ALAGAPPA UNIVERSITY

(Accredited with A+ Grade by NAAC (CGPA: 3.64) in the Third Cycle, Graded as Category-I University and granted autonomy by MHRD-UGC)

DIRECTORATE OF COLLABORATIVE PROGRAMMES

Bachelor of Science in Animation

Regulations and Syllabus

[For those who join the Course in July 2023 and after]

CHOICE BASED CREDIT SYSTEM

Regulations and Syllabus

GENERAL INSTRUCTIONS AND REGULATIONS

B.Sc. Animation conducted by Alagappa University, Karaikudi, Tamil Nadu through its Collaborative Institution.

Applicable to all the candidates admitted from the academic year **2023** onwards.

1. **Eligibility:**

   A pass in the Higher Secondary Examination (HSC) conducted by the Government of Tamil Nadu, or an examination accepted as equivalent thereto by the Syndicate for admission to this programme.

2. **For the Degree:**
   The candidates shall have subsequently undergone the prescribed program of study in an institute for not less than three academic years, passed the examinations prescribed and fulfill such conditions as have been prescribed thereof.

3. **Admission:**
   Admission is based on the marks in the qualifying examination.

4. **Duration of the course:**
   The course shall extend over a period of **Three years** under Semester pattern.

5. **Standard of Passing and Award of Division:**
   a. Students shall have a minimum of 40% of total marks of the University examinations in each subject. The overall passing minimum is 40% both in aggregate of Continuous Internal Assessment and external in each subject.
   b. The minimum marks for passing in each theory / Lab course shall be 40% of the marks prescribed for the paper / lab.
   c. A candidate who secures 40% or more marks but less than 50% of the aggregate marks prescribed for three years taken together, shall be awarded **THIRD CLASS.**
   d. A candidate who secures 50% or more marks but less than 60% of the aggregate marks prescribed for three years taken together, shall be awarded **SECOND CLASS.**
   e. A candidate who secures 60% or more of the aggregate marks prescribed for three years taken together, shall be awarded **FIRST CLASS.**
   f. Only Part-III subjects will be considered for the University academic ranking purpose.
   g. The Practical / Project shall be assessed by the two examiners, by an internal examiner and an external examiner.

6. **Continuous internal Assessment:**
   a. Continuous Internal Assessment for each paper shall be by means of Written Tests, Assignments, Class tests and Seminars
   b. **25 marks** allotted for the Continuous Internal assessment is distributed for Written Test, Assignment, Class test and Seminars.
   c. Internal Assessment - Break-Up of Marks, suggested pattern (Faculty may change the pattern, according to the subject and need)
      a. Two Internal Tests (choose one best out of two) – 50%
      b. Model Test (One model test) – Nil – Should be conducted prior to the University examination. It is a mandate.
      c. Assignments – 25%
      d. Seminar / Case Study – 25%

d. Conduct of the continuous internal assessment shall be the responsibility of the concerned faculty.
e. The continuous internal assessment marks should be submitted to the University at the end of every semester, before the commencement of Semester Exams.
f. The valued answer papers/assignments should be given to the students after the valuation is over and they should be asked to check up and satisfy themselves about the marks they have scored.
g. All mark lists and other records connected with the continuous internal assessments should be in the safe custody of the institution for at least one year after the assessment.

7. Attendance:

Students must have earned 75% of attendance in each course for appearing for the examination.
Students who have earned 74% to 70% of attendance have to apply for condonation in the prescribed form with the prescribed fee.
Students who have earned 69% to 60% of attendance have to apply for condonation on Medical grounds in the prescribed form with the prescribed fee along with the medical certificate / relevant documents.
Students who have below 60% of attendance are not eligible to appear for the examination. They shall re-do the semester(s) after completion of the programme.

8. Examination:

Candidate must complete course duration to appear for the university examination. Examination will be conducted with concurrence of Controller of Examinations as per the Alagappa University regulations. **University may send the representatives as the observer during examinations.** University Examination will be held at the end of the each semester for duration of 3 hours for each subject. Certificate will be issued as per the AU regulations. **Hall ticket will be issued to the students at the end of every semester after submitting "No Dues" certificate to the exam cell, under the aegis of Controller of Examinations of the AU.**

9. Question Paper pattern:

Maximum: 75 Marks Duration: 3Hours

Part A - Short answer questions with no choice	: 10 x 02=20
Part B –Brief answer with either or type	: 05 x 05=25
Part C- Essay – type questions of either / or type	: 03 x 10=30

10. Miscellaneous

a. Every student should possess the prescribed text book for all the subjects, through-out the semester for their theory/lab classes.
b. Every student would be issued an Identity card by the institute/university to identify his/her admission to the course.
c. Every student shall access the library and internet (wi-fi) facilities provided for the self-development and career-development.
d. Every student who successfully completes the course within the stipulated time period would be awarded the degree by the University.

11. Fee structure

Course fee shall be as prescribed by the University and 50% of the course fee should be disbursed to University. Special fees and other fees shall be as prescribed by the Institution and the fees structure must be intimated to the University. Course fees should be only by Demand draft / NEFT and AU has right to revise the fees accordingly.

Semester Pattern

Pattern	Course Fee payment deadline
Semester	Fee must be paid before 10th September of the academic year

12. Other Regulations:

Besides the above, the common regulation of the University shall also be applicable to this programme.

B.Sc. Animation - Programme structure

Sem.	Part	Courses	Sub Code	Subject	T/P	Cr.	Hrs./ Week	Max. Marks		
								Int.	Ext.	Total
I	I	T/OL	83211T/ 11H/11F	Tamil / Other Languages-I	T	3	4	25	75	100
	II	E	83212	General English-I	T	3	4	25	75	100
	III	Core 1	83213	Fundamentals of ART	T	4	5	25	75	100
		Core 2	83214	ART - Practical	P	4	6	25	75	100
		Allied1	83215	Introduction to Visual Communication	T	3	3	25	75	100
		Allied2	83216	Visual Communication - Practical	P	2	4	25	75	100
	IV	SEC	83217	Value Education	T	2	2	25	75	100
				Library			2			
				Total		**21**	**30**	**175**	**525**	**700**
II	I	T/OL	83221T	Tamil / Other Languages-II	T	3	4	25	75	100
	II	E	83222	General English-II	T	3	4	25	75	100
	III	Core 3	83223	Design Study	T	4	5	25	75	100
		Core 4	83224	Design Study- Practical	P	4	6	25	75	100
		Allied 3	83225	Digital Design Techniques	T	3	3	25	75	100
		Allied 4	83226	Digital Design Techniques - Practical	P	2	4	25	75	100
		SEC –II	83227	Environmental Studies	T	2	2	25	75	100
	IV			Library			2			
			83228A/ 83228B	Internship/ Mini Project	I/ PR	2		25	75	100
				Total		**23**	**30**	**200**	**600**	**800**
III	I	T/OL	83231T	Tamil / Other Languages-III	T	3	4	25	75	100
	II	E	83232	General English-III	T	3	4	25	75	100
		Core 5	83233	2D & Experimental Animation	T	3	3	25	75	100
		Core 6	83234	Film Language & Appreciation	T	3	3	25	75	100

	III	Core 7	83235	2D & Experimental Animation - Practical	P	3	5	25	75	100
		Allied 5	83236	Advanced Art for Animation	T	3	3	25	75	100
		Allied 6	83237	Advanced Art for Animation - Practical	P	2	4	25	75	100
	IV	SEC-III	83238	Entrepreneurship	T	2	2	25	75	100
		NME- I	83239A 83239B 83239C	Adipadai Tami	P	2	2	25	75	100
				Advance Tami	T					
				IT Skills for Employment	T					
				Total		**24**	**30**	**225**	**675**	**900**
IV	I	T/OL	83241T	Tamil /Other Languages-IV	T	3	4	25	75	100
	II	E	83242	General English-IV	T	3	4	25	75	100
	III	Core 8	83243	Advanced Animation Techniques	T	4	4	25	75	100
		Core 9	83244	3D Modeling & Texturing	T	4	4	25	75	100
		Core 10	83245	3D Modeling & Texturing- Practical	P	3	5	25	75	100
		Allied 7	83246	Media Production Techniques	T	3	3	25	75	100
		Allied 8	83247	Animation Production Techniques - Practical	P	2	4	25	75	100
			83248	Internship	I	2		25	75	100
	IV	NME-II	83249A 83249B 83249C	1. Adipadai Tami	P	2	2	25	75	100
				2. Advance Tami	T					
				3. Small Business Management /	T					
				4. MOOC'S	T					
				Total		**26**	**30**	**225**	**675**	**900**
V		Core 11	83251	Business of Media	T	4	5	25	75	100
		Core 12	83252	Portfolio & Presentation	T	4	5	25	75	100
		DSE 1	83253A 83253B 83253C	1. Character Design and Illustration - Practical 2. Matte Painting- Practical 3. Digital Graphics Editing- Practical	P	4	4	25	75	100
		DSE 2	83254A 83254B	1. Advanced Modeling and Texturing- Practical 2. Digital Sculpting- Practical	P	4	4	25	75	100

	III		83254C	3. Creature Sculpt- Practical						
		DSE 3	83255A 83255B 83255C	1. Live with CG- Practical 2. Advanced Composition-Practical 3. Advanced Motion Graphics-Practical	P	4	4	25	75	100
		Core 13	83256	Portfolio & Presentation - Practical	P	3	6	25	75	100
				Career Development/Employability Skills			2			
				Total		**23**	**30**	**150**	**450**	**600**
VI	III	Core 14	83261	Production Management	T	4	4	25	75	100
		Core 15	83262	Sonic Dimensions in Animation	T	4	4	25	75	100
		Core 16	83263	Animation Film Making - Practical	P	3	6	25	75	100
		DSE 4	83264A 83264B 83264C	1. Visual Effects for Animation 2. Advanced Video Editing Techniques 3. Advanced Lighting and Rendering	P	4	4	25	75	100
		Core 17	83265A/ 83265B	Project\ Dissertation	PR/D	8	12	25	75	100
				Total		**23**	**30**	**125**	**375**	**500**
Grand Total						**140**	**180**	**1100**	**3300**	**4400**

DSE – Student Choice and it may be conducted by parallel sections.

** NME –Students have to select courses offered by other (Faculty) departments.

*** SLC – Voluntary basis

T – Theory P – Practical

I – Semester					
Core	Course code: 83213	**Fundamentals of Art**	T	Credits: 4	Hours: 5
Objectives	To provide a framework for artists to develop their skills and express themselves through their chosen medium, whether it's painting, drawing, sculpture, photography, digital art, or any other form of visual expression. The main objective of perspective drawing is to accurately represent how objects appear in space relative to the viewer's point of view. To educate students to understand the structure and function of the human body. It involves understanding how colors interact, how they can convey meaning, and how to use them effectively in visual compositions. To acquaint students with the creation of art installations and site-specific artworks that interact with and respond to the physical environment.				
Unit I	Observational Drawing: Develop Visual Perception, Contour Drawing, Value and Shading, Value and Shading, Consistency, Subject Variety.				
Unit II	Perspective Drawing: Understanding Perspective Systems, Creating Depth, Overlapping and Placement, Proportional Accuracy, Converging Lines, Foreshortening				
Unit III	Human Anatomy Study: Figure drawing basics, Essentials of human figure drawing, Proportion and Gesture, Simplifying body parts in to 2D shapes, Relative proportion of various parts of the body .Constructing the front view using basic shapes, Stick figure, Line of action, Balance, Contour drawing(different poses), Cylindrical forms (front and side view), Foreshortening, Overlapping, Quick sketches, Study from live figure, Head study, Male and female, Hand and feet study.				
Unit IV	Color Theory: Understanding the Color Wheel, Color Mixing, Color Properties, Color Harmonies, Color Temperature, Color Psychology, Digital Color Theory, Practical Application.				
Unit V	Environmental Design: Conceptual Depth, Golden Ratio, Perspective, Understanding scale and proportion, Study of different environments, Understanding different materials and their applications, Application of texture and coloring in relation to the relevant subject.				
Reference and Text Books Robertson, S., & Bertling, T. (2013). How to Draw: drawing and sketching objects and environments from your imagination. Design studio Press. Mela, M. M. (2022). Constructive drawing: tools and methods for creating human figures in perspective. Loomis, A. (2021). Figure drawing for all it's worth. Clube de Autores. Hampton, M. (2009). Figure Drawing: Design and Invention. Amazon. com.					
Online Resources https://www.onlineclothingstudy.com/2017/05/production-planning-control-in-apparel.html https://www.amazon.in/Apparel-Manufacturing-Technology-T-Karthik-ebook/dp/B08NTT7ZG8 https://www.youtube.com/watch?v=BRk5WDWCyYM https://www.onlineclothingstudy.com/2021/09/managing-apparel-production-using.html					
Course Outcomes					Knowledge level

CO-1	Creating a visually compelling and authentic representation of the observed subject, while also allowing the artist's individual style and interpretation to shine through.	K3&K6
CO-2	It allows artists to create convincing and immersive visual experiences, making their artworks more dynamic and engaging	K3&K6
CO-3	Evaluating accurately represents the human form in your artwork. This includes capturing both the surface anatomy (muscles, skin, etc.) and the internal structures.	K2&K4
CO-4	Evaluate the develop a strong foundation in color theory, enabling you to use color purposefully and effectively in your creative endeavors and visual communication.	K5
CO-5	Allows artists to connect deeply with the physical world and engage viewers in thought-provoking ways.	K4&K6

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L(1)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)
CO2	L(1)	M(2)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)
CO3	M(2)	M(2))	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	S(3)
CO4	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)	L(1)	M(2)	M(2)	M(2)
CO5	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	M(2)	S(3)
W.AV	**2.2**	**2**	**2.2**	**2**	**2**	**1.8**	**1.6**	**2.4**	**2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low(1)

I-Semester				
Course Code	**Art - Practical**	**P**	**Credits:4**	**Hours:6**
83214				
Objectives	**To develop the ability to transform flat 2D images into visually striking 3D representations using various line-based techniques and shading methods.**			

1. Create a 2D image into 3D sketch using lines, hatching, shading and stippling
2. Create an environment using 2 point perspective and 3 point perspective
3. Apply your facial anatomy and proportion knowledge to draw your own face in three
4. styles using contour line techniques without losing the proportions.
5. Practice mixing the 3 primary colors. Draw or print a color wheel and paint the color wheel.
6. Create a 2D environment using 1 point perspective by implementing given art elements.

Outcomes	Create 3D-like effects in drawings using lines, shading, hatching, and stippling. Understand and apply 2-point and 3-point perspective for realistic environmental drawings. Draw their own face accurately while experimenting with different drawing styles. Mix primary colors to create secondary and tertiary colors effectively. Create a color wheel that demonstrates an understanding of color relationships. Use 1-point perspective to construct 2D scenes with depth and visual appeal.

Reference and Text Books:

Robertson, S., & Bertling, T. (2013). How to Draw: drawing and sketching objects and environments from your imagination. Designstudio Press.
Mela, M. M. (2022). Constructive drawing: tools and methods for creating human figures in perspective. Loomis, A. (2021). Figure drawing for all it's worth. Clube de Autores. Hampton, M. (2009). Figure Drawing: Design and Invention. Amazon. com.

Online Resources

https://www.onlineclothingstudy.com/2017/05/production-planning-control-in-apparel.html
https://www.amazon.in/Apparel-Manufacturing-Technology-T-Karthik-ebook/dp/B08NTT7ZG8
https://www.youtube.com/watch?v=BRk5WDWCyYM
https://www.onlineclothingstudy.com/2021/09/managing-apparel-production-using.html

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.2**	**2.4**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	S(3)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)
CO3	M(2)	M(2)	M(2)	M(2)	S(3)
CO4	M(2)	M(2)	M(2)	M(2)	S(3)
CO5	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2**	**2.2**	**2**	**2.2**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

I – Semester					
Allied	Course code: 83215	**Introduction to Visual Communication**	T	Credits: 3	Hours: 3
Objectives	1. To gain a clear insight into different communication types, methods, and hurdles, enhancing skills for effective interactions in various situations. 2. Understand communication models such as Lass well's, Two-step flow, Schramm's Circular, White's Gatekeeper, and Dance's Helical models, and differentiate technical, semantic, and pragmatic levels of communication. 3. Introduce semiotics, sign analysis, visual communication, sensory perception, and design processes. 4. Explore culture, global media, cross-cultural challenges, and semiotics in communication. 5. Explore Mass Media, its functions, types (Traditional, Print, Electronic, Digital, PR), and media theories (Hypodermic Needle, Uses & Gratification).				
Unit I	**Introduction to Communication:** Defining and Understanding Communication -Communication as a Process, Symbols and Meaning, Importance of Visual Communication -Communication as an expression - Skill and process -Types of communication - Verbal, Non verbal, Intrapersonal, Interpersonal, Group and Team, Mass, Intercultural Communication - Barriers to Communication.				
Unit II	**Understanding Visual Communication:** SMCR Model Theoretical concepts and constructs in Communication models – Lasswell‟s Model - Two-step flow theory – Schramm‟s Circular Model - Whites Gatekeeper theory – Dance‟s Helical model - Levels of Communication: Technical, Semantic, and Pragmatic. Distinguish and explain the key concepts within various communication models and categorize communication levels according to their technical, semantic, and pragmatic dimensions.				
Unit III	Introduction to semiotics – analysis - aspects of signs and symbols denotations and connotations - paradigmatic and syntagmatic aspects of signs. The semiotic landscape: Language and Visual communication - Narrative representation. Principles of Visual - Sensory Perceptions – Colo**r** psychology and theory (some aspects) – Definition - Optical/Visual Illusions etc., Design process –Research - A source of concept - The process of developing ideas, verbal, visual, combination & thematic - Visual thinking - Associative techniques, materials, tools (precision instruments etc.) - Design execution and presentation.				
Unit IV	Communication and Public opinion: nature, meaning and process - Culture and Communication: Relationship Between Culture and Communication - Global Media – multicultural content -impact on Developing countries, Cross-cultural communication: problems and challenges. Communication as a process: Introduction to semiotics – analysis - aspects of signs and symbols denotations and connotations - paradigmatic and syntagmatic aspects of signs. Message – Meaning – Connotation - Denotation Culture/Codes etc.,				
Unit V	Mass Media communication - What is Mass Media – Functions of mass communication - To-Persuade, Inform, Educate, and Entertain; Other functions; Impact & Influence Of Mass Media Types of Mass Media: Traditional media, Print Media, Electronic media, Digital media, Public Relations, Publicity and Propaganda –Theories Of mass media: Hypodermic needle model, uses and a gratification model.				

Reference and Text Books

Bo Bergstrom, "Essentials of Visual Communication", Laurence King Publishing, 2008.
J V Vilanilam, "Mass Communication In India: A Sociological Perspective", SAGE Publications,2005.
Keval.J.Kumar, "Mass Communication in India", Jaico Publishing House, 1999.
Wood, Julia T, "Communication mosaics: An introduction to the field of Communication", Wards worth,2001.
Paul Martin Lester "Visual Communication: Images With Messages", Cengage Learning, 2013.

Online Resources

https://www.britannica.com/topic/mass-communication
https://www.ualberta.ca/art-design/areas-of-study/visual-communication-design.html
https://www.youtube.com/watch?v=ubR8rEgSZSU
https://www.youtube.com/watch?v=2p0NRBaQ4Ic

Course Outcomes		Knowledge level
CO-1	Acquire fluency in the fundamental terminologies and principles related to communication.	**K1**
CO-2	Compare communication models; Lasswell, Two-step flow, Schramm's Circular, White's Gatekeeper, Dance's Helical; differentiate levels	**K3&K6**
CO-3	Apply semiotics, analyze signs, enhance visual communication, and design proficiency	**K4**
CO-4	Master culture-media nexus, address cross-cultural hurdles, apply semiotics effectively	**K5**
CO-5	Achieve a comprehensive understanding of Mass Media roles, types, and theories, discerning their societal impact and implications.	**K2&K6**

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L(1)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	L(1)	M(2)
CO2	L(1)	M(2)	M(2)	M(2)	L(1)	S(3)	M(2)	L(1)	M(2)	M(2)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	M(2)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)
CO5	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**1.8**	**2.6**	**2.4**	**2.2**	**1.6**	**2.2**	**2.4**	**1.8**	**2**	**2.2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M(2)	L(1)	M(2)	M(2)	S(3)
CO2	M(2)	L(1)	L(1)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.2**	**2**	**2**	**2.2**	**2.6**

S–Strong (3), M-Medium (2), L-Low (1)

I-Semester				
Course Code 83216	**Visual Communication- Practical**	**P**	**Credits: 2**	**Hours: 4**
Objectives	**Develop artistic skills and creativity through a series of art tasks, including word representation, theoretical exploration, narrative visualization, cultural preservation, and product promotion.**			

1. Use art to visually represent given words
2. Submit examples for the theories discussed and represent them using a paper collage
3. Visualize and create the given situation using any art medium
4. Create a promotional material for your local festival without losing its cultural values
5. Use PR as a tool to promote a particular product of a company.

Outcomes	Apply various art techniques, including collage, to visually represent abstract concepts and words effectively. Demonstrate an understanding of key art theories by creating collage pieces that embody these theories. Translate given narratives or scenarios into compelling visual artworks using a wide range of art mediums. Create promotional materials for local festivals that capture their cultural values and essence while promoting the event. Utilize public relations as a tool to effectively promote a specific product of a company through visual and textual communication. Showcase their creativity, artistic versatility, and ability to connect art with real-world contexts. Communicate ideas, emotions, and cultural significance through their artwork while meeting specific objectives, whether artistic, promotional, or narrative.

Reference and Text Books:

Bo Bergstrom, “Essentials of Visual Communication”, Laurence King Publishing, 2008.
J V Vilanilam, “Mass Communication In India: A Sociological Perspective”, SAGE Publications, 2005.
Keval.J.Kumar, “Mass Communication in India”, Jaico Publishing House, 1999.
Wood, Julia T,“Communication mosaics: An introduction to the field of Communication”, Wards worth,2001.
Paul Martin Lester “Visual Communication: Images With Messages”,Cengage Learning, 2013.

Online Resources:

https://www.britannica.com/topic/mass-communication
https://www.ualberta.ca/art-design/areas-of-study/visual-communication-design.html

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

II-Semester -Core					
Core	**Course code:** 83223	**Design Study**	**T**	**Credits:**	**Hours:**
				4	**5**
Course Objectives	1. Understand design's role, characteristics, audience, creativity, and experimentation. 2. Grasp fundamental color theory concepts and applications in design and psychology. 3. Comprehend typography principles and graphic types, enhancing design skills. 4. Comprehend and apply space concepts in Animation for effective visual communication. 5. Comprehend grid usage, layout elements, reader engagement, design stages, and the golden mean's incorporation.				
Unit - I	**Design fundamentals :-** significance and purpose of design in human life, Characteristics of a design and designers mind, Target audience, creative vs stereo type solutions, Experimental approach during design challenge.				
Unit - II	**Color theory :-** introduction and basics of color theory, attributes of color, hue, value, saturation, color wheel, color harmony, color schemes, achromatic , monochromatic , polychromatic , warm colors , cool colors , analogous colors , complementary colors , split compliments , incongruous , triads and tetrads , color blending , additive model , subtractive model, color contrast, color psychology.				
Unit - III	**Typography –** typeface anatomy , measurements, typeface classifications, type families, spacing and alignment, selecting appropriate fonts, Graphics:– importance of graphics, types of graphics, vector graphics , raster graphics, image manipulation, format conversion, crop and scale, color manipulation.				
Unit IV	**Understanding space in Animation:-** Understanding and using negative space, Creating designs that utilize white and non-white space, Understanding types of balance, Experimenting with symmetrical and asymmetrical designs, Experimenting with weight in order to create more dynamic designs.				
Unit-V	**Grids and layouts:-** Role of grids, grid system and templates, important parts of a page layout, capturing readers attention , stages of design process, Incorporating the golden mean into your designs.				
• **Reference and Text Books:** • Craven, Roy C, "Indian Art", 2nd revised edition, Thames and Hudson, 1997 • E Lee, Sherman, "A history of Far Eastern art" 4th revised edition, Thames & Hudson Ltd, • 1989 • Harle, JC, "The Art & Architecture of the Indian Subcontinent", 2nd Revised edition edition, • Heinrich Robert Zimmer and Joseph Campbell, Myths and Symbols in Indian Art and • Civilization (Princeton Classics), 2017 Yale University Press, 1994 • Tomory, Edith, "A History of Fine Arts in India and the West", Orient BlackSwan, 1989					
Online Resources **https://99designs.com/blog/tips/graphic-design-basics/** **https://www.youtube.com/watch?v=YqQx75OPRa0** **https://www.youtube.com/watch?v=65WjYDEzi88** **https://www.coursera.org/learn/fundamentals-of-graphic-design**					

Course Outcome

CO-1	Develop awareness of design's purpose, audience relevance, creative divergence, and experimental exploration.	**K1**
CO-2	Master foundational color theory principles, harmonies, and psychological implications for effective design.	**K3&K6**
CO-3	Gain fundamental Animation skills, including manipulation and conversion.	**K4**

CO-4	Develop the ability to utilize space effectively in Animation projects.	**K5**
CO-5	Develop skills in layout design, capturing attention, and applying design principles.	**K2&K6**

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

II – Semester - Core					
Core	**Course Code:** 83224	**Design Study - Practical**	**P**	**Credits:**	**Hours:**
				4	**6**
Objectives	**Enhance design skills and knowledge through a series of creative tasks.**				

1. Create a Color schemes, Colour perception and Colour psychology
2. Create a typography in a layout
3. Create a piece of work based on the brief given in the class
4. Create a logo for the daily consumer products using design principles.
5. Create a tint and shade with blending techniques in a drawing sheet.
6. Create a new font.
7. Create a poster for a given topic.
8. Create a proper BG layout for the given prompt.

Outcomes	➢ **Understand and apply color theory, perception, and psychology effectively in design.** ➢ **Use typography to create visually pleasing and clear layouts.** ➢ **Interpret design briefs and execute projects accordingly.** ➢ **Create memorable and effective logos based on design principles.** ➢ **Master blending techniques for shading and toning in drawings.** ➢ **Develop custom fonts suitable for various design projects.** ➢ **Design visually compelling posters that convey messages effectively.** ➢ **Create background layouts that complement and enhance content presentation.**

Reference and Text Books:

1. Carter, David, E, "The Big Book of Design Ideas", Collins Design, 2005.
2. Davis, Graham, "The Designer's Tool Kit 1000 Colors", Chronicle Books, 2007.
3. Eisman, Leatrice, " Pantone Guide to Communicating With Color", Grafix Press, 2000.
4. Fraser, Tom, "The Complete Guide to Colour. Ilex", 2004.
5. Lipton, Ronnie, "Designing Across Cultures", How Design Books, 2002.
6. Led Well, William, "Universal Principles of Design", Rock Fort Publisher, 2003.
7. Pipes, Alan, "Foundation of Art and Design", Laurence King, 2008.

Online Resources

https://99designs.com/blog/tips/graphic-design-basics/
https://www.youtube.com/watch?v=YqQx75OPRa0
https://www.youtube.com/watch?v=65WjYDEzi88
https://www.coursera.org/learn/fundamentals-of-graphic-design

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	S(3)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	S(3)	S(3)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

II-Semester -Allied					
Allied	**Course code:** 83225	**Digital Design Techniques**	**T**	**Credits:**	**Hours:**
				3	**3**
Course Objectives	1. Develop deep digital illustration expertise - concepts, tools, media, transitioning; mastering bitmap, vector, software, resolution. 2. Attain full grasp of image processing - analog vs. digital, image nature, sharpening, restoration, bit rates, processing types overview. 3. Build a solid base in digital art - software exploration, style appreciation, anti-aliasing, layer use, raster/vector differences. 4. Delve into composition, sequential art, conceptualization; analyze contemporary trends; grasp digital painting's expressive advantages.. 5. Develop portfolio curation, commercial artwork prep, time management, professional presentation, historical Animation overview skills.				
Unit - I	**Introduction to digital illustration:-** Bitmap and vectors - Types of file formats - Software overview, Appropriate use of media and techniques - Paper to digital illustration - Understanding resolutions.				
Unit - II	**Introduction to image processing:** Analog and digital processing - what is a digital image - Image Sharpening and restoration - Understanding bitrates - Brief types on image processing.				
Unit - III	**Introduction to digital tools:-** Understanding the major softwares available - Different digital art styles, Understanding anti-aliasing- Understanding different types of layer - Learning the difference between raster tools and vector tools.				
Unit IV	**Principles of composition and design :-** Illustration methods to sequential storytelling - Concept using visual language - Artistic directions in contemporary illustration - Advantages of digital painting.				
Unit-V	**Professional practice -** Displaying a consistently styled portfolio of work using various presentation formats - Create and prepare art for commercial reproduction - Time management - Artwork presented professionally - Brief history of Animation.				

- **Reference and Text Books:**
- Tinku Acharya, "Image Processing: Principles and Applications", Wiley-interscience, 2005.
- Caplin, S, "The Complete Guide to Digital Illustration (Complete Guides)", ILEX, 2003.
- Christian, J, "Introduction to Image Processing and Analysis", CRC Press, 2007.
- Zeegen, L, "Secrets of Digital Illustration", Rotovision, 2007.
- Zeegen, L, "Complete Digital Illustration: A Master Class In Image-making", Rockport
- Publishers, 2010.

Online Resources

Image processing principles and applications

Course Outcome

CO-1	What are the skills to effectively use digital illustration software, apply diverse techniques, and choose appropriate media to create visually engaging digital artworks,while understanding resolution concepts and ethical considerations.	**K1**
CO-2	Develop understanding of the distinctions between an a log and digital processing, a clear grasp of what constitutes a digital image and its essential properties, proficiency in employing image sharpening and restoration techniques for quality enhancement	**K3&K6**
CO-3	Demonstrate a comprehensive command over major digital art software, exhibit an understanding of diverse digital art styles, apply anti-aliasing techniques to achieve polished visual outcomes, adeptly utilize various layer types to enhance composition, and distinguish between raster and vector tools for effective creative decision-making	**K4**
CO-4	Apply principles of composition and design to craft visually impactful illustrations, effectively employ diverse methods for sequential storytelling, translate abstract concepts into visually compelling artworks, critically analyze and contextualize various artistic directions within contemporary illustration, and skill fully leverage the advantages of digital painting as a versatile medium	**K5**
CO-5	Demonstrate the capability to present artwork in a polished and professional manner, both in digital and physical contexts.	**K2&K6**

Course Outcome VS Programme Outcomes

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

II-Semester -Allied					
Allied	**Course Code:** 83226	**Digital Design Techniques - Practical**	**P**	**Credits:**	**Hours:**
				2	**4**
Objectives	**Develop a comprehensive set of design skills and competencies through a series of creative and technical tasks.**				

1. Create a piece of work based on the brief given in the class
2. Create a vector artwork.
3. Restore the given images.
4. Create a concept art in raster based software and the reproduce the same in any vector
5. based software. Also, analyze and list out the differences.
6. Create a frame by frame animation in a raster based software.
7. Create and prepare art for commercial reproduction.

Outcomes	**Upon completing these tasks, students will be able to:** ➢ **Interpret design briefs and effectively execute design projects, meeting specific criteria and objectives.** ➢ **Master vector graphics software to create scalable and precise digital artwork suitable for various applications.** ➢ **Acquire image restoration skills to enhance and repair damaged or deteriorated images, preserving their visual quality.** ➢ **Create concept art in raster-based software and reproduce it accurately in vector-based software, understanding the differences in file formats and editability.** ➢ **Develop proficiency in frame-by-frame animation using raster graphics software, with a focus on timing and fluidity.** ➢ **Prepare art for commercial reproduction, considering the requirements and constraints of commercial printing and production.** ➢ **Apply knowledge of design principles, color theory, and typography effectively in all design tasks.** ➢ **Demonstrate creativity, attention to detail, and the ability to adapt design techniques to various media and contexts.**

Reference and Text Books:

Tinku Acharya, “Image Processing: Principles and Applications”, Wiley-interscience, 2005.
Caplin, S, “The Complete Guide to Digital Illustration (Complete Guides)”, ILEX, 2003.
Christian, J, “Introduction to Image Processing and Analysis”, CRC Press, 2007.
Zeegen, L, “Secrets of Digital Illustration”, Rotovision, 2007.
Zeegen, L, “Complete Digital Illustration: A Master Class In Image-making”, Rockport Publishers, 2010.

Online Resources

Image processing principles and applications

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

<table>
<tr><th colspan="6">III – Semester-Core</th></tr>
<tr><td rowspan="2">Core</td><td rowspan="2">Course code:
83233</td><td rowspan="2">2D & Experimental Animation</td><td rowspan="2">T</td><td>Credits:</td><td>Hours:</td></tr>
<tr><td>3</td><td>3</td></tr>
<tr><td>Course Objectives</td><td colspan="5">1. Explore animation history, develop animator skills, and analyze iconic works.
2. Trace tech evolution, learn animation types/methods, and explore data processing.
3. Compare animation to other mediums, explore traditional and experimental methods, and create compelling animated shorts.
4. Master acting, attribute analysis, body language, essential poses, anthropomorphism, and Uncanny Valley in animation.
5. Grasp core animation principles through film analysis and application: squash/stretch, anticipation, staging, follow-through, slow in/out, arc, secondary action, timing, exaggeration, solid drawing, and appeal.</td></tr>
<tr><td>Unit - I</td><td colspan="5">Introduction to animation: History of animation - Role of an animator in media production Mediums and platforms of application - Underlying skills - Importance of communication in production settings - Legends of animation and their masterpieces</td></tr>
<tr><td>Unit - II</td><td colspan="5">Technology of animation: Evolution of animations technology, Types of animations and methods - Cell animation, Motion graphics, Flip book, Cut-out animation, Claymation, 3D camera animation, Motion capture, Experimental animation, Roto animation etc... , Next-gen animation techniques, Data processing of digital animation</td></tr>
<tr><td>Unit - III</td><td colspan="5">Animation as storytelling medium : Animation vs other storytelling mediums, Traditional vs Experimental storytelling methods, Generation stories and concepts for animated short films, Interest curve, creative use of cliches</td></tr>
<tr><td>Unit IV</td><td colspan="5">Defining characters: Acting for animation, understanding character attributes from their roles, Body language and expressions, Identifying essential poses of the actions, communicating essential actions through both simple and complex animations, developing anthropomorphic characters, Use of uncanny Valley.</td></tr>
<tr><td>Unit-V</td><td colspan="5">Principles of animation: Understand underlying principles of animation Case study of animated films - Stretch and squash, anticipation, staging, straight ahead and pose to pose actions, Follow through and overlapping actions, slow in and slow out, Arc, secondary action, Timing, Exaggeration, Solid drawing, Appeal `</td></tr>
<tr><td colspan="6">● Reference and Text Books:
1. Ken A, Priebe, “The Art of Stop Motion Animation, Thomson course and Technology”, PTR, 2006.
2. Kit Laybourne, “The Animation Book”, Three Rivers press, 1998.
3. Mary Murphy, “Beginner's Guide to Animation, Everything You Need to Know to Get Started”, Crown Publishing Group, 2008.
4. Preston Blair, “Cartoon Animation”, Walter Foster, 1994.
5. Richard Williams, “The Animator‘s Survival Kit”, Faber and Faber, 2001.
6. Whitaker and Hales, “Timing for animation”, Focal press, 2007</td></tr>
<tr><td colspan="6">Online Resources
https://openlibrary.org/books/OL685882M/The_animation_book
https://www.google.co.in/books/edition/Timing_for_Animation/yuoWciWaZXQC?hl=en&gbpv=1&dq=Whitaker+and+Hales,+%E2%80%9CTiming+for+animation%E2%80%9D,+Focal+press,+2007&printsec=frontcover</td></tr>
</table>

Course Outcome

CO-1	Develop animation expertise, explore history, master media platforms, and enhance communication.	**K1**
CO-2	Acquire animation tech knowledge, master diverse techniques, explore cutting-edge methods, and excel in digital data processing.	**K3&K6**
CO-3	Harness animation for storytelling, compare mediums, craft innovative narratives, generate short film concepts, refine interest curves, and creatively employ clichés.	**K4**
CO-4	Master character definition, act for animation, decipher attributes, express through body language, convey actions, create anthropomorphic characters, and navigate the uncanny valley.	**K5**
CO-5	Grasp animation principles through film analysis, apply fundamentals: stretch, anticipation, staging, follow-through, timing, and more.	**K2&K6**

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

III-Semester					
Core	**Course code:** 83234	**Film language & appreciation**	**T**	**Credits: 3**	**Hours: 3**
Course Objectives	1. To develop in-depth knowledge in film characteristics, perception, theory, semiotics, language, and major film movements. 2. Understand film form, principles, narrative structures, genres, and visual storytelling significance. 3. Understand the importance of planning and pre-production phases in filmmaking. 4. Understand the cinematographic elements including camera angles, movement, composition, lighting, and equipment. 5. Understand film editing dimensions, post-production processes, sound, visual effects, and distribution.				
Unit - I	**Film as medium:** Characteristics – Film Perception; Levels of Understanding – Film theory and semiotics-formalism and neo formalism- Film language – Film and psycho-analysis –film and cultural identity; hermeneutics, reception aesthetics and film interpretation - French Impressionism and Surrealism (1917-1930) - Soviet Montage (1924- 1930) -The Classical Hollywood Cinema after the coming of sound -The French New wave (1959-1964)- Cinema in the third world - Contemporary trends.				
Unit - II	The concept of form in films, principles of film, narrative form, non-narrative form, dividing a film into parts and Genres (language, style, grammar, syntax.) Style as a formal system, narrative unity, ambiguity, a non-classical approach to narrative films, space and time, disunity, form, style and ideology - Mise-en-scene-Realism, the power of mise-en-scene, aspects of mise- en-scene, space and time, narrative functions of mise-en-scene. Cinematographer properties- the photographic image, framing, duration of the image, montage and long take.				
Unit - III	Planning, pre-production- Concept / Story development, storyboarding, Scripting / Screenplay writing, Budgeting, Casting, Locations, Financing. Production – Shooting, Direction - Writing one line script – Scene and shots split up – Storyboard – defining the characters – Types of character – Planning Budget - Scheduling – Costume.				
Unit IV	Cinematography - Camera angle – Camera Movement – Low Angle – High Angle – Close up – Ex- close up - Mid long shot – Ex Mid long shot – Long shot – Ex-Long shot – Camera panning (left to right) (right to left) Camera tilt up – Camera tilt down. Camera blocking – Shot Composition – (Rules – 180 degree) – (30 degree rule) - Aesthetics – Continuities – The rule of thirds – Clapboard - Editing report – Preview monitoring – Understanding lighting – 3 point lighting. Camera lenses – Camera Aperture – Camera Shutter Speed - Wide angle lenses – Tele lenses – Filters – DSLR digital cameras – Film camera – Different types of storage format – Depth of field – Deep focus.				
Unit-V	Editing dimensions of film editing, Post- Production Process - Rhythm cut - Rough Editing (Rough Cut) - continuity editing - Final Editing - Sound- the powers of sound - functions of film sound. Dubbing - Music Posting, Re Recording and Mixing - Mixing - Mastering - Adding Visual Effects - Adding Sound effects (special effects) -Special effects, Graphics & Final mixing - Distribution & Exhibition. Importing Media Files into Non Linear Editing - Final Output - Video Compression for Export				

- **Reference and Text Books:**
- Blain Brown, "Cinematography: Theory and Practice: Image Making for Cinematographers and Directors", Focal Press, 2002.
- David Bordwell and Kristin Thompson, "Film Art", McGraw-Hill Education, 10 edition, 2012.
- Gustavo Mercado, "The Filmmaker's Eye: Learning (and Breaking) the Rules of Cinematic Composition", Routledge, 1 edition, 2010.
- Kris Malkiewicz, "Film Lighting: Talks with Hollywood's Cinematographers and Gaffers", Touchstone, Reissue edition, 1992.
- Steven Ascher, "The Filmmaker's Handbook: A Comprehensive Guide for the Digital Age", Plume, Revised, Updated edition, 2012.

Online Resources
https://www.academia.edu/29047054/THE_FILMMAKERS_HANDBOOK_Completely_Revised_and_Updated_by_Steven_Ascher_With_Contributions_by_David_Leitner_A_COMPREHENSIVE_GUIDE_FOR_THE_DIGITAL_AGE_FOURTH_EDITION

Course Outcome

CO-1	Describe a comprehensive understanding of film theory, history, and cultural impact.	**K1**
CO-2	Develop and analyze films, differentiate narrative from non-narrative forms, break down films for analysis, recognize film genres, and grasp how filmmakers use style in storytelling.	**K3&K6**
CO-3	Understand the importance of planning and pre-production phases in filmmaking.	**K4**
CO-4	Acquire a comprehensive understanding of cinematographic techniques and equipment.	**K5**
CO-5	Develop a comprehensive understanding of film editing, post-production processes, and distribution.	**K2&K6**

On what level it correlated with COs & POs -based on that we have to give marks

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

III-Semester -Core					
Core	**Course code:** 83235	**2D & Experimental Animation - Practical**	**P**	**Credits:**	**Hours:**
				3	**5**
Objectives	**Develop students' creative and technical skills in animation, emphasizing ideation, medium selection, pre-production planning, and animation principles while effectively conveying emotions and storytelling through various projects and exercises.**				

Students are required to

1. Using Brainstorming mind tools generates 20 different ideas
2. Critique and write about the choice of the medium available and state example for each
3. Develop pre production works as required for the given project
4. Develop a simple project to solve a given problem
5. Submit an experimental animation using different art mediums
6. Create a flip book animation
7. Create a loop animation to convey a story
8. Prepare audio choices or ideas for an animated acting test, between 7 and 15 seconds in length. Animate one shot, focusing on the best choices for maximizing appeal and entertainment. . Be prepared to discuss acting and situation possibilities for the shot.
9. Apply the Principles of Animation and animate the following task
   A person is happily eating his ice cream but accidentally dropped it. (with Ice Cream prop.)
10. Consider his expressions, postures, reactions, before and after the incident.

Outcomes

- ➢ Brainstorm Ideas: Come up with 20 different creative ideas.
- ➢ Choose a Medium: Decide how you want to create your animation (e.g., hand-drawn, computer-generated, stop-motion).
- ➢ Plan Your Project: Make sketches, write a script, and design characters for your chosen idea.
- ➢ Create a Simple Animation: Produce a short animation that tells a story or solves a problem.
- ➢ Experiment with Different Art Styles: Try different ways of creating art in your animation.
- ➢ Make a FlipBook Animation: Create a short animation like a flip book.
- ➢ Loop Animation with a Story: Create a short, repeating animation that tells a story.
- ➢ Plan Sound: Think about the sounds you want to use for a short animation scene and discuss the character's actions.
- ➢ Apply Animation Principles: Animate a character enjoying ice cream but dropping it. Show their emotions and reactions.
- ➢ Explain Your Work: Write about your animation, describing how you made it and what it means.

Reference and Text Books:

- Ken A, Priebe, "The Art of Stop Motion Animation, Thomson course and Technology", PTR, 2006.
- Kit Laybourne, "The Animation Book", Three Rivers press, 1998.
- Mary Murphy, "Beginner's Guide to Animation, Everything You Need to Know to Get Started", Crown Publishing Group, 2008.
- Preston Blair, "Cartoon Animation", Walter Foster, 1994.
- Richard Williams, "The Animator's Survival Kit", Faber and Faber, 2001.
- Whitaker and Hales, "Timing for animation", Focal press, 2007

Online Resources

https://openlibrary.org/books/OL685882M/The_animation_book

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

III – Semester- Allied					
Allied	**Course code:** 83236	**Advanced Art for Animation**	**T**	**Credits:** **3**	**Hours:** **3**
Objectives	1. To develop a strong foundation in drawing, anatomy, and perspective, understanding the principles of animation, such as squash and stretch, timing, and anticipation. 2. Acquire skills in storytelling and visual communication through storyboarding. Learn to convey emotions, pacing, and composition through your storyboards. 3. Develop a unique and appealing character design style. Ensure characters are easily recognizable and can convey emotions effectively. 4. Generate concept art to explore visual ideas before production. Use concept art to guide the development of characters, props, and environments. 5. Master the art of lip syncing to synchronize character dialogue with mouth movements. Understand phonetics and how different sounds influence mouth shapes. 6. Develop skills in creating captivating background art that complements the animation. Understand the principles of perspective and atmospheric perspective for depth 7. Experiment with color theory to enhance the mood and atmosphere of your animations. Learn to use lighting effectively to create depth and focus. 8. Explore effects animation, including elements like water, fire, smoke, and magical effects. Understand the principles of timing and movement for various types of effects. 9. Understand the collaborative nature of animation production. Learn to work efficiently with other artists, animators, and professionals in a team environment. 10. Develop a unique and recognizable animation style. Stay innovative by experimenting with new techniques and styles.				
Unit I	**Animation Fundamentals**: Understanding animation principles such as timing, spacing, weight, and anticipation. Observing how objects move in the real world to create convincing animation physics and dynamics.				
Unit II	**Anatomy:** Understanding of human and animal anatomy. This knowledge is essential for character design and creating realistic movements in animation.				
Unit III	**Gesture and Acting:** Practicing on capturing gestures and expressions that convey personality and emotion in your characters..				
Unit IV	**Character Design**: Practicing character design, creating unique and appealing characters that fit various animation styles and narratives.				
Unit V	**Learn Storytelling:** Understand storytelling techniques, storyboarding, and how to convey emotion and narrative through visual element**s.**				

Reference and Text Books:

Woods, S. (2002). THE ANIMATOR'S SURVIVAL KIT. Film Ireland, (85), 28.
Blair, P. (2020). Cartoon Animation with Preston Blair, Revised Edition!: Learn techniques for drawing and animating cartoon characters. Walter Foster Publishing.
Hoberman, J. (1982). Disney Animation: The Illusion of Life. Film Comment, 18(1), 67.
Goldberg, E. (2008). Character Animation Crash Course! (p. 218). Los Angeles, CA: Silman-James Press.
Hooks, E. (2017). Acting for animators. Taylor & Francis.

Online Resources

https://www.animationmentor.com/resources/
https://www.youtube.com/watch?v=dpwgmOGJQIw
https://animatorsresourcekit.blog/

Course Outcome

CO-1	Develop animation expertise, explore history, master media platforms, and enhance communication.	**K1**
CO-2	Acquire animation tech knowledge, master diverse techniques, explore cutting-edge methods, and excel in digital data processing.	**K3&K6**
CO-3	Harness animation for storytelling, compare mediums, craft innovative narratives, generate short film concepts, refine interest curves, and creatively employ clichés.	**K4**
CO-4	Master character definition, act for animation, decipher attributes, express through body language, convey actions, create anthropomorphic characters, and navigate the uncanny valley.	**K5**
CO-5	Grasp animation principles through film analysis, apply fundamentals: stretch, anticipation, staging, follow-through, timing, and more.	**K2&K6**

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

III – Semester-Allied					
Allied	**Course code:** 83237	**Advanced Art for Animation - Practical**	**P**	**Credits: 2**	**Hours: 4**
Objectives	**Develop students' creative and technical skills in animation, emphasizing ideation, medium selection, pre-production planning, and animation principles while effectively conveying emotions and storytelling through various projects and exercises.**				

1. Brainstorm ideas
2. Thumb nailing and storyboarding
3. Create character(s)
4. Adding personality to the character(s)
5. Creating a character model sheet
6. Creating a prop model sheet (if required)
7. Creating the appropriate environment
8. Creating backgrounds in 2D with color
9. Adding appropriate sound and music
10. Compositing all the elements together.

Outcomes	➢ Brainstorm Ideas: Come up with 20 different creative ideas. ➢ Choose a Medium: Decide how you want to create your animation (e.g., hand-drawn, computer-generated, stop-motion). ➢ Plan Your Project: Make sketches, write a script, and design characters for your chosen idea. ➢ Create a Simple Animation: Produce a short animation that tells a story or solves a problem. ➢ Experiment with Different Art Styles: Try different ways of creating art in your animation. ➢ Make a Flip Book Animation: Create a short animation like a flip book. ➢ Loop Animation with a Story: Create a short, repeating animation that tells a story. ➢ Plan Sound: Think about the sounds you want to use for a short animation scene and discuss the character's actions. ➢ Apply Animation Principles: Animate a character enjoying ice cream but dropping it. Show their emotions and reactions. ➢ Explain Your Work: Write about your animation, describing how you made it and what it means.

Reference and Text Books:

- Woods, S. (2002). THE ANIMATOR'S SURVIVAL KIT. Film Ireland, (85), 28.
- Blair, P. (2020). Cartoon Animation with Preston Blair, Revised Edition!: Learn techniques for drawing and animating cartoon characters. Walter Foster Publishing.
- Hoberman, J. (1982). Disney Animation: The Illusion of Life. Film Comment, 18(1), 67.
- Goldberg, E. (2008). Character Animation Crash Course! (p. 218). Los Angeles, CA: Silman-James Press.
- Hooks, E. (2017). Acting for animators. Taylor & Francis.
- Ken A, Priebe, "The Art of Stop Motion Animation, Thomson course and Technology", PTR, 2006.
- Kit Laybourne, "The Animation Book", Three Rivers press, 1998.
- Mary Murphy, "Beginner's Guide to Animation, Everything You Need to Know to Get Started", Crown Publishing Group, 2008.
- Preston Blair, "Cartoon Animation", Walter Foster, 1994.
- Richard Williams, "The Animator's Survival Kit", Faber and Faber, 2001.
- Whitaker and Hales, "Timing for animation", Focal press, 2007

Online Resources

https://openlibrary.org/books/OL685882M/The_animation_book

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

IV-Semester -Core					
Core	**Course code:** 83243	**Advanced Animation Techniques**	**T**	**Credits:**	**Hours:**
				4	**4**
Course Objectives	1. To develop rigging principles and techniques for objects, vehicles, robots, and mechanical components. 2. Understand character rigging from joint setup to facial expressions and attribute control. 3. To develop 3D animation principles, Maya tools, and animation fundamentals. 4. character animation: Rig study, posing, body mechanics, expressions, cycles, complexity 5. Mastering lip-sync, emotion conveyance, and storytelling through character animation.				
Unit - I	Introduction to Rigging - Rigging Tools & Techniques – Parenting – Grouping – Set Driven Key– Constraints – Defamers – Lamp Rigging –Rigging for Mechanical objects-vehicle rigging, Robot rigging, object rig.				
Unit - II	Character Rigging: Character Study – Delete history - Joint Setup – Naming Conversion -Orientation – Mirror joints – joint parenting – arm three joint setup – IK handle tool – IKFK Method - Constraints – Control Parent – leg setup – spine setup – Neck/Head setup – Arm and Leg Stretch - Painting skin weights - mirroring smooth skin weights - expression editor – facialrig - adding expression - adding attributes – Global control.				
Unit - III	Introduction to 3D animation: Animation UI tool and option in Maya, Graph editor, Study of animation squash and stretch – anticipation – staging – straight ahead and pose to pose – follow through and overlapping action – slow out and slow in – arcs – secondary action – timing – exaggeration using bouncing ball				
Unit IV	Character Animation: Introduction to Character and studying the rig - Posing and Gestures - Weight Shifting and Body Mechanics, Facial expressions - Animation for games-Walk Cycles- Run cycles, action cycles, Handling complex scenes.				
Unit-V	understanding lip-sync for realistic dialogue, conveying emotions through nuanced movements, and storytelling through fluid motion. These skills are essential units in achieving lifelike, engaging animations.				

- **Reference and Text Books:**
- Blain Brown, “Cinematography: Theory and Practice: Image Making for Cinematographers and Directors”, Focal Press, 2002.
- David Bordwell and Kristin Thompson, “Film Art”, McGraw-Hill Education, 10 edition, 2012.
- Gustavo Mercado, “The Filmmaker’s Eye: Learning (and Breaking) the Rules of Cinematic Composition”, Routledge, 1 edition, 2010.
- Kris Malkiewicz, “Film Lighting: Talks with Hollywood’s Cinematographers and Gaffers”, Touchstone, Reissue edition, 1992.
- Steven Ascher, “The Filmmaker's Handbook: A Comprehensive Guide for the Digital Age”, Plume, Revised, Updated edition, 2012.

Online Resources: https://animationresources.org/
https://www.animationmentor.com/workshops/maya-workshop-animation-basics
https://www.11secondclub.com/
//www.riggingdojo.com

Course Outcome

CO-1	Describe proficiently rig various objects, utilizing parenting, constraints, and set-driven keys effectively.	**K1**
CO-2	Develop the character rigging techniques, including joint setup, IK/FK methods, constraints, and facial rigging.	**K3&K6**
CO-3	grasp 3D animation techniques, including timing, arcs, squash and stretch, and more.	**K4**
CO-4	Master character rigging, posing, gestures, weight shifting, and body mechanics.	**K5**
CO-5	Achieve lifelike animations with lip-sync, emotions, storytelling, and fluidity.	**K2&K6**

On what level it correlated with COs & POs -based on that we have to give marks

Course Outcome VS Programme Outcomes

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

IV-Semester -Core					
Core	**Course code:** 83244	**3D Modeling & Texturing**	**T**	**Credits:**	**Hours:**
				4	**4**
Course Objectives	1. To develop proficiency in productive modeling using Maya, encompassing different stages, techniques, and applications. 2. Explore diverse modeling methods and their applications in character, environment, and object modeling. 3. Master the fundamentals of lighting and color, both natural and artificial, and their practical applications. 4. Understand texture creation, unwrapping, and shader development for realistic visual effects. 5. Master digital lighting and rendering techniques using Maya, covering various aspects of lighting and rendering.				
Unit - I	**Maya Modeling** – Introduction to predictive modeling, Stages of modeling- Blocking, Shaping and Detailing, Modeling animation versus game objects, understanding techniques to achieve complex shapes, Uniform span flow importance, Using Automated tools for faster results, Sculpt geometry, Deformers, view port optimization.				
Unit - II	**Modeling in action** – Character modeling, Environment modeling, Objects modeling. Modular modeling techniques, Arranging model sheets in view port, understanding topology in deformation areas, Following body mechanics, Texture application. Creating multiple outputs with the same mesh.				
Unit - III	**Practical light and color -** Lighting basics, Natural light, Artificial light, Bounce light, Shadows, Light and color relation, Surface types and their response to Light, Understanding light and color concept through life.				
Unit IV	**Texture- Unwrapping techniques –** UV layout optimization, Handmade texture effects, Image based texture, Texture pipeline, Shader development in Hypershade, Generating essential maps, Diffuse map, Bump map, Speculator map.				
Unit-V	**Digital Lighting and rendering –** Maya lights and their attributes, -3 point lighting – Interior / Exterior Lighting Rendering, Introduction to render global, batch render - Setting up render layers and passes - Compositing in Photoshop.				

- **Reference and Text Books:**
- Eric Allen & Kelly L Murdock, Body Language: Advanced 3D Character Rigging, Wiley, 2008
- John Halas, "Timing for Animation", Elsevier, Focal press, 2009.
- Jason Osiapa, "Stop Staring", second edition, Wiley, Sybex, 2007.
- Kyle Clark, "Inspired 3D character animation", Premier Press, 2002.
- Peter Ratner, "Mastering 3d Animation", second edition, Allworth Press, 2004.
- Richard Williams, "The Animator's Survival Kit", Faber and Fabe, 2009.

Online Resources

https://www.sdcpublications.com/Textbooks/Autodesk-Maya/291/

https://www.youtube.com/@Autodesk_Maya

https://help.autodesk.com/view/MAYAUL/2023/ENU/

Course Outcome

CO-1	Attain proficiency in productive modeling techniques using Maya for diverse applications.	**K1**
CO-2	Develop proficiency in diverse modeling techniques and their applications for various elements.	**K3&K6**
CO-3	Develop a solid understanding of lighting and color principles and their practical implications.	**K4**
CO-4	Develop skills in creating textures, optimizing UV layouts, and shader development.	**K5**
CO-5	Master digital lighting and rendering techniques using Maya, covering various aspects of lighting and rendering.	**K2&K6**

On what level it correlated with COs & POs -based on that we have to give marks

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

IV-Semester -Core					
Core	**Course code:** 83245	**3D Modeling & Texturing - Practical**	**P**	**Credits:**	**Hours:**
				3	**5**
Objectives	**To Develop students with the essential skills to create 3D models, apply textures and lighting, and design basic environments for various creative and professional purposes.**				

1. Create a props model.
2. Create a vehicle model
3. Create an exterior set model.
4. Create a Character model.
5. Create a props model with texture & lighting.
6. Create a vehicle model with texture & lighting.
7. Create an exterior set model with texture & lighting.
8. Create a Character model with texture & lighting.
9. Create a house out of a primitive shape
10. Model an environment in 3D.
11. Light up the environment.
12. Unwrap UVs and texture the environment built.
13. Create a walkthrough and render the built environment.

Outcomes

- ➢ Props Model: Create 3D models of various objects like chairs, tables, or tools.
- ➢ Vehicle Model: Design a 3D model of a vehicle, like a car or bike.
- ➢ Exterior Set Model: Construct a 3D outdoor scene with elements like trees, buildings, and roads.
- ➢ Character Model: Develop a 3D character, such as a person or an animal.
- ➢ Props Model with Texture & Lighting: Apply textures to props and add lighting for realism.
- ➢ Vehicle Model with Texture & Lighting: Texture the vehicle model and add lighting effects.
- ➢ Exterior Set Model with Texture & Lighting: Texture outdoor elements and use lighting for ambiance.
- ➢ Character Model with Texture & Lighting: Texture the character and use lighting to highlight details.
- ➢ House from Primitive Shape: Create a basic 3D house using simple shapes.
- ➢ 3D Environment Modeling: Build a complete 3D scene with all elements.
- ➢ Lighting the Environment: Add suitable lighting to the 3D environment.
- ➢ UV Unwrapping and Texturing: Prepare models for textures and apply them.
- ➢ Create a Walkthrough: Develop a simple walkthrough or animation.
- ➢ Render the Environment: Generate basic 3D renders of your environment.
- ➢ Outcome: Your project should include simple 3D models, basic texturing, and lighting, with a basic walkthrough or render.

Reference and Text Books:

- Eric Allen & Kelly L Murdock, Body Language: Advanced 3D Character Rigging, Wiley, 2008
- John Halas, “Timing for Animation”, Elsevier, Focal press, 2009.
- Jason Osiapa, “Stop Staring”, second edition, Wiley, Sybex, 2007.
- Kyle Clark, “Inspired 3D character animation”, Premier Press, 2002.
- Peter Ratner, “Mastering 3d Animation”, second edition, Allworth Press, 2004.
- Richard Williams, “The Animator‘s Survival Kit”, Faber and Fabe, 2009.

Online Resources

https://www.sdcpublications.com/Textbooks/Autodesk-Maya/291/
https://www.youtube.com/@Autodesk_Maya
https://help.autodesk.com/view/MAYAUL/2023/ENU/

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

IV-Semester - Allied					
Allied	**Course code:** 83246	**Media Production Techniques**	**T**	**Credits:**	**Hours:**
				3	**3**
Course Objectives	1. Develop core video production skills: Master camera use, lighting, and audio recording basics. 2. Achieve audio proficiency: Skill ful recording, editing, and post-production with digital audio workstations. 3. Craft compelling stories: Create engaging narratives, characters, and storyboard scenes effectively. 4. Design captivating media graphics: Create visually appealing content for videos, websites, and print materials. 5. Grasp digital marketing essentials: Understand online promotion, social media, SEO, and audience engagement tactics.				
Unit - I	Video Production Techniques – This unit covers the basics of shooting videos, including how to use a camera, frame shots, set up lighting, and record clear audio.				
Unit - II	Audio Production and Editing – This unit focuses on audio recording and editing techniques. Students explore topics such as microphone selection, voiceover recording, sound effects, and music integration. They also learn to use digital audio workstations (DAWs) for post-production.				
Unit - III	Scriptwriting and Storyboarding –In this unit, students are introduced to the art of scriptwriting and storyboarding. They learn how to create compelling narratives, develop characters, and structure scripts for various media formats. Storyboarding techniques for visualizing scenes are also covered.				
Unit IV	Graphic Design for Media – This unit delves into the principles of graphic design for media production. Students learn how to create visually appealing graphics, animations, and illustrations for use in videos, websites, and print materials. Software tools like Adobe Photoshop and Illustrator are often taught.				
Unit-V	Digital Marketing Basics – In his unit introduces students to promoting and sharing media content online, including using social media, SEO, and understanding audience engagement. These simplified units provide a solid foundation for anyone interested in media production without overwhelming them with technical details				

- **Reference and Text Books:**
- The Filmmaker's Handbook" by Steven Ascher and Edward Pincus. Textbook: "Cinematography: Theory and Practice" by Blain Brown.
- "The Mixing Engineer's Handbook" by Bobby Owsinski. "Audio in Media" by Stanley R. Alten.
- "The Non-Designer's Design Book" by Robin Williams. Textbook: "Adobe Illustrator CC Classroom in a Book" by Adobe Creative Team.
- Reference Book: "Digital Marketing for Dummies" by Ryan Deiss and Russ Henneberry. Textbook: "SEO 2023: Learn Search Engine Optimization with Smart Internet Marketing Strategies" by Adam Clarke.

Online Resources

https://worldcat.org/title/1031963045

https://find.mtsu.edu/vufind/Record/mig00004554488

https://www.weforum.org/agenda/2021/01/video-streaming-was-a-hit-during-covid-19-but-what-does-that-mean-for-media/

Course Outcome

CO-1	Video production basics: camera use, framing, lighting, audio recording.	**K1**
CO-2	Audio skills: recording, editing, DAWs, music, sound effects.	**K3&K6**
CO-3	Scriptwriting, storyboarding: narrative, characters, visual planning.	**K4**
CO-4	Graphic design principles for media: visuals, animations, software tools.	**K5**
CO-5	Digital marketing basics: promotion, social media, SEO, audience engagement.	**K2&K6**

On what level it correlated with COs & POs -based on that we have to give marks

Course Outcome VS Programme Outcomes

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

IV-Semester - Allied					
Allied	**Course code:** 83247	**Animation Production Techniques - Practical**	**P**	**Credits:**	**Hours:**
				2	**4**
Objectives	**Develop a firm understanding of ideas, methods, and tools utilized in the method of pre-production for design and developing perspectives that match concept designs. Develop scaledmodel/ prototype using different material and try out various and experimental ways of applyin their specialized area.**				

1. Create a lamp rig & Animate
2. Create an entire body rig with three joint setup for hand, leg with global control.
3. Animate the character walking in blank canvas
4. Animate the character lifting a weight from ground to the table placed in the distance.
5. Rig an inorganic model.
6. Rig an organic model.
7. Animate a tail ball.
8. Create a walk cycle for a character.
9. Set a character in an environment and take play-blast in different suitable camera angles

Outcomes

- ➢ Upon completing these tasks, students will be able to:
- ➢ Lamp Rig and Animation:
- ➢ Create a 3D lamp model.
- ➢ Make the lamp move realistically, like turning it on/off.
- ➢ Character Rig with Global Control:
- ➢ Build a character rig for hands and legs.
- ➢ Add a control for moving the whole character.
- ➢ Character Animation - Walking:
- ➢ Animate the character walking convincingly.
- ➢ Create a smooth walking loop.
- ➢ Character Animation - Lifting Weight:
- ➢ Animate the character picking up and placing a weight.
- ➢ Make it look real.
- ➢ Rigging Inorganic Model:
- ➢ Rig something non-living, like a machine.
- ➢ Add controls for easy manipulation.
- ➢ Rigging Organic Model:
- ➢ Rig an organic model, like a person or an animal.
- ➢ Include controls for movement and expressions.
- ➢ Animating a Tail Ball:
- ➢ Animate a tail ball (e.g., on an animal) naturally.
- ➢ Creating a Walk Cycle:
- ➢ Make a character walk realistically.
- ➢ Create a repeating walk animation.
- ➢ Environment and Camera Work:
- ➢ Place a character in a 3D scene.
- ➢ Set up different camera views and record animations.

Reference and Text Books:

Jason Osiapa, “Stop Staring”, second edition, Wiley, Sybex, 2007.
Kyle Clark, “Inspired 3D character animation”, Premier Press, 2002.
Peter Ratner, “Mastering 3d Animation”, second edition, Allworth Press, 2004.
Richard Williams, “The Animator‘s Survival Kit”, Faber and Fabe, 2009.

Online Resources

https://www.amazon.in/Animators-Survival-Kit-Richard-Williams/dp/0571238343
https://www.amazon.com/Inspired-Character-Animation-Kyle-Clark/dp/1931841489

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

<table>
<tr><th colspan="6">V-Semester -Core</th></tr>
<tr><td rowspan="2">Core</td><td rowspan="2">Course code:
83251</td><td rowspan="2">Business of Media</td><td rowspan="2">T</td><td>Credits:</td><td>Hours:</td></tr>
<tr><td>4</td><td>5</td></tr>
<tr><td>Course Objectives</td><td colspan="5">1. Compare and contrast private sector firms, cooperatives, franchises, and not-for-profit businesses
2. Explore organizational structures, their significance, key terms, various approaches, and their pros and cons.
3. Examine stakeholders, their influence, types (internal and external), and characteristics, including owners, managers, employees, customers, suppliers, community, and government.
4. Introduction to Business Studies, covering business objectives, strategy, marketing, market analysis, human resources, production/operations management, accounting/finance, external influences, market structures, and economics
5. Importance of Communication, Business Structure, Entrepreneurship Theories, and Social Responsibility.</td></tr>
<tr><td>Unit - I</td><td colspan="5">Types of Business Organization – Private Sector and Public Sector – Firms in the Private sector – Key Differences – Cooperatives – Franchises – Not for Profit Businesses.</td></tr>
<tr><td>Unit - II</td><td colspan="5">Organizational Structures – Importance of Structure – Key Terms – Ways to Structure a Business – Pros and Cons of Different Structures – Functional Structure - Organization by Product/Activity – Organization by Area – By Customer – By Process.</td></tr>
<tr><td>Unit - III</td><td colspan="5">Stakeholders – Pressures on Business – Types of Stakeholder – Internal and External Stakeholders – Characteristics of Stakeholders - Owners and Shareholders – Managers – Employees or Staff – Customers – Suppliers – Community – Government.</td></tr>
<tr><td>Unit IV</td><td colspan="5">Introduction to Business Studies – Business Objectives and Strategy – Marketing – Market Analysis – Marketing Strategy – Market Research – Marketing Mix – Human Resources – Production/Operations Management – Accounting and Finance – External Influences – Market Structures – Macro and Micro Economics.</td></tr>
<tr><td>Unit-V</td><td colspan="5">Business Communication – Importance of Communication – Forms of Business Structure– Channels of Communication - Introduction to Entrepreneurship - Theories of Entrepreneurship -Social Responsibility of an Entrepreneur.</td></tr>
<tr><td colspan="6">● Reference and Text Books:
● Al Lieberman, “The Entertainment Marketing Revolution: Bringing the Moguls, the Media, and the Magic to the World”, Financial Times/ Prentice Hall, 1 edition, 2002.
● Alison Alexander, James Owers, Rodney A. Carveth, C. Ann Hollifield, Albert N Greco, “Media Economics Theory and Practice (LEA's Communication Series)”, Lawrence Erlbaum Associates, 2003.
● Gail Resnik, “All You Need to Know About the Movie and TV Business”, Touchstone, 1996.
● Gillian Doyle, “Understanding Media Economics”, Sage Publications Ltd, 2013.
● Peter Thiel, “Zero to One: Notes on Startups, or How to Build the Future”, Crown Business, 2014.</td></tr>
<tr><td colspan="6">Online Resources
https://worldcat.org/title/1031963045
https://find.mtsu.edu/vufind/Record/mig00004554488
https://www.weforum.org/agenda/2021/01/video-streaming-was-a-hit-during-covid-19-but-what-does-that-mean-for-media/</td></tr>
</table>

Course Outcome

CO-1	Analyze private and public sectors, assess private firms, differentiate cooperatives, franchises, and not-for-profits.	**K1**
CO-2	Learners understand org structures, key terms, and pros/cons.	**K3&K6**
CO-3	Learners grasp stakeholder types, characteristics, pressures, and their roles in business.	**K4**
CO-4	Learners gain insight into business studies, objectives, marketing, HR, finance, economics,	**K5**
CO-5	understand business communication, structure, entrepreneurship, and social responsibility.	**K2&K6**

On what level it correlated with COs & POs -based on that we have to give marks

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester -Core					
Core	**Course code:** 83252	**Portfolio & Presentation**	**T**	**Credits:**	**Hours:**
				4	**5**
Course Objectives	1. Equip students for effective portfolio creation and presentation. 2. Equip students with the skills to create and present effective digital portfolios. 3. Prepare students for professional portfolio presentations in theater, TV, and film, emphasizing presentation techniques and format requirements. 4. Understand the skills to create, use, and analyze marketing mediums effectively. 5. effective portfolio maintenance, design, publishing, and enhancement strategies.				
Unit - I	Basics of Portfolio, Importance of portfolio, Elements in Portfolio - Types of Portfolio – The Effective Showcase - Development Techniques - Portfolio requirements - Portfolio Development Techniques Do's and Don'ts.				
Unit - II	Introduction to the Digital Portfolio - The Effective Digital Showcase - Production Techniques - Design document, Different stages of digital media of their specialization -- Digital Portfolio Do's and Don'ts.				
Unit - III	Presentation: Preparing professional Theater /TV/Film Portfolio Presentation Techniques Professional presentation skill - Presentation Format and requirements.				
Unit IV	Marketing: Business Cards - Blog and Web pages - Importance of Business Cards, Blog and Web pages - Design and development of Business Cards, Blog and Web pages - Market analysis for using medium of marketing - Introduction to social networking and its Importance				
Unit-V	Portfolio Maintenance - Components of a Portfolio - Audience, Tone, Range Format, Portfolio Guidelines - Portfolio Design - Portfolio Budget and Deadline planning - Publishing your portfolio - Portfolio enhancement				

- **Reference and Text Books:**

1. Harold Linton, “Portfolio Design”, W. W. Norton & Company, Fourth edition, 2012.
2. Rafael Jaen, “Developing and Maintaining a Design-Tech Portfolio A Guide for Theatre”, Film and TV, 2006.
3. Rod Judkins, “The Art of Creative Thinking”, Sceptre,2015.
4. Sara Eisenman , “Building Design Portfolios, Innovative Concepts for Presenting Your Work”. Design Field Guides, 2004
5. Wiedmer, T.L., “Digital portfolios: Capturing and demonstrating skills and levels of performance”, Phi Delta Kappan: SAGE Journals, 1998.

Online Resources

https://www.format.com/magazine/galleries/illustration/animation-portfolio-roundup
https://www.youtube.com/watch?v=abgSmvf0238
https://www.youtube.com/watch?v=0Of4EFZB2vI

Course Outcome

CO-1	Define and demonstrate the importance of portfolios and Identify key portfolio elements and types.	**K1**
CO-2	Develop the significance of digital portfolios and	**K3&K6**
CO-3	Demonstrate effective professional presentation skills.	**K4**
CO-4	Students will develop marketing materials, understand their importance, and harness social networking for success.	**K5**
CO-5	Develop, maintain, design, and publish portfolios with audience-focused content and adhere to guidelines.	**K2&K6**

On what level it correlated with COs & POs -based on that we have to give marks

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

<table>
<tr><th colspan="6">V-Semester-Elective-I</th></tr>
<tr><td rowspan="2">Elective-I</td><td rowspan="2">Course Code:
83253A</td><td rowspan="2">Character Design and Illustration - Practical</td><td rowspan="2">P</td><td>Credits:</td><td>Hours:</td></tr>
<tr><td>4</td><td>4</td></tr>
<tr><td>Objectives</td><td colspan="5">Design and develop characters that resonate with the target audience, characters should be capable of expressing a range of emotions and moods. Design characters that are culturally sensitive and diverse, reflecting a realistic and inclusive representation of different backgrounds, ethnicities, and cultures. Consider the intended function of the character. Whether it's a hero, villain, sidekick, or supporting character, the design should align with the role and purpose within the story.</td></tr>
<tr><td colspan="6">
Understand the context of the story or project, including the time period, genre, and setting. Characters should be designed to fit seamlessly into this context.
Define the role and function of the character within the narrative. Whether it's a protagonist, antagonist, sidekick, or supporting character, the design should reflect their purpose.
Adhere to the established visual style of the project. Ensure that the character design is consistent with the overall artistic direction, whether it's realistic, stylized, cartoonish, or another style.
Specify the character's age, gender, and physical attributes. These details contribute to the character's identity and how they interact with the story.
Determine the character's personality traits, background, and back story. These elements influence the character's appearance, expressions, and overall demeanor.
Incorporate cultural and diversity considerations into the character design. Ensure sensitivity and authenticity in representing different backgrounds and perspectives.
Ensure that the character has a distinct silhouette for easy recognition, especially in contexts like animation, gaming, or merchandise.
If the character will be animated, design it with adaptability in mind. Consider how the character will move and emote, and ensure that the design allows for flexibility in animation.
Establish a process for gathering feedback and making revisions.
Consider accessibility factors, especially if the character will be used in educational materials or products. Ensure that the design is inclusive and accommodates diverse audiences.
</td></tr>
<tr><td>Outcomes</td><td colspan="5">Upon completing these tasks, students will be able to:

➢ Students will be able to conceive and develop original characters with unique personalities, backgrounds, and visual characteristics.
➢ Character design is often intertwined with storytelling. Students will gain the ability to visually communicate narratives through the design choices they make for characters.
➢ Gain a strong understanding of design principles such as balance, proportion, contrast, and harmony, and apply them effectively in character creation.
➢ Acquire proficiency in design software tools commonly used in character design, such as Adobe Illustrator, Photoshop, or 3D modeling software.
➢ Understand how to collaborate with writers, animators, and other team members to create characters that fit seamlessly into a larger creative project.
➢ Develop the ability to receive constructive feedback and iterate on character designs based on criticism from peers, instructors, or clients.
➢ Generate concept art for characters, contributing to the early stages of visual development in projects like games, films, or animations.
➢ Learn to create characters with well-defined archetypes, considering how traits and visual elements convey specific roles and functions within a story.</td></tr>
</table>

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester-Elective-I					
Elective	**Course Code:** 83253B	**Matte Painting-Practical**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**Develop a foundational understanding of matte painting concepts, techniques, and principles, including perspective, lighting, and composition. Gain proficiency in using industry-standard digital tools and software for matte painting, such as Adobe Photoshop, Autodesk Maya, or specialized matte painting software. Acquire skills to create matte paintings that seamlessly integrate with live-action footage, demonstrating a high level of realism and consistency across different shots.**				

1. Students will be assigned various matte painting projects that allow them to practice and apply the skills they are learning. These projects may involve creating different types of environments, such as landscapes, cityscapes, or interior spaces.
2. Gain proficiency in using digital tools and software specific to matte painting. This may include software like Adobe Photoshop, Autodesk Maya, Nuke, or other industry-standard tools.
3. Building a strong portfolio is crucial for showcasing one's skills and creativity. Students should work on a variety of matte painting projects to create a diverse portfolio that demonstrates their proficiency in different styles and environments.
4. Develop a deep understanding of perspective and composition to create realistic and visually engaging matte paintings. This involves considering camera angles, lighting, and the placement of elements within the frame.
5. Understand the role of matte painting in storytelling. Students should be able to contribute to the narrative by creating environments that enhance the mood and atmosphere of a scene.
6. Experiment with creating matte paintings in different genres and styles. This versatility allows students to adapt to various project requirements and express their creativity across a broad spectrum.
7. Develop the ability to present and discuss their work in a critique setting. This involves articulating the creative decisions made in the matte painting and being receptive to feedback.
8. Practice set extension techniques to seamlessly extend physical sets or create entirely digital environments. This involves making environments that blend seamlessly with live-action footage.
9. Learn how to adapt matte paintings for different mediums, whether it's film, animation, gaming, or virtual reality. Each medium may have specific requirements and constraints that students should be familiar with.
10. Consider taking on freelance or contract opportunities to apply matte painting skills in real-world projects. This practical experience can be valuable for building a professional portfolio and gaining industry exposure.

Outcomes	➢ Students will be capable of producing realistic and immersive environments that seamlessly integrate with live-action footage, adding depth and atmosphere to scenes. ➢ Acquire proficiency in using digital art tools and software, such as Adobe Photoshop, Autodesk Maya, Nuke, or other industry-standard applications commonly used in matte painting. ➢ Contribute to the narrative of a project by creating matte paintings that enhance storytelling, mood, and atmosphere, supporting the overall visual experience. ➢ Work effectively within a team, collaborating with directors, producers, and other artists to ensure that matte paintings align with the project's vision and goals. ➢ Demonstrate versatility by creating matte paintings across different genres and artistic styles, adapting to the specific requirements of diverse projects. ➢ Navigate industry tools, workflows, and best practices commonly used in matte painting, ensuring that their work aligns with professional standards. ➢ Adapt matte paintings to suit different mediums, whether it's film, animation, gaming, virtual reality, or other forms of visual media, understanding the specific requirements of each. ➢ Develop the ability to present and discuss their matte painting work in critique settings,

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester-Elective-I					
Elective	**Course Code:** 83253C	**Digital Graphics Editing- Practical**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**Digital graphics editing serves practical needs by enabling precise image manipulation, enhancing visual appeal, and ensuring professional output. Objectives include seamless retouching, color correction, and composition adjustments for optimal communication and aesthetic impact.**				

1. Learn basic tools: master essential functions like cropping and resizing.
2. Understand layers: grasp the concept of layering for effective image composition.
3. Color correction: enhance images by adjusting color balance.
4. Retouching skills: remove imperfections for a polished look.
5. Text addition: incorporate text elements seamlessly.
6. Filters and effects: explore creative enhancements for unique visuals.
7. Masking techniques: refine precision in editing with masking.
8. Image manipulation: practice transforming elements for diverse compositions.
9. Batch processing: streamline workflows by editing multiple images simultaneously.
10. Output optimization: ensure final images meet desired specifications.

Outcomes	➢ Proficient Editing: Attain the ability to perform fundamental edits with precision. ➢ Creative Composition: Develop skills to create visually appealing compositions using layers and effects. ➢ Color Expertise: Achieve mastery in color correction techniques for vibrant and balanced images. ➢ Polished Retouching: Acquire the skill to seamlessly remove imperfections, enhancing overall image quality. ➢ Efficient Workflow: Streamline editing processes through batch processing and optimal output techniques.

Reference and Text Books:

Digital Photography Masterclass" by Tom Ang (Latest Edition)
The Adobe Photoshop Lightroom Classic CC Book" by Martin Evening (Latest Edition)
"Color Correction Handbook: Professional Techniques for Video and Cinema" by Alexis Van Hurkman (Latest Edition)
"Photoshop CC: The Missing Manual" by Lesa Snider (Latest Edition)
Krasner, J. (2004). Motion Graphic Design and Fine Art Animation: Principles and Practice. Focal Press.

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester - Elective-II					
Elective	**Course Code:** 83254A	**Advanced Modeling and Texturing-Practical**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**Develop a comprehensive understanding of 3D modeling using Blender or Maya, progressing from fundamentals to advanced shader programming and industry-standard workflows. Master texture creation, PBR materials, and game asset optimization for professional projects and collaborations.**				

Students are required to

1. Learn the basics of creating three-dimensional objects using software like Blender or Autodesk Maya.
2. Understand the essential concepts of adding realistic surfaces and details to 3D models through textures.
3. Master the art of unwrapping and mapping textures onto 3D models efficiently for realistic rendering
4. Explore methods to generate textures algorithmically for efficient and creative texture creation
5. Get hands-on experience in sculpting digital models, enhancing your modeling skills with software like ZBrush.
6. Delve into Physically Based Rendering (PBR) principles to create materials that behave realistically under various lighting conditions.
7. Learn techniques to optimize 3D models and textures for real-time applications, focusing on performance
8. Gain insights into shader programming to create custom visual effects and enhance the realism of your 3D scenes.
9. Develop skills in painting textures directly onto 3D models, adding fine details and artistic touches.
10. Consider his expressions, postures, reactions, before and after the incident.

Outcomes	➢ Create 3D objects using Blender or Autodesk Maya.. ➢ Learn to add realistic surfaces and details to 3D models ➢ Master efficient unwrapping and mapping of textures onto models. ➢ Explore algorithms for creative and efficient texture generation. ➢ Enhance modeling skills with ZBrush for sculpting digital models. ➢ Understand Physically Based Rendering for realistic material creation. ➢ Optimize 3D models and textures for real-time application performance. ➢ Develop custom shaders for visual effects and enhanced realism. ➢ paint textures directly onto models for fine details and creativity. ➢ Analyze expressions, postures, reactions for realistic 3D character portrayal.

Reference and Text Books:

- Digital Modeling" by William Vaughan
- "Texturing and Modeling: A Procedural Approach" by David S. Ebert, F. Kenton Musgrave, Darwyn Peachey, Ken Perlin, and Steve Worley
- "Physically Based Rendering: From Theory to Implementation" by Matt Pharr and Greg Humphreys

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester - Elective-II					
Elective	**Course Code:** 83254B	**Digital Sculpting - Practical**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**Mastering digital sculpting in software like ZBrush or Blender involves learning UI, navigation, shape creation, texture application, ptopology.**				

1. Learn the basics of popular digital sculpting software such as ZBrush or Blender.
2. Understand the user interface and navigation tools within the chosen software.
3. Start with creating simple shapes and forms to grasp the fundamentals.
4. Explore various sculpting techniques like adding and subtracting details.
5. Develop proficiency in using different brushes for specific effects..
6. Learn the basics of applying textures to enhance the realism of your sculptures.
7. Gain knowledge about the importance of good topology for 3D models.
8. Practice refining your models by smoothing surfaces and adjusting proportions.
9. Study digital anatomy to create more realistic and anatomically accurate sculptures.
10. Engage in practical projects to apply your skills and reinforce your understanding of digital sculpting.

Outcomes

- ➢ students will be able to navigate and utilize digital sculpting software with confidence.
- ➢ Achieve proficiency in efficiently using the software interface and navigation tools
- ➢ Develop the ability to create simple shapes and forms as a foundation for more complex sculptures.
- ➢ Apply various sculpting techniques, including adding and subtracting details, to create intricate designs.
- ➢ Demonstrate mastery in using a variety of brushes to achieve specific textures and effects in digital sculptures.
- ➢ Learn to apply textures effectively, enhancing the visual appeal and realism of the digital models..
- ➢ Understand the importance of maintaining good topology in 3D models and apply this knowledge in practical projects.
- ➢ Practice refining digital models by smoothing surfaces, adjusting proportions, and addressing details for a polished outcome.
- ➢ Integrate knowledge of digital anatomy into sculpting projects for more accurate and lifelike representations.
- ➢ Successfully execute practical projects, demonstrating a comprehensive understanding of digital sculpting concepts and techniques.

Reference and Text Books:

- Blender Foundations: The Essential Guide to Learning Blender 2.6" by Roland Hess (Year: 2010)
- "Blender Cycles: Materials and Textures Cookbook" by Enrico Valenza (Year: 2014)
- "Topology for Character Animators" by Chris Hakala (Year: 2016)

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester - Elective-II					
Elective	**Course Code:** 83254C	**Creature Sculpt- Practical**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**Mastering digital sculpting in software like Z Brush or Blender involves learning creation, sculpting techniques, topology, anatomy, and practical projects.**				

1. Focus on understanding fundamental anatomical structures to enhance creature realism.
2. Learn to use various sculpting tools efficiently for precise detailing.
3. Explore practical methods for adding textures to enhance the creature's surface.
4. Digital Sculpting Software: Gain proficiency in popular digital sculpting software for practical applications.
5. Master the art of posing creatures to convey emotion and dynamic movement..
6. Develop skills in maintaining proper proportions and scale for realistic creature design.
7. Learn to translate 2D concept art into 3D creature sculptures effectively.
8. Engage in constructive critiques to refine and improve your creature sculpting skills.
9. Understand the essentials of 3D printing for creating physical models of your creature sculptures.
10. Develop techniques for presenting your creature sculpts professionally in various formats.

Outcomes	➢ Improve students' ability to sculpt with precision and attention to detail. ➢ Develop expertise in utilizing sculpting tools effectively for diverse projects. ➢ Acquire practical knowledge in applying textures to enhance the realism of sculptures. ➢ Attain proficiency in popular digital sculpting software for versatile creative expression. ➢ Master the art of posing to convey emotion and movement in sculpted creations. ➢ Refine skills in maintaining proper proportions and scale for realistic and compelling sculptures. ➢ Learn to translate 2D concept art into 3D sculptures with precision and creativity. ➢ Develop the ability to give and receive constructive feedback for continuous improvement. ➢ Gain knowledge of 3D printing basics for transforming digital creations into tangible sculptures. ➢ Cultivate skills in presenting sculptures effectively, enhancing communication and showcasing creative achievements.

Reference and Text Books:

- Digital Sculpting with Mudbox by Bridgette Mongeon (2010).
- Anatomy for Sculptors by Uldis Zarins (2014).
- Digital Texturing and Painting by Owen Demers (2002).

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester - Elective -III					
Elective	**.Course Code:** 83255A	**Live with CG- Practical**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**This course aims to equip students with a solid understanding of Computer Graphics in Animation. Through practicals, students will master character rigging, dynamic simulations, lighting, and rendering techniques, fostering collaboration while developing a robust portfolio.**				

Students are required to

1. Understand the basics of Computer Graphics (CG) and its application in animation..
2. Hands-on experience with popular CG animation software, such as Autodesk Maya or Blender.
3. Learn the process of creating skeletons (rigging) and animating characters in a live setting.
4. Practical sessions on simulating dynamic elements like fluids, cloth, and hair for realistic animations.
5. Explore live demonstrations of lighting setups and rendering techniques to enhance visual appeal.
6. Utilize CG tools for live storyboarding, allowing real-time adjustments and feedback.
7. Hands-on experience with controlling virtual cameras to capture dynamic and engaging shots.
8. Learn to seamlessly integrate visual effects into live-action and animated scenes.
9. Explore tools and techniques for real-time collaboration on CG projects, fostering teamwork.
10. Apply acquired skills in practical projects, building a strong portfolio for future opportunities in CG animation.

Outcomes

1. Create a 3D character animation showcasing proficiency in character rigging and animation techniques.
2. Demonstrate fluid simulation skills through the creation of dynamic scenes involving liquids or other simulated elements.
3. Produce a well-lit and visually appealing animated sequence by applying advanced lighting and rendering techniques.
4. Develop an interactive storyboard using CG tools, allowing for real-time adjustments and feedback.
5. Execute virtual camera operations to capture compelling shots in an animated environment.
6. Integrate special effects seamlessly into animated scenes, showcasing expertise in VFX integration.
7. Collaborate in real-time with peers on a CG project, utilizing collaborative tools to enhance teamwork and productivity.
8. Apply CG software skills to create a live-action/CG hybrid project, showcasing a blend of animation in real-world settings.
9. Utilize CG tools for on-the-fly improvisation in animation, fostering adaptability and quick decision-making
10. Curate a comprehensive portfolio featuring diverse CG animation projects, demonstrating practical application of learned skills.

Reference and Text Books:

- Blender Foundations" by Roland Hess (2010)
- Digital Lighting and Rendering" by Jeremy Birn (2013)
- The Art of 3D Computer Animation and Effects" (2017)

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester - Elective -III					
Elective	**Course Code:** 83255B	**Advanced Composition- Practical**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**The course aims to develop advanced animation composition skills through practical exercises, focusing on depth, framing, rhythm, contrast, color, and storytelling elements.**				

Students are required to

1. Utilize parallax and z-depth to create a sense of dimension..
2. Experiment with unconventional framing techniques for impactful storytelling.
3. Perfect the rule of thirds to enhance visual balance and focus.
4. Establish a flow of movement through deliberate placement and timing.
5. Emphasize characters and objects through well-defined shapes.
6. Employ color theory for mood enhancement and visual cohesion.
7. Explore diverse angles and dynamic camera movements for engaging scenes.
8. Leverage empty spaces for effective composition and emphasis.
9. Align visuals with narrative elements for cohesive storytelling.
10. Break down animation sequences, identifying composition nuances for practical application.

Outcomes	➢ Craft a short animation with layers to show depth, using foreground, midground, and background. ➢ Make various animations testing dynamic framing effects, highlighting how each choice influences perception. ➢ Animate a scene following the rule of thirds, guiding focus and keeping visual balance. ➢ Create a flowing animation demonstrating visual rhythm, enhancing storytelling. ➢ Design animated characters and scenes with clear contrast and silhouettes for emotion and clarity. ➢ Produce a short animation using color theory for mood and visual consistency. ➢ Animate scenes with different camera angles and movements for engaging storytelling. ➢ Craft an animation using deliberate negative space, emphasizing key elements. ➢ Make an animation that aligns with a given story, ensuring composition supports the narrative. ➢ Analyze and recreate frames from animations to understand and apply effective composition choices in original work.

Reference and Text Books:

- The Animator's Survival Kit" by Richard Williams (2009)
- The Illusion of Life" by Frank Thomas and Ollie Johnston (1981)
- Force: Dynamic Life Drawing" by Michael D. Mattesi (2006)

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester - Elective -III					
Elective	**Course Code:** 83255C	**Advanced Motion Graphics - Practical**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**cultivates expertise in motion graphics software, storyboarding, animation techniques, visual effects integration, and practical project application.**				

1. Title Sequence Creation: Design an engaging title sequence for a hypothetical film or TV show, incorporating animated text, graphics, and effects.
2. Logo Animation: Develop a dynamic animation that brings a company or personal logo to life using motion graphics techniques.
3. Infographic Animation: Create an animated infographic that visualizes statistical data or complex information using motion graphics elements.
4. Character Animation: Animate a character or mascot using motion graphics, focusing on movement, expressions, and storytelling.
5. Music Video Segment: Design a short segment for a music video, synchronizing visuals with the rhythm and mood of the music.
6. Explainer Video: Develop an animated explainer video that effectively communicates a concept, product, or service using motion graphics.
7. Broadcast Graphics Package: Create a set of cohesive graphics for a TV show or news segment, including lower thirds, transitions, and on-screen elements.
8. Interactive Motion Graphics: Design interactive elements using motion graphics for web or mobile applications, considering user interaction and engagement.
9. Social Media Ad: Produce a short, attention-grabbing motion graphics ad suitable for platforms like Instagram, TikTok, or YouTube.
10. Title Animations for Film Scenes: Design and animate title cards or transitions for various scenes in a short film, demonstrating versatility in motion design styles.

Outcomes	1. Develop a dynamic motion graphic that visually represents a brand's identity through animation, incorporating elements like logos, typography, and color schemes. 2. Produce an engaging and informative motion graphic video that explains a complex concept or process using captivating visuals, animation, and narration. 3. Design and animate compelling title sequences for a film or TV show, utilizing motion graphics to set the tone, style, and mood of the production. 4. Create an animated data visualization project that presents complex information or statistics in a clear, visually appealing manner, using motion to enhance understanding. 5. Develop interactive motion graphics optimized for web platforms, incorporating animation and interactivity to engage users in an online environment.

Reference and Text Books:

"The Animator's Survival Kit" by Richard Williams Date: First published in 2001
"The Art of VFX" by Pauline Didier and Karen Raugust Date: First published in 2019

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

V-Semester -Core					
Core	**Course code:** 83256	**Portfolio & Presentation - Practical**	**P**	**Credits:**	**Hours:**
				3	**6**
Objectives	➢ **Curate a portfolio showcasing a range of multimedia projects, demonstrating versatility and expertise** ➢ **Incorporate consistent branding elements to establish a recognizable and professional personal identity.** ➢ **Highlight key achievements and successful projects to demonstrate skills, experience, and impact** ➢ **Include interactive elements, such as clickable links and engaging content, to captivate and impress viewers.** ➢ **Feature endorsements and recommendations to build credibility and showcase positive professional relationships.**				
1. Display a range of animation skills, including styles, techniques, and software proficiency. 2. Communicate a unique creative vision and storytelling ability through showcased animation projects. 3. Illustrate technical expertise in animation tools, character design, rigging, and motion principles. 4. Present a polished and cohesive portfolio that reflects professionalism, organization, and attention to detail. 5. Craft a presentation that captivates viewers, leaving a lasting impression of creativity, skill, and potential.					
Outcomes	➢ Develop a cohesive personal brand identity. ➢ Craft a polished professional resume tailored for corporate employment. ➢ Establish and maintain a personal development blog. ➢ Edit video content effectively. ➢ Create customized audio tracks to enhance their demo reel. ➢ Author interactive portfolios using various authoring tools. ➢ Produce high-quality hardcopy portfolios showcasing their specialization. ➢ Create and maintain online portfolios on reputable websites. ➢ Craft professional game trailers. ➢ Design personalized visiting cards and establish a social media presence. ➢ Develop budgeting skills for portfolio projects, ensuring cost-effective execution.				

Reference and Text Books:

1. Rod Judkins, “The Art of Creative Thinking”, Sceptre,2015.
2. Sara Eisenman , “Building Design Portfolios, Innovative Concepts for Presenting Your
3. Work”. Design Field Guides, 2004
4. Wiedmer, T.L., “Digital portfolios: Capturing and demonstrating skills and levels of
5. performance”, Phi Delta Kappan: SAGE Journals, 1998.

Online Resources:

https://www.youtube.com/watch?v=XkgigglXX3Q
https://www.southwales.ac.uk/courses/ba-hons-animation-2d-and-stop-motion/1993/how-to-create-a-strong-portfolio-for-animation/#:~:text=Build%20a%20well%2Drounded%20portfolio,including%20model%20making%20or%20sculpture.
https://www.format.com/magazine/galleries/illustration/animation-portfolio-roundup

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

VI-Semester -Core					
Core	**Course code:** 83261	**Production Management**	**T**	**Credits:**	**Hours:**
				4	**4**
Course Objectives	**1. By the end of the course, students should understand the fundamental concepts in the subject matter.** **2. Students should be able to apply what they've learned to solve real-world problems or tasks.** **3. The course will enhance students' ability to think critically and analyze information effectively.** **4. Students will improve their written and verbal communication skills, enabling them to express complex ideas clearly.** **5. The course aims to in still ethical values and professionalism in students, preparing them for ethical decision-making in their future careers.**				
Unit - I	Pre-Production Planning:This unit involves all the preparation work before actual animation production begins. It includes tasks such as scriptwriting, storyboarding, character design, creating a production schedule, and budgeting. Pre-production planning sets the foundation for the entire project.				
Unit - II	Production Team Management: Managing the production team is essential. This includes hiring and assigning tasks to animators, background artists, sound engineers, voice actors, and other crew members. Effective communication and coordination are vital to keep the team on track.				
Unit - III	Budget and Resource Management: Managing the budget and resources is crucial to ensure that the project stays within financial constraints. This unit involves tracking expenses, allocating resources efficiently, and making adjustments as needed to avoid cost overruns.				
Unit IV	Quality Control and Review: Throughout the production process, there should be regular quality control checks and reviews. This includes evaluating the animation for consistency, accuracy, and adherence to the project's vision. Feedback and revisions may be necessary to maintain the desired quality.				
Unit-V	Post-Production and Delivery: After animation production is complete, there is a post-production phase that involves tasks such as editing, adding sound effects and music, and finalizing the project. This unit also includes the delivery of the final product to the client or the audience through various distribution channels.				

- **Reference and Text Books:**
- Eric Allen & Kelly L Murdock, Body Language: Advanced 3D Character Rigging, Wiley, 2008
- John Halas, “Timing for Animation”, Elsevier, Focal press, 2009.
- Jason Osiapa, “Stop Staring”, second edition, Wiley, Sybex, 2007.
- Kyle Clark, “Inspired 3D character animation”, Premier Press, 2002.
- Peter Ratner, “Mastering 3d Animation”, second edition, Allworth Press, 2004.
- Richard Williams, “The Animator‘s Survival Kit”, Faber and Fabe, 2009.

Online Resources

https://www.sdcpublications.com/Textbooks/Autodesk-Maya/291/

https://www.youtube.com/@Autodesk_Maya

https://help.autodesk.com/view/MAYAUL/2023/ENU/

Course Outcome

CO-1	Students will be able to demonstrate a comprehensive understanding of the core concepts and principles in [subject]	**K1**
CO-2	Students will be able to apply the acquired knowledge to solve real-world problems or situations related to [subject]..	**K3&K6**
CO-3	Students will develop the ability to critically analyze and evaluate information, enabling them to make informed decisions.	**K4**
CO-4	By the end of the course, students will be able to communicate their ideas and findings clearly and persuasively through written reports and oral presentations.	**K5**
CO-5	Students will exhibit ethical reasoning and decision-making skills, recognizing and addressing ethical dilemmas related to [subject].	**K2&K6**

On what level it correlated with COs & POs -based on that we have to give marks

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

VI-Semester -Core					
Core	**Course code:** 83262	**Sonic Dimensions in Animation**	**T**	**Credits:**	**Hours:**
				4	**4**
Course Objectives	**1. Role of Sound: Understand how sound enhances animated storytelling.** **2. Sound Design Skills: Learn techniques for creating and editing sound for animations.** **3. Syncing Audio: Practice matching sound to visuals effectively.** **4. Creative Use of Sound: Explore using sound to express creativity and emotion.** **5. Technical Proficiency: Develop practical skills in sound production software.**				
Unit - I	Setting the Mood and Atmosphere: Sound sets the tone for a scene, establishing the mood and atmosphere. It can convey emotions effectively through music, ambient sounds, and effects..				
Unit - II	Character Development: Sound gives characters unique voices and personalities. Voice acting provides insights into age, gender, background, and temperament.				
Unit - III	Sound Effects: Sound effects bring the animated world to life, adding realism and immersion. They help the audience understand and feel what's happening on screen.				
Unit IV	Music and Score: Original music enhances emotional engagement. Well-composed music can heighten tension, evoke nostalgia, or enhance emotional impact.				
Unit-V	Narration and Dialogue: Dialogue is essential for storytelling. Clear and expressive voice acting conveys the plot, character relationships, and development.				
Reference and Text Books: 1. "The Sound Effects Bible" by Ric Viers (2008) - Covers creating and recording sound effects for animations. 2. "Audio Postproduction for Film and Video" by Jay Rose (2013) - Explores sound in animation post production. 3. "Sound for Film and Television" by Tomlinson Holman (2010) - Discusses various aspects of sound design for animation. 4. "The Complete Guide to Game Audio" by Aaron Marks (2013) - Offers insights into sound design principles applicable to animation. 5. "Audio-Vision: Sound on Screen" by Michel Chion (1994) - Explores the relationship between sound and animation.					
Online Resources **https://books.google.co.in/books?id=DC0OAVs6kMgC&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false**					

Course Outcome

CO-1	Students will be able to integrate sound elements seamlessly into animations to enhance storytelling and emotional impact.	**K1**
CO-2	Students will demonstrate proficiency in sound design techniques, including recording, editing, and mixing, for animation projects.	**K3&K6**
CO-3	Students will create narrative-driven sound scapes that complement and elevate the visual storytelling in animations.	**K4**
CO-4	Students will develop the ability to use sound creatively to convey unique artistic visions and evoke specific emotions in their animations.	**K5**
CO-5	Students will gain practical skills in using industry-standard sound production software and tools, enabling them to produce high-quality audio for animation projects.	**K2&K6**

On what level it correlated with COs & POs -based on that we have to give marks

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

VI-Semester -Core					
Core	**Course Code:** 83263	**Animation Film Making - Practical**	**P**	**Credits:**	**Hours:**
				3	**6**
Objectives	**Entertain, engage, and convey messages through creative storytelling, captivating visuals, and artistic expression.**				
1. Generate ideas, structure the narrative, and define target audience preferences for relatability and resonance. 2. Outline scene progression, emphasizing key moments and visual cues to enhance storytelling impact. 3. Develop unique characters with expressive faces and poses, ensuring clear personality and relatability. 4. Design environments that enhance the narrative, complementing characters and contributing to the story's atmosphere. 5. Choose a suitable animation style (2D, 3D, stop-motion) aligning with the narrative tone and audience appeal.					
Outcomes	➢ Animation films entertain audiences with captivating stories and visuals. ➢ They can educate viewers on various topics through engaging narratives. ➢ Animation evokes emotions, connecting viewers to the story and characters. ➢ It showcases artistic creativity and innovation in storytelling and animation techniques. ➢ Animation can influence cultures and societies through its messages and themes. ➢ Successful animation films generate revenue through box office, merchandise, and licensing. ➢ Many animations receive awards and critical acclaim for their quality. ➢ Animation inspires future filmmakers, artists, and storytellers to explore the medium.				

Reference and Text Books:

1. "Animator's Survival Kit" (2009) by Richard Williams: Classic guide to animation principles, especially for hand-drawn techniques.
2. "Character Animation Crash Course!" (2008) by Eric Goldberg: Practical tips for Disney-style character animation.
3. "Illusion of Life: Disney Animation" (1981) by Frank Thomas and Ollie Johnston: Disney legends explore animation history and principles.
4. "Timing for Animation" (2009) by Harold Whitaker and John Halas: Focuses on the importance of timing and spacing in animation.
5. "The Animator's Eye" (2011) by Francis Glebas: Offers advice on animation timing, design, and sound.
6. "Digital Character Animation 3" (2006) by George Maestri: Covers 3D character animation, rigging, and modeling techniques.
7. "Elemental Magic" (2009) by Joseph Gilland: Discusses creating special effects in animation.
8. "The Art of Pixar" (2011) by Amid Amidi: Shows the creative process and art behind Pixar's animated films.

Online Resources

https://99designs.com/blog/tips/graphic-design-basics/
https://www.youtube.com/watch?v=YqQx75OPRa0
https://www.youtube.com/watch?v=65WjYDEzi88
https://www.coursera.org/learn/fundamentals-of-graphic-design

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	S(3)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	S(3)
CO4	S(3)	M(2)	M(2)	S(3)	S(3)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

VI-Semester - Elective -IV					
Elective	**Course Code:** 83264A	**Visual Effects for Animation**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**To equip students with the fundamental knowledge and skills necessary for creating compelling visual effects in the context of animation. The course aims to provide a comprehensive understanding of various visual effects techniques and tools used in the animation industry.**				
1. Grasp foundational concepts guiding the creation and application of visual effects in animation. 2. Mastering tools like Adobe After Effects to execute advanced visual effects in animation. 3. IntSeamlessly incorporates visual effects, enhancing narrative and aesthetic elements within animation projects. 4. Acquire expertise in combining visual elements, optimizing lighting, shading, and color for cohesive compositions. 5. Implement realistic effects like fire, smoke, and fluid dynamics using particle systems and dynamics. 6. Develop skills to identify, analyze, and resolve challenges encountered in visual effects implementation.					
Outcomes	➢ Define and explain key concepts and principles related to visual effects in animation, including concepts such as compositing, particle systems, dynamics, and simulation. ➢ Develop proficiency in using industry-standard visual effects software such as Adobe After Effects, Autodesk Maya, and/or other relevant tools. ➢ Apply visual effects techniques to enhance animated scenes, integrating them seamlessly into animation projects to create a cohesive and visually appealing final product. ➢ ability to composite visual effects elements with animated scenes, considering aspects such as lighting, shading, and color grading for realistic integration. ➢ implement particle systems and dynamics to simulate natural phenomena, such as fire, smoke, water, and explosions, within the context of animated scenes. ➢ Develop problem-solving skills in identifying and resolving common challenges and issues encountered in the process of creating visual effects for animation.				

Reference and Text Books:

"The Animator's Survival Kit" by Richard Williams Date: First published in 2001
"The Art of VFX" by Pauline Didier and Karen Raugust Date: First published in 2019

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

VI-Semester - Elective -IV					
Elective	**Course Code:** 83264B	**Advanced Video Editing Techniques**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**understanding of advanced video editing techniques, tools, and workflows used in professional video production. The course aims to enhance the technical proficiency and creative skills of students, enabling them to produce high-quality, polished video content**				
1. Advanced features of industry-standard video editing software. 2. creatively apply advanced video editing techniques, such as complex transitions, effects, and color grading, to enhance visual storytelling. 3. enabling effective communication and teamwork for complex video projects in professional settings. 4. Gain expertise in advanced audio editing and mixing techniques to ensure high-quality, balanced audio that complements the visual elements of video content. 5. project management skills, emphasizing organized file structures, version control, and streamlined workflows to enhance productivity in advanced video editing projects.					
Outcomes	➢ Explore advanced storytelling techniques through video editing, emphasizing the creative use of pacing, rhythm, and sequencing to enhance the narrative and emotional impact of the content. ➢ Master color correction and grading techniques to enhance visual appeal, consistency, and mood in video content. Understand the principles of color theory and apply them to achieve professional-looking results. ➢ Acquire advanced skills in audio editing and mixing, including techniques for cleaning up audio, adding sound effects, and balancing audio elements to achieve clear and immersive soundscapes. ➢ Learn techniques for editing projects with multiple camera angles, including syncing and cutting between different shots to create a seamless and dynamic visual experience. ➢ Stay updated on current industry trends, emerging technologies, and new features in video editing software to adapt and incorporate the latest advancements into video production workflows.				

Reference and Text Books:

1. The Technique of Film and Video Editing: History, Theory, and Practice" by Ken Dancyger Date: First published in 2002 (Fifth edition)
2. In the Blink of an Eye: A Perspective on Film Editing" by Walter Murch Date: First published in 1995 (Second edition, 2001)
3. Advanced Editing Techniques in Final Cut Pro" by Michael Wohl Date: First published in 2005

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

VI-Semester - Elective -IV					
Elective	**Course Code:** 83264C	**Advanced Lighting and Rendering**	**P**	**Credits:**	**Hours:**
				4	**4**
Objectives	**To equip students with the fundamental knowledge and skills necessary for creating compelling visual effects in the context of animation. The course aims to provide a comprehensive understanding of various visual effects techniques and tools used in the animation industry.**				

1. Foundational Understanding the principles and theories behind lighting and rendering in 3D
2. Advanced Rendering Techniques including ray tracing, global illumination, and physically-based rendering
3. Lighting Design and Theory that psychological impact of lighting in 3D scenes
4. Photorealistic Rendering through the manipulation of lighting parameters, material properties
5. Global Illumination Techniques such as radiosity and photon mapping to simulate realistic light

Outcomes	➢ Generate realistic renderings by applying advanced lighting techniques and utilizing rendering algorithms effectively. ➢ Develop custom shaders to achieve specific visual effects and artistic styles in rendered scenes. ➢ Showcase mastery in lighting for animated sequences, emphasizing character lighting, mood, and storytelling through lighting choices. ➢ Implement efficient rendering workflows, ensuring optimized rendering times and resource utilization in production scenarios. ➢ Critically analyze and evaluate rendered scenes, identifying areas for improvement in terms of visual fidelity, realism, and artistic intent.

Reference and Text Books:

1. Real-Time Rendering" by Tomas Akenine-Möller, Eric Haines, and Naty Hoffman Date: Fourth edition published in 2018
2. "Digital Lighting and Rendering" by Jeremy Birn Date: Third edition published in 2013
3. "GPU Pro: Advanced Rendering Techniques" edited by Wolfgang Engel Date: First published in 2010 (Latest edition available)

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	M(2)	L(1)
CO2	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)	M(2)	M(2)	S(3)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)	M(2)	S(3)	M(2)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	M(2)	M(2)	L(1)	M(2)	S(3)	M(2)	M(2)
CO5	M(2)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**2.4**	**2.6**	**2.4**	**2.2**	**2.2**	**2**	**2.2**	**2.2**	**2.4**	**2**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	M(2)	M(2)
CO2	M(2)	M(2)	S(3)	M(2)	S(3)
CO3	M(2)	S(3)	S(3)	M(2)	M(2)
CO4	S(3)	M(2)	M(2)	S(3)	M(2)
CO5	M(2)	S(3)	M(2)	M(2)	S(3)
W.AV	**2.4**	**2.6**	**2.6**	**2.2**	**2.4**

S–Strong (3), M-Medium (2), L-Low (1)

VI-Semester- Core					
Core	**Course Code:** 83265A/ 83265B	**PROJECT/ DISSERTATION**	**PR/ D**	**Credits: 8**	**Hours: 12**
Objectives	**Create an original animation short film that showcases advanced storytelling, technical proficiency, and artistic expression.**				
Outcomes	➢ Story Development: Craft a compelling and original narrative with a clear theme, engaging characters, and a well-structured plot. ➢ Technical Mastery: Demonstrate proficiency in animation techniques, utilizing advanced skills in character animation, rigging, and scene composition. ➢ Visual Aesthetics: Develop a visually striking short film with attention to art direction, lighting, and cinematography that enhances the storytelling. ➢ Sound Design Integration: Integrate a well-crafted sound design, including dialogue, music, and sound effects, to enhance the overall cinematic experience. ➢ Project Management: Successfully manage the project from pre-production to post-production, adhering to timelines and delivering a polished final product. ➢ Audience Engagement: Create an animation short film that captivates and resonates with the intended audience, invoking emotional connections and reactions. ➢ Critical Analysis and Reflection: Conduct a critical analysis of the project, reflecting on challenges faced, solutions implemented, and lessons learned throughout the filmmaking process. ➢ Presentation and Documentation: Deliver a well-documented project, including a comprehensive dissertation outlining the creative and technical decisions, challenges, and successes encountered during the production.				

AIM OF THE PROJECT WORK

The objective of the animation project or dissertation is to provide students with an opportunity to demonstrate their comprehensive understanding and application of animation principles, techniques, and industry standards. Through this project, students aim to showcase their creativity, technical proficiency, and critical thinking skills in the realm of animation. The overarching goals include the development and execution of a unique and compelling animation piece that aligns with professional standards, contributes to the student's personal portfolio, and serves as a culmination of their academic learning. This project seeks to deepen their knowledge, refine their skills, and prepare them for real-world challenges within the animation industry. department staff concerned.

Viva Voce

1. Viva-Voce will be conducted at the end of the year by both Internal (Respective Guides) and External Examiners, after duly verifying the Annexure Report available in the College, for a total of 100 marks at the last day of the practical session.
2. Out of 100 marks, 25 marks for CIA and 75 for CEE (50 evaluation of project report + 25 Viva Voce).

Project Report Format

PROJECT WORK

TITLE OF THE DISSERTATION

Bonafide Work Done by

STUDENT NAME

REG. NO.

GUIDE NAME

Dissertation submitted in partial fulfillment of the requirements for the award of

<Name of the Degree>

ICAT Design and Media College, Chennai.

College Logo

Signature of the Guide Signature of the HOD

Submitted for the Viva-Voce Examination held on_____

Internal Examiner External Examiner

Month – Year

University Logo

CONTENTS

Course Outcome VS Programme Outcomes

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO2	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	M(2)	S(3)	S(3)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)	S(3)
CO4	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	M(2)	S(3)	M(2)	S(3)
CO5	S(3)	S(3)	S(3)	S(3)	M(2)	M(2)	M(2)	M(2)	S(3)	S(3)
W.AV	**3**	**3**	**2.8**	**2.8**	**2.6**	**2.6**	**2.6**	**2.6**	**2.8**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

Mapping Course Outcome VS Programme Specific Outcomes

CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S(3)	S(3)	S(3)	S(3)	S(3)
CO2	S(3)	M(2)	S(3)	S(3)	S(3)
CO3	S(3)	S(3)	S(3)	S(3)	S(3)
CO4	S(3)	S(3)	M(2)	S(3)	S(3)
CO5	M(2)	S(3)	S(3)	S(3)	S(3)
W.AV	**2.8**	**2.3**	**2.8**	**3**	**3**

S–Strong (3), M-Medium (2), L-Low (1)

UG Programme

Passing minimum

- A candidate shall be declared to have passed in each course if he/she secures not less than 40% marks in the End Semester Examinations and 40% marks in the Internal Assessment and not less than 40% in the aggregate, taking Continuous assessment and End Semester Examinations marks together.
- The passing minimum for CIA shall be 40% out of 25 marks (i.e.10 marks) in Theory/ Practical Examinations.
- The passing minimum for University Examinations shall be 40% out of 75 marks (i.e. 30 marks) for Theory /Practical papers.
- The candidates not obtain 40% in the Internal Assessment are permitted to improve their Internal Assessment marks in the subsequent semesters (2 chances will be given) by writing the CIA tests or by submitting assignments.
- Candidates, who have secured the pass marks in the End-Semester Examination and in the CIA but failed to secure the aggregate minimum pass mark (E.S.E + C I.A), are permitted to improve their Internal Assessment mark in the following semester and/or in University examinations.
- A candidate shall be declared to have passed in the Dissertation/Project report/Internship report if he/she gets not less than 40% marks in the Internal Assessment and End Semester Examinations and not less than 40% in the aggregate, taking Continuous assessment and End Semester Examinations marks together.
- A candidate who gets less than 40% in the Dissertation / Internship/ Project Report must resubmit the thesis. Such candidates need to take again the Viva-Voce on the resubmitted report/thesis.

18.2 Grading of the Courses

The following table gives the marks, Grade points, Letter Grades, and classifications meant to indicate the overall academic performance of the candidate.

Conversion of Marks to Grade Points and Letter Grade (Performance in Course / Paper)

RANGE OF MARKS	GRADE POINTS	LETTER GRADE	SCRIPTION
- 100	**9.0 – 10.0**	**O**	**tstanding**
- 89	**8.0 – 8.9**	**D+**	**:ellent**
- 79	**7.5 – 7.9**	**D**	**tinction**

- 74	**7.0 – 7.4**	**A+**	**y Good**
- 69	**6.0 – 6.9**	**A**	**od**
- 59	**5.0 – 5.9**	**B**	**erage**
- 49	**4.0 – 4.9**	**C**	**isfactory**
- 39	**0.0**	**U**	**appear**
SENT	**0.0**	**AAA**	**SENT**

a) Successful candidates passing the examinations and earning a GPA between 9.0 and 10.0 and marks from 90 – 100 shall be declared to have Outstanding (O).

b) Successful candidates passing the examinations and earning GPA between 8.0 and 8.9 and marks from 80 - 89 shall be declared to have Excellent (D+).

c) Successful candidates passing the examinations and earning GPA between 7.5 – 7.9 and marks from 75 - 79 shall be declared to have Distinction (D).

d) Successful candidates passing the examinations and earning GPA between 7.0 – 7.4 and marks from 70 - 74 shall be declared to have Very Good (A+).

e) Successful candidates passing the examinations and earning GPA between 6.0 – 6.9 and marks from 60 - 69 shall be declared to have Good (A).

f) Successful candidates passing the examinations and earning GPA between 5.0 – 5.9 and marks from 50 - 59 shall be declared to have Average (B).

g) Successful candidates passing the examinations and earning GPA between 4.0 – 4.9 and marks from 40 - 49 shall be declared to have Satisfactory (C).

h) Candidates earning GPA between 0.0 and marks from 00 - 39 shall be declared to have Re-appear (U).

i) Absence from an examination shall not be taken as an attempt.

From the second semester onwards the total performance within a semester and continuous performance starting from the first semester are indicated respectively **by** Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA).

These two are calculated by the following formulate

GRADE POINT AVERAGE (GPA) = $\Sigma_i C_i \; G_i / \Sigma_i C_i$

GPA = Sum of the multiplication of grade points by the credits of the courses

Sum of the credits of the courses in a Semester

18.3 Classification of the final result

The final result of the candidate shall be based only on the CGPA earned by the candidate.

a) Successful candidates passing the examinations and earning CGPA between 9.5 and 10.0 shall be given Letter Grade (O+) and those who earned CGPA between 9.0 and 9.4 shall be given Letter Grade (O) and declared to have First Class –Exemplary*.

b) Successful candidates passing the examinations and earning CGPA between 7.5 and 7.9 shall be given Letter Grade (D), those who earned CGPA between 8.0 and 8.4 shall be given Letter Grade (D+) and those who earned CGPA between 8.5 and 8.9 shall be given Letter Grade (D++) and declared to have First Class with Distinction*.

c) Successful candidates passing the examinations and earning CGPA between 6.0 and 6.4 shall be given Letter Grade (A), those who earned CGPA between 6.5 and 6.9 shall be given Letter Grade (A+), and those who earned CGPA between 7.0 and 7.4 shall be given Letter Grade (A++) and declared to have First Class.

d) Successful candidates passing the examinations and earning CGPA between 5.0 and 5.4 shall be given Letter Grade (B) and those who earned CGPA between 5.5 and 5.9 shall be given Letter Grade (B+) and declared to have passed in the Second Class.

e) Successful candidates passing the examinations and earning CGPA between 4.0 and 4.4 shall be given Letter Grade (C) and those who earned CGPA between 4.5 and 4.9 shall be given Letter Grade (C+) and declared to have passed in the Third Class.

f) Absence from an examination shall not be taken as an attempt.

Final Result

CGPA	Grade	Classification of Final Result
9.5 – 10.0 9.0 and above but below 9.5	**O+** **O**	First Class – Exemplary*
8.5 and above but below 9.0 8.0 and above but below 8.5 7.5 and above but below 8.0	**D++** **D+** **D**	First Class with Distinction*
7.0 and above but below 7.5 6.5 and above but below 7.0 6.0 and above but below 6.5	**A++** **A+** **A**	First Class
5.5 and above but below 6.0 5.0 and above but below 5.5	**B+** **B**	Second Class
4.5 and above but below 5.0 4.0 and above but below 4.5	**C+** **C**	Third Class
0.0 and above but below 4.0	**U**	Re-appear

CUMULATIVE GRADE POINT AVERAGE (CGPA) = $\Sigma_n \Sigma_i C_{ni} G_{ni} / \Sigma_n \Sigma_i C_{ni}$

CGPA = Sum of the multiplication of grade points by the credits of the entire programme

Sum of the credits of the course for the entire Programme

Where '**Ci**' is the Credit earned for Course i in any semester; '**Gi**' is the Grade Point obtained by the student for Course i and 'n' refers to the semester in which such courses were credited.

CGPA (Cumulative Grade Point Average) = Average Grade Point of all the Courses passed starting from the first semester to the current semester.

Note: * The candidates who have passed in the first appearance and within the prescribed Semesters of the UG Programme (Major, Allied, and Elective courses alone) are eligible for this classification.