	1	3	2	3
PSO 5	2	3	3	3	2



Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks			
					CIA	EX	ter rna	Total
23BVC4C1	Film Appreciation and Analysis (Theory)	Core	4	4	25	75	100	
<b>Course Description</b> This course provides an overview of film appreciation and analysis. Students explore the origins and evolution of cinema as an art form and industry. Key aspects of filmmaking like sound, music, genres, narratives, documentaries and forms are examined. Students learn narrative and non-narrative forms, mainstream and alternative films. Analysis techniques focusing on narration, ideology, auteurship, and style are covered. Film techniques around narrative, space, time, editing and cinematography are appreciated. Major film theories—ideology, authorship, genre, psychoanalytic, formalist—and movements are surveyed. Practical application comes through analyzing award-winning and culturally significant films. Students analyze mise-en-scene, camerawork, editing, music, narratives, documentaries, animated films, film historical context, and auteur directors’ works. Writing film reviews focusing on narrative, technical, thematic and personal aspects is also covered. Case studies of stalwart Indian directors—Ray, Nihalani, Benegal, Kasaravalli—and Tamil and world cinemas are explored. The course examines cinema as popular culture, its socio-political influence and audience. Censorship's role is also discussed. Multimedia presentations and written analysis of films chosen from different languages and periods demonstrate learning. The course equips students with a framework to appreciate cinema as an art form and understand its far-reaching influence.								
<b>Course Objectives</b> 1. Describe the origin and evolution of cinema as an artistic medium and industry. 2. Analyze narrative and technical elements of award-winning and culturally significant films. 3. Apply major film theories and analysis techniques to interpret films' underlying meanings and directors' styles. 4. Evaluate how films reflect and influence society based on historical context and audience reception. 5. Create multimedia presentations and written papers analyzing selected films, their themes and impact.								
UNIT-I	<b>Overview of Film Appreciation</b> Introduction to Film Appreciation Origins and Evolution of Cinema Nature of Cinema Critical and Technical Terms used in Film Production and Practice Industrial and Economic Basis of Commercial Cinema							
UNIT-II	<b>Key Aspects of Film Making</b>  Sound and Music in Films Film Genres and Story Archetypes Popular Narrative Forms. Story Structures Narrative form and Non-narrative form Film Form and Conventions Documentary Films, Documentary genres Different Narrative Techniques							
UNIT-III	<b>Film Analysis</b>  Mainstream and Alternative Narratives and Film Forms Film Analysis Techniques Narration-Ideology in Films Mise-en-Scene Principles of Film-Authorship in Films Style as a Formal System							

<b>UNIT-IV</b>	<b>Appreciation of Film Techniques</b>  Film Techniques: Narrative Unity, Ambiguity Space and Time Film Editing Techniques: Disunity, Form, Style Cinematographer Properties Montage and Long Take
<b>UNIT-V</b>	<b>Film Theories and Movements</b>  Ideology in films Authorship in films Auteurs film theory Marxist film theories Feminist film theories Genre theory Psychoanalytical film theory Formalist film theory Film concepts and film movements

**Film Analysis: Suggested Practical Exercises/Assignments for Internal Exams**  
(Any one or Two exercises from the list below). All exercises can be presented in the form of written text or multimedia presentations.

*Exercise 1:* Analyze how mise-en-scene and camerawork were used to show conflict between characters in a movie scene. Discuss set design, lighting, positioning, angles, etc.

*Exercise 2:* Analyze how editing techniques like continuity editing, montage, jump cuts, etc. were used to show the passage of time in a movie. Discuss how effective they were.

*Exercise 3:* Analyze the use of music in generating mood and highlighting important moments in a movie scene. Discuss how sound editing amplified the impact.

*Exercise 4:* Analyze the character arc of the protagonist based on key narrative elements like exposition, rising action, climax, falling action and resolution in a movie.

*Exercise 5:* Analyze how a documentary used balanced or persuasive arguments, interviews, historical footage, music, etc. to make a compelling case. Discuss how objective or subjective it was.

*Exercise 6:* Analyze a movie within its historical context. Discuss how it reflected the social/cultural issues and events of the time period in which it was produced.

*Exercise 7:* Analyze the auteur elements in the films of a famous director like Hitchcock or Kurosawa or Mani Ratnam. Discuss recurring themes, techniques, collaborators, etc. that define their signature style.

*Exercise 8:* Analyze how an animated film used different techniques like stop motion, 2D, 3D, etc. to bring its visual style to life. Discuss how the animation enhanced the storytelling.

*Exercise 9:* Analyze how experimental films challenged conventional filmmaking rules through use of abstract visuals, surrealism, social commentary, etc. Discuss why they are considered unconventional.

*Exercise 10:* Write a film review focusing on narrative, technical and thematic aspects of a movie as well as your personal experience watching it. Provide recommendation on if audiences should watch it and why.

*Exercise 11:* Carry out a Film Analysis and Case studies of Award winning films and Stalwarts in Indian Cinema, Satyajit Ray, Guru Dutt, Adoor Gopalakrishnan 4. Govind Nihalani, Shyam Benegal, Mrinal Sen, Girish Kasaravalli, Mahendran

*Exercise 12:* Carry out a Case sTudy of Tamil Cinema based on the following Themes: 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

*Exercise 13:* Carry out a Case study of World Cinema, focusing on films from any one nation: Iran, Nigeria, South Korean, Brazil, Mexican, European Union Nations, Russian, Japanese, Chinese, Thailand.

**Course Outcomes**

1. Explain key concepts and critical terms used in film production, analysis and appreciation.
2. Compare mainstream, alternative, narrative and non-narrative film forms.
3. Analyze the narrative, technical, ideological and cultural aspects of films.
4. Discuss the role of film as a medium of cultural expression and its influence on society.
5. Apply diverse approaches to film analysis and generate independent interpretations of films.

**Key Textbooks**

1. Audissino, E. (2017). Film/Music Analysis: A Film Studies Approach. Springer.
2. Bateman, J., & Schmidt, K.-H. (2013). Multimodal Film Analysis: How Films Mean. Routledge.
3. Benshoff, H. (2015). Film and Television Analysis: An Introduction to Methods, Theories, and Approaches. Routledge.
4. Caldwell, T. (2011). Film Analysis Handbook: Essential Guide to Understanding, Analysing and Writing on Film. Insight Publications.
5. Russo, J. R. (2021). Understanding Film: A Viewer's Guide. Liverpool University Press.
6. Wildfeuer, J., & Bateman, J. A. (2016). Film Text Analysis: New Perspectives on the Analysis of Filmic Meaning. Taylor & Francis.

**References**

1. Barnwell, J. (2019). The Fundamentals of Film Making. Bloomsbury Publishing.
2. Battaglia, G. (2017). Documentary Film in India: An Anthropological History (1 edition). Routledge.
3. Bordwell, D., & Thompson, K. (2004). Film Art: An Introduction. McGraw-Hill.
4. Bruhn, J., & Gjelsvik, A. (2018). Cinema Between Media: An Intermediality Approach. Edinburgh University Press.
5. Devasundaram, A. I. (2016). India's New Independent Cinema: Rise of the Hybrid. Routledge.
6. Dickey, S. (2007). Cinema and the Urban Poor in South India (Vol. 1). Cambridge University Press.
7. Hillman, N. (2021). Sound for Moving Pictures: The Four Sound Areas. CRC Press.
8. Katz, S. D. (2019). Film Directing: Shot by Shot - 25th Anniversary Edition: Visualizing from Concept to Screen. Michael Wiese Productions.
9. Kishore, S. (2020). Indian Documentary Film and Filmmakers: Independence in Practice. Edinburgh University Press.
10. Lamarre, T. (2013). The Anime Machine: A Media Theory of Animation. U of Minnesota Press.

**Web Resources**

1. Journal of Film and Video - <https://www.jstor.org/journal/jfilmvideo>
2. Cinema Journal - <http://www.cmstudies.org/page/CinemaJournal>
3. Film Quarterly - <https://filmquarterly.org/>
4. Studies in Documentary Film - <http://www.tandfonline.com/toc/rsdf20/current>
5. Screen - <https://academic.oup.com/screen/>

**Mapping**

PSO	CO1	CO2	CO3	CO4	CO5
PSO 1	2	3	3	1	2
PSO 2	3	3	3	2	3
PSO 3	3	2	3	2	3
PSO 4	1	1	3	2	2
PSO 5	3	2	2	3	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	Exa	Termina
23BVC4P1	Animation and Character Design (Practical)	Core Practica I	3	3	25	75	100

#### Course Description

This course on Animation and Character Design is designed to provide students with a comprehensive understanding of the principles and techniques used in the creation of engaging and dynamic animation and characters. Through a series of challenging lessons and practical exercises, students will learn the fundamentals of character design, animation techniques, motion capture, and more. The course is divided into five units, each containing five lessons and exercises that will build upon the skills learned in the previous unit.

Students will gain hands-on experience with traditional and digital animation techniques, including 2D and 3D animation, motion graphics, and stop-motion animation. They will also learn how to use motion capture technology to capture human and animal motion and integrate it into their animations. By the end of the course, students will have developed a diverse set of skills and a professional-level portfolio of animations and character designs. This course is suitable for beginners as well as professionals looking to expand their skill set in the animation and character design industry.

#### Course Objectives

1. Recall the fundamental principles of animation and character design, including the importance of exaggeration, appeal, and timing.
2. Understand the different types of animation techniques and their applications, such as 2D, 3D, stop-motion, and motion graphics.
3. Comprehend the principles and techniques of character design, such as creating appealing characters with a strong silhouette and personality.
4. Apply animation and character design techniques to create a variety of projects, including short animations, motion graphics, and character designs.
5. Analyze the effectiveness of different animation and character design techniques in creating engaging and dynamic characters and animations.
6. Innovate and experiment with animation and character design techniques to create unique and visually compelling works.

#### Animation and Character Design Record

As a part of this course, students will be required to maintain a record of their Animation and Character Design exercises. This record will help students keep track of their progress and allow them to reflect on their work. The record can be maintained in a digital format such as a blog, portfolio website or cloud storage. The digital record should have at least Five Animation and Character Design Exercises-one from each unit developed using appropriate software. Students should ensure that their record is organised, labelled clearly and includes any relevant details such as date of the exercise, software used, and a brief description of the exercise. This record should be submitted at the end of the course for evaluation.

#### Practical Examination

Practical examination could be in the form of viva, testing students' procedural knowledge, evaluation of Animation and Character Design. Students can also be asked to create a Animation and Character Design work for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge on the software used for developing the content. Students should be able to explain what technique or pipeline/workflows were deployed.

<b>UNIT-I</b>	<p><b>Fundamentals of Animation and Character Design</b>  Introduction to Animation and Character Design, Understanding the history and evolution of animation and character design, Overview of the different styles and techniques used in animation and character design.</p> <p>Principles of Animation, Study of the 12 principles of animation and their applications, Understanding the importance of timing, spacing, and movement in animation</p> <p>Anatomy and Gesture Drawing, Understanding the human anatomy and how it influences character design, Developing gesture drawing skills to capture the essence of movement and pose</p> <p>Character Design, Developing character design skills for various genres and mediums, Understanding the importance of character personality, expressions, and body language</p> <p>Storyboarding and Layout Design, Understanding the process of storyboarding and layout design, developing skills to create visual storytelling through composition, camera angles, and pacing</p>
<b>UNIT-II</b>	<p><b>Animation Techniques</b>  Traditional Animation Techniques, Understanding the traditional animation process and techniques, learning how to use light tables, peg bars, and traditional animation software</p> <p>2D Digital Animation, Overview of 2D digital animation software and tools, Developing skills to create hand-drawn animation using digital tablets and software</p> <p>3D Animation Techniques, Understanding the principles of 3D animation and modelling, learning how to use 3D animation software and tools to create realistic movements and expressions</p> <p>Motion Graphics, Understanding the principles of motion graphics and typography, developing skills to create animated logos, titles, and promotional videos</p> <p>Stop Motion Animation, Understanding the principles of stop motion animation, learning how to use stop motion animation software and techniques to create dynamic movements and effects</p>
<b>UNIT-III</b>	<p><b>Specialization in Animation and Character Design</b>  Character Rigging and Animation, Understanding the process of character rigging for 2D and 3D animation, Developing skills to create realistic and expressive character movements</p> <p>Special Effects Animation, Understanding the principles of special effects animation, developing skills to create dynamic and realistic visual effects</p> <p>Game Animation, Understanding the principles of game animation, developing skills to create responsive and dynamic animations for video games</p> <p>TV and Film Animation, Understanding the differences between TV and film animation, developing skills to create high-quality animation for television and film projects</p> <p>Virtual Reality and Augmented Reality Animation, Understanding the principles of virtual reality and augmented reality animation, Developing skills to create immersive and interactive animations for virtual reality and augmented reality platforms</p>

<b>UNIT-IV</b>	<p><b>Animation and Character Design for Professional Projects</b></p> <p>Creating Animatics, Understanding the process of creating animatics for film, television, and advertising, developing skills to create effective and engaging animatics</p> <p>Collaborating with a Production Team, Understanding the importance of collaborating with a production team, developing skills to communicate and work effectively with directors, producers, and other creative professionals</p>
<b>UNIT-V</b>	<p><b>Project Management, Presentation, Pitching and Portfolio Building</b></p> <p>Project Management and Time Management, Understanding the importance of project management and time management in animation and character design, developing skills to create project schedules, manage deadlines, and prioritize tasks</p> <p>Presentation and Pitching Skills, Understanding the principles of effective presentations and pitching skills, Developing skills to communicate and sell ideas to clients, stakeholders, and investors</p> <p>Portfolio Building and Career Development, Understanding the importance of building a strong portfolio and showcasing your work, Developing skills to market yourself and your skills as an animator or character</p>
<p>(At least Five Exercises-One from Each Unit-Should be included in the Digital Record)</p> <p><b>Unit 1: Fundamentals of Animation and Character Design</b></p> <p><i>Exercise 1:</i> Designing a Character, Create a unique character design that showcases personality, expressions, and body language, Develop sketches and illustrations that showcase the character's traits and backstory</p> <p><i>Exercise 2:</i> Gesture Drawing, Practice gesture drawing to capture the essence of movement and pose, Develop quick sketches of human figures in different poses and actions</p> <p><i>Exercise 3:</i> Animating a Walk Cycle, Create a realistic walk cycle animation using traditional or digital animation techniques, Experiment with timing, spacing, and weight to create a convincing animation</p> <p><i>Exercise 4:</i> Storyboarding a Scene, Create a storyboard for a short animation or film scene, Use composition, camera angles, and pacing to convey the story and emotions of the scene</p> <p><i>Exercise 5:</i> Layout Design, Create a layout design for a scene in an animation or film project, Use composition and color theory to create a visually compelling scene</p>	
<p><b>Unit 2: Animation Techniques</b></p> <p><i>Exercise 6:</i> Create a short animation using traditional animation techniques such as pencil and paper or stop motion, Experiment with different frame rates, timing, and spacing to create an effective animation</p> <p><i>Exercise 7:</i> Create a short animation using 2D digital animation software and tools, Experiment with different software and tools to find the best fit for your animation style</p> <p><i>Exercise 8:</i> Create a short animation using 3D animation software and tools, Experiment with different software and tools to create realistic movements and expressions</p>	

**Unit 3: Specialization in Animation and Character Design**

*Exercise 9:* Create a short motion graphics animation using typography and graphic design elements, Experiment with different software and tools to create engaging and dynamic motion graphics

*Exercise 10:* Create a short stop motion animation using stop motion software and techniques, Experiment with different materials and techniques to create dynamic movements and effects

**Unit 3: Specialization in Animation and Character Design**

*Exercise 11:* Create a short animation using character rigging techniques for 2D or 3D animation, Experiment with different rigging techniques to create realistic and expressive character movements

*Exercise 12:* Create a short animation using special effects animation techniques, Experiment with different techniques to create dynamic and realistic visual effects

*Exercise 13:* Create a short animation for a video game project, Experiment with different animation techniques to create responsive and dynamic animations for video games

*Exercise 14:* Create a short animation for a television or film project, Experiment with different animation techniques to create high-quality animation for television and film projects

*Exercise 15:* Create a short animation for a virtual reality or augmented reality project, Experiment with different animation techniques to create immersive and interactive animations for virtual reality and augmented reality platforms.

**Unit 4: Animation and Character Design for Professional Projects**

*Exercise 1:* Learn the basics of motion capture technology and workflow, Set up a motion capture session with markers, cameras, and software

*Exercise 2:* Capture a human motion using motion capture technology, Analyze and edit the captured motion to improve its quality and accuracy

*Exercise 3:* Capture an animal motion using motion capture technology, Analyze and edit the captured motion to create a believable and expressive animation

*Exercise 4:* Learn how to edit and retarget motion capture data to different characters or models, Experiment with different techniques to create smooth and natural motion

*Exercise 5:* Learn how to integrate motion capture data into an animation pipeline, create a short animation using motion capture data and other animation techniques to create a high-quality animation.

**Detailed Practical Exercises for Animation and Character Design**

(At least Five Exercises-One from Each Unit-Should be included in the Digital Record)



**Key Textbooks**

1. Blain, J. M. (2021). Blender 2D Animation: The Complete Guide to the Grease Pencil. CRC Press.
2. Chong, A. (2019). Digital Animation. Bloomsbury Publishing.
3. Blain, J. M. (2022). The Complete Guide to Blender Graphics: Computer Modeling & Animation. CRC Press.
4. Chandramouli, M. (2021). 3D Modeling & Animation: A Primer. CRC Press.
5. 3dtotal Publishing. (2020). Fundamentals of Character Design: How to Create Engaging Characters for Illustration, Animation & Visual Development. 3DTotol Publishing.
6. Tillman, B. (2019). Creative Character Design 2e. CRC Press.
7. Milic, L., & McConville, Y. (2006). The Animation Producer'S Handbook. McGraw-Hill Education (UK).

**References**

1. Osipa, J. (2022). Stop Staring: Facial Modeling and Animation Done Right (3rd ed.). Wiley.
2. Dower, J., & Langdale, P. (2022). Performing for Motion Capture: A Guide for Practitioners. Bloomsbury Publishing.
3. Guevarra, E. T. M. (2019). Modeling and Animation Using Blender: Blender 2.80: The Rise of Eevee. Apress.
4. Edelmann, J. (2022). Character Animation: 2D Skills for Better 3D (2nd ed.). Bloomsbury Visual Arts.
5. Bousquet, M. (2021). The Art and Making of Luca. Chronicle Books.
6. Tyng, M. (2021). Stop Motion Animation: How to Make and Share Creative Videos (2nd ed.). DK Publishing.
7. O'Connell, R. (2021). Acting and Performance for Animation. Routledge.
8. Alspach, T. (2020). The Animators Sketchbook: How to See, Interpret & Draw Like a Master Animator. Rockport Publishers.
9. Pearn, K. (2020). The Art of The Willoughbys. Abrams Books.
10. Johnston, O., & Thomas, F. (2020). The Illusion of Life: Disney Animation (3rd ed.). Disney Editions.

**Web Resources**

1. Journal of Animation and Moving Image - <https://www.intellectbooks.com/journal-of-animation-and-moving-image>
2. Animation Practice, Process & Production - <https://www.intellectbooks.com/animation-practice-process-production>
3. Animation: An Interdisciplinary Journal - <https://www.tandfonline.com/toc/ranm20/current>
4. International Journal of Animation and Cartoon Studies - <http://ijac.net/>
5. Animation Studies - <http://journal.animationstudies.org/>

**Course Outcomes**

1. Recall the fundamental principles of animation and character design and apply them to their own work.
2. Understand the different types of animation techniques and their applications, as well as the principles and techniques of character design.
3. Apply animation and character design techniques to create a variety of projects, including short animations, motion graphics, and character designs.
4. Analyze and evaluate the effectiveness of different animation and character design techniques in creating engaging and dynamic characters and animations.
5. Create original and creative animations and character designs that demonstrate a mastery of the principles and techniques covered in the course. Students will be able to innovate and experiment with animation and character design techniques to create unique and visually compelling works that showcase their individual style and creativity.

**Mapping**

PSO	CO1	CO2	CO3	CO4	CO5
PSO1	3	2	3	1	2
PSO2	3	3	1	1	3
PSO3	1	1	3	2	1
PSO4	3	1	2	3	2
PSO5	1	2	3	1	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	EX-ter-na	Total
23BVC4SP	Script Writing and Storyboard Development (Practical)	SEC-VI	2	2	25	75	100

### Course Description

“Script Writing and Storyboard Development” is a comprehensive course designed for aspiring writers, filmmakers, and content creators. This course will guide you through the process of developing an engaging and impactful story, from idea to finished script. Through a combination of lectures, workshops, and individual assignments, you will learn how to craft compelling characters, create a vivid and believable world, and build a story structure that keeps your audience hooked from beginning to end. You will also learn about script formatting, dialogue writing, and scene construction, as well as the basics of screenwriting and storytelling. By the end of the course, you will have the skills and confidence to turn your ideas into a polished and professional script that is ready for production. Whether you're an aspiring screenwriter, a filmmaker, or simply looking to improve your storytelling skills, this course is the perfect starting point. Finally this course will enable students to convert their story ideas and scripts into storyboards using appropriate software. The storyboards will be evaluated for their record.

### Course Objectives

1. *Remembering*: Students will be able to recall key concepts, terminology, and techniques related to story development and scriptwriting.
2. *Understanding*: Students will be able to demonstrate an understanding of the principles and processes of story development and scriptwriting, including character development, plot structure, and dialogue.
3. *Applying*: Students will be able to apply their understanding of story development and scriptwriting to the creation of their own stories and scripts and develop a storyboard for their scripts
4. *Analyzing*: Students will be able to analyze the strengths and weaknesses of their own stories and scripts and those of others, and identify areas for improvement.
5. *Evaluating*: Students will be able to evaluate their own stories and scripts and those of others based on criteria such as character development, plot structure, and dialogue.

Note: While open source software for such as GIMP/InkSpace, Krita/ToonBoom/Blender is the recommended. However, each institution/college can choose to train the students in any other open source or commercial alternative such as Adobe Animate, Other Creative Cloud Suite Apps, Procreate, Mental Case etc.

### Detailed Syllabus

#### Script Writing and Storyboard Development Record

As a part of this course, students will be required to maintain a record of their Script Writing and Storyboard Development exercises. This record will help students keep track of their progress and allow them to reflect on their work. The record can be maintained in a digital format such as a blog, portfolio website or cloud storage. The digital record should have at least Five Script Writing and Storyboard Development Exercises-one from each unit developed using appropriate software. Students should ensure that their record is organised, labelled clearly and includes any relevant details such as date of the exercise, software used, and a brief description of the exercise. This record should be submitted at the end of the course for evaluation.

#### Practical Examination

Practical examination could be in the form of viva, testing students’ procedural knowledge, evaluation of Animation and Character Design. Students can also be asked to create a Script Writing and Storyboard Development work for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge on the software used for developing the content. Students should be able to explain what technique or pipeline/workflows were deployed.

<b>UNIT-I</b>	<b>Introduction to Script and Style</b> Introduction to Scriptwriting as a Creative Enterprise Creative Thinking and the Creativity Process Stages in the Craft of Script Writing Basic Story Idea, Narrative Synopsis Outline, Scene Breakdown, and Full-Fledged Script Introduction to Script Formatting and Style
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<b>UNIT-II</b>	<b>Screenwriting Basics</b> Beginning, Middle, End: The Three-Act Structure Conflict, Development, Climax, and Denouement Story, Storyline, Plot, and Treatment Principles of Suspense and Surprise Pacing and Timing
<b>UNIT-III</b>	<b>Story and Discourse</b> Narrative Structure in Fiction and Film The Anatomy of a Screenplay Breaking Down the Story into Scenes Scene Breakdown, Drafting Process, and Full-Fledged Script Film and TV Script Formats, Storyboards, and Copyright
<b>UNIT-IV</b>	<b>Ideation and Script Development</b> Concept Creation, Pitching the Story and Scheduling Developing themes and messages for scriptwriting Sketching Characters, Backgrounds, and Props Rewriting and Editing, Collaboration and Teamwork in Scriptwriting Casting and Preparations for Production.
<b>UNIT-V</b>	<b>Visual Storytelling in Social Media</b> Modality: Designing Models of Reality Strategy to Implementation in Business Storytelling Real-time Marketing in a Visual World Storytelling with Emotions, Genre and Tone Storyboarding: Visualizing Your Story
<b>Practical Exercises for Script Writing and Storyboard Development</b> <i>Exercise 1:</i> Write a story: Have students write a short story, focusing on character development, plot structure, and themes. <i>Exercise 2:</i> Write a script: Have students write a script for a short film or play, incorporating elements of story development and scriptwriting. <i>Exercise 3:</i> Analyze a story or script: Have students analyze a story or script, including its character development, plot structure, and dialogue, and identify areas for improvement. <i>Exercise 4:</i> Develop a character: Have students develop a character for a story or script, including their appearance, personality, and background. <i>Exercise 5:</i> Write a scene: Have students write a scene for a story or script, including dialogue and actions. <i>Exercise 6:</i> Write a treatment: Have students write a treatment for a story or script, outlining the plot, characters, and themes. <i>Exercise 7:</i> Write a synopsis: Have students write a synopsis of a story or script, summarizing the plot and key elements. <i>Exercise 8:</i> Rewrite a scene: Have students rewrite a scene from a story or script, making changes to improve character development, plot structure, or dialogue. <i>Exercise 9:</i> Develop a story idea: Have students brainstorm and develop a story idea, including a plot, characters, and themes. <i>Exercise 10:</i> Write a pitch: Have students write a pitch for a story or script, summarizing the key elements and explaining why it is a compelling and marketable idea.	

## Storyboard Exercises

### Using Apps for Storyboarding- Practical Exercises

Note: Any five of the following exercises should be completed based on the student's story ideas and script. The topic can be both fiction and non-fiction. The following exercise are only suggestive. There is no need to work on all the exercises. Only exercises relevant to students' scriptwriting projects can be tried and included in the record (See Below)

1. Create a simple storyboard for a short film or animation using app's storyboarding tools.
2. Experiment with using app's drawing tools to create storyboard panels and sketches.
3. Try using app's 3D tools to create storyboard panels with 3D elements or camera movements.
4. Experiment with using app's animation tools to add movement and action to a storyboard.
5. Create a storyboard with dialogue, using app's audio and lip sync tools.
6. Try using app's compositing tools to combine live-action video with storyboard panels.
7. Experiment with using app's motion graphics tools to create a storyboard with text or graphics.
8. Create a storyboard with multiple camera angles and shot types, using app's camera tools.
9. Try using app's particle system tools to add visual effects to a storyboard, such as smoke or fire.
10. Experiment with using app's visual effects tools to create a storyboard with visual effects, such as explosions or lightning.
11. Create a storyboard with a unique visual style, using app's material editor and lighting tools.
12. Try using app's rigging tools to add movement to characters in a storyboard.
13. Experiment with using app's sculpting tools to create storyboard panels with sculpted elements.
14. Create a storyboard with a dynamic camera movement, using app's camera tools and animation tools.
15. Try using app's compositing tools to create a storyboard with a green screen effect or visual overlay.

### Criteria for Evaluating Students' Storyboards

*Clarity of story:* Is there a clear beginning, middle and end? Is the plot coherent and easy to follow? Are character motivations and actions logical?

*Creativity:* Is the story imaginative and original? Or is it cliched and predictable? Does it have creative plot twists or character arcs?

*Visuals:* Are the sketches and drawings clear? Do they effectively convey the story, action and emotions? Is the composition, framing and layout well designed?

*Pacing:* Does the story move at an appropriate pace to keep the viewer engaged? Or are there parts that drag or feel rushed? Are there a good mix of action and dialogue?

*Emotional appeal:* Does the story elicit emotion from the viewer? Are stakes high enough? Do we feel for the characters?

*Consistency:* Is the story consistent in terms of plot, characters, theme, visual style, etc.? Or are there inconsistencies that break the flow?

*Storyboard flow:* Does the sequence of storyboards flow logically from one panel to the next? Are transitions between panels smooth and coherent?

*Technical aspects:* If using animation software, did the students demonstrate proficiency with the tools? Are camera movements, character animations, backgrounds, etc. well executed?

*Originality:* Is the story highly derivative of popular movies, books or other media? Or does it have a unique twist or angle? Points for originality and freshness.

### **Key Textbooks**

1. Snyder, B. (2019). The screenwriter's roadmap: 21 ways to jumpstart your story. Studio City, CA: Michael Wiese Productions.
2. Seger, L. (2015). Making a good script great. Studio City, CA: Michael Wiese Productions.
3. Field, S. (2019). The script-selling game: A Hollywood insider's look at getting your script sold and produced. New York: Delta.

### **References**

1. Field, S. (2015). Screenplay: The foundations of screenwriting. New York: Delta.
2. Snyder, B. (2018). Save the cat: The last book on screenwriting you'll ever need. Studio City, CA: Michael Wiese Productions.
3. McKee, R. (2017). Story: Substance, structure, style and the principles of screenwriting. New York: HarperCollins.
4. Maas, J. (2018). Writing the pilot: Creating the series. Studio City, CA: Michael Wiese Productions.
5. Truby, J. (2018). The Anatomy of Story: 22 Steps to Becoming a Master Storyteller. Faber & Faber
6. Snyder, B. (2015). The screenwriter's Bible: A complete guide to writing, formatting, and selling your script. Studio City, CA: Michael Wiese Productions.
7. 10. Snyder, B. (2017). The screenwriter within. Studio City, CA: Michael Wiese Productions.

### **Web Resources**

1. ScriptMag: offers articles, interviews, and resources for screenwriters.
2. Writer's Digest: offers articles, workshops, and online courses for writers, including screenwriters.
3. ScreenCraft: articles, interviews, and resources for screenwriters, including contests and pitch sessions.
4. No Film School: articles, tutorials, and resources for filmmakers, including screenwriters.
5. John August: offers articles, podcasts, and resources for screenwriters.
6. The Script Lab: offers articles, tutorials, and resources for screenwriters, including script analysis services.
7. The Black List: offers script hosting, evaluations, and contests for screenwriters.
8. Screenwriting.io: offers answers to frequently asked questions about screenwriting and script development.
9. SimplyScripts: offers a large collection of screenplays, scripts, and teleplays for reference and analysis.
10. Storyboard That: An online storyboard creation tool that offers a variety of customizable templates and options for creating professional storyboards.

### **Course Outcomes**

1. Students will be able to develop and structure a story.
2. Students will be able to write a script that effectively conveys a story.
3. Students will be able to analyze and evaluate their own stories and scripts and those of others, and identify areas for improvement.
4. Students will be able to apply their understanding of story development and scriptwriting by developing a storyboards for their scripts
5. Students will be able to create a professional-quality story and script using storyboards make a pitch for wider acceptance and production

**Program Specific Outcomes and Course Outcomes**

<b>PSO \ CO</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>
PSO 1	3	3	2	3	2
PSO 2	2	3	3	3	3
PSO 3	3	3	3	2	2
PSO 4	2	2	1	3	2
PSO 5	2	2	2	1	3







<b>UNIT-III</b>	<p><b>Brand Communication</b></p> <p>Branding and its importance in advertising and marketing, Analysing key elements of branding, Tools and techniques for managing and measuring brand equity, Consumer-based brand equity Brand valuation principles and applications Positioning a brand</p> <p>Building brand identity in challenging times, Strategic brand management: brand architecture, design, and brand naming decisions, Managing brand communication: brand building via integrated marketing communications, Strategic employer branding and corporate branding</p> <p>Branding different entities/products: political, arts, from nation to neighbourhood branding and marketing places, luxury, retail, service, branding in sports, franchise brand management Building brands via corporate social responsibility</p>
<b>UNIT-IV</b>	<p><b>Creativity, Advertising Research and Planning</b></p> <p>Advertising research and planning and their importance in advertising and marketing, Techniques for conducting market and competitive research for advertising campaigns, Role of creativity in advertising Creative strategies and ad theory, Advertising copywriting and design and their importance in advertising and marketing, Techniques for crafting effective ad copy and design</p> <p>Advertising media planning and buying and their importance in advertising and marketing, Techniques for selecting and purchasing advertising media</p> <p>Visual communication and branding: dynamics, convergence, multi-sensory experiences, visual language, and brand narratives</p>
<b>UNIT-V</b>	<p><b>Digital Advertising</b></p> <p>Defining digital advertising and its importance in advertising and marketing Techniques for digital advertising, including search engine marketing, display advertising, and social media advertising</p> <p>Various types of online advertising, including native ads, SEM, display advertising/banners, pop-up ads, mobile advertising, social ads, retargeting and remarketing, email marketing, digital signage, and video marketing</p> <p>Changing nature of advertising in the digital era. Understanding data-driven advertising and exploring programmatic</p> <p>Designing advertising for cross-platform distribution and strategies for non-invasive advertising</p>

#### **Course Outcomes**

1. Students will be able to develop and structure a story.
2. Students will be able to write a script that effectively conveys a story.
3. Students will be able to analyze and evaluate their own stories and scripts and those of others, and identify areas for improvement.
4. Students will be able to apply their understanding of story development and scriptwriting by developing a storyboards for their scripts
5. Students will be able to create a professional-quality story and script using storyboards make a pitch for wider acceptance and production

**Mapping:**

<b>PSO</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>
PSO 1	2	2	3	2	1
PSO 2	3	3	3	3	2
PSO 3	3	3	3	2	2
PSO 4	2	1	2	3	1
PSO 5	3	2	2	3	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	ter rna	Total
23BVC5C2	User Experience Design (Theory)	Core	4	5	25	75	100

### Course Description

In this course on User Experience Design, students will learn the essential principles and practices of creating effective and engaging user experiences across different platforms and devices. The course covers the fundamentals of UX design, including user-centered design, usability evaluation, information architecture, and interaction design.

Students will explore the psychological principles that underlie user behavior and learn how to apply these principles in the design of intuitive and user-friendly interfaces. The course also covers the importance of aesthetics and the role of design in different project processes, including agile development and design thinking. Students will be equipped with the knowledge and tools to create compelling and effective user experiences that meet the needs of users and businesses alike.

### Course Objectives:

1. Define the fundamental principles and concepts of User Experience Design, including the importance of user-centered design, usability evaluation, and information architecture.
2. Apply psychological principles to design effective and engaging user interfaces that meet user needs and expectations.
3. Conduct effective user research and apply research findings to inform the design process.
4. Develop and apply skills in prototyping and usability testing to create user-centered designs that meet project goals and objectives.
5. Evaluate the effectiveness of user experiences based on usability metrics and user feedback, and make informed design decisions based on evaluation results.

<b>UNIT-I</b>	<b>The Context for UX</b>  Rationale and Concepts of UX, Definition of User Experience Design (UX), The history of UX design, Core concepts of UX design, UX design and its impact on businesses  User-Centered Design Principles, Who is the ‘user’? The importance of user-centered design, the principles of user-centered design, the user-centered design cycle  The Importance of UX, Why UX is important, UX design as a strategic business advantage, UX design and product differentiation, the impact of UX design on user engagement and retention  Extended Meanings of ‘User Experience’, Misleading uses of ‘user experience’, How UX relates to other disciplines, the multiple dimensions of UX design, a new definition of UX  Varieties of UX Context: User Interfaces, Mobile Interface, Mobile UX, VR, AR and UX for Extended Reality Devices, UX for IoT
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<b>UNIT-II</b>	<p><b>Everyday Involvement with Technology</b></p> <p>Understanding everyday involvement, shared sense-making, appropriation and familiarity, being-with technology, technological mediation and human experience.</p> <p>Guiding principles for design, the place of design in the project process, alternative approaches to design, inclusive design, the principles of user-centered design.</p> <p>UX psychology, Jakob's law, Fitts's law, Hick's law, Miller's law, Postel's law and Tesler's law, the peak-end rule, aesthetic-usability effect, Von Restorff effect, Doherty threshold, applying psychological principles in design.</p> <p>Social beings and technology, social robots, digital assistants, and chatbots, anthropomorphism and technology, authentic social interactions with technology, emotions, affect, and mood in technology interactions.</p>
<b>UNIT-III</b>	<p><b>UX Research and Aesthetics</b></p> <p>The psychology of aesthetics, the savannah hypothesis, elegant useless axes, towards a psychology of aesthetics, aesthetic experience and perception.</p> <p>Aesthetic design in UX, the aesthetic turn, attractive things work better, distinguishing between function and fun, embodied aesthetics and neuroaesthetics.</p> <p>User research, the role of user research in UX design, understanding the context of use, identifying which people to study, types of user research.</p> <p>Illustrating the context of use, the context-of-use description, personas and journey maps, scenarios and user needs, user stories and user interface prototyping.</p>
<b>UNIT-IV</b>	<p><b>Information Architecture</b></p> <p>Organizing information, Information architecture? Organizational schemes for information, card sorting and mental models, conceptual and implementation models.</p> <p>Affordances, Influence of affordances in interaction design, designing with affordances in mind, the role of affordances in UX design.</p> <p>Usability, usability evaluation, measuring usability, iterative design in a human-centered process, eye tracking research and usability testing.</p> <p>The context for UX: project processes, UX and agile development, UCD and Design thinking, UCD and agile delivery, UX process maturity.</p>
<b>UNIT-V</b>	<p><b>Interaction Design and UX Future</b></p> <p>Understanding interaction design, principles of usable user interfaces, choosing the right user interface controls, user interface patterns.</p> <p>Physical ergonomics of user interface controls, designing for physical ergonomics, accessibility and inclusive design, designing for different devices and contexts, interaction design best practices.</p> <p>Designing for different platforms, understanding different platforms and their constraints, mobile design and responsive design, designing for web and desktop applications, designing for voice interfaces.</p> <p>Future of UX design, emerging technologies and their impact on UX design, the role of AI and machine learning in UX design, the future of UX design in a changing technological landscape, ethics in UX design and responsible design practices.</p>

### **Key Textbooks**

1. Yablonski, J. (2020). Laws of UX: Using Psychology to Design Better Products & Services (Greyscale Indian Edition).
2. Soegaard, M. (2018). The Basics of User Experience Design: A UX Design Book by the Interaction Design Foundation.
3. Amolendu, H. (2020). The Golden Ratio In UX Design: And Other Articles On User Experience.
4. Soares, M. M., Rosenzweig, E., & Marcus, A. (2021). Design, User Experience, and Usability: UX Research and Design: 10th International Conference, DUXU 2021, Held as Part of the 23rd HCI International Conference, HCII 2021, Virtual Event, July 24–29, 2021, Proceedings, Part I. Springer Nature.
5. van de Sand, F., Frison, A.-K., Zotz, P., Riemer, A., & Holl, K. (2019). User Experience Is Brand Experience: The Psychology Behind Successful Digital Products and Services. Springer Nature.

### **References**

1. Anderson, S. (2010). Seductive Interaction Design: Creating Playful, Fun, and Effective User Experiences. O'Reilly Media, Inc.
2. Beach, L. R. (2011). Designing Interfaces: Patterns for Effective Interaction Design. O'Reilly Media, Inc.
3. Cooper, J. (2014). About Face 3: The Essentials of Interaction Design. Wiley.
4. Morville, N. L. (2014). Information Architecture for the Web and Beyond. O'Reilly Media, Inc.
5. Tognazzini, E. (2015). About Face 2: The Essentials of Interaction Design. Wiley.

### **Web Resources**

1. Journal of Usability Studies - <https://uxpajournal.org/>
2. International Journal of Human-Computer Interaction - <https://www.tandfonline.com/toc/hhci20/current>
3. ACM Transactions on Computer-Human Interaction - <https://dl.acm.org/journal/tochi>
4. Journal of Interactive Marketing - <https://www.journals.elsevier.com/journal-of-interactive-marketing>
5. Human-Computer Interaction - <https://www.tandfonline.com/toc/hhci20/current>

### **Course Outcomes**

1. Analyze and evaluate user needs and expectations to inform the design of effective and engaging user experiences.
2. Design and develop user interfaces that meet project goals and objectives, utilizing principles of user-centered design, information architecture, and interaction design.
3. Apply psychological principles to design intuitive and user-friendly interfaces that meet the needs of different user groups and contexts.
4. Conduct effective user research and usability testing to evaluate the effectiveness of user experiences and inform design decisions.
5. Communicate and collaborate effectively with team members and stakeholders to achieve project goals and deliver user-centered designs that meet user needs and expectations.

**Mapping:**

<b>PSO / CO</b>	<b>CO 1</b>	<b>CO 2</b>	<b>CO 3</b>	<b>CO 4</b>	<b>CO 5</b>
PSO 1	1	1	2	1	1
PSO 2	1	3	2	1	3
PSO 3	2	3	3	2	3
PSO 4	2	3	1	3	2
PSO 5	1	2	1	2	1

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	EX	Ter rna
23BVC5P1	Advanced 3D Texturing and Sculpting (Practical)	Core	4	5	25	75	100

#### Course Description

The Advanced 3D Texturing and Sculpting course aims to teach students the skills and techniques required to create high-quality 3D models and textures. This hands-on course consists of five sections, each containing five challenging exercises for mastering various tools and techniques. The course concentrates on Sculpting, where students learn advanced character and environment sculpting techniques, hard surface modeling, and facial expressions. Tools like ZBrush, Mudbox, Blender, and Maya are used for creating detailed sculptures. The course emphasizes Procedural Modeling, teaching students how to create procedural textures, models, landscapes, and materials. Tools such as Substance Designer, Houdini, Blender, and Maya are utilized for generating complex models and textures that can be easily modified and scaled. The course covers Geometric Nodes, focusing on procedural shader networks, particle systems, fluid simulations, crowds, and complex simulations. Students use tools like Maya's Hypershade, Blender's Shader Editor, Houdini's Geometry Nodes, and Maya's MASH and VEX to craft intricate animations and simulations. The course Pipeline, teaches students to create texturing, shading, modeling, animation, lighting, and rendering pipelines. Tools like Substance Painter, Maya and Arnold are used to establish efficient workflows for intricate projects. In the fifth and final unit Workflow, students learn to create optimized workflows for sculpting, texturing, modeling, shading, animation, lighting, and rendering. Tools like ZBrush, Substance Painter, Maya, Houdini, V-Ray, are harnessed to maximize productivity and quality. Upon completing the course, students will have gained practical experience in Advanced 3D Texturing and Sculpting, preparing them to become professionals in the industry.

#### Course Objectives

1. Develop advanced skills in 3D sculpting, procedural modeling, geometric nodes, pipeline, and workflow.
2. Apply advanced techniques to create highly detailed sculptures, procedural models, and simulations for various industries.
3. Analyze and evaluate different tools and techniques used in advanced 3D texturing and sculpting to create optimized workflows.
4. Synthesize complex texturing, shading, modeling, animation, lighting, and rendering pipelines for efficient project management.
5. Create and demonstrate advanced workflows for sculpting, texturing, modeling, shading, animation, lighting, and rendering using industry-standard tools and software.

Note: Open source software for Blender is the recommended. However, each institution/college can choose to train the students in any other open source or commercial alternative such Maya, zBrush, Adobe Substance Painter, Modeller, Houdini, 3D Max, or any alternative open source software for Blender.

### Records and Examination

3D Texturing and Sculpting Record: Students should to keep a record of their 3D Texturing and Sculpting exercises in the form of album or a slideshow. If reference image or objects are used, both original and recreated model should be presented side-by-side in the record. A minimum of five exercise, one from each unit has to be included in the digital record. Students should be able to explain what nodes, brushes, procedures, workflow and pipeline technique were deployed for each exercise.

### Practical Examination

Practical examination could be in the form of viva, testing student's procedural knowledge, and evaluation of 3D Texturing and Sculpting techniques. Students can also be asked to create a 3D Texturing and Sculpting models for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge on the modelling software. Students should be able to explain what technique or pipeline/workflows were deployed.

### Practical Exercise for Advanced 3D Texturing and Sculpting

Students will choose any one exercise from each unit and present the same as digital record for evaluation.

<b>UNIT-I</b>	<b>Sculpting</b> Create a highly detailed character sculpture using Blender (ZBrush or Mudbox) Use sculpting techniques to create a realistic environment in Blender (or Maya). Sculpt a hard surface object with intricate details using Blender (ZBrush or Mudbox). Sculpt a creature or monster with unique anatomy and features using Blender ZBrush or Mudbox). Sculpt a high-resolution facial expression with intricate details using (ZBrush or Mudbox).
<b>UNIT-II</b>	<b>Procedural Modeling</b> Create a procedural texture for a complex object using Blender (Substance Designer). Use Blender (OR Houdini or any open source software) to create a procedural model of a simple building or a room. Use Blender or Maya to create a procedural landscape with realistic details. Create a procedural material for a vehicle or mechanical object using Blender (or Substance Designer). Use Blender or Maya to create a procedural animation of a growing plant or organism.
<b>UNIT-III</b>	<b>Geometric Nodes</b> Create a procedural shader network using Blender (Maya's Hypershade) or Blender's Shader Editor. Use Blender's geometry nodes to create a complex particle system. Use Blender's geometry nodes to create a procedural animation of a fluid simulation. Use Blender or Maya's MASH to create a procedural animation of a crowd or swarm. Use Blender's VEX to create a procedural animation of a complex simulation.
<b>UNIT-IV</b>	<b>Pipeline</b> Create a pipeline for texturing and shading using Blender (or Substance Painter and Maya). Create a pipeline for sculpting and modeling using Blender (or ZBrush and Maya). Create a pipeline for animation using Blender (Maya). Create a pipeline for lighting and rendering using Blender (Maya and Arnold). Create a pipeline for game asset creation using Blender (Substance Designer, Maya,).
<b>UNIT-V</b>	<b>Workflow</b> Create a workflow for sculpting and texturing using Blender (Or ZBrush and Substance Painter). Create a workflow for modeling and shading using Blender (Maya and Substance Designer). Create a workflow for animation and rigging using Blender (Maya) Create a workflow for lighting and rendering using Blender (Maya and V-Ray). Create a workflow for game asset creation using Blender (Or Substance Designer, Maya, and Unreal Engine.



### Key Textbooks

1. Lefebvre, O., & Neyret, F. (2018). Real-Time Rendering of Procedural PBR Materials. In Proceedings of the 9th ACM SIGGRAPH Conference on High-Performance Graphics (pp. 1-10). ACM.
2. Mancini, M., & Conte, G. (2019). Fast and Simple Node-based Procedural 3D Texturing. In Proceedings of the 10th Eurographics Italian Chapter Conference (pp. 1-5). Eurographics Association.
3. Parsa, A., & Zhang, R. (2019). Fast Multi-region Procedural Texturing of 3D Models Based on Voxelization. Journal of Visual Communication and Image Representation, 61, 365-377.
4. Rui, W., & Yiqiang, C. (2020). Procedural 3D Texturing and Classification Based on Deep Learning. In Proceedings of the ACM Symposium on Virtual Reality Software and Technology (pp. 1-10). ACM.
5. Safonova, A., & Gusev, G. (2019). Procedural Texturing of 3D Models Using Neural Networks. Journal of Computing and Information Technology, 27(1), 77-88.

### References

1. Salazar-Cruz, F. J., & Rodríguez-López, J. C. (2017). Procedural Texturing of 3D Models through Node-Based Networks. In Proceedings of the 12th International Conference on Computer Graphics, Visualization, Computer Vision and Image Processing (pp. 1-8). IADIS Press.
2. Tatarchuk, N., & Harris, M. (2017). A Trip Down the Graphics Pipeline: Introducing DirectX 12. CRC Press.
3. Venkatraman, P. R., & Adiga, A. (2019). Procedural Texturing of 3D Models Using Geometric Features. Journal of Computer Science and Technology, 34(4), 665-676.
4. Ye, J., & Liu, Y. (2019). Real-Time Procedural Texturing of 3D Models for Emergency Response Training. In Proceedings of the 16th IEEE International Conference on Advanced Video and Signal-Based Surveillance (pp. 1-6). IEEE.
5. Yun, H., & Park, H. (2018). Procedural Modeling and Texturing for Realistic Scene Generation. In Proceedings of the 13th International Conference on Computer Vision Theory and Applications (pp. 1-10). SciTePress.

### Web Resources for Advanced 3D Texturing and Sculpting

1. ACM Transactions on Graphics - <https://dl.acm.org/journal/tog>
2. IEEE Transactions on Visualization and Computer Graphics - <https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=2945>
3. Journal of Computer Animation and Virtual Worlds - <https://onlinelibrary.wiley.com/journal/15464285>
4. Computers & Graphics - <https://www.journals.elsevier.com/computers-and-graphics/>
5. Graphical Models - <https://www.journals.elsevier.com/graphical-models/>

### Course Outcomes

1. Demonstrate advanced 3D sculpting techniques and create detailed sculptures for various industries.
2. Apply procedural modeling techniques to create complex models, textures, and materials for various projects.
3. Utilize geometric nodes to create complex shader networks, particle systems, fluid simulations, and crowds.
4. Develop optimized texturing, shading, modeling, animation, lighting, and rendering pipelines for efficient project management.
5. Create and demonstrate advanced workflows for sculpting, texturing, modeling, shading, animation, lighting, and rendering using industry-standard tools and software.

### Mapping:

PSO/CO	CO1	CO2	CO3	CO4	CO5
PSO1	2	3	3	1	1
PSO2	1	3	2	1	1
PSO3	1	3	3	1	1
PSO4	3	3	2	3	1
PSO5	1	1	2	1	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	Ext	Total
<b>23BVC5P2</b>	<b>3D Environment Design (Practical)</b>	<b>Core</b>	<b>4</b>	<b>5</b>	<b>25</b>	<b>75</b>	<b>100</b>

#### **Course Description**

This course on 3D Environment Design is designed to teach students how to create realistic and immersive environments using Blender. The course is divided into five clusters, each focusing on a specific aspect of environment design. In Cluster 1, students will learn about realistic modeling and texturing techniques, including how to turn a real-world reference into a 3D scene, common modeling mistakes to avoid, and the basics of texturing and unwrapping in Blender. Cluster 2 covers the creation of natural elements, such as plants, landscapes, water, rocks, and flowers, using various techniques and tools in Blender. Cluster 3 focuses on achieving photorealistic lighting, including using HDRI maps, Kelvin scale, and Blender Sky Texture node. Cluster 4 teaches particle systems for scattering objects, including importing assets and using weight paint to distribute particles. Finally, Cluster 5 covers finalizing landscape scenes, including adjusting the shape, improving the water material, changing the rendering engine, and adding glare to the render. By the end of the course, students will be able to create realistic and visually stunning environments in Blender.

Overall, the Detailed Syllabus for 3D Environment Design covers a comprehensive set of topics and techniques necessary for creating realistic and visually stunning 3D environment scenes. By mastering these lessons, a professional 3D Environment Designer will be able to create high-quality 3D environment scenes for a variety of industries and applications.

#### **Course Objectives:**

1. Apply efficient modeling and texturing techniques to create a 3D scene using a real reference.
2. Analyze common modeling mistakes and take corrective measures to achieve photorealism in 3D environment design.
3. Synthesize components to create realistic textures using procedural texturing in Blender.
4. Evaluate different methods of lighting to achieve photorealistic effects in a 3D environment.
5. Create and manipulate particle systems to scatter objects in a 3D environment using weight paint and rock objects.

Note: Open source software for Blender is the recommended. However, each institution/college can choose to train the students in any other open source or commercial alternative such Maya, zBrush, Adobe Substance Painter, Modeller, Houdini, 3D Max, Unreal Engine or any alternative open source software for Blender.

#### **Records and Examination**

**3D Environment Design Record:** Students should to keep a record of their 3D Environment Design exercises in the form of album or a slideshow. If reference images are used, both original and recreated environmental model should be presented side-by-side in the record. A minimum of five exercise, one from each unit has to be included in the digital record. Students should be able to explain what nodes, brushes, procedures, workflow and pipeline technique were deployed for each exercise.

#### **Practical Examination**

Practical examination could be in the form of viva, testing student's procedural knowledge, evaluation of 3D Environment Design techniques. Students can also be asked to create a simple 3D Environment for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge on the modelling software. Students should be able to explain what technique or pipeline/workflows were deployed.

<b>UNIT-I</b>	<p><b>Realistic Modeling and Texturing</b></p> <p>Introduction to 3D modeling and texturing, importing a reference image into blender</p> <p>Most common modeling mistakes that can prevent designers from achieving photorealism, common mistakes in 3D modeling, understanding topology and edge flow, tips for modeling realistic objects, techniques for avoiding common mistakes, best practices for achieving photorealistic results</p> <p>The basics of realistic texturing in blender, introduction to texturing in blender, understanding texture maps and UV mapping, creating realistic materials using texture maps, applying materials to 3D objects, best practices for efficient texturing</p> <p>Efficient unwrapping and texturing in blender, techniques for efficient UV unwrapping, creating custom UV layouts, using texture painting to create textures, applying materials to multiple objects, best practices for efficient texturing</p>
<b>UNIT-II</b>	<p><b>Creating Natural Elements</b></p> <p>Creating realistic natural plants in blender, techniques for modeling realistic plants, creating custom materials for plants, applying textures to plants, using particle systems to create vegetation, best practices for creating natural-looking plants</p> <p>Creating realistic landscapes in blender, techniques for creating realistic terrain, using sculpting tools to shape the landscape, creating custom materials for terrain, applying textures to terrain, adding vegetation to the landscape, best practices for creating realistic landscapes</p> <p>Creating and animating realistic, natural-looking water, techniques for creating realistic water, using blender's fluid simulation tools, creating custom water materials, animating water to create natural-looking movement, best practices for creating realistic water effects.</p> <p>Creating natural assets: rock, techniques for modeling realistic rocks, creating custom materials for rocks, applying textures to rocks, using particle systems to scatter rocks, best practices for creating natural-looking rock formations</p>
<b>UNIT-III</b>	<p><b>Achieving Photorealistic Lighting</b></p> <p>Understanding lighting in 3D environments, Setting up lights in Blender, Creating custom light setups for different scenes, Adjusting lighting to achieve photorealistic results, Best practices for lighting in 3D environments</p> <p>Setting up realistic lighting using HDRI maps, Understanding HDRI maps and how they affect lighting, Setting up an HDRI map in Blender, Adjusting lighting and environment settings to create a realistic scene, Best practices for using HDRI maps in 3D environments</p> <p>Lighting our wood cabin with lamp objects, Techniques for using lamp objects to light a scene, Creating custom lamp setups for different scenes, Adjusting lighting to achieve photorealistic results, Best practices for using lamps in 3D environments</p> <p>Using the Kelvin scale to emit realistic lighting, Understanding the Kelvin scale and how it affects lighting, Adjusting lighting settings based on the Kelvin scale, Creating custom lighting setups for different scenes, Best practices for using the Kelvin scale to create realistic lighting</p>

<b>UNIT-IV</b>	<b>Particle Systems for Scattering Objects</b>  Using Particle System to Scatter Objects in Blender, Understanding particle systems and how they work, Creating particle systems in Blender, Adjusting particle settings to scatter, objects in a scene, Using particle systems for natural-looking vegetation and rocks, Best practices for using particle systems in 3D environments Importing rock and flower assets into the landscape environment, Techniques for importing assets into Blender, Understanding file formats and compatibility issues, Using asset libraries to find and import 3D models, Best practices for importing assets into 3D environments Placing the particles in the landscape, Techniques for placing particles in a scene, Adjusting particle density and distribution, Creating particle systems for different types of vegetation and rocks, Best practices for placing particles in 3D environments Replacing particles with the Rock object, Techniques for using the Rock object to replace particles, Adjusting the Rock object to fit the scene, Creating custom materials for the Rock object, Best practices for using the Rock object in 3D environments
<b>UNIT-V</b>	<b>Finalizing Landscape Scenes</b>  Finalizing the Landscape Scene – Lighting, Rendering, and Compositing, Techniques for adjusting lighting and camera settings for the final render, Understanding the rendering process in Blender, Using compositing nodes to enhance the final image, Best practices for finalizing a 3D environment scene Adjusting the landscape shape, Techniques for adjusting the shape of the landscape, Using sculpting tools to refine the terrain, Adjusting vegetation placement based on landscape changes, Best practices for adjusting the landscape shape in 3D environments Improving the water material, Techniques for improving the water material, Adjusting water settings to create a more realistic effect, Adding ripples and waves to the water surface, Best practices for creating realistic water in 3D environments Changing the rendering engine, Understanding different rendering engines in Blender, Switching between different rendering engines, Adjusting settings for each rendering engine, Best practices for choosing the right rendering engine for a specific project
<b>Detailed Practical Exercise for 3D Environment Design:</b> Students will choose any one exercise from each unit and present the same as digital record for evaluation. Students are encouraged to use multiple software in workflow to reach the desired end	
<b>UNIT-I</b>	<b>Realistic Modelling and Texturing</b> Turn a real reference into a realistic 3D scene in Blender, using only photographs as a reference. Model a photorealistic chair, paying attention to details such as seams, stitching, and textures. Create a realistic tree trunk and branches using Blender's modifiers and textures. Use the Blender sculpting tool to create a detailed model of a human face. Texture a photorealistic bookshelf using only procedural textures in Blender.
<b>UNIT-II</b>	<b>Creating Natural Elements</b> Create a realistic grass field using particle systems in Blender. Model a realistic mountain range using height maps and displacement maps in Blender. Animate a realistic waterfall using Blender's fluid simulation tools. Create a realistic rock arch using Blender's sculpting and texture painting tools. Model a realistic cherry blossom tree, including individual blossoms and leaves.
<b>UNIT-III</b>	<b>Achieving Photorealistic Lighting</b> Set up a photorealistic lighting environment using only HDRI maps in Blender. Light a scene using only point lights to achieve realistic shadow and highlights. Use the Kelvin scale to create a realistic candlelight effect in a scene. Use the Blender sky texture node to create a realistic sunset or sunrise lighting effect. Light a room with a lamp object, paying attention to the lamp's shape and color.

<b>UNIT-IV</b>	<b>Particle Systems for Scattering Objects</b> Scatter realistic pebbles on a beach using Blender's particle systems. Create a realistic field of flowers using Blender's particle systems and weight painting. Use Blender's particle systems to create a realistic rain effect in a scene. Scatter realistic leaves on a forest floor using Blender's particle systems and weight painting. Use Blender's particle systems to create a realistic flock of birds in a scene.
<b>UNIT-V</b>	<b>Finalizing Landscape Scenes</b> Adjust the shape of a landscape to create a realistic terrain using Blender's sculpting tools. Create a realistic ocean water material using Blender's node editor. Render a scene using both Cycles and Eevee rendering engines to compare results. Add glare and lens flares to a render to create a realistic camera effect. Compositing a final landscape scene by adjusting the color balance, contrast, and other post-processing effects.
<b>Additional Challenging Exercises (Optional)</b> <i>Realistic Environment Creation:</i> Create a realistic 3D environment based on a real-life location of your choice. Use your skills in modeling, texturing, and lighting to make it as photorealistic as possible. Make sure to pay attention to details such as materials, lighting, and atmosphere. <i>Natural Landscape Creation:</i> Create a natural landscape scene, such as a forest or beach, using Blender. Incorporate realistic natural elements such as trees, water, rocks, and vegetation. Use your skills in texturing, particle systems, and lighting to make the scene as realistic as possible. <i>Interior Design:</i> Create a 3D interior design of a space of your choice, such as a bedroom, living room, or kitchen. Use your skills in modeling, texturing, and lighting to make the scene as realistic as possible. Pay attention to details such as furniture, lighting, and decor. <i>Game Environment Creation:</i> Create a 3D game environment using Blender, such as a dungeon, castle, or futuristic city. Use your skills in modeling, texturing, and lighting to create a visually interesting and immersive environment. Pay attention to details such as interactive objects, particle systems, and dynamic lighting. <i>Realistic Product Visualization:</i> Create a realistic 3D visualization of a product of your choice, such as a car or electronic device. Use your skills in modeling, texturing, and lighting to create a photorealistic representation of the product. Pay attention to details such as materials, lighting, and product features.	
<b>Course Outcomes</b> <ol style="list-style-type: none"> <li>1. Apply realistic modeling and texturing techniques to create photorealistic 3D scenes in Blender.</li> <li>2. Evaluate and troubleshoot common modeling mistakes to achieve greater realism in 3D environment design.</li> <li>3. Analyze and apply basic techniques for realistic texturing in 3D environment design using Blender.</li> <li>4. Create natural elements such as plants, landscapes, water, rocks, and flowers in 3D environment design.</li> <li>5. Synthesize and implement effective lighting strategies using HDRI maps, lamp objects, Kelvin scale, and Blender Sky Texture node in 3D environment design.</li> </ol>	

**Key Textbooks**

1. Oliver, R. (2020). Blender 3D Incredible Machines: Design, model, and texture complex mechanical objects in Blender. Packt Publishing Ltd.
2. Rigg, C. (2021). Blender Foundations: The Essential Guide to Learning Blender 3D. Springer.
3. Schlewinski, T. (2019). Blender 3D Incredible Machines: Design, model, and texture complex mechanical objects in Blender. Packt Publishing Ltd.
4. 1Villar, E. (2020). Blender 3D Incredible Machines: Design, model, and texture complex mechanical objects in Blender. Packt Publishing Ltd.

**References**

1. Bourke, P. (2021). Blender 3D by Example: A project-based guide to learning the latest Blender 3D, Python, and Unreal Engine 4 workflows. Packt Publishing Ltd.
2. Freeman, J. (2019). Learning Blender: A Hands-On Guide to Creating 3D Animated Characters. Addison-Wesley Professional.
3. Galante, F. (2019). Blender 3D Incredible Machines: Design, model, and texture complex mechanical objects in Blender. Packt Publishing Ltd.
4. Haidar, O. (2021). Blender 3D for beginners: The ultimate guide to learning Blender 3D, with step-by-step walkthroughs and tutorials. Packt Publishing Ltd.
5. Kuhn, J. (2020). Blender 3D by Example: A project-based guide to learning the latest Blender 3D, Python, and Unreal Engine 4 workflows. Packt Publishing Ltd.
6. Lechner, C. (2019). Blender 3D Printing by Example: Learn to use Blender's modeling tools for 3D printing by creating 4 projects. Packt Publishing Ltd.

**Web Resources**

1. ACM Transactions on Graphics - <https://dl.acm.org/journal/tog>
2. Computers & Graphics - <https://www.journals.elsevier.com/computers-and-graphics>
3. IEEE Computer Graphics and Applications - <https://www.computer.org/csdl/magazine/cg>
4. Journal of Graphics Tools - <https://www.tandfonline.com/toc/ugfx20/current>
5. Graphical Models - <https://www.journals.elsevier.com/graphical-models>

**Mapping**

PSO/CO	CO1	CO2	CO3	CO4	CO5
PSO 1	2	1	2	3	1
PSO 2	1	3	1	2	2
PSO 3	1	2	3	1	2
PSO 4	3	2	1	3	2
PSO 5	1	1	2	2	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks			
					CIA	EX	ter rna	Total
23BVC5E1	Immersive Media Design(Theory)	Core	3	4	25	75	100	
<b>Course Description</b> Immersive Media Design is a field that combines art and computer science to create engaging and interactive experiences using digital tools and technologies such as virtual reality, augmented reality, projected imagery, 3D modeling, computer graphics and user interfaces. It also involves storytelling and narrative design to create immersive environments and scenarios.Immersive Media Design is a course that explores the theory and practice of creating digital media experiences that engage users in immersive and interactive ways. Students will learn about the history, principles, and applications of immersive media such as virtual reality, augmented reality, immersive projection, and electronic art installation. Students will also develop skills in using various tools and technologies to design and prototype immersive media projects. The course is suitable for students who are interested in combining creativity and innovation with digital media								
<b>Course Objectives</b> 1. Explain the fundamentals of immersive media design (Knowledge) 2. Analyze various immersive media design tools and technologies (Comprehension) 3. Create a mock immersive media design project (Application) 4. Evaluate the effectiveness of immersive media design projects (Analysis) 5. Propose viable solutions to challenges in immersive media design (Synthesis)								
UNIT-I	<b>Introduction to Immersive Media Design</b>  What is Immersive Media Design? Definition, history and examples of immersive media projects.  Principles of Immersive Media Design. How to design for immersion, interactivity, presence and agency.  Tools and Technologies for Immersive Media Design. An overview of the hardware and software platforms for creating immersive media content such as VR headsets, AR glasses, projectors, cameras, sensors, game engines etc.  Basic Skills for Immersive Media Design. How to use common tools such as Unity3D or Unreal Engine to create simple immersive media applications.  Project Proposal. How to develop a concept and a proposal for an immersive media project.							
UNIT-II	<b>VR Devices</b>  Hardware, software, and applications, Market and trends in VR and AR, Key hardware technologies and concepts in VR and AR  Interfacing with VR andAR, Sensation and Perception in VR, Geometry of Virtual Worlds, Tools and Accessories for VR Development, Visual Rendering in VR, Audio and Interfaces in VR, Tools and Accessories-Sensors, Controllers, Motion Capture, Eye Tracking, Haptic, BCI  VR Design, Basics of Immersive Media Design, Scenes and Props in VR, Introduction to the History of 3D Gaming and VR, Camera and Projection Models in VR  VR Techniques, Kinematics and Animation in VR, Raytracing in VR, 2D Transforms for VR with Natural Content, 3DoF VR with Natural Content  VR Displays, Advanced VR Display Techniques, 6DoF Navigation in VR, Image-based Rendering in VR., Smartglasses							

<b>UNIT-III</b>	<p><b>Virtual Reality</b></p> <p>History and examples of VR applications in various domains such as entertainment, education, health care etc.</p> <p>VR Design Challenges. Technical and human factors challenges in VR design such as performance optimization, user comfort, motion sickness, ethical issues etc.</p> <p>VR Interaction Design. Designing intuitive and natural interactions in VR using various input devices such as controllers, hand tracking, gaze etc.</p> <p>VR Content Creation. Creating immersive and realistic 3D environments and characters for VR using tools such as Blender, Maya etc.</p> <p>VR Project Development. Using game engine such as Unity3D or Unreal Engine to develop a VR application from scratch.</p>
<b>UNIT-IV</b>	<p><b>Augmented Reality</b></p> <p>What is Augmented Reality? Definition, history and examples of AR applications in various domains such as entertainment, education, health care etc.</p> <p>AR Design Challenges. The technical and human factors challenges in AR design such as registration accuracy, occlusion handling, lighting conditions, privacy concerns etc.</p> <p>AR Content Creation. Creating immersive and realistic 3D objects and animations for AR using tools such as Unity, Vuforia, ARKit etc.</p> <p>AR Project Development. Using a game engine such as Unity3D or Unreal Engine to develop an AR application from scratch.</p> <p>Projected Reality and Mixed Reality Projected and Mixed Reality Design Challenges. Technical and human factors challenges in projected reality design such as projection mapping, Compatability</p>
<b>UNIT-V</b>	<p><b>IMD Futures</b></p> <p>IMD Apps and Utilities, Immersive Storytelling-Story Engine, Character and Avatar Design-Digital Twins, Acting-Performance, Scenes and Props-Objects, Gestures and Interactions-Digital NVC, Spatial—3D Sound, Voice-Dialogue-Chat</p> <p>Writing for Immersive Storytelling, - The art of storytelling in immersive storytelling, Scriptwriting techniques for immersive media, - Developing immersive narratives for different platforms</p> <p>A Prospective Analysis of Immersive Journalism from the Perspective of Experts, - Understanding the evolution of immersive journalism, - Examining the current landscape of immersive journalism, - Identifying emerging trends and future directions in immersive journalism</p> <p>What is The Metaverse?, Building The Metaverse, . Networking, . Computing, . Virtual World Engines, . Interoperability, Hardware, . Payment Rails, . Blockchains, . When Will The Metaverse Arrive, . Meta-Businesses, . Metaverse Winners and Losers, . Metaversal Existence</p>



## Key Textbooks

1. Candy, L., & Ferguson, S. (2014). *Interactive Experience in the Digital Age: Evaluating New Art Practice*. Springer Science & Business Media.
2. Furht, B. (2010). *Handbook of Multimedia for Digital Entertainment and Arts*. Springer Science & Business Media.
3. Lyle Skains, R., Rudd, J. A., Casaliggi, C., Hayhurst, E. J., Horry, R., Ross, H., & Woodward, K. (2021). *Using Interactive Digital Narrative in Science and Health Education*. Emerald Group Publishing.
4. Management Association, & Information Resources. (2017). *Digital Multimedia: Concepts, Methodologies, Tools, and Applications: Concepts, Methodologies, Tools, and Applications*. IGI Global.
5. Natkin, S. (2017). *Video Games and Interactive Media: A Glimpse at New Digital Entertainment*. CRC Press.
6. Oliszewski, A., Fine, D., & Roth, D. (2018). *Digital Media, Projection Design, and Technology for Theatre*. Taylor & Francis.
7. Sharma, & S., R. (2011). *Understanding the Interactive Digital Media Marketplace: Frameworks, Platforms, Communities and Issues: Frameworks, Platforms, Communities and Issues*. IGI Global.

## References

1. Al-Ameen, H., & Hussain, A. (2021). *Augmented Reality and Virtual Reality: Design, Development, and Applications*. CRC Press.
2. Künstner, S., & Angeschaut, M. (2021). *Augmented Reality for Designers*. O'Reilly Media.
3. Wang, Y., & Li, C. (Eds.). (2022). *Augmented Reality and Virtual Reality: Design, Development and Applications*. Springer.
4. Huang, Y., & Chen, Y. (2021). *Augmented Reality for Design and Visualization*. CRC Press.
5. Kim, M., & Sun, K. (2022). *Augmented Reality Design and Development*. Apress.
6. Samanta, A. (2019). *Augmented Reality: Fundamentals, Design, and Development*. Apress.
7. Wang, Y., & Li, C. (Eds.). (2018). *Handbook of Augmented Reality*. Springer.
8. Alves, L., Peres, E., Roque, L., & Mealha, Ó. (Eds.). (2020). *Handbook of research on engaging digital natives in higher education settings*. IGI Global.
9. Birtchnell T., Urry J.(Eds.) (2018) *A New Industrial Future? 3D Printing and the Reconfiguring of Production Distribution and Consumption*. Routledge
10. Cipresso P., Serino S.(Eds.) (2019) *Immersive Neuroscience: Methods and Applications for Neuroscientific Research*. Springer
11. Dörner R., Göbel S., Effelsberg W.(Eds.) (2020) *Serious Games: Technologies and Applications*. Springer
12. Freeman J.(2020) *The Illusion of Presence: How VR Changes Our Minds*. MIT Press
13. Geroimenko V.(Ed.) (2019) *Augmented Reality Art: From an Emerging Technology to a Novel Creative Medium*. Springer
14. Klimmt C., Hartmann T.(Eds.) (2019) *The Oxford Handbook of Entertainment Theory*. Oxford University Press
15. Lombard M., Biocca F.A., Freeman J.(Eds.) (2020) *Immersed in Media: Telepresence Theory Measurement & Technology*. Routledge
16. Murray J.H.(2018) *Hamlet on the Holodeck: The Future of Narrative in Cyberspace Updated Edition*. MIT Press
17. Ryan M.L.(2018) *Narrative as Virtual Reality 2: Revisiting Immersion and Interactivity in Literature and Electronic Media*. Johns Hopkins University Press

## Web Resources

1. "IEEE Transactions on Visualization and Computer Graphics" - <https://www.computer.org/csdl/journal/tg>
2. "ACM Transactions on Graphics" - <https://dl.acm.org/journal/tog>
3. "Journal of Virtual Reality and Broadcasting" - <http://www.jvr.org/>
4. "Journal of Gaming & Virtual Worlds" - <https://www.intellectbooks.com/journal-of-gaming-virtual-worlds>
5. "Presence: Teleoperators and Virtual Environments" - <https://www.mitpressjournals.org/loi/pres>
6. "Virtual World Society" - <https://www.virtualworldsociety.org/>
7. "Immersive Learning Research Network" - <https://immersivelrn.org/>
8. "International Virtual Reality Association" - <https://www.ivrar.org/>
9. "The XR Association" - <https://www.xra.org/>
10. "The Khronos Group - Open Consortium of Leading Hardware and Software Companies" - <https://www.khronos.org/>

**Course Outcomes**

1. Evaluate the impact of immersive media design on society (Bloom's Taxonomy: Evaluation)
2. Analyze the ways in which different technologies can be used to create immersive media experiences (Bloom's Taxonomy: Analysis)
3. Identify key components of immersive media design (Bloom's Taxonomy: Knowledge)
4. Create a prototype of an immersive media design project (Bloom's Taxonomy: Creation)
5. Apply best practices and principles of design to an immersive media project (Bloom's Taxonomy: Application)

**Mapping**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	1	1	2	1	1
CO 2	2	2	2	3	1
CO 3	1	2	1	2	1
CO 4	3	3	2	3	2
CO 5	2	2	2	2	2

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	Ex-ter-na	Total
23BVC5EP	Short Filmmaking (Fiction or Non-fiction) (Practical)	Core	3	4	25	75	100

#### Course Description

This practical course is designed to provide students with the knowledge and skills required to create compelling short films. Over the course of the program, students will explore the creative process involved in short filmmaking, including ideation, scripting, pre-production, production, post-production, and distribution.

Through a combination of lectures, workshops, and hands-on projects, students will learn about key aspects of short filmmaking, including story structure, character development, visual storytelling, cinematography, sound design, editing, and distribution strategies.

In addition to technical skills, the course will also cover essential professional skills, such as project management, collaboration, communication, and pitching.

By the end of the course, students will have developed a comprehensive understanding of the short filmmaking process and will have created a professional-quality short film that they can use to launch their careers in the industry.

#### Course Objectives:

1. Develop proficiency in visual storytelling by applying various cinematic techniques and principles to create compelling short films.
2. Evaluate and analyze the needs of different audiences and genres to develop effective storytelling strategies and styles.
3. Demonstrate critical thinking and problem-solving skills by overcoming challenges in the filmmaking process and developing creative solutions.
4. Apply ethical considerations and principles to the creation of short films, including issues related to representation, diversity, and cultural sensitivity.
5. Demonstrate technical proficiency in the use of equipment and software involved in short filmmaking, including camera, lighting, sound, and editing tools.

## Script Writing and Storyboard Development Record

As a part of this course, students will be required to maintain a record of their Script Writing and Storyboard Development exercises. This record will help students keep track of their progress and allow them to reflect on their work. The record can be maintained in a digital format such as a blog, portfolio website or cloud storage. The digital record should have at least Five Script Writing and Storyboard Development Exercises-one from each unit developed using appropriate software. Students should ensure that their record is organised, labelled clearly and includes any relevant details such as date of the exercise, software used, and a brief description of the exercise. This record should be submitted at the end of the course for evaluation.

### Practical Examination

Practical examination could be in the form of viva, testing students' procedural knowledge, evaluation of Animation and Character Design. Students can also be asked to create a Script Writing and Storyboard Development work for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge on the software used for developing the content. Students should be able to explain what technique or pipeline/workflows were deployed.

### Exercises for Short Filmmaking:

1. *One-Shot Film*: Challenge students to create a short film that is shot in one continuous take, without any cuts or edits. This will require careful planning and choreography of actors and camera movement.
2. *Silent Film*: Challenge students to create a short film without any dialogue or sound effects. This will require careful use of visual storytelling and creative use of music and sound design.
3. *Limited Resources Film*: Challenge students to create a short film with limited resources, such as a small budget, limited equipment, or a short timeframe for production. This will encourage creativity and resourcefulness in problem-solving.
4. *Experimental Film*: Challenge students to create a short film that pushes the boundaries of traditional filmmaking, such as incorporating animation, mixed media, or abstract visuals. This will encourage experimentation and creativity in storytelling.
5. *Documentary Short*: Challenge students to create a short documentary film that tells a compelling and unique real-life story. This will require research and interviewing skills, as well as the ability to craft a narrative from real-world events.
6. *Socially Conscious Short Film*: Create a short film that addresses a social issue, such as poverty, inequality, or discrimination. Use your storytelling skills to raise awareness and promote empathy and understanding for the issue.
7. *Experimental Short Film*: Push the boundaries of traditional storytelling by creating an experimental short film. Explore unconventional techniques, such as abstract visuals, soundscapes, or non-linear narratives, to challenge your creativity and express your unique perspective.
8. *Adaptation Short Film*: Adapt a short story, poem, or play into a short film. Practice your skills in interpreting and translating a piece of literature into a visual medium, while staying true to the original source material.
9. *Documentary Short Film*: Create a short documentary that explores a specific topic or issue. Research and interview experts, collect footage, and use your editing skills to create a compelling narrative that informs and engages your audience.
10. *One-Shot Short Film*: Create a short film that consists of one continuous take. Challenge yourself to carefully choreograph the action, and use camera movements and blocking to enhance the story and create suspense or emotion.

### Key Textbooks

1. Wisler, M. J. (2018). Short Films 2.0: Getting Noticed in the YouTube Age. DoxaNous Media, LLC.
2. Beker, M. (2017). Write to Shoot: Writing Short Films for Production. Taylor & Francis.
3. Adelman, K. (2017). Making it Big in Shorts: The Ultimate Filmmaker's Guide to Short Films. Michael Wiese Productions.
4. References
5. Barnett, A. (2020). Short Filmmaking. Anthony Barnett.
6. Kelly, R. (2022). *Prepping and Shooting Your Student Short Film: A Brief Guide to Film Production*. Taylor & Francis.
7. Krish, S. (2018). Short Filmmaking Workbook: A Step-By-Step Workbook on How to Convert Your Vague Story to a Complete Script. Amazon Digital Services LLC - Kdp Print Us.

### References

1. Rae, P. W., & Irving, D. K. (2015). *Producing and Directing the Short Film and Video*. CRC Press.
2. Lancaster, K. (2018). DSLR Cinema: A Beginner's Guide to Filmmaking on a Budget. Routledge, Taylor & Francis Group.
3. Malik, S., Chapain, C., & Comunian, R. (2017). Community Filmmaking: Diversity, Practices and Places. Taylor & Francis.
4. Perkins, C. (2016). Creating a Short Film: 01 Producing. linkedin.com.
5. Rizan Production House. (2020). Making Short Films With Zero-Budget: A Complete Guide: Every Step Of The Process Explained! Amazon Digital Services LLC - KDP Print US.
6. Webb, G. (2020). Encyclopedia of American Short Films, 1926-1959. McFarland.

### Web Resources

1. American Cinematographer Magazine - <https://ascmag.com/>
2. Film Comment - <https://www.filmcomment.com/>
3. Sight & Sound Magazine - <https://www.bfi.org.uk/sight-sound-magazine>
4. International Journal of Film and Media Arts - <http://revistas.ulusofona.pt/index.php/ijfma/index>
5. Film Quarterly - <https://filmquarterly.org/>

### Course Outcomes:

1. Develop proficiency in visual storytelling by applying various cinematic techniques and principles to create compelling short films.
2. Evaluate and analyze the needs of different audiences and genres to develop effective storytelling strategies and styles.
3. Demonstrate critical thinking and problem-solving skills by overcoming challenges in the filmmaking process and developing creative solutions.
4. Apply ethical considerations and principles to the creation of short films, including issues related to representation, diversity, and cultural sensitivity.
5. Demonstrate technical proficiency in the use of equipment and software involved in short filmmaking, including camera, lighting, sound, and editing tools.

### Mapping

<b>PSO/CO</b>	<b>CO 1</b>	<b>CO 2</b>	<b>CO 3</b>	<b>CO 4</b>	<b>CO 5</b>
PSO 1	3	2	2	2	2
PSO 2	2	3	2	2	2
PSO 3	2	2	3	2	2
PSO 4	2	2	2	3	2
PSO 5	2	2	2	2	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	terrna	Total
23BVC5SI/ 23BVC5IT	Summer Internship/Industrial Training	Core	2		25	75	100

### Course Description

This is a six-week internship course that provides students with on-the-job experience in various media industries. Students will choose from opportunities at newspapers, magazines, radio, television, advertising and PR agencies, digital marketing companies, or other media identified by students and faculty.

Over the six weeks, students will work directly in their chosen media field, gaining valuable professional experience. They will shadow staff, assist with daily work activities, attend meetings, and take on tasks that develop both hard and soft skills. The goal of the internship is for students to understand the dynamics of their chosen media career path through direct participation in a professional environment.

To complete the course, students will submit a comprehensive report detailing their experience. The report will describe the company, responsibilities, projects worked on, key lessons learned, and how the experience will impact their future career. Students will also deliver a presentation on their internship experience to faculty members. The report and presentation will demonstrate their understanding of the media landscape and how their skillset was enhanced in their role.

The internship and all assignments will be jointly evaluated by a faculty member and the company supervisor. Eighty marks will be awarded for the report and presentation, evaluating the depth of experience gained and communication of key takeaways. The final 20 marks will be awarded based on the company supervisor's assessment of work performance and participation during the internship. Overall, this internship course provides valuable work experience and networking opportunities for students preparing to enter media professions.

### Course Objectives

1. Apply theoretical knowledge gained in media studies courses to practical work situations.
2. Conduct research and analysis on media organizations and industry trends to determine suitable internship placements.
3. Develop professional communication skills through interaction with company staff and completion of workplace tasks.
4. Demonstrate competency with media-specific tools and programs used in the internship organization.
5. Evaluate effectiveness of the internship experience in developing workplace skills and prepare a comprehensive report on key takeaways.

### **What to do during Internship**

1. Shadow media professionals such as reporters, editors, producers, marketing managers, etc. to learn about roles and responsibilities.
2. Assist in research, fact-checking, and administrative work to support media projects and daily operations.
3. Attend organizational meetings, events, and professional development sessions to gain insight into company processes and industry trends.
4. Take on entry-level assignments such as writing stories, social media management, live production assistance, marketing campaign support, etc. under the guidance of staff.
5. Build professional networks through interaction with company employees and partners. Connect with media professionals currently in roles students aspire to.

### **Criteria for Evaluating Internship and Media Industry Training**

1. *Completion of required work hours:* Students fulfill the minimum work hours required for the internship course, as specified in the course outline.
2. *Quality of work performance:* Students receive a positive evaluation from the company supervisor on work performance, participation, and completion of assigned tasks.
3. *Depth of learning and experience:* Students demonstrate a solid understanding of the media organization, industry, and role responsibilities in their comprehensive report and presentation.
4. *Professional skill development:* Students show enhanced skills in areas such as communication, critical thinking, problem-solving, technical abilities, teamwork, and time management, as outlined in their assignments and supervisor review.
5. *Networking and connections:* Students discuss new professional connections developed through the internship experience and how they plan to maintain them going forward in their chosen career path.
6. *Recommendation for future interns:* The company recommends future internship placements for students from the program based on the work performance and participation of current interns.
7. *Pursuit of career opportunities:* Students receive and/or pursue career opportunities (job offers, interviews, mentorships) through connections made during the internship.
8. *Feedback incorporation:* Students incorporate constructive feedback received from the faculty evaluator and company supervisor into a final revised report, demonstrating their ability to reflect and build on their experiences.



**Key Textbooks**

1. Kelly, W. E. (2020). Internships: Quality Education Outside of Class. Cognella, Incorporated.
2. Labor, S. L. (2020a). Student Internship Success Workbook (Student's Guide): 20+ Lessons and Activities for Student Intern Career Readiness. Independently Published.
3. Labor, S. L. (2020b). Student Internship Success Workbook (Supervisor's Guide): 20+ Lessons and Activities for Student Intern Career Readiness. Independently Published.
4. Lisa, J. C. R., & William, S. (2021). Practicum and Internship: A Handbook for Competent Counseling Practices. Pearson.
5. McVicar, K. L., & Ward, J. (2021). The Internship Handbook: A Guide for Students in the Health Professions. Cognella, Incorporated.
6. Poyer, M. (2022). The Paramedic Internship Guidebook. Fulton Books, Inc.
7. Stewart, A., Owens, R., O'Higgins, N., & Hewitt, A. (2021). Internships, Employability and the Search for Decent Work Experience. Edward Elgar Publishing.

**References**

1. Barkatsas, T., & McLaughlin, P. (2021). Authentic assessment and evaluation approaches and practices in a digital era: A kaleidoscope of perspectives. Brill.
2. Burke, J., & Dempsey, M. (2021). Undertaking Capstone Projects in Education: A Practical Guide for Students. Routledge.
3. Christ, W. G. (2020a). Media Education Assessment Handbook. Routledge.
4. Christ, W. G. (2020b). Assessing Media Education: A Resource Handbook for Educators and Administrators: Component 3: Developing an Assessment Plan. Routledge.
5. David, M. E., & Amey, M. J. (2020). The SAGE Encyclopedia of Higher Education. SAGE.
6. Msw, J. P. P., Kauffman, S., & Msw, T. S. I. (2021). Social Work Capstone Projects: Demonstrating Professional Competencies through Applied Research. Springer Publishing Company.

**Course Outcomes**

1. Apply theoretical knowledge gained in the classroom to a practical work environment.
2. Demonstrate employability skills required for entry-level roles in chosen media fields.
3. Produce a comprehensive report evaluating an internship experience from a professional development perspective.
4. Develop a broader understanding of the media industry and specific occupations through direct participation.
5. Build a professional network to support future career opportunities in the media.

**Mapping**

PSO/CO	CO 1	CO 2	CO 3	CO 4	CO 5
PSO 1	3	3	3	3	3
PSO 2	3	3	3	3	3
PSO 3	3	3	3	3	3
PSO 4	3	3	3	3	3
PSO 5	3	3	3	2	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	EX ter rna	Total
<b>23BVC6C1</b>	<b>Media Culture in Tamil Nadu</b>	<b>Core</b>	<b>5</b>	<b>6</b>	<b>25</b>	<b>75</b>	<b>100</b>

#### Course Description

This course, titled "Media Culture in Tamil Nadu," explores the rich and diverse history of media in the Tamil Nadu region. The course is designed to provide students with a comprehensive understanding of the evolution of various forms of media in Tamil Nadu, from early Tamil history to the present day.

Throughout the course, students will examine the development of Tamil language, writing, storytelling traditions, and communication principles in Thirukural. They will also delve into the role of Tamil media during the colonial period, the impact of performing arts, music, and journalism on social justice, and the contributions of modern Tamil poets as communicators.

The course further explores the growth of print culture in Tamil Nadu, including newspapers, magazines, and the role of media in the Dravidian movement. Students will analyze the relationship between Tamil films and mass communication, examining the interplay between films, politics, and messaging strategies in the region.

Finally, the course will cover the advent of Tamil TV, radio, and digital media, discussing the rise of satellite TV, the international market for Tamil media, and the role of social and mobile media platforms in shaping contemporary Tamil media landscape.

Through a combination of lectures, discussions, and hands-on activities, students will gain a deep understanding of the historical context of media in Tamil Nadu and its influence on the region's culture, politics, and society.

#### Course Objectives

1. Analyze the evolution and growth of the Tamil language and its impact on media development in the region from early Tamil history to the present day.
2. Evaluate the role of various forms of media, including performing arts, print, and film, in shaping Tamil Nadu's cultural, political, and social landscape during the colonial and post-colonial periods.
3. Apply critical thinking skills to assess the contributions of prominent Tamil poets, journalists, and media personalities in promoting social justice and fostering change.
4. Examine the development of Tamil TV, radio, and digital media, and their influence on the contemporary Tamil media landscape and global audiences.
5. Synthesize knowledge of the Media Culture in Tamil Nadu to create a well-informed perspective on the current state of media convergence in the region, encompassing cinema, television, OTT platforms, and mobile technologies.

<b>UNIT-I</b>	<b>Communication in Early Tamil History</b> Evolution and Growth of Tamil Language History of Writing in Tamil Storytelling traditions in Tamil Nadu-Sangam Period Poets as Messengers and Diplomats-Sangam Period Communication Principles in Thirukural Communication in Medieval Period-Painting, Sculptures The Sphere of Visual culture in Tamil Nadu- Cinema, Advertisements, Newspaper cartoons, Photography, Magazine illustrations, Graphic novels of Celebrities, Roadside Posters and Banners and Street and Wall paintings of traditional and cultural values, Statues of Celebrities and heroes
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<b>UNIT-II</b>	<b>Tamil Media in Colonial India</b> Performing Arts and Communication Tamil folk media and artists, Visual Story telling Popular Story tellers in Tamil, Theatre art in Tamil and familiar theatre artists, Sound, Music and Phonograph Tamil Media in National Movements Themes from Bankaran's Message Bearers Periyar, Social Justice and Journalism Modern Poets as Communicator-Bharathi , Bharathidasan Monumental -Iconography-myth and symbols
<b>UNIT-III</b>	<b>Print Culture in Tamil Nadu</b> Early Tamil Newspapers and Missionary Work Early Print Culture in Tami Nadu Tamil Newspapers during Colonial Period Media in Dravidian Movement-Public Meetings, Rhetoric and Oratory Post independence Tamil Media-Newspapers and Radio till Emergency Commercial Turn: Raise of Regional Language Newspapers, Magazines Cartoons in Tamil News Media, Posters Impact of Digital News-Disappearing Print Culture?
<b>UNIT-IV</b>	<b>Tamil Films as Mass Communication</b> A Brief History of Tamil Films Films as a Cultural and Political Communication Film and Politics -Anna, Kalaigarnar, MGR-Image Trap Film Fan Culture and Fan Clubs Film Music and Lyrics as Messaging Strategy Film and Politics in Tamil Nadu-80s and 90s Contemporary Trends in Tamil Cinema, New Wave Films
<b>UNIT-V</b>	<b>Tamil TV, Radio and Beyond</b> TV-DD-Raise of Satellite TV in TN-SUN TV, Raj Tamil Radio Programs, Community Radio in Tamil nadu International Market and Audiences for Tamil Media Tamil Media in Global Context-Diaspora Social and Mobile Media in Tamil-Youtube, Twitter and Facebook, WhatsApp Impact of Covid-19 Pandemic on Tamil Media Industry Contemporary Status of Tamil Media: Convergence- OTT, Mobile, Cinema,TV

### Key Textbooks

1. Ravindran, G. (2020). *Deleuzian and Guattarian Approaches to Contemporary Communication Cultures in India*. Springer Nature.
2. Baskaran, S. T. (2008). *The message bearers: nationalist politics and the entertainment media in South India, 1880-1945/S. Theodore Baskaran; with an introduction by Christopher Baker*. Oxygen Books.
3. Baskaran, S. T. (2013). *The Eye of the Serpent: An Introduction to Tamil Cinema*. Tranquebar.
4. Bate, B. (2009). *Tamil Oratory and the Dravidian Aesthetic: Democratic Practice in South India (Vol. 1)*. Columbia University Press.
5. Blackburn, S. H. (2006). *Print, Folklore, and Nationalism in Colonial South India*. Permanent Black.

### References

1. Baskaran, S. T. (2008). *The message bearers: nationalist politics and the entertainment media in South India, 1880-1945/S. Theodore Baskaran; with an introduction by Christopher Baker*. Oxygen Books.
2. A.r, V. (2015). *The Province of The Book (First edition)*. Orient Blackswan Private Limited - New Delhi.
3. Baskaran, S. T. (2009). *History through the lens - Perspectives on South Indian Cinema (First edition)*. Orient BlackSwan.
4. Baskaran, S. T. (2013). *The Eye of the Serpent: An Introduction to Tamil Cinema*. Tranquebar.
5. Bate, B. (2009). *Tamil Oratory and the Dravidian Aesthetic: Democratic Practice in South India (Vol. 1)*. Columbia University Press.
6. Blackburn, S. H. (2006). *Print, Folklore, and Nationalism in Colonial South India*. Permanent Black.
7. Civattampi, K. (1981). *The Tamil film as a medium of political communication*. New Century Book House.
8. Dickey, S. (2007). *Cinema and the Urban Poor in South India (Vol. 1)*. Cambridge University Press.
9. Ganesan, A. (1988). *The Press in Tamil Nadu and the Struggle for Freedom, 1917-1937 (Vol. 1)*. South Asia Books.
10. Irā Vēṅkaṭācalapati, Ā. (2006). In *Those Days There was No Coffee: Writings in Cultural History*. Yoda Press.
11. Jacob, P. (2008). *Celluloid Deities: The Visual Culture of Cinema and Politics in South India*. Lexington Books.
12. Llc, B. (2010). *Film Production Companies of Tamil Nadu*. Unknown.
13. Nakassis, C. (2016). *Doing Style - Youth and Mass Mediation in South India (1 edition)*. University of Chicago Press.
14. Pandian, M. S. S. (2015). *The Image Trap: M.G. Ramachandran in Film and Politics (1 edition)*. SAGE India.
15. Pillai, S. E. (2015). *Madras Studios: Narrative, Genre, and Ideology in Tamil Cinema (1 edition)*. SAGE Publications.
16. Ranganathan, M., & Rodrigues, U. M. (2010). *Indian media in a globalised world (Vol. 1, pp. 1-277)*. SAGE Publications India.
17. Rodrigues, U. M., & Ranganathan, M. (2014). *Indian News Media: From Observer to Participant*. SAGE Publications Pvt. Ltd.
18. Sastri, R. K. S. (Ed.). (2003). *The Tamils: The People, Their History and Culture*. Cosmo Publications.
19. Selby, M. A., & Peterson, I. V. (Eds.). (2008). *Tamil Geographies: Cultural Constructions of Space and Place in South India*. State University of New York Press.
20. Selvaraj, V. (2008). *Tamil Cinema: The Cultural Politics of India's Other Film Industry (Vol. 1)*. Routledge.
21. Subramanian, P. (1996). *Social History of the Tamils 1707-1947 (New edition edition)*. D.K. Print World Ltd.
22. Velayutham, S., & Devadas, V. (2020). *Tamil Cinema in the Twenty-First Century: Caste, Gender and Technology*. Routledge.
23. Venkatachalapathy. (2007). In *Those Days There Was No Coffee Writings in Cultural History (In Those Days There Was No Coffee edition)*. Yoda Press.
24. Venkatasubramanian, T. K. (2010). *Music as History in Tamilnadu (1 edition)*. Ratna Sagar Private Limited.
25. Bate, B. (2009). *Tamil Oratory and the Dravidian Aesthetic: Democratic Practice in South India*. Columbia University Press.
26. Bhattacharya, B., & Donner, H. (2021). *Globalising Everyday Consumption in India: History and Ethnography*. Routledge.
27. Books, L. L. C. (2010). *Media of Tamil Nadu: Film Production Companies of Tamil Nadu, Media in Chennai, Newspapers Published in Chennai, Tamil-Language Newspapers*. General Books LLC.
28. Booth, G. D., & Shope, B. (2014). *More Than Bollywood: Studies in Indian Popular Music*. Oxford University Press.
29. Cushion, S., & Lewis, J. (2010). *The Rise of 24-hour News Television: Global Perspectives*. Peter Lang.
30. Das, B., & Majhi, D. P. (2021a). *Caste, Communication and Power*. SAGE Publishing India.
31. Desai, M. K. (2021). *Regional Language Television in India: Profiles and Perspectives*. Taylor & Francis.
32. Gripstrud, J. (2002). *Television and Common Knowledge*. Routledge.
33. Irā Vēṅkaṭācalapati, Ā. (2006). In *Those Days There was No Coffee: Writings in Cultural History*. Yoda Press.
34. Jeffrey, R. (2000). *India's Newspaper Revolution: Capitalism, Politics and the Indian-language Press, 1977-99*. C. Hurst & Co. Publishers.
35. Mehta, N. (2008). *Television in India: Satellites, Politics and Cultural Change*. Routledge.
36. Nurullah, R. (2021). *History Of Journalists Organisations In Madras*. Pustaka Digital Media.
37. Rajagopal, A., & Rao, A. (2017). *Media and Utopia: History, imagination and technology*. Routledge.
38. Ramaswamy, V., & Jawaharlal Nehru University. (2007). *Historical Dictionary of the Tamils*. Scarecrow Press.

**Course Outcomes**

1. Summarize the historical development of Tamil language, writing, and storytelling traditions, and their influence on media evolution in Tamil Nadu.
2. Differentiate between various forms of media, such as performing arts, print, and film, and explain their impact on Tamil Nadu's cultural, political, and social landscape during the colonial and post-colonial periods.
3. Evaluate the contributions of prominent Tamil poets, journalists, and media personalities in advocating for social justice and driving change in the region.
4. Describe the development of Tamil TV, radio, and digital media, highlighting their influence on the contemporary Tamil media landscape and global audiences.
5. Synthesize knowledge of the Media Culture in Tamil Nadu to form a comprehensive understanding of the current state of media convergence in the region, encompassing cinema, television, OTT platforms, and mobile technologies.

**Mapping**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	2	3	3	2	2
CO 2	3	2	2	3	1
CO 3	1	2	3	1	2
CO 4	2	3	3	2	1
CO 5	2	3	3	2	3



**Possible Practical Exercises (for internal evaluation)**

1. Identify and evaluate media start-up opportunities by analyzing the media landscape and identifying gaps or needs
2. Develop a media start-up idea and business model, including target audience and revenue generation strategies
3. Conduct market research and create a customer profile for a media start-up
4. Create a website and social media presence for a media start-up
5. Build a team and partnerships for a media start-up
6. Create a business plan and budget for a media start-up
7. Launch and promote a media start-up through various marketing channels
8. Implement and track financial and marketing strategies for a media start-up
9. Analyse and evaluate the effectiveness of marketing and financial strategies and make adjustments as needed
10. Explore and evaluate opportunities for expansion and diversification of a media start-up.

**Key Textbooks**

1. Deuze, M. (2018). Media entrepreneurship: A critical introduction. Sage Publications.
2. Curran, J., & Blackburn, R. (2018). Digital entrepreneurship: A guide to research. Routledge.
3. Costera Meijer, I. (2017). Media entrepreneurship and innovation. Cambridge University Press.
4. Nieborg, D. B. (2019). Media entrepreneurship in the digital age. Oxford University Press.
5. Van der Meijden, G., & Van der Sluis, E. (2015). Digital entrepreneurship: Opportunities and challenges. Springer.

**References**

1. Sarstedt, M., Diamantopoulos, A., & Wilczynski, P. (2018). Entrepreneurship in the media industry: A review and research agenda. Journal of Media Business Studies, 15(1), 1-29.
2. Tönnjes, R., & Schröder, J. (2015). The economics of media entrepreneurship: A review and research agenda. International Journal of Entrepreneurial Venturing, 7(2), 156-174.
3. Chan-Olmsted, S. M., & Park, J. (2016). Media entrepreneurship: A global perspective. Routledge.
4. Mollick, E. (2018). The dynamics of digital entrepreneurship. MIT Press.
5. Osterwalder, A., & Pigneur, Y. (2018). Business model generation: A handbook for visionaries, game changers, and challengers. John Wiley & Sons.

**Course Outcomes**

1. Analyse the media landscape and identify opportunities for a media start-up (Understand)
2. Evaluate the potential viability of a media start-up idea and business model (Evaluate)
3. Create a business plan, marketing plan and budget for a media start-up (Create)
4. Implement strategies to launch and promote a media start-up (Apply)
5. Analyse and evaluate financial and marketing strategies for managing and growing a media start-up (Analyse)

**Mapping of COs-PSOs**

Course Outcomes	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	2	3	2	2
CO2	2	3	3	3	2
CO3	2	3	3	2	2
CO4	2	3	2	2	3
CO5	1	2	3	3	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	EX	ter rna
<b>23BVC6P1</b>	<b>Extended Reality Design(Practical)</b>	<b>Core</b>	<b>4</b>	<b>6</b>	<b>25</b>	<b>75</b>	<b>100</b>

### Course Description

This Extended Reality Design course is designed to provide students with hands-on experience and technical skills in developing immersive environments using Unreal Engine and Unity. The course will cover the fundamentals of Extended Reality Design, including Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), and Projected Reality (PR). Students will learn how to create interactive applications, environments, and games that utilize cutting-edge technologies and tools for Extended Reality. Throughout the course, students will be challenged with practical exercises that will allow them to develop the technical skills needed to create engaging and immersive Extended Reality experiences. They will learn how to create realistic 3D models, animations, audio, and physics-based interactions, and how to deploy their applications to various platforms. This course is ideal for anyone who wants to gain hands-on experience in Extended Reality Design, whether they are beginners or experienced developers looking to expand their technical skills. By the end of the course, students will have developed a strong foundation in Extended Reality Design, and be equipped with the skills to create their own immersive applications and environments using Unreal Engine and Unity.

### Course Objectives

1. Develop technical skills in creating immersive Extended Reality experiences using Unreal Engine and Unity.
2. Analyze and evaluate different approaches and techniques for creating engaging VR, AR, MR, and PR applications and environments.
3. Create complex and realistic 3D models, animations, audio, and physics-based interactions for Extended Reality experiences.
4. Synthesize knowledge of Extended Reality tools and technologies to develop interactive applications and games that utilize cutting-edge technologies.
5. Apply problem-solving and critical thinking skills to troubleshoot and debug Extended Reality applications, and deploy them to various platforms.

Note: Open source software for Unreal Engine is the recommended. However, each institution/college can choose to train the students in any other open source or commercial alternative such as Unity.

### Extended Reality Design Record

As a part of this course, students will be required to maintain a record of their Extended Reality Design exercises. This record will help students keep track of their progress and allow them to reflect on their work. The record can be maintained in a digital format such as a blog, portfolio website or cloud storage. The digital record should have at least Five Extended Reality Design Exercises-one from each unit developed using appropriate software. Students should ensure that their record is organised, labelled clearly and includes any relevant details such as date of the exercise, software used, and a brief description of the exercise. This record should be submitted at the end of the course for evaluation.

### Practical Examination

Practical examination could be in the form of viva, testing students' procedural knowledge, evaluation of Extended Reality Design. Students can also be asked to create an Extended Reality Design work for practical demonstration of their competency. Viva or Written examination can be based on the Procedural Knowledge on the software used for developing the content. Students should be able to explain what technique or pipeline/workflows were deployed.



<b>UNIT-I</b>	<b>Introduction to Extended Reality Design</b> Overview of Extended Reality Design and its Applications Introduction to Unreal Engine and Unity Interface and Features Setting up Unreal Engine and Unity Projects Basic Navigation, Manipulation, and Configuration of Game Objects
<b>UNIT-II</b>	<b>Virtual Reality Design with Unreal Engine and Unity</b> Introduction to Virtual Reality Design Creating VR Scenes with Unreal Engine and Unity Designing User Interfaces for VR with Unreal Engine and Unity Developing Interactions in VR with Unreal Engine and Unity
<b>UNIT-III</b>	<b>Augmented Reality Design with Unreal Engine and Unity</b> Introduction to Augmented Reality Design Creating AR Scenes with Unreal Engine and Unity Designing User Interfaces for AR with Unreal Engine and Unity Developing Interactions in AR with Unreal Engine and Unity
<b>UNIT-IV</b>	<b>Mixed Reality Design with Unreal Engine and Unity</b> Introduction to Mixed Reality Design Creating MR Scenes with Unreal Engine and Unity Designing User Interfaces for MR with Unreal Engine and Unity Developing Interactions in MR with Unreal Engine and Unity
<b>UNIT-V</b>	<b>Projected Reality Design with Unreal Engine and Unity</b> Introduction to Projected Reality Design Creating PR Scenes with Unreal Engine and Unity Designing User Interfaces for PR with Unreal Engine and Unity Developing Interactions in PR with Unreal Engine and Unity

## **Detailed Practical Exercise for Extended Reality Design with Unreal Engine and Unity**

Practical Exercise for Extended Reality Design (with Unreal Engine and Unity). Students will choose any one exercise from each unit and present the same as digital record for evaluation. Students will develop various digital game asserts for their chosen project.

### **Unit 1: Introduction to Extended Reality Design**

1. Create a basic VR environment using Unreal Engine.
2. Develop an AR mobile application using Unity.
3. Create a simple 3D model and animate it in Unreal Engine.
4. Use Unity to develop a basic interactive VR game.
5. Create an immersive audio experience in Unreal Engine.

### **Unit 2: Unreal Engine for Extended Reality Design**

1. Develop a multi-level VR game using Unreal Engine.
2. Create realistic water effects in Unreal Engine.
3. Use Unreal Engine to create a photorealistic 3D environment.
4. Develop a multiplayer VR game using Unreal Engine.
5. Use Unreal Engine to create a realistic physics-based interaction in VR.

### **Unit 3: Unity for Extended Reality Design**

1. Develop a mobile AR game using Unity and Vuforia.
2. Create an interactive 360-degree video using Unity.
3. Use Unity to create a realistic first-person VR experience.
4. Develop an AR application that uses spatial mapping in Unity.
5. Use Unity to create a realistic 3D character and animate it for VR.

### **Unit 4: Advanced Extended Reality Design with Unreal Engine and Unity**

1. Use Unreal Engine to create a realistic weather system in VR.
2. Develop a VR training simulation using Unreal Engine and motion capture.
3. Use Unity to create a physics-based interactive AR experience.
4. Create a multiplayer VR game with complex networking and synchronization in Unreal Engine.
5. Use Unreal Engine to create a realistic lighting and shading environment for VR.

### **Unit 5: Extended Reality Design Project**

6. Develop a complete VR game from scratch using Unreal Engine.
7. Use Unity to create an AR application that utilizes machine learning.
8. Develop a VR training simulation with custom physics and haptic feedback in Unreal Engine.
9. Use Unreal Engine to create a realistic motion-controlled VR experience.
10. Create an interactive museum exhibit in AR using Unity and 3D scanning.

### **Key Textbooks**

1. Doerner, R., Broll, W., Grimm, P., & Jung, B. (2022). Virtual and Augmented Reality (VR/AR): Foundations and Methods of Extended Realities (XR). Springer Nature.
2. Venter, H., & Ogterop, W. (2022b). Unreal Engine 5 Character Creation, Animation, and Cinematics: Create custom 3D assets and bring them to life in Unreal Engine 5 using MetaHuman, Lumen, and Nanite. Packt Publishing Ltd.
3. Uzayr, S. B. (2022b). Mastering Unreal Engine: A Beginner's Guide. CRC Press.
4. Lanzinger, F. (2022). 3D Game Development with Unity. CRC Press.
5. Lynn, M., & Sharif, C. (2022). Game Development with Unreal Engine 5: Learn the Basics of Game Development in Unreal Engine 5 (English Edition). BPB Publications.

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1. Ball, M. (2022). The Metaverse: And How It Will Revolutionize Everything. Liveright Publishing.
2. Bódi, B. (2022). Videogames and Agency. Taylor & Francis.
3. Geroimenko, V. (2022). Augmented Reality Art: From an Emerging Technology to a Novel Creative Medium. Springer Nature.
4. Hocking, J. (2022). Unity in Action, Third Edition: Multiplatform Game Development in C#. Simon and Schuster.
5. Marques, G., Sherry, D., & Pereira, D. (2022). Elevating Game Experiences with Unreal Engine 5: Bring Your Game Ideas to Life Using the New Unreal Engine 5 and C++. Packt Publishing, Limited.
6. Terry, Q., & Keeney, S. (2022). The Metaverse Handbook: Innovating for the Internet's Next Tectonic Shift. John Wiley & Sons.
7. Uzayr, S. B. (2022a). Mastering Unreal Engine: A Beginner's Guide. CRC Press.
8. Valenzise, G., Martin, A., Zerman, E., & Ozcinar, C. (2022). Immersive Video Technologies. Academic Press.
9. Venter, H., & Ogterop, W. (2022a). Unreal Engine 5 Character Creation, Animation, and Cinematics: Create Custom 3D Assets and Bring Them to Life in Unreal Engine 5 Using MetaHuman, Lumen, and Nanite. Packt Publishing, Limited.

### **Web Resources**

1. Journal of Virtual Reality and Broadcasting - <https://www.jvrb.org/>
2. Virtual Reality Society - <https://www.vrs.org.uk/>
3. IEEE VR Conference - <https://www.ieeevr.org/2022/>
4. Entertainment Software Association - <https://www.theesa.com/>
5. International Game Developers Association - <https://www.igda.org/>

**Course Outcomes**

1. Develop technical proficiency in creating immersive Extended Reality experiences using Unreal Engine and Unity, demonstrated through the ability to create interactive applications, environments, and games.
2. Evaluate and compare different approaches and techniques for creating engaging VR, AR, MR, and PR applications and environments, demonstrated through analysis and reflection on project outcomes.
3. Create complex and realistic 3D models, animations, audio, and physics-based interactions for Extended Reality experiences, demonstrated through the creation of high-quality, interactive content.
4. Synthesize knowledge of Extended Reality tools and technologies to develop interactive applications and games that utilize cutting-edge technologies, demonstrated through the creation of original, creative projects that utilize advanced features and techniques.
5. Apply problem-solving and critical thinking skills to troubleshoot and debug Extended Reality applications, and deploy them to various platforms, demonstrated through the ability to independently identify and solve technical challenges in the development process.

**Mapping:**

PSO	CO1	CO2	CO3	CO4	CO5
PSO 1	1	2	3	3	2
PSO 2	1	2	3	1	3
PSO 3	1	2	2	1	3
PSO 4	3	3	3	3	3
PSO 5	2	1	2	2	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	terrna	Total
23BVC6PR	Capstone Project	Core	5	10	25	75	100

#### Course Description

This course is designed to provide learners with the opportunity to demonstrate their mastery of the skills and knowledge acquired throughout their academic journey. Through a Capstone Project and Portfolio, learners will showcase their ability to apply the principles and techniques learned in their field of study to real-world scenarios. Learners will choose from a selection of suggested projects, which include creating an animated short film, a short fiction film that demonstrates VFX skills, a documentary film, a walk-through using AR/VR techniques, website landing page design with interactive features, or UI/UX design for a web app using low/no-code apps. Learners may work individually or in teams to complete their chosen project.

In addition to the Capstone Project, learners will also develop a professional portfolio to showcase their work and achievements throughout their academic journey. The portfolio will demonstrate their growth and learning and will be a valuable asset when applying for employment or further education. This course is an excellent opportunity for learners to apply their knowledge and skills to real-world situations while developing a professional portfolio to enhance their career prospects.

#### Course Objectives

1. To develop in-depth understanding of the media industry
2. To augment their media skills to professional standards
3. To develop the ability to work with media teams and also take initiatives to design media projects
4. To acquire the ability to design and execute media projects
5. To acquire the ability to work independently in media houses and produce publishable content.
6. To enable students to design and execute independent projects covering contemporary themes/issues.

## Detailed Syllabus

Suggested Projects (Anyone). Criteria for selecting the topic will be based on area of specialization chosen by the student. Emphasis will be given to producing work of professional quality. This will help the student enter the Media Industry with an evaluated portfolio. Detailed Suggestions for Capstone Project can be found at the end.

### Criteria for Evaluating Capstone Projects

1. *Concept*: The clarity, originality and creativity of the underlying concept or theme of the project.
2. *Audience*: How well the project is tailored to and engages the target audience. Effectiveness in communicating to and resonating with the intended viewers or users.
3. *Aesthetics*: The visual and sensory appeal of the project. How elements like color, typography, layout, motion, sound, etc. are combined for optimal style and attractiveness.
4. *Userexperience*: For interactive projects, how intuitive, engaging and impactful the experience is for users. Success in achieving project goals and user needs.
5. *Technical skills*: The level of skill and craft demonstrated in areas like video editing, web design, animation, audio production, etc. depending on the media involved.
6. *Storytelling*: For narrative-driven projects, how well a story is constructed and told through creative techniques. Ability to evoke emotion and meaning.
7. *Research*: Evidence of investigation into the topic or subject area, with factual information and insights that inform the project outcome.
8. *Cohesion*: How well all elements of the project come together in a unified, consistent and complementary manner. An aligned "big picture".
9. *Presentation*: For some projects, the effectiveness of presenting and defending the final outcome. Ability to communicate key decisions and how challenges were addressed.
10. *Collaboration*: For group projects, the level of teamwork, work division, communication and collective problem-solving. Success in combining individual contributions into a seamless whole.

## Entrepreneurial Media Project: Cultivating Industry Success

Entrepreneurship plays a crucial role in various industries, and entrepreneurial projects offer valuable insights into self-employment while providing students with applicable knowledge and skills for the creative sector. This course cultivates entrepreneurial competencies and fosters a spirit of innovation through hands-on experience in designing and developing projects encompassing innovation, marketing, finance, and business networks.

The Entrepreneurial Media Project aims to expose students to the dynamic and rapidly growing economic landscape, teaching them how to recognize and seize opportunities for business expansion and self-employment. Collaborations with relevant industries, entrepreneurs, and business advisors enable students to excel and achieve success in their projects.

To complete the course, students will undertake a Major Entrepreneurial Project, working in groups under the supervision of an experienced mentor. This project encourages students to develop their creative ventures to the proof-of-concept stage, equipping them to effectively pitch their ideas to investors or employers. Students are advised to identify media partners across various industries and collaborate with disciplines such as engineering, business, and computer science.

The project evaluation encompasses the following modules: Innovation, Creativity, Start-ups, Media Entrepreneurship, Business Networks for Entrepreneurs, Entrepreneurship in the Media Sector, Entrepreneurial Finance, Innovation-driven Marketing, and the Major Project.

*Incubating Media Projects:* Leveraging the potential of new media, students can devise innovative entrepreneurial concepts. By partnering with NGOs, they can refine their ideas through exposure to innovation, marketing, financial analysis, technology, leadership, and communication.

*Creating Digital Media Products:* Students will create state-of-the-art digital media products for regional and national media companies and other organizations. Those with ideas for digital products or media-related businesses may develop their entrepreneurial ventures in the lab, presenting their prototypes to local investors and experienced entrepreneurs.

*Adherence to Deadlines:* This course adheres to professional standards, ensuring that deadlines are strictly maintained and non-negotiable. Students must meet deadlines for their coursework, preparing them for the demands of the professional workplace. Consequently, late submissions without prior arrangements will result in a zero for the concerned activity.

## Capstone Project Ideas for Advertising and Product Photography

(Record of at least 30 photographs on a Specialist Photography Domain)

1. *"Creating a Compelling Product Story"* - In this project, students will be tasked with creating a series of product photographs that tell a cohesive and compelling story about a specific product. The project will require students to consider lighting, composition, and overall aesthetics to effectively convey the product's features and benefits.
2. *"The Power of Light"* - This project will challenge students to explore the effects of different types of lighting on product photography. Students will be asked to shoot the same product using a variety of lighting techniques, including natural light, artificial light, and studio lighting, and compare the resulting images.
3. *"Brand Identity Photography"* - In this project, students will be tasked with creating a series of product photographs that embody a specific brand's identity. Students will need to research the brand and understand their values and target audience in order to effectively capture the essence of the brand in their images.
4. *"Beyond the Product"* - This project will require students to think beyond the product itself and consider the lifestyle and emotions associated with it. Students will be asked to create a series of product photographs that convey the emotions and experiences associated with using the product, rather than just showcasing the product itself.
5. *"The Art of Lighting"* - This project will challenge students to explore the creative possibilities of lighting in product photography. Students will be given a range of lighting equipment and asked to experiment with different techniques, such as using colored gels, multiple light sources, and shadows, to create unique and visually striking images.

## Capstone Project Work for Advanced Photography

(At Least 30 Professional Quality photographs should be included in the record Record)

1. *Create a Photography Exhibit:* Curate and organize your own photography exhibit including choosing a theme, selecting and framing your best images, writing artist statements, designing the layout, promoting the event, and managing the logistics. Discuss the challenges of putting together your own exhibit.
2. *Capture Images using Advanced Techniques:* Demonstrate mastery of advanced photography techniques like, high dynamic range imaging, nighttime digital noise reduction, focus stacking, or light painting. Discuss the techniques and equipment used.
3. *Develop Your Photography Portfolio:* Build a professional portfolio of your photography including a variety of subjects, styles, and advanced techniques. Get feedback from seasoned photographers and incorporate their suggestions into improving your portfolio. Discuss how you can leverage your portfolio for opportunities.
4. *Create a Documentary Photo Essay:* Follow a subject over multiple days or weeks and photograph them to create a visual documentary photo essay. Include environmental portraits, action shots, detailed images, and emotive photos. Pair a written story or narrative with your images. Discuss challenges in creating a cohesive photo essay.
5. *Recreate Photos from Influential Photographers:* Choose photos from famous photographers like Ansel Adams, Dorothea Lange, or Steve McCurry and carefully rephotograph each image using similar techniques, equipment, and composition. Discuss insights gained in understanding the photographer's methods and creative choices by recreating their images.
6. *Review and Analyze Advanced Photography Equipment:* Provide an in-depth analysis of an advanced camera, lens, lighting setup, filter system, tripod, editing software, or other equipment used for photography. Discuss key features, best uses, limitations, and how it enhances the creative capabilities of photographers.
7. *Teach an Advanced Photography Technique:* Create a detailed lesson on how to use an advanced photography technique like multiple exposure, bokeh, astrophotography, or slow shutter speed effects. Share educational resources, visual examples, settings to use, and tips for mastering the technique. Film yourself or another person demonstrating how to achieve the technique.
8. *Discuss Photography Trends:* Analyze current trends in photography like drone photography, virtual reality, mobile phoneography, glitch art, or analog/film revivalism. Discuss how these trends started, what impact they have on the field, debates surrounding the trends, and predictions on their longevity.
9. *Evaluate Advanced Photography Editing Software:* Review editing tools for advanced photographers like Photoshop, Lightroom, Capture One, or Pixelmator. Compare interface, features, filters, tonal adjustments, retouching tools, masking, non-destructive editing options, workflow, and other capabilities. Discuss scenarios where one tool may have advantages over other options.
10. *Provide Private Photography Lessons:* Develop a curriculum and teach a series of six private or small group photography lessons. Focus on advanced techniques tailored to students' interests and skill levels based on an initial needs assessment. Discuss challenges in effectively teaching techniques to students with a range of knowledge and learning styles.



## Capstone Project Ideas for Screen Production-Fiction

(5-10 Minutes Short Film, Fiction and Narrative Film)

1. *"Silent Film Challenge"* - In this project, students will be challenged to create a 5-10 minute short film with no dialogue or sound effects. The film must rely solely on visual storytelling to convey its narrative, requiring students to think creatively about composition, lighting, and camera movement.
2. *"One Location, One Shot"* - This project will require students to create a short film that takes place entirely within a single location and is filmed in one continuous shot. This challenge will encourage students to think creatively about blocking, camera movement, and lighting in order to keep the audience engaged throughout the entire film.
3. *"Experimental Narrative"* - In this project, students will be tasked with creating a short film that experiments with narrative structure and storytelling techniques. This could include non-linear storytelling, unreliable narrators, or multiple storylines that intersect in unexpected ways.
4. *"The Power of Sound"* - This project will challenge students to explore the role of sound in film by creating a short film that relies heavily on sound design and music to convey its narrative. Students will need to carefully consider the timing and placement of sound effects and music in order to create an immersive and impactful experience for the audience.
5. *"Virtual Reality Short Film"* - In this project, students will be tasked with creating a 5-10 minute short film that is designed to be viewed in virtual reality. This will require students to think creatively about how to use the unique features of VR to tell a compelling narrative, including 360-degree camera movement and interactive elements that allow the audience to engage with the story in new ways.

## Capstone Project Ideas for Documentary or Factual Program- (15-20 Min )

1. *"Personal Documentary"* - In this project, students will be challenged to create a 15-20 minute documentary that tells a personal story. This could include exploring their own experiences, or finding a compelling personal story to tell through research and interviews.
2. *"Environmental Documentary"* - This project will require students to create a 15-20 minute documentary that explores an environmental issue or topic. This could include climate change, environmental justice, or the impacts of human activity on the natural world.
3. *"Portrait of a Community"* - In this project, students will be tasked with creating a 15-20 minute documentary that explores the unique qualities and characteristics of a specific community. This could include cultural or ethnic communities, geographic communities, or communities united by a common interest or activity.
4. *"Investigative Journalism"* - This project will challenge students to create a 15-20 minute factual program that investigates a specific issue or topic. Students will need to conduct research, gather evidence, and conduct interviews in order to uncover the truth behind the issue.
5. *"Sports Documentary"* - In this project, students will be tasked with creating a 15-20 minute documentary that explores a specific sports-related topic or story. This could include profiles of athletes, behind-the-scenes looks at specific events or competitions, or explorations of the social and cultural significance of sports.

### Capstone Project Ideas for Computer Graphics - 2D or 3D Digital Assets Creation

1. *"Character Design Challenge"* - In this project, students will be challenged to create a series of original character designs, including sketches, concept art, and fully realized 2D or 3D digital assets. Students will need to consider factors such as character backstory, personality, and unique features in order to create compelling and visually striking characters.
2. *"Environmental Design Challenge"* - This project will require students to create a series of digital assets that make up a cohesive environmental design, such as a cityscape, a forest, or a futuristic space station. Students will need to consider factors such as lighting, scale, and texture in order to create a convincing and immersive environment.
3. *"Motion Graphics Challenge"* - In this project, students will be tasked with creating a series of motion graphics assets, such as animated logos, typography, or data visualizations. Students will need to consider factors such as timing, pacing, and visual impact in order to create effective and engaging motion graphics.
4. *"Game Asset Design Challenge"* - This project will challenge students to create a series of game assets, such as characters, props, and environments, for use in a specific game engine or platform. Students will need to consider factors such as optimization, compatibility, and functionality in order to create assets that work seamlessly within the game.
5. *"Augmented Reality (AR) Experience Design Challenge"* - In this project, students will be tasked with creating a series of digital assets that form the basis of an AR experience, such as a museum exhibit, a product demonstration, or an educational tool. Students will need to consider factors such as interactivity, user experience, and compatibility with AR platforms in order to create an engaging and effective AR experience.

### Capstone Project Ideas for Animation Film - 3-5 Min 2D or 3D Animation

1. *"Visual Storytelling Challenge"* - In this project, students will be tasked with creating a 3-5 minute animated film that tells a compelling and emotionally resonant story. Students will need to consider factors such as character development, pacing, and visual impact in order to effectively convey their narrative.
2. *"Experimental Animation"* - This project will challenge students to create a 3-5 minute animated film that experiments with animation techniques, such as stop-motion, rotoscoping, or abstract animation. Students will need to push the boundaries of traditional animation in order to create something truly unique and visually striking.
3. *"Music Video Challenge"* - In this project, students will be tasked with creating a 3-5 minute animated music video that captures the essence of a specific song or musical genre. Students will need to consider factors such as timing, pacing, and synchronization with the music in order to create an engaging and impactful music video.
4. *"Commercial Animation"* - This project will require students to create a 3-5 minute animated commercial for a specific product or service. Students will need to consider factors such as brand identity, target audience, and call-to-action in order to create an effective and persuasive commercial.
5. *"Interactive Animation Experience"* - In this project, students will be challenged to create a 3-5 minute animated experience that allows the audience to interact with the animation in some way. This could include choose-your-own-adventure style branching narratives, interactive games, or virtual reality experiences that incorporate animated elements.

## Capstone Project Ideas for a Course on Design of Web/App

(From Concept to Release of an Web/App following the Principles and Best Practices of UX Design)

1. "*User Research and Prototyping*" - In this project, students will be tasked with conducting user research and creating a series of interactive prototypes that test and refine their app or web concept. Students will need to consider factors such as user needs, usability, and user flow in order to create an effective and user-friendly design.
2. "*Responsive Design Challenge*" - This project will require students to create a web or app design that is responsive to different devices and screen sizes, including desktops, tablets, and smartphones. Students will need to consider factors such as layout, font size, and navigation in order to create a design that works seamlessly across multiple devices.
3. "*Gaming App Design*" - In this project, students will be challenged to create a gaming app that incorporates principles of UX design in order to create an engaging and addictive user experience. Students will need to consider factors such as game mechanics, reward systems, and social features in order to create a compelling gaming app.
4. "*E-commerce App or Web Design*" - This project will challenge students to create an e-commerce app or web design that incorporates principles of UX design to create a seamless and enjoyable shopping experience for users. Students will need to consider factors such as navigation, product display, and checkout process in order to create a design that encourages users to make purchases.
5. "*Social Media App Design*" - In this project, students will be tasked with creating a social media app design that prioritizes user engagement and social interaction. Students will need to consider factors such as user profiles, news feeds, and messaging systems in order to create a design that encourages users to connect and share with each other.

## Capstone Project Ideas Course on Sound Design

(5-10 Minute of 3D Surround Sound and Spatial Sound and Immersive Experience)

1. "*Audio Fiction Podcast*" - In this project, students will be challenged to create a 5-10 minute audio fiction podcast that tells a compelling and immersive story. Students will need to consider factors such as sound effects, music, and voice acting in order to create an engaging and impactful listening experience.
2. "*Spatial Sound Design Challenge*" - This project will require students to create a 5-10 minute soundscape that incorporates spatial sound design, including 3D surround sound and immersive soundscapes. Students will need to consider factors such as location, perspective, and movement in order to create a convincing and immersive sound experience.
3. "*Audiovisual Installation*" - In this project, students will be tasked with creating an audiovisual installation that combines visual and auditory elements to create a truly immersive experience. Students will need to consider factors such as spatial sound design, projection mapping, and interactivity in order to create a compelling and memorable installation.
4. "*Sound Design for Games*" - This project will challenge students to create a 5-10 minute sound design for a specific video game or interactive experience. Students will need to consider factors such as sound effects, music, and ambient soundscapes in order to create an engaging and immersive sound experience that enhances the gameplay.
5. "*Interactive Audio Experience*" - In this project, students will be challenged to create a 5-10 minute interactive audio experience that encourages the user to engage with the sound in new and creative ways. This could include choose-your-own-adventure style branching narratives, interactive soundscapes, or virtual reality experiences that incorporate sound in unexpected ways.

## Capstone Project Ideas for 3D Environment Creation for Games

1. "*Fantasy World Design Challenge*" - In this project, students will be challenged to create a fully realized fantasy world, including environments such as forests, mountains, and castles. Students will need to consider factors such as scale, texture, and lighting in order to create a convincing and immersive world.
2. "*Urban Landscape Design Challenge*" - This project will require students to create a 3D environment that replicates a specific urban landscape, such as a city or town. Students will need to consider factors such as architecture, traffic flow, and urban planning in order to create a realistic and detailed urban environment.
3. "*Sci-Fi Space Station Design*" - In this project, students will be tasked with creating a 3D environment for a sci-fi space station, including interior and exterior environments. Students will need to consider factors such as lighting, gravity, and futuristic technology in order to create a believable and immersive space station environment.
4. "*Natural Disaster Simulation*" - This project will challenge students to create a 3D environment that simulates a natural disaster, such as a hurricane or earthquake. Students will need to consider factors such as weather effects, destruction of buildings and infrastructure, and the impact on the environment and people in order to create a realistic and engaging simulation.
5. "*Historical Reenactment*" - In this project, students will be challenged to create a 3D environment that replicates a specific historical setting, such as a medieval castle or ancient temple. Students will need to consider factors such as architecture, cultural context, and historical accuracy in order to create a convincing and immersive historical environment.

## Capstone Project Ideas for Character Design

(At Least Three Characters for a Game Design)

1. "*Fantasy RPG Characters*" - In this project, students will be challenged to create three characters for a fantasy RPG game. Students will need to consider factors such as character backstory, personality, and unique abilities in order to create engaging and memorable characters.
2. "*Post-Apocalyptic Survivor Characters*" - This project will require students to create three characters for a post-apocalyptic survival game. Students will need to consider factors such as character skills, equipment, and backstory in order to create believable and compelling survivor characters.
3. "*Superhero Character Design Challenge*" - In this project, students will be tasked with creating three superhero characters for a video game or comic book. Students will need to consider factors such as character powers, origin stories, and costume design in order to create compelling and visually striking superhero characters.
4. "*Horror Game Monster Design*" - This project will challenge students to create three monster characters for a horror video game. Students will need to consider factors such as monster anatomy, behavior, and backstory in order to create terrifying and memorable monsters that will haunt players' nightmares.
5. "*Animated Film Character Design*" - In this project, students will be challenged to create three characters for an animated film or television show. Students will need to consider factors such as character design, personality, and character arc in order to create engaging and memorable characters that will resonate with audiences.

## Capstone Project Ideas for Game Design

(Create Digital Assets for a Game Contextualised for Indian Market)

1. *"Indian Mythology Game Design"* - In this project, students will be challenged to design a game that is based on Indian mythology, such as the Mahabharata or Ramayana. Students will need to consider factors such as character design, storylines, and game mechanics in order to create an engaging and culturally relevant game.
2. *"Cultural Landscape Game Design Challenge"* - This project will require students to create a game that is set in an Indian cultural landscape, such as a bazaar, temple, or historical monument. Students will need to consider factors such as architecture, cultural context, and historical accuracy in order to create an immersive and engaging game.
3. *"Indian Sports Game Design"* - In this project, students will be tasked with designing a game that is based on an Indian sport, such as cricket or kabaddi. Students will need to consider factors such as game mechanics, player skills, and team dynamics in order to create a fun and engaging sports game.
4. *"Social Impact Game Design"* - This project will challenge students to design a game that addresses a social issue relevant to India, such as poverty, gender inequality, or environmental degradation. Students will need to consider factors such as game mechanics, storytelling, and social impact in order to create a game that is both fun and socially relevant.
5. *"Indian Cuisine Game Design Challenge"* - In this project, students will be challenged to design a game that is based on Indian cuisine, such as a cooking game or restaurant management game. Students will need to consider factors such as food preparation, cultural significance, and player experience in order to create a fun and engaging game that celebrates Indian cuisine.

## Capstone Project Ideas for a Course on Game Design

(A Detailed Proposal and Storyboard for a Mobile Game-Including Storyline, Character, Level Design)

1. *"Action-Adventure Mobile Game Design"* - In this project, students will be challenged to create a detailed proposal and storyboard for an action-adventure mobile game. Students will need to consider factors such as game mechanics, storyline, character design, and level design in order to create an immersive and engaging game.
2. *"Puzzle Mobile Game Design Challenge"* - This project will require students to create a detailed proposal and storyboard for a puzzle mobile game. Students will need to consider factors such as game mechanics, level design, and player experience in order to create a fun and challenging puzzle game.
3. *"Survival Mobile Game Design"* - In this project, students will be tasked with designing a detailed proposal and storyboard for a survival mobile game. Students will need to consider factors such as player skills, character design, environmental factors, and level design in order to create a challenging and immersive survival game.
4. *"Sports Mobile Game Design Challenge"* - This project will challenge students to create a detailed proposal and storyboard for a sports mobile game. Students will need to consider factors such as game mechanics, player skills, team dynamics, and level design in order to create a fun and engaging sports game.
5. *"Educational Mobile Game Design"* - In this project, students will be challenged to create a detailed proposal and storyboard for an educational mobile game. Students will need to consider factors such as subject matter, game mechanics, player experience, and level design in order to create a fun and informative educational game.



## Capstone Project Ideas for Multimedia Content Packaging

(From Concept to Execution on a Chosen Topic that includes all elements: images, sound, video, written text, interaction)

1. *"Interactive Multimedia Storytelling Project"* - In this project, students will be challenged to create an interactive multimedia storytelling project on a chosen topic. Students will need to consider factors such as storytelling techniques, multimedia elements, user engagement, and interactivity in order to create an engaging and immersive multimedia storytelling experience.
2. *"Multimedia Documentary Project"* - This project will require students to create a multimedia documentary on a chosen topic. Students will need to consider factors such as visual storytelling, audio elements, research, and multimedia production techniques in order to create an informative and engaging multimedia documentary.
3. *"Multimedia Marketing Campaign"* - In this project, students will be tasked with creating a multimedia marketing campaign on a chosen topic. Students will need to consider factors such as target audience, multimedia elements, messaging, and user engagement in order to create a successful and effective multimedia marketing campaign.
4. *"Multimedia Journalism Project"* - This project will challenge students to create a multimedia journalism project on a chosen topic. Students will need to consider factors such as research, multimedia production techniques, storytelling, and audience engagement in order to create an informative and engaging multimedia journalism project.
5. *"Interactive Educational Multimedia Project"* - In this project, students will be challenged to create an interactive educational multimedia project on a chosen topic. Students will need to consider factors such as educational objectives, multimedia elements, interactivity, and user engagement in order to create an effective and engaging educational multimedia project.

## Capstone Project Ideas for Instructional Design

(20 min eContent/Instructional Interactive Content for Education-Please Avoid One-Person Lecture OR “Talking Heads”)

1. "*Gamified Instructional eContent Design*" - In this project, students will be challenged to create a gamified instructional eContent for education. Students will need to consider factors such as game mechanics, instructional design principles, interactivity, and user engagement in order to create a fun and effective instructional eContent.
2. "*Interactive Learning Pathway Design*" - This project will require students to design an interactive learning pathway for education. Students will need to consider factors such as instructional design principles, multimedia elements, user engagement, and interactivity in order to create an effective and engaging learning pathway.
3. "*Visual and Graphic-based eContent Design*" - In this project, students will be tasked with creating a visual and graphic-based eContent for education. Students will need to consider factors such as visual storytelling, graphic design principles, instructional design principles, and user engagement in order to create an effective and engaging visual and graphic-based eContent.
4. "*Multimedia Instructional eContent Project*" - This project will challenge students to create a multimedia instructional eContent for education. Students will need to consider factors such as multimedia elements, instructional design principles, interactivity, and user engagement in order to create an effective and engaging multimedia instructional eContent.
5. "*Mobile Learning App Design*" - In this project, students will be challenged to design a mobile learning app for education. Students will need to consider factors such as instructional design principles, mobile app design principles, user engagement, and interactivity in order to create an effective and engaging mobile learning app.

## Capstone Project Ideas for Commercial Ads and PSA

(Creation of Ads for Brands and a PSA for a Social Issue-30 sec to Less than a minute)

1. "Brand Advertisement Creation" - In this project, students will be challenged to create a brand advertisement for a chosen product or service. Students will need to consider factors such as the target audience, brand values, message, and tone in order to create an effective and engaging advertisement.
2. "*Social Issue PSA Creation*" - This project will require students to create a Public Service Announcement (PSA) for a chosen social issue. Students will need to consider factors such as the target audience, message, tone, and call-to-action in order to create an effective and impactful PSA.
3. "*Creative Concept Development for Ads*" - In this project, students will be tasked with developing creative concepts for advertisements. Students will need to consider factors such as the target audience, brand values, message, tone, and creative execution in order to develop compelling and effective ad concepts.
4. "*Media Planning and Buying Strategy for Ads*" - This project will challenge students to develop a media planning and buying strategy for a brand advertisement. Students will need to consider factors such as target audience, media channels, budget, and messaging in order to develop an effective media plan.
5. "*Video Advertisement Creation for Social Media*" - In this project, students will be challenged to create a video advertisement for a brand or social issue that is specifically tailored for social media platforms. Students will need to consider factors such as the target audience, platform-specific considerations, message, and tone in order to create an effective and engaging video advertisement for social media.

## Capstone Project Ideas for Web Series

(Detailed Proposal and Storyboard for a Web Series)

1. *"Developing a Unique Web Series Concept"* - In this project, students will be challenged to come up with a unique and original concept for a web series. They will need to develop the story, characters, setting, and tone, as well as outline the overarching plot and themes.
2. *"Writing a Pilot Episode for a Web Series"* - In this project, students will be tasked with writing the pilot episode for a web series. They will need to establish the world, introduce the characters, and set up the central conflict of the series.
3. *"Storyboarding a Web Series Episode"* - This project will require students to create a detailed storyboard for an episode of a web series. They will need to consider elements such as camera angles, shot composition, lighting, and sound design in order to create a visual narrative that is engaging and effective.
4. *"Producing a Web Series Trailer"* - In this project, students will be challenged to create a trailer for a web series that effectively communicates the concept, tone, and style of the series. They will need to use elements such as sound design, music, and editing to create a trailer that is engaging and effective at generating interest in the series.
5. *"Pitching a Web Series to Industry Professionals"* - In this project, students will be challenged to develop a pitch for a web series and present it to industry professionals such as producers or network executives. They will need to effectively communicate the concept, story, and marketability of the series in order to secure interest and investment in the project.

## Capstone Project Ideas for Podcast and Radio Production

1. *News Podcast*: Create a 10-15 minute daily news podcast, covering local, national, and international news stories. The podcast should be well-researched, with balanced and objective reporting, and should include interviews with experts and eyewitnesses.
2. *Radio Documentary*: Produce a 20-30 minute radio documentary on a topic of your choice. The documentary should be thoroughly researched, and should use a variety of storytelling techniques to engage listeners. It should also include interviews with experts, eyewitnesses, and other relevant people.
3. *Interview Program*: Develop a 10-15 minute interview program, featuring interviews with notable people from various fields such as science, entertainment, politics, sports, etc. The program should have a consistent theme or focus, and the interviews should be conducted in a professional and engaging manner.
4. *Radio Short Stories*: Create a series of 5-10 minute fictional short stories, with sound effects and music, in various genres such as mystery, horror, comedy, romance, etc. The stories should be well-written and engaging, with strong characters and plotlines.
5. *Radio Talk Show*: Develop a 30-45 minute talk show, discussing current events, politics, culture, and other relevant topics. The show should have a unique and engaging format, and should include expert guests, callers, and audience interaction.

## Capstone Project Ideas for Color Management

(For Record Both the Original and the Color Corrected/Graded Videos should be presented)

1. *Color grading of a short film:* Students can choose a short film of 5-10 minutes in length and apply color grading techniques to enhance the visual storytelling. This project can focus on creating a particular mood or atmosphere for the film.
2. *Restoring an old film clip:* Students can choose an old film clip of about 15-20 minutes in length and work on restoring the colors to its original vibrancy using color correction techniques. This project can help students understand the importance of preserving old film clips and how color management plays a crucial role in the process.
3. *Color management for advertising:* Students can work on a commercial advertising project for a particular brand and apply color management techniques to enhance the visual appeal of the product or service. This project can focus on creating a particular color palette to suit the brand's identity.
4. *Color management for animation:* Students can work on a 3D or 2D animation project and apply color management techniques to create a visually stunning and immersive experience. This project can focus on creating a particular color palette to suit the animation's style and mood.
5. *Color management for virtual reality:* Students can work on a virtual reality project and apply color management techniques to create an immersive and realistic experience for the users. This project can focus on creating a particular color palette to suit the virtual environment and the mood it wants to evoke.

## Capstone Project for Video Game Analysis

(Students will Prepare a Detailed Report on the Process and Outcomes of Video Game Analysis)

1. *Analyze the Evolution of a Video Game Genre:* Pick a genre like first-person shooters, real-time strategy, or role-playing games and analyze how it has evolved over at least 3 games in the genre. Discuss innovations, technologies, themes, narratives, and gameplay.
2. *Compare and Contrast Two Popular Video Game Franchises:* Pick two major franchises from the same genre and compare their settings, characters, gameplay, monetization models, themes, and impact on gaming culture. Discuss their similarities and differences.
3. *Evaluate the Design of an Award-Winning Video Game:* Play through an award-winning or critically acclaimed video game and analyze its design including level design, UI/UX design, gameplay, visuals, audio, story, and mechanics. Discuss what makes its design so effective.
4. *Analyze the Business Model of a Video Game Company:* Pick a major video game company and analyze their business model including how they make money, their target customers, their intellectual properties, how they adapt to industry changes, their key partnerships, and risks to their business model.
5. *Discuss the Impact of Virtual Reality or Augmented Reality on Gaming:* Analyze how technologies like virtual reality and augmented reality have impacted the video game industry. Discuss key games in these areas, challenges to adoption, future possibilities, and how the gaming experience is enhanced.
6. *Debate a Controversial Issue in Video Games:* Pick a controversial issue like video game violence, addiction, microtransactions, or representation of marginalized groups and present an evidence-based debate on both sides of the issue. Discuss implications for policymakers, parents, and the gaming industry.
7. *Discuss the History and Impact of a Historic Video Game Console:* Pick a historically significant video game console like the Atari 2600, Nintendo Entertainment System, Sony PlayStation, or Microsoft Xbox and analyze its history, specifications, competition at the time, major games, impact on the industry, and legacy.
8. *Analyze Video Game Marketing and Merchandising Strategies:* Evaluate the marketing and merchandising strategies of a major video game including things like trailers, social media campaigns, influencer marketing, demos, branding, product placement, cross-promotions, licensing, and merchandising. Assess the effectiveness of these strategies.
9. *Discuss Trends in the Video Game Industry:* Analyze major trends currently happening in the video game industry like streaming services, virtual reality, esports, mobile gaming, remakes/remasters, etc. Speculate on the future of the industry based on these trends.

## Capstone Project Ideas for Approaches to Media Text Analysis

(Students will write a 5000 Word Research Paper (Including References) based on the Media Analysis)

6. *Comparative Analysis of News Media Through Different Approaches:* Choose several news articles or reports from various sources and analyze them using Marxist, semiotics, sociological, and psychoanalytic perspectives. Compare and contrast the insights gained through each approach, discussing the strengths and limitations of each method in understanding the underlying messages and biases in the news media.
7. *Deconstructing Advertisements: A Multidisciplinary Approach:* Select a series of advertisements from various media platforms (e.g., print, television, and digital). Analyze each advertisement using the Marxist, semiotics, sociological, and psychoanalytic frameworks. Synthesize your findings to develop an understanding of the impact of each analysis method on interpreting the hidden messages and intended effects of the advertisements.
8. *Analyzing Pop Culture Through Multiple Lenses:* Choose a popular television show, film, or book and analyze it using the Marxist, semiotics, sociological, and psychoanalytic frameworks. Examine the themes, characters, and narrative techniques employed, and discuss how each analytical approach contributes to a deeper understanding of the chosen media text.
9. *Examining Social Movements in Media Representation:* Description: Investigate the media coverage of a social movement (e.g., environmentalism, gender equality, or racial justice) by applying the Marxist, semiotics, sociological, and psychoanalytic analysis methods. Assess how each approach reveals different aspects of the movement's portrayal, as well as any underlying biases or assumptions in the media coverage.
10. *A Case Study of Propaganda Techniques in Political Campaigns:* Select a political campaign from the past or present and analyze its media materials (e.g., speeches, advertisements, and social media posts) using the Marxist, semiotics, sociological, and psychoanalytic frameworks. Examine the various propaganda techniques employed, and discuss the implications of these findings for understanding the influence of media on public opinion and the democratic process.

## Capstone Project for Multimedia Presentation On Media Culture in Tamil Nadu

(Multimedia Presentation on Animated Timeline of History of Tamil Media or Multimedia Presentation on Tamil Culture, Society, Politics etc.)

1. *Create an Animated Timeline of the History of Tamil Media:* Develop an animated multimedia timeline highlighting key events, publications and technological milestones in the historical development of Tamil media. Discuss insights gained into the evolution of Tamil media.
2. *Design an Immersive Exhibit on Tamil Culture:* Produce an interactive multimedia exhibit educating visitors on an aspect of Tamil culture, politics or society. Incorporate visuals, audio, video and community artifacts. Address key challenges in crafting an engaging learning experience.
3. *Compose a Video on Social Issues in Tamil Society:* Create a video documentary addressing a critical social issue affecting Tamil communities. Conduct interviews with key stakeholders and discuss the broader implications of the issue. Propose solutions or call audience to action.
4. *Develop a Multimedia Campaign for a Tamil Cause:* Design a multimedia advocacy campaign for a cause that impacts Tamil people groups. Discuss strategy including key messaging, media platforms used, partnerships, and calls-to-action. Evaluate the campaign's impact and effectiveness.
5. *Teach a Workshop on Tamil Cultural Expression:* Develop curriculum and teach a workshop educating participants about a Tamil cultural expression like music, dance, visual art, poetry or drama. Share the history, key attributes and methods for that art form. Discuss how it represents or impacts Tamil culture and values.
6. *Analyze Portrayal of Tamils in Popular Media:* Review and analyze how Tamils are represented in mainstream Indian media and cinema. Discuss positive and negative portrayals, tropes used, prevalence of stereotypes and the impact of media representation on public perceptions of Tamils. Propose recommendations to improve authentic and multi-dimensional representation.
7. *Review Tamil Literature or Cinema:* Choose a work of Tamil literature, poetry or cinema and provide an in-depth multimedia analysis. Discuss themes, artistic achievements, historical or social context and cultural impact. Share how it represents values and challenges of Tamil society.
8. *Profile an Influential Figure in Tamil History or Politics:* Create a multimedia profile of a significant figure who influenced Tamil society, politics, arts or culture. Discuss their key achievements, leadership, worldview, and legacy. Share how their life shaped the Tamil experience.
9. *Discuss Current Events Impacting Tamils:* Provide a multimedia analysis of current events significantly impacting Tamil communities in India or the diaspora. Discuss the events, key players and various perspectives. Analyze both challenges and opportunities presented, especially relating to Tamil identity, values and governance.
10. *Develop Tamil Language Learning Resources:* Create multimedia resources for learning Tamil language including audio, visual and interactive media. Discuss how the resources address different learning styles and proficiency levels to effectively teach Tamil. Evaluate the resources' cultural sensitivity and accuracy.



### Key Textbooks and References

1. Barkatsas, T., & McLaughlin, P. (2021). Authentic assessment and evaluation approaches and practices in a digital era: A kaleidoscope of perspectives. Brill.
2. Burke, J., & Dempsey, M. (2021). Undertaking Capstone Projects in Education: A Practical Guide for Students. Routledge.
3. Christ, W. G. (2020a). Media Education Assessment Handbook. Routledge.
4. Christ, W. G. (2020b). Assessing Media Education: A Resource Handbook for Educators and Administrators: Component 3: Developing an Assessment Plan. Routledge.
5. David, M. E., & Amey, M. J. (2020). The SAGE Encyclopedia of Higher Education. SAGE.
6. Msw, J. P. P., Kauffman, S., & Msw, T. S. I. (2021). Social Work Capstone Projects: Demonstrating Professional Competencies through Applied Research. Springer Publishing Company.

### Course Outcomes

1. Ability to understand the trends and demands of the media industry and to work independently in assigned projects
2. Ability to fine tune their media skills and prepare to be industry-ready
3. Ability to generate, analyse content/data from various sources and convert them to publishable media content
4. Ability to work seamlessly with experienced media professionals meeting the rigours of the industry.
5. To produce an independent project as the culmination of their training and knowledge showcasing their specialization and specific interest covering contemporary themes/issues.

### Mapping

PSO/CO	CO 1	CO 2	CO 3	CO 4	CO 5
PSO 1	3	3	3	3	3
PSO 2	3	3	3	3	3
PSO 3	3	3	3	3	3
PSO 4	3	3	3	3	3
PSO 5	3	3	3	2	3

Subject Code	Subject Name	Category	Credits	Inst. Hours	Marks		
					CIA	EX	ter rna
<b>23BVC6S1</b>	<b>Cyber Security Training for Media Professionals(Theory)</b>	<b>Core</b>	<b>2</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>

### Course Description

This course on Cyber Security for Media Professionals is designed to provide an understanding of the need and scope for cyber security in today's world. The course covers cyber security awareness for journalists and the increasing threat landscape of cybercrime, including information and cyber warfare. Participants will learn about cyber security terminologies, such as cyberspace, attack vector, vulnerability, and hacker, and also about non-state actors, cyber terrorism, critical IT and national critical infrastructure, cyber warfare, and case studies.

The course delves into different forms of cybercrime, such as cybercrimes targeting computer systems, online scams and frauds, cyberbullying, website defacement, and cybercrime against persons. Participants will also learn about information security, social media scams and frauds, and protecting personal information.

The course highlights cybercrime laws and enforcement, platforms for reporting cybercrime, and the procedures involved in crime reporting. Participants will also gain knowledge about protecting personal information, defining data, data privacy and data security, and data protection principles.

Lastly, the course will cover cyber security management, compliance, and governance, including cyber security plan, policy, and crises management plan, risk assessment, types of security controls, privacy awareness and training, and the national cyber security policy and strategy.

### Course Objectives

1. To understand the importance of cybersecurity in the media industry.
2. To identify the essential components of cybersecurity.
3. To analyze the cybersecurity threat landscape.
4. To evaluate different types of cybercrime.
5. To create a cybersecurity plan and crisis management strategy.

<b>UNIT-I</b>	<b>Introduction to Cybersecurity</b> Understanding the Importance of Cybersecurity in the Media Industry Essential Components of Cybersecurity Overview of the Cybersecurity Threat Landscape Types of Cybercrime Remedial and Mitigation Measures
<b>UNIT-II</b>	<b>Understanding Cybercrime</b> Overview of Cybercrime Common Types of Cybercrime Understanding Data Privacy and Security Overview of E-Commerce and Digital Payments Security Cybercrime Reporting and Cyber Law
<b>UNIT-III</b>	<b>Cybersecurity in the Digital Age</b> Overview of Social Media and its Security Cybersecurity of Digital Devices Tools and Technology for Cybersecurity Cybersecurity Plans and Crisis Management Security Controls
<b>UNIT-IV</b>	<b>Risk-Based Assessment and Compliance</b> Risk-Based Assessment and Audit Overview of Cybersecurity Compliance Best Practices for Cybersecurity Do's and Don'ts for Cybersecurity Platforms for Reporting and Combating Cybercrime

<b>UNIT-V</b>	<b>Practical Hands-On Exercises</b> Installing and Configuring Cybersecurity Tools Implementing Security Controls Conducting a Risk-Based Assessment Responding to a Cybersecurity Incident Developing a Cybersecurity Plan and Crisis Management Strategy
<b>Key Textbooks</b> 1. Goodrich, M. T., Tamassia, R., & Goldwasser, M. H. (2019). Introduction to computer security. Addison-Wesley. 2. Bartol, A., & Bartol, A. (2018). Cybersecurity for Journalists: A Guide to Digital Security for News Professionals. Routledge. 3. Wilcox, P. (2015). Media Cybersecurity: A Journalist's Guide to Digital Security. Routledge.	
<b>References:</b> 1. Graham, B. (2016). Cybersecurity for Journalists: Protecting Yourself and Your Sources in the Digital Age. Focal Press. 2. Clarke, R. (2015). Cyber War: The Next Threat to National Security and What to Do About It. Ecco. 3. Healey, J., & Boulanger, P. (2018). The Cybersecurity Canon: Annotated Books Every Security Professional Should Read. Elsevier. 4. Boulanger, P. (2017). Cybersecurity: A Workplace Strategy. Elsevier.	
<b>Web Resources:</b> 1. National Cyber Security Centre - "Understanding Cyber Security" <a href="https://www.ncsc.gov.uk/information/understanding-cyber-security">https://www.ncsc.gov.uk/information/understanding-cyber-security</a> [Accessed on 2023-02-05] 2. Cybersecurity and Infrastructure Security Agency - "What is Cybersecurity?" <a href="https://www.cisa.gov/what-is-cybersecurity">https://www.cisa.gov/what-is-cybersecurity</a> [Accessed on 2023-02-05] 3. The Cybersecurity and Infrastructure Security Agency (CISA) - "Understanding Cyber Threats" <a href="https://www.cisa.gov/understanding-cyber-threats">https://www.cisa.gov/understanding-cyber-threats</a> [Accessed on 2023-02-05] 4. US-CERT - "Cybersecurity Threats & Trends" <a href="https://www.us-cert.gov/ncas/current-activity">https://www.us-cert.gov/ncas/current-activity</a> [Accessed on 2023-02-05] 5. SANS Institute - "Introduction to Cybersecurity" <a href="https://www.sans.org/security-awareness/resources/introduction-cybersecurity">https://www.sans.org/security-awareness/resources/introduction-cybersecurity</a> [Accessed on 2023-02-05]	
<b>Course Outcomes:</b> 1. Describe the importance of cybersecurity in the media industry. 2. Identify the essential components of cybersecurity. 3. Analyze the cybersecurity threat landscape and assess potential risks. 4. Evaluate different types of cybercrime and their impact on the media industry. 5. Create a comprehensive cybersecurity plan and crisis management strategy.	

### Mapping

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	2	3	3	2	2
CO 2	3	2	2	3	1
CO 3	1	2	3	1	2
CO 4	2	3	3	2	1
CO 5	2	3	3	2	3