Dr YSR Architecture and Fine Arts University

BFA in

Animation

Course Structure and Syllabus

REGULATIONS-21

College of Fine Arts

Department Of Animation

DEPARTMENT OF ANIMATION

Vision

To produce effectively trained socially responsible and creative media professionals to serve the society and industry. To make the students ready with the future technologies and tools, which are focuses on developing, content, which has positive impact on the social and economic aspects of the society and industry?

Mission

- To offer Animation and Multimedia courses that adds value to student competencies.
- To promote quality education, research, and consultancy for industrial and societal needs.
- To impart leadership and teamwork qualities in students
- To provide state-of-the-art resources that contributes to better learning environment.
- To encourage students to pursue higher education and take competitive exams and various career enhancing courses.
- To establish centres of excellence in emerging areas of research
- To have regular interaction with industry and offer solutions to their problems

Program Educational Objectives (PEOs)

PEO 1: Practice animation in a broad range of industrial, societal, and real-world applications

PEO2: Pursue advanced education, research and development, and other creative and innovative efforts in science, engineering, and technology, as well as other professional careers

PEO 3: Conduct themselves in a responsible, professional, and ethical manner

PEO 4: Take part as leaders in their fields of expertise and in activities that support service and economic development throughout the world

Programme Outcomes (PO's)

1. **Artistic and technical knowledge:** An ability to apply the artistic knowledge in using the traditional and technical tools of animation in the field of animation
2. **Problem analysis:** An ability to identify, formulate, review, and analyse and solve complex problems in the animation production pipeline
3. **Design solutions:** An ability to design animations in variety of mediums which
4. **Analysis, Design and Research:** An ability to design and conduct experiments, as well as to analyse and interpret data
5. **Modern tool usage:** An ability to use the techniques& skills in animation
6. **The society and culture:** Contextual knowledge to assess societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to Animation

7. **Environment and sustainability:** Explore media, communication, and dissemination techniques to entertain via written, oral, and visual media.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the professional practice.
9. **Individual and teamwork:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the Animation principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Correlation between the POs and the PEOs

PEOs	Program Outcomes											
	1	2	3	4	5	6	7	8	9	10	11	12
I	✓	✓	✓	✓								
II			✓	✓	✓	✓	✓	✓				
III								✓	✓	✓	✓	
IV							✓					✓

Program Specific Outcomes (PSOs):

PSO1: Ability to understand different animation principles

PSO2: Ability to use different animation tools to work on a real time animation film project

PSO3: Ability to apply project management principles, Legal and contractual aspects to real time projects for efficient execution animation projects

PSO4: Ability to use tools and techniques to create aesthetically pleasing animation and multimedia content

COLLEGE OF FINE ARTS

BFA ANIMATION

COURSE STRUCTURE

SEMESTER I

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P	Total		Int	Ext	Total	W/P/J
1	AN21B1G1	History of Art	4	0	0	4	4	50	50	100	W
2	CC21B1EN	English	2	0	0	2	2	50	50	100	W
3	AN21B1C1	Story Concepts	4	0	0	4	4	50	50	100	W
	Laboratories/Studios										
4	AN21B1P1	Basic Drawing	0	1	6	7	7	50	50	100	P
5	AN21B1P2	Modelling	0	0	7	7	7	50	50	100	P
6	AN21B1P3	Fundamentals of Design	1	1	5	7	6	50	50	100	P
	Mandatory Course										
7	MC21B101	UHV-1 (AICTE)	2	0	0	2	0	0	0	0	
		Total	**13**	**2**	**18**	**33**	**30**	**300**	**300**	**600**	

SEMESTER II

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P	Total		Int	Ext	Total	W/P/J
1	AN21B2C1	History of Animation	4	0	0	4	4	50	50	100	W
2	AN21B2C2	Script Writing	3	0	0	3	3	50	50	100	W
3	CC21B2CS	Communication Skills	2	0	0	2	2	50	50	100	W
	Laboratories/Studios										
4	AN21B2P1	Principles of Animation	1	1	5	7	7	50	50	100	P
5	AN21B2P2	Character Design	1	1	6	8	8	50	50	100	P
6	AN21B2P3	Story Boarding	1	0	6	7	6	50	50	100	P
	Mandatory Course										
7	MC21B101	Environmental Studies (AICTE)	2	0	0	2	0	0	0	0	
		Total	**14**	**2**	**17**	**33**	**30**	**300**	**300**	**600**	

SEMESTER III

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P	Total		Int	Ext	Total	W/P/J
1	AN21B3P1	Basic Computers	1	0	4	5	5	50	50	100	P
2	AN21B3P2	3D Props & Sets Modeling	0	1	4	5	5	50	50	100	P
3	AN21B3P3	Drawing for 2 D Animation	0	1	5	6	5	50	50	100	P
4	AN21B3P4	Graphic Design - 1	1	1	4	6	5	50	50	100	P
5	AN21B3P5	Effects of Animation	0	1	4	5	5	50	50	100	P
6	AN21B3P6	Digital Painting	0	1	2	3	3	50	50	100	P
	Skill Oriented Course										
7	AN21B3K1	Skill Oriented course-1(UI)	0	0	2	2	2	100	0	100	P
	Mandatory Course										
8	MC21B301	Indian Constitution (AICTE)	2	0	0	2	0	0	0	0	
		Total	**4**	**5**	**25**	**34**	**30**	**400**	**300**	**700**	

SEMESTER IV

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P	Total		Int	Ext	Total	W/P/J
	Professional Core										
1	AN21B4P1	Character Animation	1	1	4	6	5	50	50	100	P
2	AN21B4P2	Graphic Design - II	1	1	3	5	5	50	50	100	P
3	AN21B4P3	2D Portfolio	0	0	5	5	5	100	0	100	P
4	AN21B4P4	Motion Graphics	1	1	3	5	5	50	50	100	P
5	AN21B4P5	Fundamentals of 3D	1	0	5	6	6	50	50	100	P
6	AN21B4O1	Principles of Animation (Open Elective-1)	0	0	2	2	2	100	0	100	P
	Skill Oriented Course										
7	AN21B4K1	Advanced communication skills (Skill Oriented Course-2)	0	2	0	2	2	100	0	100	P
	Mandatory Course										
8	MC21B401	Essence of Indian Traditional Knowledge (AICTE)	2	0	0	2	0	0	0	0	
	*Mandatory Community Service Project (AN21B5CS) during summer vacation between IV and V semester as per the guidelines given by APSCHE										
		Total	**6**	**5**	**22**	**33**	**30**	**400**	**300**	**700**	

SEMESTER V

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P	Total		Int	Ext	Total	W/P/J
	Professional Core										
1	AN21B5P1	3D Inorganic Modeling and texturing	1	1	5	7	5	50	50	100	P
2	AN21B5P2	Lighting and Rendering	1	1	5	7	5	50	50	100	P
3	AN21B5P3	Rigging and Skinning	1	1	5	7	5	50	50	100	P
4	AN21B5P4	Anatomy Study	0	1	5	6	5	50	50	100	P
	Professional Elective										
5	AN21B5E1	Stop motion Animation	0	1	1	2	2	50	50	100	P
	AN21B5E2	Craft Design									
	Open Elective										
6	AN21B5O1	Open Elective – Motion Graphics	0	1	1	2	2	100	0	100	P
	Skill Oriented Course										
7	AN21B5K1	Clay Modeling (Skill Oriented Course-3)	0	0	2	2	2	100	0	100	J
8	GN21B5CSP	Community Service Project	Vacation (180 hours)				4	100	-	100	J
		Total	**3**	**6**	**24**	**33**	**30**	**550**	**250**	**800**	

SEMESTER VI

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P	Total		Int	Ext	Total	W/P/J
	Professional Core										
1	AN21B6P1	3D Sculpting	0	1	5	6	5	50	50	100	P
2	AN21B6P2	3D Character Modeling and Texturing	0	1	5	6	6	50	50	100	P
3	AN21B6P3	3D Animation	0	1	5	6	6	50	50	100	P
4	AN21B6P4	Matte Painting	0	1	4	5	4	50	50	100	P
	Professional Elective										
5	AN21B6E1	Game Modeling &Texturing	1	0	5	6	5	50	50	100	P
	AN21B6E2	Advanced Lighting and Rendering									
	Open Elective										
6	AN21B6O1	Open Elective – Advanced Motion Graphics	0	1	1	2	2	100	0	100	P
	Skill Oriented Course										
7	AN21B6K1	Print Making Technique (Stencil Cut) (Skill – Oriented Course-IV)	0	0	2	2	2	100	0	100	J
		*Industrial/ Research Internship (AN21B7IN) mandatory after VI Semester									
		Total	**1**	**5**	**27**	**33**	**30**	**450**	**250**	**700**	

SEMESTER VII

S. No	Course Code	Course Title	Periods per Week				Credits	Marks			End Exam
			L	T	P	Total		Int	Ext	Total	W/P/J
	Professional Core										
1	AN21B7P1	Character Animation & Lip sync	1	1	5	7	6	50	50	100	P
2	AN21B7P2	Digital Compositing	1	1	5	7	6	50	50	100	P
3	AN21B7P3	Audio and Video Editing	1	1	3	5	5	50	50	100	P
	Professional Elective										
4	AN21B7E1	Dynamics & FX	1	0	5	6	5	50	50	100	P
	AN21B7E2	Match Moving									
	Open Elective										
5	AN21B7O1	Open elective (Fundamentals of 3D Modeling)	0	0	2	2	2	100	0	100	P
	Skill Oriented Course										
6	AN21B7K1	Research Methodology (Skill Oriented Course-V)	2	0	0	2	2	100	0	100	P
7	AN21B7IN	Industrial/ Research Internship	Vacation (180 Hours)				4*	100	0	100	J
		Total	**6**	**3**	**20**	**29**	**30**	**500**	**200**	**700**	

***Credits for Industrial Internship carried out during summer vacation between VI and VII semesters**

SEMESTER VIII

VIII-Semester BFA Animation											
Sl. No	**Course Code**	**Course Title**	**Periods per Week**				**Credits**	**Marks**			**End Exam**
			L	**T**	**P**	**Total**		**Int**	**Ext**	**Total**	**W/P/J**
1	AN21B8IN	Internship	**540 Hours**			-	12	50	50	100	J
2	AN21B8PR	Project /Portfolio				-	18	100	100	200	J
		Total	-	-	-	-	**30**	**150**	**150**	**300**	

***Mandatory Internship done during current semester will be extend as major project.**

SEMESTER - I

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	AN21B1G1	History of Art	4	0	0	4	50	50	100

Cos	Course Outcomes	POs	BTLs
CO1	This course exposes on Renaissance Art, and architecture and the students learn the concepts, themes and history of Renaissance art.	1,2	1,2
CO2	This topic gives a brief understanding of the Mannerism Art, Key Ideas & Accomplishments, and Definition of Art & Characteristics.	1,2	1, 2
CO3	To Study Baroque Art, particularly painting, sculpture, architecture, print making, murals and other mediums to connect with during Mannerism period.	2, 3	1, 2
CO4	Students will focus on history of Rococo Art, painting, sculpture, architecture, printmaking, designs, textiles, murals and other mediums.	3, 4	1, 2
CO5	To understand Significance of Neo classicism Art, study of painting, sculpture, printmaking, architecture, designs, changes the way they see world and society.	4, 5	1, 2
CO6	To understand various concepts of Romanticism and Realism Art, study of painting, sculpture, printmaking, architecture, designs, changes the way they see world and society.	5, 6	1, 2

MODULE- I

The Renaissance in the Italian renaissance basic Concepts, Renaissance Art history, Renaissance art style, background, Renaissance art influence, Renaissance architecture styles, subject matters, illuminated manuscript, sculptures, Metalwork, Architectural sculpture, wall paintings, paintings, Sources and style of work of art, Development of Renaissance art.

MODULE- II

Mannerism Art that breaks the rules; Study of Origin and development, mannerism makes itself, elongated proportions, highly stylized pose, and lack of clear perspective, venting painting, artifice over nature, Counter Reformation, importance of humanism, classicism: idealization of human form**,** Artists**,** Tintoretto, El Greco, Pontormo, Bronino, Cellini Historical events: Magellan Circumnavigates the globe.

MODULE- III

Baroque Art, art glorifies worldly splendour of Catholic Church; emphasis on miracles, depicted, theatricality, dramatic composition, emotionality. Study about Baroque history, painting, sculpture, furniture, and catholic churches, Counter Reformation how it impacted or imposed an academic art style on religious architecture, the exploration of Splendour and flourish for God; art as a weapon in the religious wars**.** Chief Artists Reubens, Rembrandt, and Caravaggio, Nicolas Poussin; Vermeer Palace of Versailles Historical events: Thirty years war between Catholics and Protestants.

MODULE- IV

Introduction to Rococo Art, influences and developments of Rococo Art, illusionism, eroticism, Artifice preferred over sincerity, smaller scale; intimate, decorative, often seen in applied arts as accessories, feeling for nature: Arcadia as ideal landscape, genre opposed to court eroticism aims at middle class to instruct and inspire; themes of love, family, every day, works are depicted.

MODULE– V

To understand the Neo classicism art, Basic Concepts of Neoclassicism, reaction to Enlightenment. Neoclassic art is stable, solid; subject matter is heroic, even grandiose, “antique revival”: developments of Neoclassical art, paintings, sculptures, architecture.

MODULE – VI

Romanticism and Realism reaction to Enlightenment: subjectivity, intuition, instinct, And reaction to art, interest in the mind, its moods, and its mysteries**,** sensuality, exoticism, Nature: evocative landscapes, natural beauty, and dramatic changes in landscape themes, developments of Romanticism and Realism art, paintings, sculptures, architecture.

BOOKS RECOMMENDED

1. Anthony Hughes, Michelangelo, Phaidon Series 2010
2. Susie Hodge, Art, Qurcus, 2013
3. Michael Kittson, Rembrandt, Phaidon Series 2010
4. John Sunderland, John Constable, Phaidon Series 1981
5. Catherine Puglisi, Caravaggio, Phaidon Series2010
6. Helen Langdon, Holbein, Phaidon series 2003

7. Edit Tomory, A History of Fine Arts in India and the West. Orient Longman.
8. Janis Tomlinson, Francisco Goya, Phaidon series 2010
9. Sir Lawrence Gowing, A History of Art, Andromeda 2002
10. Helen Gardner, Fred Kleiner Gardner's Art Through the Ages: A Global History, Wadsworth Publishing Co Inc; 16th edition (1 January 2019).
11. Paludan, Ann. **Chinese Sculpture: A Great Tradition.** Chicago: Serindia Publications, 2006.
12. Weidner, Marsha ed. **Cultural Intersections in Later Chinese Buddhism.** Honolulu: University of Hawai'i Press, 2001.
13. Weidner, Marsha, ed. **Latter Days of the Law: Images of Chinese Buddhism, 850–1850.** Lawrence: Spencer Museum of Art, University of Kansas, 1994.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	CC21B1EN	English	2	0	0	2	50	50	100

Cos	Course Outcomes	POs	BTLs
	the students should be able to		
CO1	Understand modern English grammar. To enable them produce grammatically and idiomatically correct language.	NA	1,2
CO2	Improve their clauses and sentences and its types.	NA	1,2
CO3	Understand English grammar. Spot language errors and correct them. To help them minimize mother tongue influence.	NA	1,2
CO4	Improve their verbal communication skills	NA	1,2
CO5	Understand core grammar to know and understand error free English grammar.	NA	1,2
CO6	Minimise mother tongue influence	NA	1,2

MODULE – I

Modern English grammar - what and why and how of grammar - grammar of spoken and written Language; Sentence as a self-contained unit – various types of sentence – simple – compound – complex – declaratives – interrogatives – imperatives – explanative; Basic sentence patterns in English - constituents of sentences – subject – verb - object - complement – adverbials;

MODULE – II

Clauses - main and subordinate clauses - noun clauses - relative clauses - adverbial clauses - finite and non-finite clauses - analysis and conversion of sentences – Active to Passive and vice versa – Direct to Indirect and vice versa – Degrees of Comparison, one form to the other;

MODULE - III

Phrases - various types of phrases - noun, verb, adjectival and prepositional phrases; Words - parts of speech – nouns – pronouns - adjectives verbs - adverbs – prepositions – conjunctions - determinatives; Nouns - different types - count and uncounted – collective - mass - case - number – gender;

MODULE – IV

Pronoun - different types - personal, reflexive - infinite-emphatic – reciprocal; Adjectives - predicative - attributive - pre- and post-modification of nouns; Verbs - tense-aspect - voice -mood - Concord - types of verbs – transitive - intransitive-finite – non-finite; Helping verbs and modal auxiliaries - function and use.

MODULE – V

Adverbs - different types - various functions - modifying and connective; Prepositions - different types - syntactic occurrences - prepositional phrases - adverbial function; Conjunctions - subordinating and coordinating Determinatives articles - possessives – quantifiers;

MODULE – VI

Remedial grammar - error spotting - errors in terms of specific grammatical concepts like constituents of sentences - parts of speech - concord – collocation - sequences of tense - errors due to mother tongue influence; Written Composition – précis writing – outline story – expansion of proverb – short essay.

BOOKS RECOMMENDED

- Burt, Angela. Quick Solutions to Common Errors in English. Macmillan India Limited,2008.
- Carter, Ronald, and Michael McCarthy. Cambridge Grammar of English. CUP, 2006.
- Concise English Grammar by Prof. V. K. Moothathu. Oxford University Press, 2012.
- Driscoll, Liz. Common Mistakes at Intermediate and How to Avoid Them. CUP, 2008.
- English for Effective Communication. Oxford University Press, 2013.
- Greenbrae, Sidney. Oxford English Grammar. Indian Edition. Oxford University Press, 2005.
- Kenneth, Anderson, Tony Lynch, Joan MacLean. Study Speaking. New Delhi: CUP, 2008.
- Leech, Geoffrey et al. English Grammar for Today: A New Introduction. 2nd Edition. Palgrave, 2008.
- Leech, Geoffrey, Jan Svartvik. A Communicative Grammar of English. Third Edition. New Delhi: Pearson Education, 2009

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	AN21B1C1	Story Concepts	4	0	0	4	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the structure and importance of story	1,2	1, 2
CO2	To define different narrative tools and elements To understand Genres and character development	3,4	3, 4
CO3	To develop a character for the story	5,6	4, 6
CO4	To analyse a story and its story and character development	7,8	5, 6
CO5	To Visualize and narrate story	8,9	6,7
CO6	To participate and discuss about a story and its character and story development	10,11	7,8

MODULE - I

Introduction to story:

Introduction and Overview of story, Story concept discussion, Elements of story, Plot, Narration, film, story, TV, Cartoon film making, finding ideas, finding characters, finding life, basic elements of Story writing, **setting**, Plot, point of view, style, theme, literary Device.

MODULE - II

Elements of story:

What kinds of ideas can carry a story? How can you turn a wobbly idea into one that works? Narrative Elements and Tools, Narrative Genres, Story Source, Identifying Character, Story Beginnings, Conflict, Rising Action, Climax, Falling action, Resolution, Synopsis discussion, small group workshops Class discussion, Breakdown discussion, Treatment, discussion, small group workshops Class discussion.

MODULE - III

Identifying Voice, Point of view Narrators, Character development discussion small group workshops class discussion, Protagonist Biography, Poetics, Aristotle (with introduction by Francis Fergusson, examples of Character script writing dialogues, talks, screen writing of narration.

MODULE - IV

We then consider character who does the story belong to? How do their desires, problems, and drives give the story its essential energy? Then we turn to story development and structure, the primary work of the course: how do you keep an idea alive for two-hundred pages, or two hours

MODULE - V

What elements help a story build energy and momentum, and deliver us to a satisfying close? We explore these essential story energies using writing exercises, examples from film and literature, and the shared experience of working writers. Preliminary Narrative Through line (Scene-By-Scene Outline), Scene by scene script writing: film story creation, TV, Cartoon film, Media, Visual story script Creation, script-based Story board making.

MODULE – VI

Script for an essay, elements of script writing, screen writing, structure of script, Script Uses. Story discussions, film story Various cartooning and Concept creation, TV, Cartoon film, Media, final project script, visual based Story, screenplay, Direction. Revised Narrative Through Line Workshop.

BOOKS RECOMMENDED

Text Books:

1. Robert Mc kee story winner, international moving, image book, Robert Mc keey,
2. Story (Methuen Film), Pundit Handiwari,1999

Reference books:

1. Story: Substance, Structure, Style, and the Principles of Screenwriting by Robert McKee
2. The Way of the Storyteller by Ruth Sawyer

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
I	AN21B1P1	Basic Drawing	0	1	6	7	50	50	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To become familiar with the basic methods, techniques & tools of drawing	1,2	1, 2
CO2	To understand the use of basic methods of sketching	3,4	1, 2
CO3	To enjoy the challenging and nuanced process of drawing	5,6	1, 2
CO4	To create drawings for their ideas	7,8	1, 2

MODULE - I

Study of figures casted from basic forms (Materials: Clay, Cardboard, Wood ext...)

Head Study: Study of head shapes like Oval, Hexagonal, Squares, & Round, Study of different views like front, three quarter, side, draw eyes, Nose, Ears & lips.

MODULE - II

Study of Shape: Masses of the head, study of torso, column forms of the arms and legs, masses of the figure, perspective projection of the figures – fore shortening, Study from Nature: Insects, Birds, and Animals, Ponds, Rocks, Trees, Plants, Flowers, etc.

MODULE - III

Anatomy traditional and Realistic Approach: Basic Human figure protections of various age group (Male/ Female), Fundamental Postures (Sitting, Standing, Walking) etc.

MODULE - IV

Introduction to Basic Perspective: Simple perspective explanation, One- and Two-point perspectives

BOOKS RECOMMENDED

1. The Complete Book of Drawing: Essential Skills for Every Artist Book by Barrington Barber,2004
2. Perspective Made Easy, Book by Ernest Ralph Norlina
3. Victor Petard

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
I	AN21B1P2	Modelling	0	0	7	7	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	Understand ways of using the elements of line, point, tone, texture, and shape to record the appearance of designs in drawings.	1,2	1, 2
CO2	Apply ways of conveying form and texture in a clay sculpture. Use drawing techniques with various types of drawing pencils.	3,4	3, 5
CO3	Analyse clay tools and techniques. Express visual ideas through making drawings and creating a three-dimensional clay article.	5,6	4, 5
CO4	Create imagination and invention to represent form, texture, and detail in a clay sculpture.	7,8	5, 6

MODULE – I

History and Evolution of Pottery Clay Preparation Design, Fundamental Decoration and Firing in Pottery Knowledge of New materials Understanding the geometrical forms, and construction of the above mentioned by using clays, and mount board.

MODULE – II

Intersection and overlapping of different Geometrical shapes. Creating Spaces inside the different, Geometrical shapes. Sand painting, Sand miniatures, Two dimensional, 3Dimentional sand modules.

MODULE – III

Working with still life objective like Fruits, Vegetables, Vases, Human Body parts etc. Relief and Round Sculpture, modelling with clay, terra-cotta, carving in wood, stone, bronze casting, plaster or Paris and metal welding.

MODULE – IV

Rubber Mould, POP Mould, Fibre mould, Wax Mould, Projects: Product Designing & Development Combination of Different Techniques for moulding& Casting in 2-D & 3-D

BOOKS RECOMMENDED

1. Clay Modeling for Beginners: An Essential Guide to Getting Started in the Art of Sculpting Clay, Jeanie Hirsch, first published June 7, 2015.

2. The Craft and Art of Clay: A Complete Potter's Handbook 2nd Edition, By PETERSON Susan

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
I	AN21B1P3	Fundamentals of Design	1	1	5	6	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	Identify ways of using the elements of line, point, tone, texture, and shape to record the appearance of designs in drawings.	1,2	1,0
CO2	To understand colour and uses of colour in creating compositions	3,4	2, 5
CO3	To Explore the general elements and principles of design Elements: line, shape and form, space, colour, texture, movement Principles: balance, rhythm, emphasis, contrast, unity, proximity, variety	5,6	4, 5
CO4	To create design elements to create a composition	7,8	4, 6

MODULE - I

Introduction:

Colour Basics: Light Colour, components of colour, contrast and value principles of pigment colours and light theory, tints, and shades, colour tones, key of colours, in Primary and secondary colours.

MODULE - II

Elements of Design, layout Principles of general elements, Line, Texture, Shape, Form, Value, Space, Colour an in-depth study of elements, principles, concepts. Typography design.

MODULE - III

Colour in Nature: study of different colour combinations with the help of nature. The differences between hue, value, and intensity, colour interaction Being able to see value separate from hue. Understanding the way colour interacts with other colours and its relative nature. Mixing the colour wheel, tints, tones, shades, and greying hues with complements. Colour Wheel: 24 steps colour wheel.

MODULE - IV

Principles of Compositional Design, Balance, Harmony, Contrast, Rhythm, pattern, and repetition

BOOKS RECOMMENDED

1. The fundamentals of creative Design, 2nd edition, Gavin Ambrose /Paul Harris,2003
2. Design Fundamentals, Notes on Visual Elements and Principles of Composition by Rose

Gonnella, Christopher J. Naiveté, Max Friedman · 2015

3. Fundamentals of Design and Manufacturing, By G. K. Lal, Nallagundla Venkata Reddy, Vijay Gupta, 2005.

I	**MC21B101**	**UHV-1 Student Induction Program (mandatory AICTE)**	**2**	**0**	**0**	**0**	**-**	**-**	**-**

COs	**Course Outcomes**	**POs**	**BTLs**
	The Student Induction Program (SIP) The 3-week Student Induction Program (SIP) is to prepare newly admitted undergraduate students for the new stage in their life by facilitating a smooth transition from their home and school environment into the college and university environment through various discussions and activities. The SIP has been formulated with specific goals to help students to:		
CO1	Become familiar with the ethos and culture of the institution (based on institutional culture and practices)	**NA**	**NA**
CO2	Set a healthy daily routine, create bonding in batch as well as between faculty members and students	**NA**	**NA**
CO3	Get an exposure to a holistic vision of life, develop awareness, sensitivity and understanding of the Self---family---Society---Nation---International---Entire Nature	**NA**	**NA**
CO4	Facilitate them in creating new bonds with peers and seniors who accompany them through their college life and beyond	**NA**	**NA**
CO5	Overcome weaknesses in some essential professional skills – only for those who need it (e.g., Mathematics, Language proficiency modules)	**NA**	**NA**

The various modules or core areas recommended for the 3-week SIP are:

SIP Module I: Universal Human Values I (UHV I) 22 hours

The purpose is to help develop a holistic perspective about life. A self-reflective methodology of teaching is adopted. It opens the space for the student to explore his/her role (value) in all aspects of living – as an individual, as a member of a family, as a part of the society and as a unit in nature. Through this process of self-exploration, students can discover the values intrinsic in them. The session wise topics are given below:

Session No	Topic Title	Aspirations and Issues	Basic Realities (underlying harmony)
1	Welcome and Introductions	Getting to know each other	Self-exploration
2 and 3	Aspirations and Concerns	Individual academic, career… Expectations of family, peers, society, nation… Fixing one's goals	Basic human aspirations Need for a holistic perspective Role of UHV
4 and 5	Self-Management	Self-confidence, peer pressure, time management, anger, stress… Personality development, self-improvement…	Harmony in the human being
6 and 7	Health	Health issues, healthy diet, healthy lifestyle Hostel life	Harmony of the Self and Body Mental and physical health
8, 9, 10 and 11	Relationships	Home sickness, gratitude towards parents, teachers and others Ragging and interaction Competition and cooperation Peer pressure	Harmony in relationship Feelings of trust, respect… gratitude, glory, love
12	Society	Participation in society	Harmony in the society
13	Natural Environment	Participation in nature	Harmony in nature/existence
14	Sum Up	Review role of education Need for a holistic perspective	Information about UHVII course, mentor and buddy
15	Self-evaluation and Closure	Sharing and feedback	
SIP Module II: Physical Health and Related Activities			
This module is intended to help understand the basic principles to remain healthy and fit and practice			

them through a healthy routine which includes exercise, games etc.
SIP Module 3: Familiarization of Department/ Branch and Innovation
This module is for introducing and relating the student to the institution/department/branch; how it plays a role in the development of the society, the state, region, nation, and the world at large and how students can participate in it.
SIP Module 4: Visit to a Local Area
To relate to the social environment of the educational institution as well as the area in which it is situated through interaction with the people, place, history, politics…
SIP Module 5: Lectures by Eminent People
Listening to the life and times of eminent people from various fields like academics, industry etc. about careers, art, self-management and so on enriches the student's perspective and provides a holistic learning experience.
SIP Module 6: Proficiency Modules
This module is to help fill the gaps in basic competency required for further inputs to be absorbed. It includes effort to make student proficient in interpersonal communication and expression as well as awareness about linguistic and thereafter NLP.
SIP Module 7: Literature / Literary Activities
Through the exposure of local, national, and international literature, this module is aimed at helping the student learn about traditional as well as contemporary values and thought.
SIP Module 8: Creative Practices
This module is to help develop the clarity of humanistic culture and its creative, joyful expression through practice of art forms like dance, drama, music, painting, pottery, sculpture etc.
SIP Module 9: Extra-Curricular Activities
This is a category under which things that are not placed in any of the above may be placed. Some clubs and hobby group may be made for each of the above categories, so that students may pursue them even after SIP.
The recommended hours to be allocated are given above. Depending on the available faculty, staff, infrastructure, playgrounds, class timings, hostellers, and day scholars etc., the timetable for these activities may be drawn up. Of course, colleges may conduct an inaugural function at the beginning of the SIP; and they may also conduct a celebratory closing ceremony at the end of the SIP. During the lockdown phase, appropriate care may be taken and some or all activities may be planned in distance-learning or on-line mode.
Implementation:

The institution is expected to conduct the 3-week SIP under the guidance of the Director/Principal or Dean Students or a senior faculty member. For this, the institution is expected to make an SIP Cell. The SIP Cell will be responsible for planning, and then implementation of the SIP.

Follow up:

An important part of the SIP is to associate one faculty mentor to every small group of about 20 students; and associate one senior student buddy to an even smaller groups of about 5 students for the guidance required for holistic development of the newly joined student throughout his/her time in the institution/college.

These activities are to be continued in the ongoing academic program along with other cultural activities through the Student Activity Cell (SAC).

The SIP is only the beginning of the interaction with newly joined students.

SEMESTER -II

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
II	AN21B2C1	History of Animation	4	0	0	4	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To Understand the history and timeline of animation	1,2	1,0
CO2	To identify different principles of animation	3,4	2, 3
CO3	To Compare different types of animation film medium	5,6	3,2
CO4	To Relate different film standards and identify the usage of different transitions	7,8	3, 2
CO5	To connect the difference between Indian and international animation film making	8,9	4,0
CO6	To Hypothesize the process of TV series animation film making	10,11	5,6

MODULE - I

Introduction to Animation earliest of animation film 1888, standard picture film, History of Animation: shadow play, magic Lantern, animation before film, Trauma trope. Zoetrope, printed animation film, what is first animation in history, who created first character created for animation, father of animation, Disney firsts cartoon.

MODULE - II

Principles of Animation, main principles, Arch principles detailing, illusion of life, staging principles of animation, Key-frames, In-betweens, Cycles, Morphing, reference to take history of Australian films, New Zealand, India, and America.

MODULE - III

Types of Animation: Clay animation, Traditional animation, 3Danimation, Puppet/ toy animation, material animation. Why animation? To get rewarding careers in Entertainment Media, Feature Film, Television Episodes, Gaming, Web Animation, Ad agencies, E-Learning (Education).

MODULE - IV

Animation standards: Film theory – Definition, Frame rate, NTSE / PAL/Film speed/Conversion &

calculation as per scene. Visual transition Devices, Cut, Fade In /Fade out Cross Dissolve, Wipe.

MODULE - V

Audio visual sessions: History of Walt Disney studios and in-depth study of its characters. Study of International and Indian animation films. Animation Movie show which should include making of the movie.

MODULE - VI

Workshop on Principles animation (follow through, slow in slow out, timings, anticipation) Workshop on TV animation in 1940, 1950, 1960, 1970Artistic short animations views. Assignment types of animation, animation on TV, Cartoon. Indian animations, workshop on Fun cartoon, Movies and stories.

BOOKS RECOMMENDED

Text book:

1. The Animator's Survival Kit: A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion, and Internet Animators (FARRAR, STRAUS), Richard Williams, 2012.
2. The World History of Animation, Stephen Cavalier and Sylvain Chomet,2011

Reference books:

3. The Walt Disney Film Archives. The Animated Movies 1921–1968. 40th Ed. (Multilingual Edition), Daniel KO the Schulte, 2020.
4. Animation: A World History, Book by Giannal berto Bendazzi

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
II	AN21B2C2	Script Writing	3	0	0	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand script writing	1,2	2,3
CO2	To Demonstrate different camera angles and its application	3,4	3,4
CO3	To analyse the film, TV, Animation Cartoon film making	3,6	3,2
CO4	To Compare to a script for Animation network TV and Cinema writing	5,6	4, 5

MODULE - I

Introduction to Screen writing, finding the story, how to format script, how to write a short out line, film and TV and cartoon cinema. The Craft and Technique of Scriptwriting. Begin a story, Dialog writing emotions, Novel writing and outline of Screen writing.

MODULE - II

Three act Structures, short out line script, exploring Character, dramatizing character, proper script formatting, Radio, Cinema, Drama, TV, Cartoon, and Conceiving: Story planning & producing for media production. Film analysis character and Plot, Indian and western films.

MODULE – III

Develop Three act structure, film grapy, character interviews, the role of Conflict Dialogue and descript vies, Develop Realistic Critiquing Skills, Concepts & techniques need for animation scripting, Evaluating & creating emotional connection with the audience, Skills for their own visual stories.

MODULE – IV

types of dialogue writing and Develop, Recognizable Verbal Language, Study of narrative storytelling, Dialogue, Point of view, Character development. Dialog writing: Emotional, dramatic, what is the format of dialogue writing? The seven rules of dialogue in MLA.

MODULE – V

How do you begin a story, Imagine, questions, background, surprising way of writing, how do short story: excitement, introduce character, memories, mystery? Tales of Heroes (Legend & Religious) Infuse story

& develop emotional connection, writing scene by scene, Joseph Can bell 'Hero's Journey '
MODULE - VI
Project: Cartoon stories Continuing Series, Comedy or Horror / Fantasy, Exercise of Dialog writing, how to write a dialogue between two character. Active learning: Character Development, Quiz:
BOOKS RECOMMENDED 1. Directing the Story: Professional Storytelling and Storyboarding Techniques for Live Action and Animation, Francis Lebas, 2008. 2. The Animator's Sketchbook: How to See, Interpret & Draw like a Master Animator, Tony white 3. Professional Storyboarding: Rules of Thumb, Sergio Paez, and Anson Jew, 201

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
II	CC21B2CS	Communication Skills	2	0	0	2	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	On completion of the course, the students should be able to listen to lectures, public announcements and news on TV and radio. Engage in telephonic conversation.	NA	1,2
CO2	To provide an adequate mastery of technical and communicative English Language speaking skills training	NA	1,2
CO3	To provide an adequate mastery of technical and communicative English Language reading skills training	NA	1,2
CO4	To prepare students for participation in seminars, group discussions, paper presentation and general personal interaction at the professional level.	NA	1,2
CO5	To provide an adequate mastery of creative writing skill training, different modes of writing, project reports effectively.	NA	1,2
CO6	To familiarize students with different modes of general and academic writing.	NA	1,2

MODULE – I

Communication: Importance of Communication; Elements of good individual communication; organizing oneself; different types of communication; Barriers in the path of Communication.

MODULE – II

Listening skills: Listening to conversation and speeches (Formal and Informal) Reading: Techniques of reading, skimming, Scanning, SQ3R technique

MODULE – III

Creative Writing: Scope of creative writing; Writing skills Signposting. Outlines, Rephrasing Writing a report/ format of the report; Paragraph, Letter Writing, Essay writing, Memo, Cikedlar, Notice Cover Letter, Resume, writing with a thesis, Summary, Précis, Product description - Description of projects and

features Oral Report; Periodical Report; Progress Report; Field Report Preparation of minutes; Video conference; Tele conference / Virtual meeting

MODULE – IV

Speaking: How to converse with people, how to communicate
effectively; Language and grammar skills; Pronunciation drills, Phonetics, vowels,
Diphthongs, consonants, Stress, Rhythm and intonation, Conversational skills Features of effective speech- practice in speaking fluently-role play-telephone skills-etiquette.

MODULE – V

Short Extempore speeches-facing audience-paper presentation-getting over nervousness-Interview techniques-preparing for interviews - Mock interview. Body Language.

MODULE – VI

Impact of internet on communication; communication through computers; voice mail; broadcast messages; e-mail auto response, etc.

BOOKS RECOMMENDED

- C S Rayudu: Principles of Public Relations, Himalaya Publishing House
- Daniel Colman: Emotional Intelligence,
- English for Effective Communication. Oxford University Press, 2013.
- K. Ashwathappa: Organizational Behavior, Himalaya Publishing House
- Kenneth, Anderson, Tony Lynch, Joan MacLean. Study Speaking. New Delhi: CUP, 2008.
- Krishna Mohan &Meera Banerji: Developing Communication Skills Macmillan India
- Lynch, Tony. Study Listening. New Delhi: CUP, 2008.
- Marks, Jonathan. English Pronunciation in Use. New Delhi: CUP, 2007.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
II	AN21B2P1	Principles of Animation	1	1	5	7	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To identify and apply the 12 Animation Principles	1,2	1,2
CO2	To Summarize timing and motion through key-frames, holds and in-betweens	3,4	2, 3
CO3	To illustrate principles of animation on objects	3,6	3,2
CO4	To compare the importance of principles of animation	7,8	4, 5

MODULE - I

Introduction of animation: History of Animation, Persistence of Vision, Early Animation Devices Principles of Animation, Key-frames, In-betweens, Cycles, Morphing: Overview, Animation Timeline.

MODULE - II

Principles of Animation, Timing and Spacing Charts, Squash and Stretch, Morphing (Basic Animation principles Concepts of 12 animation principles & their importance).

Bouncing Balls (Principles of Animation: Slow In, Slow Out, Squash and Stretch, Timing, Anticipation Visual Rhythm Transitions.

MODULE - III

Basic Animation- Key-framing (position/scale/rotation/opacity), Anchor Point, Creating Shapes, Motion Paths, using Markers, Importing Audio.

MODULE - IV

Key Drawing and assistance animation from story boarding to poses (layout staging), In-betweens and Clean-ups, Review of Character Designs (online) Concepts of Design Composition of a scene,

BOOKS RECOMMENDED

1. The Animator's Survival Kit: A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion, and Internet Animators (FARRAR, STRAUS), Richard Williams, 2012
2. The Illusion of Life: Disney Animation, Ollie Johnston, Frank Thomas ,1995
3. Sketching for Animation: Developing Ideas, Characters and Layouts in Your Sketchbook

(Required Reading Range), Peter Parr 2018

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
II	AN21B2P2	Character Design	1	1	6	8	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand different sketching techniques	1,2	1,0
CO2	To apply cartoon characters using basic shapes	3,4	2, 3
CO3	To demonstrate cartoon characters using line of action	5,6	3,2
CO4	To construct characters using real life references	7,8	4, 2
CO5	To create caricatures and stylized characters	8,9	5,6
CO6	To evaluate a model sheet for modelling in 3D	10,11	6,7

MODULE - I

Introduction, Sketching Techniques, Caricature

Head Shapes and Eyes, Hair, Head Tilts and Expressions, Body Construction

MODULE - II

Basic shapes for cartoons Line of action, Headlines, Eye line (Head Rotations), Head Proportions.

Body Construction, Hands, and Feet, Posing, Using Reference, Costume Design, Cartoon Animals, Reviews, Style, and Versatility

MODULE - III

Character Construction and Detail Study: Study of character as per head ratio/ proportions Reference for nature (trees, birds, and animals) Reference from objects around us (table lamp, pencil, book, household-items, vessels...etc.)

MODULE - IV

Developing of Existing and Exaggerated Character: By using the existing characters, model sheets, exaggerating the characters / Developing a new character modifying relist human features like hand and feet etc., Creating stylized characters

MODULE - V

Character Model Sheets: Model sheet, Line-up of characters, Lip/ Mouth expressions, Gestures, and attitude sheets
BOOKS RECOMMENDED 1. Fundamentals of Character Design: How to Create Engaging Characters for Illustration, Animation & Visual Development,2020 2. Creating Stylized Animals: How to design compelling real and imaginary animal characters 2021

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
II	AN21B2P3	Story Boarding	1	0	6	6	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand storyboard and its importance	1,2	1,2
CO2	To compare the different camera angles and its application	3,4	2, 3
CO3	To demonstrate the difference between shot and scene	3,6	3,2
CO4	To analyse a custom storyboard template	7,8	4, 5

MODULE - I

Introduction of Storyboarding, Importance of story boarding, Story boarding template and basics, Story boarding template and nomenclature, Types of story boarding,

MODULE - II

Camera Angles, shot and scene, Frame and duration, Visual storytelling, Film and

MODULE - III

Visual representation of story, Storyboard for animation, Digital storyboarding,

MODULE - IV

Dialogue, Story board template, Practical story board development, Incorporation of script in the storyboard - Cartoon animation storyboard.

BOOKS RECOMMENDED

1. Directing the Story: Professional Storytelling and Storyboarding Techniques for Live Action and Animation, Francis LeBas, 2008.
2. The Animator's Sketchbook: How to See, Interpret & Draw like a Master Animator, Tony white
3. Professional Storyboarding: Rules of Thumb, Sergio Paez, and Anson Jew, 2012

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
II	MC21B101	Environmental Science	2	0	0	0	-	-	-

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance of environment and natural resources	6, 7	1, 2
CO2	To acquire the knowledge on various principles of eco- systems and their functions.	6, 7	1, 2
CO3	To gain the knowledge on various principles, threats, and conservation of biodiversity.	6, 7	1, 2
CO4	To understand the importance of national and international concern for protection of environment from various pollutants	6, 7	1, 2
CO5	To understand various social Issues related to Environment	6, 7	1, 2
CO6	To understand the impact of human population on the environment.	6, 7	1, 2

MODULE - I

Environmental studies–Introduction: - Definition, scope, and importance, Measuring and defining environmental development indicators.

Environmental and Natural Resources: Renewable and non-renewable resources - Natural resources and associated problems - Forest resources - Use and over - exploitation, deforestation, case studies - Timber extraction, dams- benefits and problems.

MODULE - II

Basic Principles of Ecosystems Functioning: Concept of an ecosystem. -Structure and function of an ecosystem. - Producers, consumers, and decomposers. - Energy flow in the ecosystem Ecological succession. - Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure, and function of the following ecosystem:

a) Forest Ecosystem
b) Grassland Ecosystem
c) Desert Ecosystem

d) Aquatic Ecosystem (Ponds, Streams, Lakes, Rivers, Oceans, Estuaries)

MODULE - III

Biodiversity and its conservation: Introduction – Definition- genetic, species and ecosystem diversity. Bio-geographical classification of India

Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. - Endangered and endemic species of India.

Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

MODULE - IV

Environmental Pollution: Definition, Cause, effects, and control measures of

a) Air pollution
b) Water pollution
c) Soil pollution
d) Marine pollution
e) Noise pollution
f) Thermal pollution
g) Nuclear hazards

MODULE - V

Social Issues and the Environment: From unsustainable to sustainable development -Urban problems related to energy -Water conservation, rainwater harvesting, and watershed management - Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents, and holocaust. Case Studies. – Waste land reclamation

MODULE - VI

Human Population and the Environment: Population growth, variation among nations. Population explosion Role of information Technology in Environment and human health. - Case Studies.

Field work: Visit to a local area to document environmental assets River /forest grassland/hill/mountain - Visit to a local polluted site-Urban/Rural/industrial/ Agricultural Study of common plants, insects, birds. - Study of simple ecosystems- pond, river, hill slopes, etc.

BOOKS RECOMMENDED

1. Erich Barouche, A Textbook of Environmental Studies for Undergraduate Courses, University Grants Commission.
2. Perspectives in environmental Studies, Anubha Kai-shek and C P Kaushik, New Age International Publishers, New Delhi, 2018. 2. A Textbook of Environmental Studies, Shashi Chawla, McGraw Hill Education, New Delhi, 2017.

Reference Books:

1. Environmental Studies by Benny Joseph, McGraw Hill Education, New Delhi, 2017.
2. Fundamentals of environmental studies, Mahua Basu and S Xavier, Cambridge University Press, New Delhi, 2017.

SEMESTER -III

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
III	AN21B3P1	Basic Computers	1	0	4	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To gain knowledge of a basic understanding of computer, hardware & Software, types of Computers. Demonstrate problem-solving skills.	3,5	1, 2
CO2	To Gain Knowledge on to the creation, editing, formatting, storage, and output of both printed and online or electronic documents	3,5	1, 2
CO3	To Gain Practical Knowledge to operate shades, how to use basic knowledge about Paint & Paint 3D.	3,5	1, 2
CO4	An effective tool to present material in the classroom and encourage student learning, Faster and more accurate decision making, quick calculations, seamless data visualization and a lot more.	3,5	1, 2
CO5	To enhance the teaching and learning experience, powerful tool for giving a presentation, to improve visual impact,	3,5	1, 2
CO6	To Gain Practical Knowledge to prepare students in understanding the basics and to make aware of Office automation using MS- office, Animation, Explore technical knowledge in diverse areas of Computer Applications.	3,5	1, 2

MODULE - I

Introduction to Basics of Computers:

Definition of Computers, Characteristics of Computer, Generations of Computer, Block Diagram of Computer, Primary and Secondary Memories, Input and Output Devices, Hardware, Software.

MODULE - II

MS Word - Word Processing – Features-Advantages and Applications- Parts of Word Window- Toolbar-Creating, Saving, Closing, Opening and Editing of a Document-Moving and Coping a Text-Formatting of Text and Paragraph- Bullets and Numbering-Find and Replace - Insertion of objects-Headers and Footers-

Page Formatting- Auto Correct-Spelling and Grammar- Mail Merge-

MODULE - III

Paint: File Menu, Image Options, Tools, Shapes, Colors, Clip Board, View Menu, Zoom, Display.

Paint 3D: Brushes,2D Shapes,3D Shapes, Stickers, Text, Effects, Canvas.

MODULE - IV

MS Excel: Features – Spread Sheet-Workbook – Cell-Parts of a window-Saving, Closing, Opening of a Workbook – Editing – Advantages – Formulas- Types of Function-Templates –Macros – Sorting- Charts – Filtering.

MODULE - V

MS Power point:

Introduction – Starting – Parts-Creating of Tables- Create Presentation – Templates- Auto Content Wizard-Slide Show-Editing of Presentation-Inserting Objects and charts

MODULE - VI

Animation:

Animation Transition, Working with Power point objects, Designing & presentation of a Slide Show, Printing Presentations with print options. (Lecture, Demonstration, Lab Practical

BOOKS RECOMMENDED

Text:

1. P. Mohan computer fundamentals- Himalaya Publications.
2. R.K. Sharma and Shashi K Gupta, Computer Fundamentals - Kalyani Publications
3. Fundamentals of Computers by Balagurusamy, Mc Graw Hill

Reference books:

1. Computer Fundamentals Anita Goel Pearson India
2. Introduction to Computers Peter Norton
3. Fundamentals of Computers Rajaraman V Adabala N
4. Office 2010 All-in-One for Dummies Peter Weverka
5. MS-Office S.S. Shrivastava
6. MS-OFFICE 2010 Training Guide Prof. Satish Jain, M. Geetha, KratikaBPB

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
III	AN21B3P2	3D Props & Sets Modeling	0	1	4	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand various types of set models	1,2	2,3
CO2	To understand proportions in model making of miniatures	3,4	3,4
CO3	To apply drawing knowledge for flow scenario and moving parts	5,6	5,6
CO4	To develop characters in constructing a set Model step by step	7,8	6,7

MODULE – I

Introduction, various types of set models**,** Tools and materials, basic techniques,

MODULE – II

Architectural techniques and model making, Proportions

MODULE – III

Furniture and dressing, Miniatures, Colouring and texturing Miniatures for realism

MODULE – IV

Flow scenario and moving parts, people trees and other organic elements, digital techniques, displaying and presenting the model, constructing a set Model step by step

BOOKS RECOMMENDED

1. 3D modeling and painting with Tinkered create and paint, by James Floyd Kelly, 2014.
2. Handbook of model making of for Set designers, by Colin Winslow, 2015.
3. AutoCAD 20183d modeling, by Munir Harmad, 2017.
4. Automatic Reconstruction of textured 3d models, baptizer, Benjamin, 2015.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
III	AN21B3P3	Drawing for 2D Animation	0	1	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand importance of drawing for animation	1,2	2,3
CO2	To apply drawing skills to create character in motion	3,4	3,4
CO3	To apply drawing knowledge for drawing animation in poses	5,6	5,6
CO4	To develop characters in motion and aesthetics	7,8	6,7

MODULE – I

2D Drawing for Perspective of 2D drawings: Design; understanding the character animation, effect animation, inking and background painting, they must also can draw a wide variety of subject matter in many different styles, Sketching

MODULE - II

2D Drawing for shadow perspectives: Render the rough layout, defining lines, shapes, and gradations and shading to create dimension. Character registration lines are indicated with red pencil. While the rest of the drawing is in black pencil

MODULE - III

Sketching basics, Sticky animation poses, Study of mannequin poses, Layout drawings, Background drawing

MODULE - IV

Anatomy study of human body, construction of human body, Quadruped and octopod, Life sketching

BOOKS RECOMMENDED

1. The Complete Animation course by Chris Patmore, By – Barons Educational Series (New York) Anatomy of the Artist – Thompson•& Thompson
2. Sketching for animation, Author Peter Parr
3. Penguin Random House the Animator's Survival Kit – 5 November 2009, by Richard E. Williams (Author)

4. Animation for Beginners: Getting Started with Animation Filmmaking, 20 October 2021, By Morr Meroz (Author)
5. Andrew Loomis-Anatomy drawing
6. Dynamic Figure Drawing - Burne Hogarth

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	AN21B3P4	Graphic Design I	1	1	4	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the interface and importance of raster graphics software	1,2	2,3
CO2	To explain use retouching tools to edit images	3,4	4,3
CO3	To compare effectively use multilayer image manipulation tools and filters	5,6	5,6
CO4	To create a digital painting using the raster graphics software	7,8	6,7

MODULE - I

Introduction and Interface: Introduction to digital image editing: Raster Image • Vector Image • Image File Formats, Preferences: Recovery and undo • Memory and Performance • Image size and Resolution • Cropping and resizing

Workspace: Interface Basic • Palettes and Menus • Tool Bar - Selection Tools, painting tools, Editing, and retouching tools • Text tools. • Ruler, Guides and Grids

MODULE - II

Retouching tools: Colour: Colour Mode, Colour Correction • Levels and Curves., Adjustment layers,

MODULE - III

Layers & Filters: Layers, Layer concept • Selecting, Grouping, and linking layers • Layer Effects • Layer Mask, Smart layers.

Filters: Applying filters • Automating tasks - creating action

MODULE - IV

Material Study and Digital painting• Digital painting techniques, Photo restoration

BOOKS RECOMMENDED

1. Adobe Photoshop Bible cs5 by Lisa Danae Dayley, Brad Dayley --- Wiley India
2. Adobe Photoshop CS6 (Classroom in a Book), PEARSON Publications
3. Adobe Photoshop Classroom in a Book (2021 Release), Book by Andrew Faulkner and Conrad Chavez
4. Graphic Design Play Book: An Exploration of Visual Thinking, Sophie Cure, Barbara Seggio, 2019.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	AN21B3P5	Effects of Animation	0	1	4	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand principles of animation	1,2	1,2
CO2	To apply animation principles to animate organic elements	3,4	3,4
CO3	To Design animations for special effects	5,6	5,6
CO4	To analyse animations effects	7,8	6,7

MODULE - I

Straight ahead animation

Elements- Liquid: Splash Water, Rain, tap water, waterfalls, Ocean wave. Etc. Elements- Fire and smoke, lighting a fire-torch, Matchstick, Explosion, smoke, and dust

MODULE - II

Elements – Air, Magic spill, Air, Fluid Effects-Colouring- designing Clouds Background – Designing Fog Effects – Explosion Effects – Fire Effects with flames - Space Effects and designs- Designing Thick Smoke

MODULE - III

Designing Paint Effects – Colouring paints- Designing Trees and green effects – Designing Weather and seasons – Effects on seasons- Designing Glass image.

Designing Different glass reflection- Designing Glow Effects – Liquid Effects and reflection design

MODULE - IV

Designing Special Effects – Designing effects of Hair and shape – Designing Fur Effects Designing Clothes and effects

BOOKS RECOMMENDED

1. Classical Animation – Preston Blair
2. Elemental magic the classical art of Hand Drawn special effects animation, Joseph Gilland

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
III	AN21B3P6	Digital Painting	0	1	2	3	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To identify an understanding of the elements of design (line, value, space, texture, perspective, and colour theory).	1,2	1,2
CO2	To compare the ability to communicate in a visual sketch.	3,4	2,3
CO3	To illustrate utilize animation tools for creating complex digital 2D animation	5,6	3,4
CO4	To demonstrate the use of a computer as another artistic medium in addition to the traditional mediums of sketching, painting, photography, etc.	7,8	5,6

MODULE - I

Introduction

Overview of Digital Painting, what is it? What types of jobs are available to digital artists?

MODULE - II

Digital still life painting study, Digital landscape painting Digital portrait, Digital memory Drawing, Digital Life study painting

MODULE - III

Mini Project: Custom Brushes and Stroke Path Command: Da Vinci Steam punk Gun: Students create a drawing of a Steam punk style gun inspired by the drawings of Leonardo Da Vinci. The project utilizes custom brushes, painting and blending techniques, and the stroke path command.

MODULE - IV

Major Project: Vehicle Concept Art using Custom Brushes, Stroke Path Command, and Painting and Blending Techniques Students create an original vehicle concept drawing utilizing the techniques learned in the previous exercises and mini project.

BOOKS RECOMMENDED

1. Digital painting for the complete beginner, Book by Carlin breccias, 2012.
2. Digital Sketching: Computer-Aided Conceptual Design, Book by John Baucus, 24 november,2020.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	AN21B3K1	Skill Oriented Course 1(UI)	0	0	2	2	100	0	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance of UI and UX design in making interactive content	10	2

The student should learn any online course from a recognised online course related to UI

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
III	MC21B301	**Indian Constitution**	2	0	0	0	-	-	-

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	to Know the background of the present constitution of India.	6, 7	1, 2
CO2	to Understand the working of the union, state, and local levels.	6, 7	1, 2
CO3	to Gain consciousness on the fundamental rights and duties.	6, 7	1, 2
CO4	to understand the functioning and distribution of financial resources between the centre and states.	6, 7	1, 2
CO5	Be exposed to the reality of hierarchical Indian social structure and the ways the grievances of the deprived sections can be addressed to raise human dignity in a democratic way.	6, 7	1, 2
CO6	To understand the international relations of India with the surrounding countries	6, 7	1, 2

MODULE - I

Evolution of the Indian Constitution: 1909 Act, 1919 Act and 1935 Act. Constituent Assembly: Composition and Functions; Fundamental features of the Indian Constitution.

MODULE - II

Union Government: Executive-President, Prime Minister, Council of Minister

State Government: Executive: Governor, Chief Minister, Council of Minister

Local Government: Panchayat Raj Institutions, Urban Government

MODULE - III

Rights and Duties: Fundamental Rights, Directive principles, Fundamental Duties

MODULE - IV

Relation between Federal and Provincial units: Union-State relations, Administrative, legislative, and Financial, Inter State council, NITI Ayog, Finance Commission of India

MODULE - V

Statutory Institutions: Elections-Election Commission of India, National Human Rights Commission, National Commission for Women
MODULE - VI
India's External Relations: Cold War and Post-Cold War era. What is Foreign Policy? Basic Determinates of Foreign Policy Indian and its Neighbours India's Extended Neighbourhood in West Asia and Southeast Asia. India's relations with the United States and Russia. India and the World Organisations India in the 21st century.
BOOKS RECOMMENDED
1. D.D. Basu, Introduction to the constitution of India, Lexis Nexis, New Delhi
2. Subhash Kashyap, Our Parliament, National Book Trust, New Delhi
3. Peu Ghosh, Indian Government &Politics, Prentice Hall of India, New Delhi
4. B.Z. Fadia & Kuldeep Fadia, Indian Government &Politics, Lexis Nexis, New Delhi

SEMESTER -IV

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
IV	AN21B4P1	Character Animation	1	1	4	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the importance of body dynamics to animate characters	1,2	1,2
CO2	To apply Animate biped characters using traditional animation techniques	3,4	3,4
CO3	To analyse Animate Quadruped characters using traditional animation techniques	5,6	5,6
CO4	To design Animate Octopod characters using traditional animation techniques	7,8	6,7

MODULE - I

Introduction, Sketching Techniques, Caricature, head shape and Eyes, Ha, head tints and expressions, creating straight ahead & pose to pose animation for biped characters. Creating straight-ahead & pose to pose animation for quadruped characters.

MODULE - II

Creating straight ahead& pose to pose animation for octopod characters, creating a single character animation in flip book animation, body constructions, body construction hand and feet, posing,

MODULE - III

The secondary action such as the movement of hair or cloth etc. Dope sheet, expose sheet / x-sheet, using reference, Costume design, cartoon animals, style and versatility,

MODULE - IV

Final project, Character style guide, FLA, SWF, animations, Animation movies

BOOKS RECOMMENDED

1. Animation from pencils to pixels: classical techniques for digital animators, Tony White ISBN-10: 0240806700; ISBN-13: 978-0240806709

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	AN21B4P2	Graphic Design II	1	1	3	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the interface and importance of Vector graphics software	1,2	1,2
CO2	To demonstrate curve tools for creating symbols and icons	3,4	3,4
CO3	To analyse logos and typographic vector graphics	5,6	5,6
CO4	To create complex illustrations using vector tools	7,8	6,7

MODULE - I

Introduction to Vector Graphics: Introduction to the 2D Vector Graphics

Interface: Software tools, Navigation, and Interface

MODULE - II

Curve tools using curve tools for creating basic shapes and complex shapes using Boolean operations.

MODULE - III

Effects and Filters

Logo Designing: Designing logos using shape tools

Typography fonts, italic, oblique, and small caps, Serifs, Slab Serifs, Sans Serifs, Scripts, Novelty, Type Applications, logo.

MODULE - IV

Character Illustration, Isometric illustrations, Designing Brochures and print materials

BOOKS RECOMMENDED

1. Adobe Illustrator CC for Dummies
2. Adobe Illustrator Classroom in a Book
3. Learn Adobe Illustrator CC for Graphic Design and Illustration

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
IV	AN21B4P3	2D Portfolio	0	0	5	5	100	0	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To classify the ideas visually	1,2	1,2
CO2	To explain student work in teams	3,4	2,3
CO3	To illustrate and analyse the portfolio	5,6	3,4
CO4	To create a portfolio	7,8	5,6

Portfolio

- **2D Artistic Integrity:** Using photographs for source information in the service of their own vision is permitted only in rare situations. Occasionally, the use of one's own photographs is unavoidable if drawing a subject from direct observation is too dangerous or difficult.
- **2DHomework** as in any college-level course, it is expected that students will spend a considerable amount of time outside the classroom working on completion of assignments. Ideas for projects or solutions to problems should be worked out in a sketchbook both in & out of class Group
- **2D Open Studio:** students may come into the art room to work on assignments during their study landscape, painting, class works (with the teacher's approval).
- **Sketchbook: 20%** -story board, script works, principles of animation work Must show evidence of decision making and documentation of informed and critical decision making, written critiques and reactions to art created by self, established artists and peers, and documentation of a coherent plan of investigation for concentration.
- **Class Participation: 40%** - Must demonstrate daily effort and time on task in & out of class, active engagement in discussion and critiques, and completion of artist article reflections.
- **Portfolio: 40%** - Includes class projects and outside assignments demonstrating successful engagement with concepts of Breadth, Quality, and Concentration. Project grades are based on the project rubric. Students do a self-evaluation using the rubric and submit it with their project.
- **Portfolio Exhibition** At the conclusion of the College works.
- **Work in a sketchbook.** Draw/write/paint/collage in it. Fill one-fourth of your sketchbook. 2. Complete "Object Series" Project. Incorporate a selected object into three completely different

compositions. The object must be drawn from direct observation. All three compositions must have relationship with each other. Pieces can be no smaller than 9”x 12” and no larger than 12”x 18”. of three / four students

1. Submission of 30 to 60 seconds 2D animation Film of a chosen subject giving equal importance to all the elements in cell or key frame animation with sound.

2.The Digital Art, Animation, CG, Motion-Graphics & VFX Industries works.

SEMESTER	Course Code	Course Title	L	S/F	P/ T/ O	C	Int. Marks	Ext. Marks	Total Marks
IV	AN21B4P4	Motion Graphics	1	1	3	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	Understanding the concepts of Motion Graphics	1,3	2,4
CO2	Understanding Various Tools.	3,4,5	2,4
CO3	Creating a Shape and Text Animation and understanding the various concepts like Masking.	3,4	3,6
CO4	Applying the Track Mattes Concepts and effects and Presets and 3D Animation.	3,4,5	3,6

MODULE - I

Motion Graphics: Introduction to Motion Graphics and its usage and introduction to animation principles

Introduction to Adobe After Effects and Basics- Workspace, Importing and organizing the media, Rendering.

AE Terminologies: Composition, Key Frame, Property, Layers, Timecode, Render, codec and Format etc.,

MODULE - II

Introduction to Interface of the Software - Timeline Structure of Layer Based Compositing Software - Stacking and Editing Layers – Controlling Speed and Time Remapping–Animating with Key Framing.

Adobe After Effects Tools: Introduction to Various Tools like, Selection Tool, Hand Tool, Zoom Tool, Rotation Tool, Pan behind Tool, Roto Brush Tool, Pen Tool, Puppet Tool, Clone Stamp Tool etc.,

MODULE - III

Shapes Animation: Introduction to shape layer and its properties and animating shape layers using various options like : Trim paths, Zig Zig, Merge Paths, etc.,

Text Animation: Making a Typography Animation using various Animate options like: Position, Scale, Tracking, Fill Color etc., and Introduction to the Masking Concept.

MODULE - IV

Track Mattes: Introduction to Track Mattes, Parenting & Link and Blending Modes and Motion Path Techniques

Effects & Presets: Applying the Effects & Presets Like CC Sphere, Radio Wave and CC Starburst

Introduction to 3D: Working in 3D Space and Animation Techniques.

BOOKS RECOMMENDED

Adobe After Effects Classroom in a Book (2018 release).

The Animator's Survival Survey Kit, Richard Williams.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
IV	AN21B4P5	Fundamentals of 3D	1	0	5	6	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand basic concepts of 3D modelling and Texturing	1,2	1,2
CO2	To model props which are topologically correct	3,4	2,3
CO3	To create 3D objects for deforming animations	5,6	3,4
CO4	To understand unwrapping and texturing props for animation	7,8	5,6

MODULE - I

Introduction to3D Software, Introduction to the 3D software, Interface of 3D software, navigation tools, shading methods, what is prop, needs and mean safety shop space

MODULE - II

Creating NURBS Models, NURBS Curves, Revolving, lofting, and extruding curves to create surfaces, attaching, and detaching surfaces, socking, stitching surfaces. Modelling using polygons, creating polygon primitive objects, polygon components, editing polygon surfaces, combining, and separating polygons. Polygon Prop modelling, creating polygon prop models, Understanding topology

MODULE - III

Unwrapping and Texturing Props, Unwrapping method, Automatic Mapping, Planar Mapping, Cylindrical mapping, Spherical mapping,

MODULE - IV

Creating surface camera-based mapping, Texturing props using images. Texturing deformable characters. Procedural texturing.

BOOKS RECOMMENDED

1. 3D Art essentials Ami chopine
2. Mastering Autodesk Maya 2015: Autodesk Official Press
3. Autodesk Maya 2020: A Comprehensive Guide, 12th Edition
4. First Lessons in Autodesk Maya® 2019: Level 1 Absolute Beginner Tutorials 1 - 5

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
IV	AN21B4O1	Principles of Animation (Open Elective-1)	0	0	2	2	100	0	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To identify and apply the 12 Animation Principles	1,2	1,2
CO2	To Summarize timing and motion through key-frames, holds and in-betweens	3,4	2, 3
CO3	To illustrate principles of animation on objects	3,6	3,2
CO4	To compare the importance of principles of animation	7,8	4, 5

MODULE - I

Introduction of Principles of Animation: History of Animation, Key-frames, In-betweens, Cycles, Morphing: Overview, Animation Timeline.

MODULE - II

Principles of Animation, Timing and Spacing Charts, Squash and Stretch, Morphing (Basic Animation principles Concepts of 12 animation principles & their importance).

MODULE - III

Bouncing Balls (Principles of Animation: Slow In, Slow Out, Squash and Stretch, Timing, Anticipation Visual Rhythm Transitions.

MODULE - IV

Basic Animation- Key-framing (position/scale/rotation/opacity), Anchor Point, Creating Shapes, Motion Paths, using Markers, Importing Audio.

BOOKS RECOMMENDED

1. Cartoon Animation by Preston Blair

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
IV	**AN21B4K1**	**Advanced communication skills (Skill oriented Course-2)**	**0**	**2**	**0**	**2**	**100**	**-**	**100**

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To develop various elements of soft and effective communication skills.	9, 10, 12	2, 3, 6

Advanced communication skills (including laboratory)

The student must learn **Soft skills and Advanced communication skills (including laboratory)** which can be dealt by course instructor allotted by the department head.

Suggested Input Learnings:

- **Soft skills:**
  - JAM
  - Oral Presentation
  - Group Discussion
  - Debate
  - Role Play
- **Advanced Communication Skills Laboratory:**
  - Listening Skills
  - Note Taking/Note making
  - Resume/CVV writing
  - PPT slides
  - Interview Skills- Mock Interview/ Public speaking

Note:

Marks can be awarded based on internal assessment such as submissions, performance, viva voce etc.

Total marks:100

- 50M - Day to day performance, Record, Viva, Attendance &
- 50M – {soft skills- 25M (Write up - 10M, Performance - 15M), AELCS- 25M (Write up – 10M, Performance – 15M)}

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
IV	MC21B401	**Essence of Indian Traditional Knowledge** (AICTE)	2	0	0	0	0	0	0

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To Identify the concept of Traditional knowledge and its importance.	6, 7	1, 2
CO2	To Explain the need for and importance of protecting traditional knowledge.	6, 7	1, 2
CO3	To Illustrate the various enactments related to the protection of traditional knowledge.	6, 7	1, 2
CO4	To Interpret the concepts of Intellectual property to protect the traditional knowledge.	6, 7	1, 2
CO5	To Explain the importance of Traditional knowledge in Agriculture and Medicine.	6, 7	1, 2
CO6	To understand the importance of Indian ancient education system and benefits	6, 7	1, 2

MODULE - I

Introduction to traditional knowledge: Define traditional knowledge, nature and characteristics, scope and importance, kinds of traditional knowledge, Indigenous Knowledge (IK), characteristics, traditional knowledge vis-a-vis indigenous knowledge, traditional knowledge Vs western knowledge traditional knowledge.

MODULE - II

Legal framework and TK: The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, Plant Varieties Protection and Farmer's Rights Act, 2001 (PPVFR Act); The Biological Diversity Act 2002 and Rules 2004, the protection of traditional knowledge bill, 2016.

MODULE - III

Protection of traditional knowledge: The need for protecting traditional knowledge Significance of TK Protection, value of TK in global economy, Role of Government to harness TK.

MODULE - IV

Traditional knowledge and intellectual property: Systems of traditional knowledge protection, Legal concepts for the protection of traditional knowledge, Patents and traditional knowledge, Strategies to increase protection of traditional knowledge.

MODULE - V

Traditional Knowledge in Different Sectors: Traditional knowledge and engineering, Traditional medicine system, TK in agriculture, Traditional societies depend on it for their food and healthcare needs, Importance of conservation and sustainable development of environment, Management of biodiversity, Food security of the country and protection of TK

MODULE - VI

Education System in India: Education in ancient, medieval, and modern India, aims of education, subjects, languages, Science and Scientists of Ancient India, Science and Scientists of Medieval India, Scientists of Modern India.

BOOKS RECOMMENDED

Textbooks:

1. Traditional Knowledge System in India, by Amit Jha, 2009.
2. Narain, “Examinations in ancient India”, Arya Book Depot, 1993
3. Satya Prakash, “Founders of Sciences in Ancient India”, Vijay Kumar Publisher, 1989
4. M. Hiriyanna, “Essentials of Indian Philosophy”, Motilal Banarsidass Publishers, ISBN 13: 978-8120810990, 2014

Reference Books:

1. "Knowledge Traditions and Practices of India" Kapil Kapoor1, Michel Danino2.
2. “Science in Sanskrit”, Samskrita Bharti Publisher, ISBN 13: 978-8187276333, 2007
3. Kapil Kapoor, “Text and Interpretation: The India Tradition”, ISBN: 81246033375, 2005
4. “Science in Sanskrit”, Samskrita Bharti Publisher, ISBN 13: 978-8187276333, 2007
5. NCERT, “Position paper on Arts, Music, Dance and Theatre”, ISBN 81-7450 494-X, 200
6. Narain, “Examinations in ancient India”, Arya Book Depot, 1993
7. Satya Prakash, “Founders of Sciences in Ancient India”, Vijay Kumar Publisher, 1989
8. M. Hiriyanna, “Essentials of Indian Philosophy”, Motilal Banarsidass Publishers

SEMESTER -V

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
V	AN21B5P1	3D Inorganic Modelling and Texturing	1	1	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand concepts of inorganic modelling	1,2	1,2
CO2	To create aesthetically pleasing models	3,4	2,3
CO3	To analyse the correct mesh flow for the model	5,6	3,4
CO4	To apply unwrapping techniques on complex non-deformable objects.	7,8	5,6

MODULE - I

Introduction to inorganic modelling, Modelling complex objects in 3D. Polygon tools NURBS tools, Surface modelling

MODULE - II

Modelling Vehicle / Robot, understanding clean topology, Quads and triangles, Booleans, Clean-up mesh, non-manifold geometry.

MODULE - III

Texture resolutions, Hyper shade, Texture nodes, Procedural texturing, Texturing hard surface models. Understanding texture sets, Texture

MODULE - IV

Creating surface camera-based mapping, Texturing props using images. Texturing deformable characters. Procedural texturing

BOOKS RECOMMENDED

1. Modeling and texturing techniques with Maya and Mud box, Author Michel Ingrassia,2009
2. 3D Automotive Modeling, an insider s guide to 3d car modeling and designing for games, and films. Author, Andrew Gahan,2011.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	AN21B5P2	Lighting and Rendering	1	1	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand concepts of lighting	1,2	1,2
CO2	To create a lighting setup based on the scene	3,4	2,3
CO3	To understand light physical properties and practical uses	5,6	3,4
CO4	To apply the concept of lighting to create an aesthetically pleasing scene	7,8	5,6

MODULE - I

Introduction to lighting. what is the shadow-casting lights? what are the different types of shadows? what is shadow map camera? how to reuse the shadows?

MODULE - II

Lighting with mental ray. What in meant by indirect lighting? What is global illumination? What is indirect illumination? Understanding final gathering, image-based lighting, physical sun and sky, mental ray area lights, light shades. Understanding the computer-generated lighting. How create depth map and ray traced shadows? How to soften or shape the shadows? Learning to apply physical and portal shades

MODULE - III

Understanding the computer-generated lighting. How to apply depth of field with the bokeh shade? Using lighting with caustic settings. How to split a scene in render layers? How to compare render passes and render layers? Mental ray shading techniques. What are the basic mental ray shades? Understanding mental ray for Maya nodes. What are the mental ray shade connections? How to add a contour to a scene?
Creating Lights: Creating various types of lights, light properties, understanding light attributes, direct and indirect lighting, using maps on light attributes, break light links, make light links

MODULE - IV

Working with Shadows: Understanding visual functions of shadow, shadow algorithms, depth-map shadow, ray traced shadow, soft shadows, hard shadows, faking shadows
Illuminating 3D scenes: Using various lights to illuminate scenes, day lighting, night lighting, adding fog

to environments, light glows, indoor and outdoor lighting, diffused lighting, 3-point lighting, key light, fill light and back light

BOOKS RECOMMENDED

1. Advanced Maya Texturing and Lighting Paperback – Illustrated, Lee Lanier (Author) 2015.
2. Advanced Maya Texturing and lighting, author: Lee Lainer,2008

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	AN21B5P3	Rigging and Skinning	1	1	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand concepts of Rigging	1,2	1,2
CO2	To apply rig an inorganic prop or vehicle without joints	3,4	2,3
CO3	To understand the concepts of animation and animation tools	5,6	3,4
CO4	To animate an inorganic prop using animation principles.	7,8	5,6

MODULE - I

Introduction to rigging, Pipeline of rigging,

MODULE - II

Tools or rigging – Grouping, Parenting, Constraints, Connection editor, Set driven keys, MEL Scripting basics

MODULE - III

Tools for Animation – Graph editor, Trax tool, script editor, interpolation, curve methods, ease in ease out

MODULE - IV

Principles of animation–Understand the principles of animation for 3D, bouncing ball, Timing, Staging with cameras

BOOKS RECOMMENDED

1. Rig it Right! Maya Animation Rigging Concepts (Computers and People) by Tina O'Hailey
2. Body Language: Advanced 3D Character Rigging – EricAllen
3. The Art of Rigging (A Definitive Guide to Character Technical Direction with Alias Maya, Volume 1) – Kiaran Ritchie

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
V	AN21B5P4	Anatomy Study	0	1	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To Understand of Human Body	1,2	2,3
CO2	To Apply the Integumentary System	3,4	4,3
CO3	To understand muscle structure and dynamic muscle system	5,6	5,6
CO4	To understand proportions and	7,8	6,7

MODULE - I

Introduction to the Human Body, Proportions of Human Body, General and Dynamic anatomy, Drawing and Sketching

MODULE – II

Study of human head in quick sketches and detail drawings from various angles of model. Understand the character, expression, and mood. Basic head study of various age groups in drawing and clay with the reference of model/live. Understand the skull and muscle formation of different ages.

MODULE - III

Detail study of human torso in drawing and clay of different ages groups with proper measurements. Observation and understanding of the anatomy and skeleton structure in reference to its basic form.

MODULE - IV

Study of human Legs and Arms in quick sketches and detail drawings from various angles of model. Understand the character, expression, and mood.

MODULE - V

Dynamic Anatomy

BOOKS RECOMMENDED

1. Atlas of Human Anatomy for the Artist by Stephen Rogers Peck
2. Anatomy for Artists - Barrington Barber – 2008
3. Human Anatomy for Artists, By György Fehér • 2011
4. Anatomy and Drawing, By Victor Semon Perard, 2012
5. Drawing the head and hands & figure drawing (box set) by Andrew Loomis, 2020.
6. Anatomy for the Artist, By Sarah Simblet, 2020

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	AN21B5E1	Stop motion Animation (Profession Elective)	1	1	2	2	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand what is stop motion	1,2	1,2
CO2	To classify different mediums and methods of stop motion	3,4	2,3
CO3	To create characters with proper deformation	5,6	3,4
CO4	To design the knowledge of stop motion in film making	7,8	5,6

MODULE - I

Introduction to different stop motion animation techniques, Tools for stop motion.

MODULE - II

Mediums of stop motion, Clay, Plasticise, Miniatures, Toys,

MODULE - III

Armature and skeleton setup, Understanding deformations, Body mechanics. Background miniature designing

MODULE - IV

Camera setup, shooting and editing. Applying transitions and effects

BOOKS RECOMMENDED

1. Digital painting for the complete beginner, Book by Carlin breccias, 2012.
2. Digital Sketching: Computer-Aided Conceptual Design, Book by John Baucus, 24 november,2020.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	AN21B5E2	Craft Design (Profession Elective)	0	1	1	2	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand disciplines of craft. To identify different design movements	1,2	1,2
CO2	To apply Paper crafts using different techniques	3,4	3,4
CO3	To Evaluate wood mediums and crafts using wood	5,6	5,6
CO4	To create complex illustrations	7,8	6,7

MODULE - I

Introduction: Art, Craft and Design are three inter-dependent disciplines. They are fundamental to human existence, predating written language. They play a major role in human evolution and development. Each involves a different way of thinking

Art and Craft Movement, design reform, social and design principles, developments.

MODULE - II

Paper Crafts: Origami, Quelling, Scrapbooking, Bookmaking Knitting (Continental) Make a Dream catcher

MODULE - III

Wood Crafts: Decoupage (collage), Wood Burning Quilting (sewing) Glass Etching

MODULE - IV

Field Study trip Exhibitions - CAD Project -1

Field Project -2 Field study - 1 CAM (Manual 3DProduct Design)

BOOKS RECOMMENDED

1. Art and craft design, Book by Clodagh Holahan and Maureen Roche, 1993
2. The Nature and Art of Workmanship, Book by David Pye, May 1968

SEMESTER	Course Code	Course Title	L	S/F	P/T/O	C	Int. Marks	Ext. Marks	Total Marks
V	AN21B5O1	Open Elective (Motion Graphics)	0	1	1	2	100	0	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	Understanding the concepts of Motion Graphics	1,3	2,4
CO2	Understanding Various Tools.	3,4,5	2,4
CO3	Creating a Shape and Text Animation and understanding the various concepts like Masking.	3,4	3,6
CO4	Applying the Track Mattes Concepts and effects and Presets and 3D Animation.	3,4,5	3,6

MODULE - I

Motion Graphics: Introduction to Motion Graphics and its usage and introduction to animation principles

Introduction to Adobe After Effects and Basics- Workspace, Importing and organizing the media, Rendering.

AE Terminologies: Composition, Key Frame, Property, Layers, Timecode, Render, codec and Format etc.,

MODULE - II

Introduction to Interface of the Software - Timeline Structure of Layer Based Compositing Software - Stacking and Editing Layers – Controlling Speed and Time Remapping–Animating with Key Framing.

Adobe After Effects Tools: Introduction to Various Tools like, Selection Tool, Hand Tool, Zoom Tool, Rotation Tool, Pan behind Tool, Roto Brush Tool, Pen Tool, Puppet Tool, Clone Stamp Tool etc.,

MODULE - III

Shapes Animation: Introduction to shape layer and its properties and animating shape layers using various options like: Trim paths, Zig Zig, Merge Paths, etc.,

Text Animation: Making a Typography Animation using various Animate options like: Position, Scale, Tracking, Fill Color etc., and Introduction to the Masking Concept.

MODULE - IV
Track Mattes: Introduction to Track Mattes, Parenting & Link and Blending Modes and Motion Path Techniques **Effects & Presets:** Applying the Effects & Presets Like CC Sphere, Radio Wave and CC Starburst **Introduction to 3D:** Working in 3D Space and Animation Techniques.
BOOKS RECOMMENDED 1.Adobe After Effects Classroom in a Book (2018 release) 2.The Animator's Survival Survey Kit, Richard Williams

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
V	**AN21B5K1**	**Clay Modeling (Skill Oriented Course-3)**	**0**	**0**	2	2	100	0	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To learn and understand clay preparation methods	1, 3	1, 2
CO2	To experiment different relief methods	3, 7	2, 4
CO3	To understand and model different technique of pottery making	3, 4	2, 3
CO4	To understand firing process	3, 7	2, 4

MODULE - I

Introduction to various clay bodies and clay preparation methods.

MODULE - II

Drawing of pattern, designs and any other motifs from surroundings to work on clay slab in adding methodand subtracting method.

MODULE - III

Techniques of making relief sculpture/pottery in coil process, pinching method, throwing, slab makingsurface decoration techniques

MODULE – IV

Science of various kilns and kiln making process. Pre-firing and final firing of terracotta in kiln

SEMESTER -VI

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	AN21B6P1	3D Sculpting	0	1	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To use 3d sculpting software	3,5	1, 2
CO2	To model high poly sculpts	3,5	1, 2
CO3	To model 3d models inside Zbrush	3,5	1, 2
CO4	To understand how to use 3d sculpting for creating game models	3,5	1, 2

MODULE - I

- Understanding of the concept of high detailed modelling
- Understanding & sculpting hard surface models with its macro level detailing
- Understanding sculpting of an organic creature with its prominent details.

MODULE - II

- Understanding usage of Zbrush and basics of sculpting
- Anatomical Study for Character Modelling and Planning Mesh Flows / Face Loops

MODULE - III

- Blocking the Organic Form by Sculpting
- Sculpting medium details and fine details and Retopology
- Unwrapping, Bodypainting and Texture Map Extractions

MODULE - IV

- Introduction of Digital sculpting software tools like Pixologic Zbrush, Autodesk Mudbox.
- Understand high detail sculpting and techniques relevant to cg art creation.

BOOKS RECOMMENDED

1. Zbrush Character creation: Advanced Digital Sculpting
2. Digital Sculpting with Mudbox: Essential tools and techniques for artists

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VI	AN21B6P2	3D Character Modelling and Texturing	0	1	5	6	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the anatomy for organic modelling	1,2	1,2
CO2	To apply modelling tools and techniques in creating deformable organic characters	3,4	2,3
CO3	To apply anatomy techniques in creating 3D quadruped characters	5,6	3,4
CO4	To apply texturing knowledge on deformable organic characters for animation film making	7,8	5,6

MODULE - I

Introduction to Organic Modelling, pipeline, and modelling guidelines

MODULE - II

Modelling Biped character, Blocking, Head proportions, Hands and arms, Muscle structure, Legs, and feet.

MODULE - III

Modelling a Quadruped character. Proportions of character. Dynamic anatomy. Poses

MODULE - IV

Texturing and shading an Organic model, Deformable model texturing

BOOKS RECOMMENDED

1. Character modeling with Maya and Zbrush, professional polygonal modeling techniques, by Jason Patnode, 2008.
2. Character modeling, digital artist master class, By Daniel wade, 2005.
3. Maya for games modeling and texturing techniques with Maya and mud box, by Michael Ingrassia, 2009.
4. Game character Modeling and animation with 3dsMax, by Yancey Clinton, 2007.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	AN21B6P3	3D Animation	0	1	5	6	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To use 3D animation software	1,2	1,2
CO2	To implement animation principles in 3d animation	3,4	2,3
CO3	To animate characters with different principles	5,6	3,4
CO4	To implement animation principles to different animations	7,8	5,6

MODULE - I

Animation tools, Adjusting FPS and animation timeline,

MODULE - II

Animation principles in 3d animation, Implementation of 12 principles

MODULE - III

Animating ball bounce and Object animation

MODULE - IV

Animating walk cycle and run cycle

BOOKS RECOMMENDED

1. Animators survival kit.
2. Complete Animation Course, Chris Patmore, Barrons Educational Series Inc,2015
3. The Art of DreamWorks Animation: Celebrating 20 Years of Art- Ramin Zahed (All)
4. Simplified Drawing for Planning Animation – Wayne Gilbert
5. Complete Animation Course, Chris Patmore, Barron's Educational Series Inc,2015

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VI	AN21B6P4	Matte Painting	0	1	4	4	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand of design principles, concepts, styles, and terminologies	1,2	2,3
CO2	To apply skill in tools and techniques of matte Painting	3,4	4,3
CO3	To create design principles and theories to design problems	5,6	5,6
CO4	To Demonstrate progress in basic painting, develop concept work based on analysis of industry constraints	7,8	6,7

MODULE I

What is matte painting, matte painting defined, The Glass shot, the original negative matte, paint verse Pixels

MODULE – II

Custom brushes to matte painting: Photoshop workspace tools and Custom brushes Composition, the digital Tablet painting, Photoshop panels, layers, paths, adjustment panel, history panel, using brushes, colour dynamics, Dual brushes, working with image-based brushes,

MODULE – III

Landscape Matte Paintings: painting clouds, tinting the sky, composition, and concepts, creating castle on a hill painting, understanding16-bit colour, paint objects, principles of balance, the rule of third, concept sketch s, Perspective basics linear Types of perspectives: one, two, three, (atmospheric, horizon and eye level, vanishing points)

MODULE IV

Plate Extension/transformation-Using the Clone Tool, Perspective cloning, Simple water reflections, Light and Atmosphere integration, going through the steps of creating the painting from the very early ideas to the very final look, moving into photorealistic concept key frame art, adjusting render levels to plate photography-Breaking repetitive patterns, Weathering, ageing, replacing parts of the render to break CG feeling.

BOOKS RECOMMENDED

1.The Digital Matte Painting Handbook, Author, David B. Mattingly • 2011

2. The Invisible Art: The Legends of Movie Matte Painting, Author Mark Cotta Vaz, Craig Barron • 2004.

3. The digital painting techniques, master collection: author: Elsevier, volume 1,2009

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	AN21B6E1	Game Modelling & Texturing (Professional elective)	1	0	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand the Fundamentals of Game Modeling, Inorganic Modeling, Organic Modeling	3,5	1, 2
CO2	To create game textures which are game engine ready	3,5	1, 2
CO3	To understand the Fundamentals of Game Texturing as Environment Modeling, Inorganic Modeling, Organic Modeling	3,5	1, 2
CO4	To create PBR materials and textures for game engines	3,5	1, 2

MODULE - I

Game Modelling

Low poly modelling for games, Topology, Triangulated modelling, Poly-budget

MODULE - II

Introduction to Texturing for Games in Photoshop

Unwrapping for games, types of texture maps, Texel density

MODULE - III

PBR Materials

Physical based render, understanding different maps, Using normal map for details,

Substance painter

Creating smart PBR materials and textures.

MODULE - IV

Texture exporting

Marmoset viewer, exporting textures for different game engines. Shader connections

BOOKS RECOMMENDED

1. 3D Animation Essentials 1st Edition by Andy Beane

https://egyanagar.osou.ac.in/prog-slm-dma.html

3D Art Essentials: The Fundamentals of 3D Modelling, Texturing, and Animation 1st Edition by Ami Chopine.

2. The Dark side of game texturing, by David Franson,2004
3. Maya for games: Modeling and texturing techniques with Maya, by Michael Ingrassia, 2008.
4. Begging PBR Texturing: Learn Physically Based Rendering, By Abhishek Kumar ,2009.

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VI	AN21B6E2	Advanced Lighting and Rendering (Professional Elective)	1	0	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand secondary lighting techniques	3,5	1, 2
CO2	To create 3D scenes with raytraced lighting techniques	3,5	1, 2
CO3	To understand what are render passes	3,5	1, 2
CO4	To develop lighting for production ready 3D scenes	3,5	1, 2

MODULE - I

CREATING LIGHTS: Creating various types of lights, light properties, understanding light attributes, direct and indirect lighting, using maps on light attributes, break light links, make light links

MODULE - II

Using various lights to illuminate scenes, day lighting, night lighting, adding fog to environments, light glows, indoor and outdoor lighting, diffused lighting, 3-point lighting, key light, fill light and back light

MODULE - III

Shading and Rendering: Understanding global illuminations, GI photons, photon maps, final gathering, combining GI and FG, HDRI images, caustics, subsurface scattering, creating physical sun and sky. Light Linking, Final Composition

MODULE - IV

Rendering light passes and compositing a production ready scene.

BOOKS RECOMMENDED

1. 3D lighting: history, concepts, and techniques- Book by Arnold Gallardo, 12 November 2000.
2. Aesthetic 3D Lighting: History, Theory, and Application, Book by Lee Lanier, 5 March 2018.
3. Digital Lighting & Rendering, Book by Jeremy Birn,2000

SEMESTER	CourseCode	Course Title	L	S/F	P/T/O	C	Int. Marks	Ext. Marks	Total Marks
VI	AN21B6O1	Open Elective-3(Advanced Motion Graphics)	0	1	1	2	100	0	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	Understanding the concepts of Shape and Type Layers	1,3	2,4
CO2	Understanding Track Mattes	3,4,5	2,4
CO3	Working on Parenting Concepts and Motion Path Techniques etc.,	3,4	3,6
CO4	Applying the 3D in After Effects	3,4,5	3,6

MODULE - I

Animate: Shape Layers- Bezier Paths, Shape Properties, Shapes using Pen Tool, Animating Stroke and various animate options: Zig Zag, Trim Paths, Concrete Repeaters etc., Type Layers.

MODULE - II

Track Mattes: Introduction to the Track Mattes, Alpha and Luma Mattes and Alpha Inverted and LumaInverted, Pre –Composition Concept

MODULE - III

Parenting Concept: Introduction to Parent Method, Null Object, Responsive Design, Assignment work

Motion Path Techniques: Transforming path into key frame motion, Solid Layer Assignment work

MODULE - IV

3D in After Effects: Introduction and Setting up the workspace in 3D Space Animation, Assignment work

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VI	AN21B6K1	Print Making Technique (Stencil Cut) (Skill – Oriented Course-IV)	0	0	2	2	100	0	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand print making techniques	10	2

Requiring Materials and Tools: Cutting tools (such as an Indian ink, Pencil, Eraser, OHP Sheet/X-Acto/Paper/Plastic sheet, knife or Cutter/ craft knife, buff Sheet/Drawingsheets, letterpress Ink, hand roller or brayer, linseed oil, thinner/ turpentine, Masking tape, news Paper.

Topic: Choosing any one of them

Cityscape - Depiction of Village scene - Depiction of making your surrounding area small towns or rural areas, often featuring traditional architecture, farms, and natural scenery, cities or urban areas, often featuring skyscrapers, bridges, and other man- made structures, etc.…

Village scene - Depiction of making your surrounding area small towns or rural areas, often featuring traditional art and architecture, farms, and natural scenery.

Mythical creatures - Depiction of imaginary beings, such as dragons, unicorns, ormermaids, in natural or fantasy landscapes.etc.

Fantasy landscapes - Depictions of imaginary or dreamlike landscapes, often featuring fantastical elements such as floating islands, magical forests, or surreal landscapes.

Historical scenes - make a Depiction of important historical events, such as wattles orpolitical events, often set in a particular landscape or environment.

Urban landscape - Draw a depiction of the built environment of cities, oftenhighlighting issues such as urbanization, gentrification, or environmental impact.

Nature scene - Depiction of natural landscapes such as mountains, forests, oceans, ordeserts, often highlighting the beauty and fragility of the natural world.etc.

SEMESTER -VII

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VII	AN21B7P1	Character Animation and Lip sync	1	1	5	6	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To animate 3d characters	3,5	1, 2
CO2	To understand how 3d animation works	3,5	1, 2
CO3	To animate a scene with multiple factors	3,5	1, 2
CO4	To create a lip sync for an audio clip	3,5	1, 2

MODULE - I

Biped character animation, walk cycle, Run Cycle, Jump

MODULE - II

Quadruped character animation, walk cycle, Run Cycle, Jump

MODULE - III

Animated multi character sequence, Animate push and pull, weight lifting,

MODULE - IV

• Learn how to perform lip-syncing.

• Identifying good audio for animation. Prepare a storyboard, Capture live acting and assembling the set. Set the animation frame rate, screen resolution, camera settings.

• Acting theories (how to empower animators to become character animators)

BOOKS RECOMMENDED

1. Acting for Animators, Revised Edition: A Complete Guide to Performance Animation by Ed Hooks
2. Animation: From Script to Screen by Shamus Culhane
3. Acting for Animators by Ed Hooks and Brad Bird

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VII	AN21B7P2	Digital Compositing	1	1	5	6	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand postproduction pipeline	3,5	1, 2
CO2	To tools and techniques of compositing	3,5	1, 2
CO3	To apply compositing techniques in removing green screen and matte removal and keying	3,5	1, 2
CO4	To integrate CG with live action using match moving and rotoscoping techniques.	3,5	1, 2

MODULE - I

Introduction to Compositing, 3D and 2D compositing, Principles of compositing. Tools of compositing,

MODULE - II

Masks and matte removal, layer compositing, Types of Mattes,

MODULE - III

Rotoscoping, Roto prep, Clean up, BG plate preparation, Colour correction

MODULE - IV

Match moving, 3D deep compositing, pass compositing

BOOKS RECOMMENDED

1. The art and science of digital Composting, by Ron Brinkmann, 1999.
2. Digital composting film and video, by Steve Wright, 2013.
3. Digital composting with Nuke, by Lee Lanier, 2012.
4. Digital composting for film and video: Production workflows, by Steve Wright, 2017.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	AN21B7P3	Audio and Video Editing	1	1	3	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand editing tools and techniques	3,5	1, 2
CO2	To tools and techniques of linear editing	3,5	1, 2
CO3	To apply transitions and effects for continuity of shot	3,5	1, 2
CO4	To sync audio and video with effects and create a final copy	3,5	1, 2

MODULE - I

Introduction to Filming Digital video and Audio Editing, Unit 5: Editing: Necessity of editing: (To analyse the reasons of editing), Principles of editing: (To analyses different editing principles)

MODULE - II

Editing tools, Clips, shots, Scenes, and frames Clipping and transition tools

MODULE - III

Transitions and effects: Basic techniques of building a scene. (Continuity, matching, overlapping), Pace & Time. (Analyse the techniques of pace& time manipulation during editing) Rough cut. (To make the primary edit following the script sequentially). Final Cut (To make the final cut after re-viewing the rough cut.

MODULE - IV

Audio editing and syncing: Dub matching and track lying. (To prepare for re- recording and optical effects.), Married Print. (Negative cutting- the last stage production.

BOOKS RECOMMENDED

1. On film editing by Edward dmytryk,2012
2. The technique of film and video editing: history, theory by kendancyger, 2002.
3. Fine cuts: the art of European film editing, by Roger Crittenden,2012
4. The conversation: Walter march and the art of editing film, by Michael Ondaatje, 2012.

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	AN21B7E1	Dynamics & FX (Professional Elective)	1	0	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To use dynamic simulations for creating FX	3,5	1, 2
CO2	To create dynamic animations using rigid and spot bodies.	3,5	1, 2
CO3	To create dynamic liquid simulations using fluids and particles	3,5	1, 2
CO4	To create character FX using cloth and fur simulations	3,5	1, 2

MODULE - I

Introduction Dynamics & FX

using particle systems Understanding particles, emitters, particle goals, creating smoke, fire, explosion effects using particle effects, instancing particles, crowd simulation

MODULE - II

Rigid and soft body dynamics, understanding rigid bodies, active rigid body, passive rigid body, rigid body solver, applying forces on rigid bodies, breaking rigid bodies, creating effects using soft bodies

MODULE - III

Fluid effects, creating clouds, water, oceans, ponds using fluid effects, Fluid containers, Effects, and fields

MODULE - IV

N Particle and N cloth, N hair and fur

BOOKS RECOMMENDED

1. Maya Studio Projects: Dynamics, by Todd Palamar
2. Learning Maya | Dynamics by Alias wave front

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	AN21B7E2	Match Moving	1	0	5	5	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand how to collect track data	3,5	1, 2
CO2	To understand how to 2D trach live footage	3,5	1, 2
CO3	To using different techniques of match moving	3,5	1, 2
CO4	To implement 3D tracking objects and characters	3,5	1, 2

MODULE - I

Introduction to software, the main window, Environment concept, Creating a new project, New Sequence, Navigation within the sequence, Cache movie, Point group, point, the field of view, Dummy objects, Creating preview movie

MODULE - II

Automatic Motion tracking, Spline area mattes, Manual Motion tracking, Image controls, Camera Adjustment, Stabilizing, there dimensional camera motion path, Postfilter, Fixed camera position, Deviation Value, Distorted point model, Lens Distortion.

Fisheye lenses, Warp Distort, Zooming, Fixed camera position, Match moving Non-Rigid Objects, Tracking points in mocap projects, Valid and invalid screen points, Camera models,

Extracting overall movement, Tracking, Search pattern and area, Mare tracking, Natural markers, Camera Adjustment

MODULE - III

Working with 2d mode, working with 3D mode, Browsing the footage, Track window, Parameter's window, Timeline Window, importing footage, Cropping an image sequence,2D Tracking, Automatic, Supervised, Key point placing, Troubleshooting the tracker, Camera solving,

MODULE - IV

Working with 3D objects, Export file formats, Maya exporting, Exporting a project, Max script export, Cinema 4D export, motion Capture module, Building and tracking a Mocap group

BOOKS RECOMMENDED

1. The Art and Technique of Match moving: Solutions for the VFX Artist by Erica Hornung
2. Match mover User Guide, Autodesk, Using audio and video for educational purposes, Deakin.
3. 3D Equalizer version 3 release 5 manual, Science.D. Visions

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	AN21B7O1	Open Elective (Fundamentals of 3D Modeling)	0	0	2	2	100	0	100

Cos	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand how to use 3d modelling software	10	2

MODULE - I

Introduction to3D Software, Introduction to the 3D software, Interface of 3D software, navigation tools, shading methods, what is prop, needs and mean safety shop space

MODULE - II

Creating NURBS Models, NURBS Curves, Revolving, lofting, and extruding curves to create surfaces, attaching, and detaching surfaces, socking, stitching surfaces. Modelling using polygons, creating polygon primitive objects, polygon components, editing polygon surfaces, combining, and separating polygons. Polygon Prop modelling, creating polygon prop models, Understanding topology

SEMESTER	Course Code	Course Title	L	T	P/S	C	Int. Marks	Ext. Marks	Total Marks
VII	AN20B7K1	Research Methodology (Skill Oriented Course-V)	2	0	0	2	100	0	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand research approaches	2,4	2,3
CO2	To acquire knowledge on different research kinds of research	2,4	2,3
CO3	To acquire knowledge on different kinds of isms orientation	2,4	2,3
CO4	To acquire knowledge on research design	2,4	2,3

MODULE - I

What is a Research? - Research Approaches: Qualitative Research, Quantitative Research, Mixed Methods Research - Methods, Methodology, Theoretical Perspective, Epistemology

MODULE - II

Identifying a Research Problem – Reviewing the Research Problem – Specifying a Purpose for Research – Data Collection – Analyzing and Interpretation of Data – Reporting and Evaluating Research - Framework for Research: Philosophical worldview, Design, Research Methods – Philosophical worldview: Post-positivism, Constructivism, Transformative, Pragmatism

MODULE - III

Post-positivism: Determination, Reductionism, Empirical Observation and Measurement, Theory Verification – Constructivism: Understanding, Multiple Participant Meanings, Social and Historical Construction, Theory Generation – Transformative: Political, Power and justice oriented, Collaborative, Change-oriented – Pragmatism: Consequences of Action, Problem-cantered, Pluralistic, Real World Practice Oriented

MODULE - IV

Research Designs: Qualitative Research, Quantitative Research, Mixed Methods Research – Qualitative Research: Narrative Research, Phenomenology, Ground Theory, Ethnographies, Case Study – Quantitative Research: Experimental Designs, Non-experimental Designs – Mixed Methods: Convergent, Explanatory

SEMESTER -VIII

SEMESTER	Course Code	Course Title	L	T	P/ S	C	Int. Marks	Ext. Marks	Total Marks
VIII	AN21B8 IN	Internship				12	50	50	100

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand animation industries views	1,2	2,3
CO2	To develop Internship Advisor meets with the student at the one-third point of the experience	3,4	4,3
CO3	To create professional method & industries Professional point of view	5,6	5,6
CO4	To understand working in teams	7,8	6,7

Preparing resume, applying for internship, interview Port polio, sketch, 2d, 3d Technology related Workplace Competencies, Workbook Log, Learning Outcomes, Teamwork

SEMESTER	Course Code	Course Title	L	T	P /S	C	Int. Marks	Ext. Marks	Total Marks
VIII	AN20B8 PR	Project/Portfolio				18	100	100	200

COs	Course Outcomes	POs	BTLs
	The student will be able		
CO1	To understand Animation production	1,2	2,3
CO2	To work on an animation movie	3,4	4,3
CO3	To Research on different animation	5,6	5,6
CO4	To the role play of Reference and Viva	7,8	6,7

MODULE – I Understand the importance of production pipeline in making an animation film.

Project: Project submission, Digital Video submission

1. The Animation Book: A Complete Guide to Animated Filmmaking--From Flip-Books to Sound Cartoons to 3- D Animation, by John Cane maker, 1998.

Assignment: Animation project submission

Reference books:

1. How to get animation an animation Internship, a guide that helps you apply, Eric Bravo, 2018.
2. The Princeton Review the internship Bible, Mark old man and Samer Hamadeh, 2005edition.

Project: Dissertation book, DVD, Digital video submission