HINDUSTHAN COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS) COIMBATORE – 641 028

B.Sc., ANIMATION AND VFX

SCHEME OF EXAMINATIONS – CBCS PATTERN

(For the Students admitted from the Academic year 2018-2019 and onwards)

	SUBJECT		HRS.	MAXIMUM MARKS			SLN
CODE NO			EXAM DURATION HRS	ΙE	EE	TOTAL	CREDIT POINTS
First Semes	ster		•				
	Part I		an Marine San	77			- N - 1/2 / (2
16LAT01/							
16LAH01/		6	3	25	75	100	3
16LAM01/							
16LAF01	French – I		2 ()Even	PACTOR 15	\$ \$50 T \$1800	W. PRODUKKUM	57/00
16531601	Part II	6	3	25	75	100	3
16ENG01	English – I	6	3	23		100	3
	Part III		San San			124. H. B.	2.
18AXU01	Art and Colour theory	4	3	25	75	100	4
18AXU02	Practical I - Space Form and Structure	4	3	40	60	100	3
18AXU03	Practical II - Animation Design	5	6	40	60	100	4
18AXU04	Allied Practical - Animation art and Drawing	5	6	40	60	100	4
Second Ser	nester						
	Part I						
16LAT02/	Tamil – II /						
16LAH02/	Hindi – II /	6	3	25	75	100	3
16LAM02/	Malayalam –II/			23	'5	100	,
16LAF02	French –II	A Commission of	CONSTRUCT N	S287 - 278	WC hellowerson is	. 400% Group T. T. Aud (2)	
	Part II				3-23		
16ENG02	English – II	6	3	25	75	100	3 .
	Part III						
8AXU05	Animation Theory	5	3	25	75	100	5
8AXU06	Practical III - Cartooning and Comic	6	6	40	60	100	5
OAAUU	Illustration		0	40	00	100	5
8AXU07	Practical IV - Digital Art	5	6	40	60	100	4
	Part IV						
6GSU01	Value Education – Human Rights	2	-	100	-	100	2
hird Semes	ter		•			•	
	Part III	1111	(A) (A) (A)				
	Visual Story Telling	4	3	25	75	100	4
BAXU09 Practical V - Sound Design		5	6	40	60	100	4
	Practical VI - 2D animation Traditional	10	6	40			6
RAXIIIO	I ALLICAL VI - AD WALLER	10	U	40	60	100	_
BAXU10 I	Practical VII - Character Design Creation	5	6	10	60	100	1
BAXU10 I	Practical VII - Character Design Creation Allied - Computers for animation HEAD	5	6	40	60	100	3

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	Part IV						
16GSU02	Environmental Studies	2	-	100	-	100	2
Fourth Sen	nester				•		
	Part III						
18AXU13	Basic Photography and Lighting Techniques	6	3	25	75	100	6
18AXU14	Practical VIII - 3D Modeling	10	6	40	60	100	6
18AXU15	Practical IX - Visual Effects I	6	6	40	60	100	5
18AXU16	Practical X - Texturing and Lighting	6	6	40	60	100	5
	Part IV						
16GSU03	Skill Based: Internet Security	2	-	100	-,	100	2
	Part V	66					
16GSU04	Extension Activity	-	-	100	-	100	2
Fifth Seme	ster						
	Part III						
18AXU17	Film language and appreciation	5	3	25	75	100	5
18AXU18	Practical XI -3D Character Animation & Rigging	10	6	40	60	100	6
18AXU19	Practical XII - Anatomy Based Sculpturing	5	6	100	-	100	4
18AXU20	Practical XIII Visual Effects II	6	6	40	60	100	5
18AXU21	Elective Practical- I a. Foley Sound Design (OR) b. Miniature Modelling and set design (OR) c. Commercial Production	4	6	100	-	100	3
18AXU22	Industrial Training	-	-	100	-	100	2
	Part IV						
16GSU05	Non Major Elective .	-	-	100	-	100	2
	Part V						
16GSU06	Law of Ethics	-	-	100	-	100	2
Sixth Seme	ster						
	Part III						
18AXU23	Design Thinking and Culture	4	3	25	75	100	4
18AXU24	Practical XIV- Virtual Typography	6	6	40	60	100	5
18AXU25	Practical XV - Portfolio Design	5	6	100	-	100	4
18AXU26	Major Project – Animated Film	15	-	50	150	200	6
	The state of the s						140

REGULATIONS

Components for Evaluation:

Internal Examination Marks (For Part III theory papers)

Components	Marks
Test –I & II (Best of Two)	10
Model Exam	10
Assignment	5
Total	25

QUESTION PAPER PATTERN FOR I.E TEST I and II

(2 HOURS TEST) MAXIMUM: 50 Marks

SECTION - A (20 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (10 x 2 = 20 marks)

Short answers 10

SECTION - B (10 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks $(2 \times 5 = 10 \text{ marks})$

Either or Type

SECTION - C (20 Marks)

Answer any TWO Questions out of THREE questions

ALL Questions Carry EQUAL Marks (2 x 10 = 20 marks)

QUESTION PAPER PATTERN FOR IE Model Examination

(3 HOURS TEST) MAXIMUM: 75 Marks

SECTION - A (20 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks $(10 \times 2 = 20 \text{ marks})$

TWO questions from each unit

SECTION - B (25 Marks)

Answer ALL Questions
ALL Questions Carry EQUAL Marks

(5 x 5 = 25 marks)

Either or Type.

ONE question from each unit with internal choice

SECTION - C (30 Marks)

Answer any THREE Questions out of FIVE questions

ALL Questions Carry EQUAL Marks

ONE question from each unit

 $(3 \times 10 = 30 \text{ marks})$

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2 (a) Components for Practical I.E.

2(b) Components for Practical E.E.

Components	Marks	Components	Marks
Test -I	20	Completion of Experiments	50
Test - II	20	Record	5
(2)	40	Viva	5
Total	40	Total	60

3. Institutional/ Industrial Training, Mini Project and Major Project Work

Institutional / Industri	al Training	Mini Project	Major Project Work	
Components	Marks	Marks	Components Ma	
I.E			I. E	
Work Diary	25	-		
Report	50	50	a) Attendance 25 Marks	50
Viva -voce	25	50	b) Review/Work Diary*125Marks	
Examination			,	
			E.E*2	
Total	100	100	a) Final Report 120 Marks	150
ı otai	100	100	b) Viva-voce 30 Marks	
			Total	200

^{*1} Review is for Individual Project and Work Diary is for Group Projects (group consisting of minimum 3 and maximum 5)

4. Components for Value Education (Part IV):

S.No.	Components	Marks
a)	Attendance	30 marks
	96% and above - 30 marks	
	91% to 95% - 25 marks	
	86% to 90% - 20 marks	
	76% to 85% - 10 marks	
b)	Participation in group activity	30 marks
c)	Assignment (2 x 10)	20 marks
d)	Test	20 marks
ŕ	(1 hr for 20 marks)	
	2 out of three questions, 10 marks each	
	Total	100 marks

^{*2}Evaluation of report and conduct of viva voce will be done jointly by Internal and External Examiners

On completion of the above components students will be remarked as follows:

Range of marks	Equivalent remarks
80 and above	Exemplary
70 – 79	Very good
60 – 69	Good
50 – 59	Fair
40 – 49	Satisfactory
Below 39	Not Satisfactory = Not completed

- The passing minimum for this paper is 40%
- In case, the candidate fails to secure 40% passing minimum, he / she may have to reappear for the same in the subsequent semesters.

5. Guidelines for Environmental Studies (Part IV)

- The paper Environmental Studies is to be treated as 100% IE course which is offered in III Semester for II year UG students.
- The classes will be handled for two hours per week till the end of the Semester. At least one field trip should be arranged.
- Total Marks for the subject = 100

Components	Marks
Two Tests (2 x 30)	60
Field visit and report $(10 + 10)$	20
Two assignments (2 x 10)	20
Total	100

The question paper pattern is as follows:

Test I – 2 hours [3 out of 5 essay type questions] $3 \times 10 = 30 \text{ Marks}$ **Test II** – 2 hours [3 out of 5 essay type questions] $3 \times 10 = 30 \text{ Marks}$

Total 60 Marks

- The passing minimum for this paper is 40%
- In case, the candidate fails to secure 40% passing minimum, he / she may have to reappear for the same in the subsequent semesters.

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6. Guidelines for Skill based subject - Internet Security (Part IV)

Components	Marks
Two Tests (2 x 40)	80
Two assignments (2 x 10)	20
Total	100

The question paper pattern is as follows:

a) Test I-2 hours [4 out of 7 essay type questions]

 $4 \times 10 = 40 Marks$

b) Test II -2 hours [4 out of 7 essay type questions]

 $4 \times 10 = 40 \text{ Marks}$

Total 80 Marks

- The passing minimum for this paper is 40%
- In case, the candidate fails to secure 40% passing minimum, he / she may have to reappear for the same in the subsequent semesters

7. Guidelines for General Awareness(Part IV)

Components	Marks
Two Tests (2 x 50)	100

The question paper pattern is as follows:

Test I – 2 hours [50multiple choice questions]

 $50 \times 1 = 50 Marks$

Test II -2 hours [50 multiple choice questions]

 $50 \times 1 = 50 \text{ Marks}$

Total 100 Marks

- The passing minimum for this paper is 40%
- In case, the candidate fails to secure 40% passing minimum, he / she may have to reappear for the same in the subsequent semesters

8. Guidelines for Law of Ethics(Part V)

Components	Marks
Two Tests (2 x 50)	100

The question paper pattern is as follows:

c) Test I-2 hours [5 out of 8 essay type questions]

 $5 \times 10 = 50 Marks$

d) Test II – 2 hours [5 out of 8 essay type questions]

 $5 \times 10 = 50 \text{ Marks}$

Total 100 Marks

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- The passing minimum for this paper is 40%
- In case, the candidate fails to secure 40% passing minimum, he / she may have to reappear for the same in the subsequent semesters

9. Guidelines for Extension Activity(Part V)

- Atleast two activities should be conducted within this semester (IV) consisting of two days each.
- The activities may be Educating Rural Children, Unemployed Graduates, Self Help Group etc. The marks may be awarded as follows

No of Activities	Marks
2 x 50(Each Activity for two days)	100

10. <u>QUESTION PAPER PATTERN FOR EE (Part III Theory Papers)</u> (3 HOURS TEST) MAXIMUM: 75 Marks

SECTION - A (20 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

TWO questions from each unit

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

Either or Type.

ONE question from each unit with internal choice

SECTION - C (30 Marks)

Answer any THREE Questions out of FIVE questions

ALL Questions Carry EQUAL Marks

ONE question from each unit

 $(3 \times 10 = 30 \text{ marks})$

 $(10 \times 2 = 20 \text{ marks})$

 $(5 \times 5 = 25 \text{ marks})$

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Code No.	Subject	Samastan M
18AXU01	Art and Colour theory	Semester No.
Objective	To Learn the elements of art and principals of art, To understand the colour theory for art production	
Outcome	Students will be able to apply the principles and elements of art in the	
Unit No.	Lopics	
I	Elements of Art: Line – Shapes – Form – Colour – Value – Texture - Space	Hours 10
П	Principles of Art: Balance – Rhythm – Proportion – Dominance- Unity – Emphasis – Harmony – Variety – Repetition-Motion	10
Ш	Colour theory: Primary Hues – Secondary Hues- Tertiary/Intermediate Hues – Colour Value – Neutral Colours – Tint – Tone – Shade – Colour Intensity.	10
IV	Colour Schemes: Warm Colours – Cool Colours – Complementary Colours – Monochromatic Colours – Achromatic Colours – Analogues Colours – Colour Triads – Split Complementary - Arbitrary colour – Tonality – Earth tones	9
V	Medium and Tools: Pencil, Water colour, Tempera, Acrylic, Pastels & Charcoal, Oil Colours, Types of Surfaces, Art Materials.	9

- 1. John Hagan, "Basic painting and drawing principles and techniques from the Renaissance to the present" 2000
- 2. Simon Jenning "Art class A complete guide to painting chronicle books" www.croniclebooks.com1999
- 3. David Lewis "Pencil Drawing Techniques" Watson Guptill publications, New York, 1984
- 4. J.D.Harding "On Drawing Trees and Nature a classic Victorian manual", Dover publications, INC, Mineola, New York 2005

Code No.	Subject Semeste	
18AXU02	Practical – I Space Form and structure	I
Objective	The course emphasizes the relationship between form and space	ce.
Outcome	It will influence the students to work on the foreground and the	e background with
	the appropriate meaning	
	Topics	Hours
	1. Gestalt Principle	
	2. Proposition and perception	
	3. Perspectives	
	4. Meaning of foreground and background	48
,	5. Study of form and structure used in space	
	6. Swapping the view to change the meaning	

- 1. Ed Ghertner, Layout and Composition for Animation, Focal Press. Elsevier Inc, 2010
- 2. Andy Rutledge "Gestalt Principles of Perception: 1" http://www.andyrutledge.com/gestalt-principles 2008
- 3. Andy Rutledge "Gestalt Principles of Perception: 2" http://www.andyrutledge.com/gestalt-principles 2008
- 4. Andy Rutledge "Gestalt Principles of Perception: 3" http://www.andyrutledge.com/gestalt-principles 2009
- 5. Gwen White, "PERSPECTIVE A Guide for Artists, Architects and Designers" 1989
- 6. Joseph D Amelio, "Perspective Drawing Handbook", Dover Publication, Inc.NewYork, 1992

Code No.	Subject	Semester No.
18AXU03	Practical II - Animation Design	I
Objective	To Learn the process of animation through the existing animation ty	pes
Outcome	While creating the animation the learner will be able to apply the techniques of	
	animation	Пошто
	Topics	Hours
	1. Zoetrope	
	2. Phenakistoscope	
	3. Praxinoscope	
	4. Flip book	
	5. Cinematograph	60
	6. Stop Motion	
	7. Cell Animation	
	8. Cartoon Computer Animation	
	9. 3D Computer Animated Films	

- 1. Laura Moreno, "The Creation Process of 2D Animated Movies" 2014
- 2. Preston Blair, "Cartoon Animation"
- 3. Gavin Ambrose and Paul Harris "The Fundamentals of Creative Design" AVA Publishing SA 2003

Code No.	Subject	Semester No.
18AXU04	Allied Practical - Animation Art and Drawing	I
Objective	To make the students understand the animation art and to develop th	e drawing
	skills for animation production.	
	To provide the opportunity to come across the styles of animation dr	awing.
Outcome	The learner will be able to create drawings for animation.	
	Topics	Hours
	1. Drawing Basics	
	2. Art tools and materials	
	3. Light and shadow	
	4. Perspective	
	5. Human anatomy	60
	6. Live model Study	00
	7. Birds and animals	
	8. Composition	
	9. Working with Colours	
	10. Landscape and Still-life	

- 1. John Hagan, "Basic painting and drawing principles and techniques from the Renaissance to the present" 2000
- 2. David Lewis "Pencil Drawing Techniques" Watson Guptill publications, New York, 1984
- 3. J.D.Harding "On Drawing Trees and Nature a classic Victorian manual", Dover publications, INC, Mineola, New York 2005

Code No.	Subject	Semester No.
18AXU05	Animation Theory	II
Objective	To make the learner familiar with different theories and principles of animation	
Outcome	The learner will be familiar with the animation theories	
Unit No.	Topics	Hours
ι	History Of Animation: Science of animation –persistence of vision, gestalt principles – desire of the brain to make sense-Early animation devices - flip book, zoetrope, cell animation etc.,	12
п	Principles of Animation: Squash and Stretch – Anticipation - Staging - Straight ahead action and pose to pose animation - Follow through and overlapping action - Slow-out and slow-in – Arcs - Secondary action - Timing - Exaggeration - Solid drawing - Appeal	12
ш	Script And Story Board For Animation: Concept art – Character modelling – script for animation – story board for animation – Pre-visualisation. Sound In Animation: Importance of sound in animation – live and location sound capturing – Foley and sound design for animation	12
IV	Ethical and legal constraints in the film and animation industry: Ethical standards- Ethical issues with animation and film / privacy - Health and safety - Ownership in copyright property and trademarks - Ethics: Truth - Privacy - Trust. Restraints in the animation and film industry	12
v	Representation of gender in film and animation - Misrepresentation - Offensive Material - Libel law - Discrimination Legislation - Obscenity -Data Protection - Intellectual Property and Copyright - Censorship - Case study	12

Text books:

Angie Jones and Jamie Olif, "Thinking Animation", Thomson Course Technology PTR: Stacy L. Hiquet

Reference Books:

- 1. "Norms of Journalistic Conduct", Press Council of India, Edition 2010
- 2. K.M. Shrivastava, Media Ethics Veda to Gandhi & Beyond, Publication Division, Ministry of Information and Broadcasting, Government of India, Edition 2005
- 3. Paranjoy Guha Thakurta, "Media Ethics Truth, Fairness, and Objectivity", Oxford University Press, Second Expanded Edition 2012
- 4. Jack Botts, The Language of News A Journalists, Pocket Reference, Iowa State University Press/Ames

Code No.	Subject	Semester No
18AXU06	Practical III - Cartooning and Comic Illustration	II
Objective	To help the students to create cartoon and acroise	
Outcome	Student will able to create cartoon and comics of their own	YY
	Topics	Hours
	BASICS OF CARTOON	
	1. The head	
	a. Head shapes	
	b. Enlarging the upper jaw	
	2. Drawing "flat" characters	
	a. Eyes	
	b. Lips	
	c. Facial expressions	
	3. Bodies proportions	
	a. Body size	
	b. The idealized cartoon figure	
	c. Pose and emotion	
	4. Traditional vs. Retro	
	a. The neck and shoulders	72
	b. Building the body section by section	ì
	c. "molding" the torso	
	d. The female torso	
	COMIC Illustration	
	5. The tools	
	6. The form	
	7. Perspective	
	8. The figure	
	9. The figure and perspective	
	10. The action	
	11. The human head	
	12. Composition	
	13. Creating your own comic book.	

- 1. Stan Lee& John Buscema, "How to Draw Comics The Marvel Way", Published by Simon & Schuster, Inc. NewYork
- 2. Christopher Hart, "Cartoon Cool" Watson Guptil Publication, New York 2005
- 3. Preston Blair, "Cartoon Animation, Moovemedia's Books For Animation", 1994

Code No.	Subject	Semester No.
18AXU07	Practical IV - Digital Art	П
Objective	To impart the knowledge and techniques in creating an artistic work	
	digital medium. To make them understand the essentials of creative process.	
Outcome	Students will be competent to produce any kind of digital painting using software.	
	Topics	Hours
	Creating background	
	2. Creating a cartoon Character	
	3. Digital painting and Sketching concepts	60
	4. Creating a wallpaper	
	5. Designing a film poster for animation film.	

- 1. Adrian Shaughnessy, "How to be a graphic designer without losing your soul" Laurence king Publishing 2005
- 2. John Hagan, "Basic painting and drawing principles and techniques from the Renaissance to the present" 2000
- 3. Simon Jenning "Art class A complete guide to painting chronicle books "www.croniclebooks.com1999
- 4. Lisa Danae Dayley, Adobe Photoshop CS6 bible, Wiley.
- 5. Ted alspach, Adobe illustrator CS 5 Bible, Willey
- 6. Gary David Bouton, CorelDRAW X7; The official guide, Corel Press

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Code No.	Subject	Semester No.
18AXU08	Visual Story Telling	Ш
Objective	To impart the knowledge of visual story telling through Cinematogra	aphy and
	Editing	
Outcome	The learner will be competent in applying the techniques and aesthet	tics of
	Cinematography and Editing in visual story telling	
Unit No.	Topics	Hours
I	Concept & developing the story – Script – Types of Script – Story	9
1	board Techniques.	9
	The Shot: Elements of shot – Mise en scene- Aspects of Mise en	
п	scene - setting, lighting, costume & make up, expression &	10
	movement – The space & Time.	
m	The Shot: Cinematography – Camera framing, Photography	10
Ш	aspects – composition – Duration of the shot.	10
	The Shot: Editing Techniques and aesthetics – The shot continuity	
IV	- Graphic continuity - Rhythmic continuity - Spatial continuity -	10
	Temporal continuity. Types of editing – montage.	
v	The Sound: Dialogues, Background score, Foley sounds, The	0
V	sound perspective	9

Text Books:

David Bordwell & Kristin Thomson "FILM ART an introduction", McGraw Hill, New Delhi, Eighth edition.

Reference Books:

- 1. Pudovkin, "Film Techniques and Film Acting", Vision Press Limited, London.
- 2. Michael rabiger, "Directing film techniques and aesthetics", Focal press, elsevier, 200 wheeler road, burlington, ma 01803, Third & Fourth edition.
- 3. Andrea Pejrolo, Creative sequencing techniques for music production, Focal Press, London, 2006
- 4. Zack Price, Beginners Guide to Computer Based Music Production, Cherry Lane Music Company, 2004

Code No.	Subject	Semester No.
18AXU09	Practical V - Sound Design	Ш
Objective	To make the students understand the importance of sound in animati	on films. To
	impart the techniques of sound design in animation films.	
Outcome	The learner can able to analyse what is a good sound design and could produce an	
	effective sound design for animation.	,
	Topics	Hours
	1. Introduction to studio	
	a. Acoustics	
	b. Basic studio setup	
	c. Equipment s	
	2. Recording process	60
	3. Adding effects and techniques	
	4. Creating an audio track	
	5. Voice dubbing for an excising video file (ADR)	
	6. Recording an audio track for an animation clip	

- 1. Andrea Pejrolo, Creative sequencing techniques for music production, Focal Press, London, 2006
- 2. Zack Price, Beginners Guide to Computer Based Music Production, Cherry Lane Music Company, 2004
- 3. Francis Rumsey, Tim Mccormick, Sound& Recording Introduction, Focal Press, London, 2006



Code No.	Subject	Semester No.
18AXU10	Practical VI- 2D animation Traditional	Ш
Objective	To Impart the techniques of 2D animation production and to provide	hands-on
	experience	
Outcome	The student will be able to create 2D animation of their own	
	Topics	Hours
	Character introduction	
	2. Developing the idea	
	3. Writing the script	
	4. The production plan	
	5. Research	
	6. Character designing	120
	7. Composing	120
	8. Concept art	
	9. Recording the dialogues	
	10. Animating	
	11. Inking and colouring	
	12. Sound design	

- 1. Pudovkin, "Film Techniques and Film Acting", Vision Press Limited, London.
- 2. Andrea Pejrolo, "Creative sequencing techniques for music production", Focal Press, London, 2006
- 3. Film Art, David Boardwell & Kristen Thamson, 13th Edition, Focal Press
- 4. Francis Rumsey, Tim Mccormick, Sound& Recording Introduction, Focal Press, London, 2006

Code No.	Subject	Semester No.
18AXU11	Practical VII - Character Design Creation	Ш
Objective	To make the students understand the process of creating characters:	for animation
Outcome	The learner will be able to develop a creative character	
	Topics	Hours
	1. Character concepts for a story	
	2. Archetypes	
	a. The hero	
	b. The shadow	
	c. The fool	
	d. The anima/animus	
	e. The mentor	
	f. The trickster	
	3. Characters involvement in the story	
	a. Basic Statistics of a Character	
	b. Distinguishing feature	60
	c. Social characteristics	
	d. Attributes and attitudes	
	e. Emotional characteristics	
	f. Spiritual characteristics	
	4. Shapes and silhouette	
	5. Working with reference and aesthetics	
	6. Colouring	
	7. Character costume and props	
	8. Putting it all together	

- 1. Bryan Tillman, "Creative character design", Focal Press, UK, 2011.
- 2. Gavin Ambrose and Paul Harris "The Fundamentals of Creative Design" AVA Publishing SA 2003
- 3. Andrew Loomis, "Figure Drawing for all its Worth" Titan Books 1943

Code No.	Subject	Semester No.
18AXU12	Allied - Computers for animation	III
Objective	To impart the knowledge of hardware and software structure in a workstation that is being used for animation production.	
Outcome	Students will be technically sound for selecting appropriate configuration for their workstation.	
Unit No.	Topics	Hours
I	Basics of computers: Introduction to computer animation, Technical background for computer animation, Computers, Generation and History of computer. Computers used Field.	9
П	Hardware's of computers, Input output devices, RAM, ROM, Hard drives, Memory units, BIOS memory, Sata and power cable, Categories of Graphics Card, Technical concepts in hardware.	10
Ш	Application Software's of computers for animation, Presentation Software, Graphics Production software, 2D designing software, 3D software. System Software of computers for animation, OS, Platform difference, utility,	10
IV	Minor issues to rectify: ms configuration setup, Temporary files clean up, BIOS Beep codes, RAM Changing Hard disk upgrading, OS installation, System over heating, DLL file missing, Blue screen error.	10
V	New Technology computers, High-Speed processing computers, Main frame computers, wireless power transmission, Artificial Intelligence.	9

Text books:

- 1. K.I.JAMES, "COMPUTER HARDWARE Installation, Interfacing, Troubleshooting and Maintenance", PHI Learning private limited, Delhi.
- 2. Dr.Dolores wells "Course Technology, Bostan, Massachusetts, USA

Reference books:

Angela du preez, Vaughan van dyk, Adrian cook "Computer Hardware and Software" pearson education SA(pty) ltd 2008

Code No.	Subject	Semester No.
18AXU13	Basic Photography and Lighting Techniques	IV
Objective	To make the learner familiar with the fundamentals of photography	
	lighting techniques to improve the photography skills into next level	
Outcome	The students will be able to take photography and understand the lig techniques of photography.	hting
UNIT	Topics	Hours
I	The light Formation of image – wave length – colours – shadows – light surface – light intensity and distance. Lighting principles: Lighting quality – Lighting direction – Lighting colour. Characteristics of light – lighting equipment - lighting accessories – practical problems in lighting.	12
П	The lens Photography lenses, types of lenses — wide angle — normal - telephoto — macro — close up lens kit — special lenses — extensions. Lens properties: Photographic lens mechanism and structure — aperture — f numbers — depth of focus — depth of field — change of focal length.	12
Ш	Basics of photography Need of Photography, Photography process — the still camera — types of still cameras — view finder cameras — view cameras — reflex cameras — function of a SLR camera — cross section — film cameras vs digital cameras.	12
IV	Exposure Techniques Working with Aperture, Shutter and ISO.	12
V	Advanced Photography Overview of digital still cameras- capturing techniques exposure techniques – metering – storing devices. Future of photography.	12

Text Book:

Michael Langford., "Basic Photography", Focal Press, Royal College of art London.

Reference Books:

- 1. David Prakel., "Basic Photography Lighting "AVA Publishing SA, Switzerland.
- 2. David Prakel., "Basic Photography Exposure "AVA Publishing SA, Switzerland.
- 3. Fil Hunter, Steven Biver, Paul Fuqa., "Light Science & Magic", Focal Press, London.

Code No.		Subject	Semester No.
18AXU14		Practical VIII - 3D Modeling	IV
Objective	The core of	this practical is to explore the Modelling techniques. The	e learner will
	work on the	aspects of Modelling using 3D animation software.	
Outcome	Students wi	ll be able to create any kind of model for animation.	
		Topics	Hours
	1. Und	erstanding the Interface	
	a)	Workspace	
	(b)	Menu	
	(c)	Timeline	U
	d)	Attributes	
	e)		
		nitive Modelling	100
	3. Poly	ygon Modelling	120
	a		
	b	,	
	c		
		es and Nurbs	
		delling interior props	
		ics of Rendering	
	7. BG	Creation	

Reference:

- 1. Andy Beane., "3D animation essentials", John wiley & sons, Inc., Indianapolis, Indiana
- 2. Kelly L Murdock "3Ds Max Bible", Wiley Publishing 2010

			C 4 PT
Code No.		Subject	Semester No.
18AXU15		Practical IX - Visual Effects I	IV
	To impar	4 the techniques of visual effects, where students would be	able to think
Objective	and areat	e a fantasy world by manipulating the real life situation wit	h the help of
	1 C	Carta do firemo	
	Visual eli	ents will be capable of creating visual effects for animation	and films.
Outcome	The stude	Topics	Hours
		Topics	
	1 Cr	eating a sequence for motion graphics using the following	
	1. Ci	a) Kinematic typography	
		b) Logo Animation	
	0. 11/	c) Expressions	
	2. W	oking with After effect a) Interface introduction	
		b) Use of layersc) Use of masks	
		d) Using render queue	
			72
		- 136 1	
	2 D	f) Using blend Modes roducing SFX sequence with nuke	
	3. PI	a) User Interface Basics and reading images into	
		NUKE	
		b) Playing back Videos and changing project settings	
		c) Merging and Basic Track Creation	
		d) Roto-scoping	
		e) Colour Correction	
		f) Roto Paint	
		g) The use of Key frames	
		6) 110 000 0000	

Text book:

1. Ron Ganbar "Nuke 101: Professional Compositing and Visual Effects" Peachpit Press; 2 edition (7 March 2014)

Reference book

1. Ron Brinkmann "The Art and Science of Digital Compositing: Techniques for Visual Effects, Animation and Motion Graphics "Morgan Kaufmann; 2 edition (24 May 2008)

Code No.	Subject	Semester No
18AXU16	Practical X - Texturing and Lighting	IV
Objective	The core of this practical is to explore the texturing and lighting tecl	nniques. The
	learner will work on the aspects of texturing and lighting using 3D a	nimation
	software.	
Outcome	Students will be able to apply texturing and lighting for any model.	
	Topics	Hours
	1. UV's Mapping	
	2. Shaders	
	a) Colour	
	b) Ambient	
	c) Transparency	
	d) Reflection	
	e) Refraction	
	f) Bump	
	3. Bitmap file textures	72
	4. Light Types and attributes	
	a) Spotlight	
	b) Omni/point lights	
	c) Directional Lights	
	5. Light techniques	
	a) Three point lighting	
	b) Two point lighting	
	c) One point lighting	
	d) Natural Lighting	

Text Book:

- 1. Andy Beane., "3D animation essentials", John wiley& sons, Inc., Indianpolis, Indiana
- 2. Kelly L Murdock "3Ds Max Bible", Wiley Publishing 2010

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Code No.	Subject	Semester No.
18AXU17	Film language and appreciation	V
Objective	Students will learn about the history of modern cinema including cir	ematic
	history, -Students will identify the cinematic conventions used by di	rectors in the
	creation of a film including but not limited to camera angles, shot ty	pes, editing
	techniques, and misé – en- scene.	
Outcome	The learner will be able to appreciate and analyse animation films	
Unit No.	Topics	Hours
I	Understanding Film Language: The Elements of Film Making.	12
II	Appreciating A Film as a Work of Art: The Principles of the Art of	10
	the Film, The Importance of Film Aesthetics.	12
	Critical Assimilation Of Film Content: Environments – Situations	
III	- Courses of Action - The Characters - Tendency of the Film and	12
	its ideas - Critical Viewing - Freedom from Illusions - Liberation.	
	Methods and techniques of film education - Instruction and	
IV	demonstration - Discussion - Making films - Analysing films -	12
	Miscellaneous activities.	~
V	Media Literacy: Critically Analysing Film and Animation.	12

- 1. J.M.L.Peters, "Teaching About the Film", UNESCO, 1961.
- 2. Alex Clayton and Andrew Klevan "The Language and Style of Film Criticism", Published byRoutledge, 2011.
- 3. Pudovkin, Film Techniques and Film Acting, Vision Press Limited, London.
- 4. Michael rabiger, Directing film techniques and aesthetics, Focul press, elsevier, 200 wheeler road, burlington, ma 01803, Third & Fourth edition.

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Code No.	Subject	Semester No.
18AXU18	Practical XI -3D Character Animation & Rigging	V
Objective	To channelize the students creativity and techniques in 3D character	Modelling
	and Animation	Ü
	To impart the skills of rigging on the real time poses of Character in	animation
Outcome	The learner will be competent of animating 3D character model and will be able to	
	apply rigging techniques	
	Topics	Hours
	Basic animation Techniques	
	2. Creating a ball bouncing animation	
	3. Rigging one legged character and animating	
	4. Rigging two legged character and animating	120
	5. Rigging multi legged character and animating	
	6. Creating facial expressions	
	7. Creating head movements	

- 1. Kris Larson "How to Become an Animator" AnimationMentor.com 2009
- 2. Andy Beane., "3D animation essentials", John wiley & sons, Inc., Indianapolis, Indiana
- 3. Kelly L Murdock "3Ds Max Bible", Wiley Publishing 2010

Code No.	Subject	Semester No.	
18AXU19	Practical XII - Anatomy Based Sculpturing	V	
Objective	To make the students study the anatomy of human figures, animals and birds through Clay Modelling		
Outcome	The understanding of anatomy will help the student to apply the stru	cture and	
	forms of human figures, animals and birds in Character Modelling		
	Topics	Hours	
	1. Clay Modelling		
	a. Basic Shapes		
	b. Relief Sculpture		
	2. Study of Human Face		
	a) Eye	60	
	b) Nose		
	c) Lips		
	d) Ears		
	3. Forms of Animals and Birds		

- 1. Howard Simon. "How to draw the figure" Bridgeman Publication.
- 2. Andrew Loomis, "Figure Drawing for all its Worth" Titan Books 1943

10 4 371100	Subject	Samantan M
18AXU20	Practical XIII Visual Effects II	Semester No
Objective	To help the learner to involve in the integration of live action and computer generated imagery to create realistic environment.	
Outcome	The students will be capable of creating advance visual effects for film.	
	Topics	Hours
	1. Creating a Scene using the following techniques: a) Repairing and Enhancing video b) Green Screen Work flow c) Commercial editing Techniques d) Colour grading and Colour correction. 2. Producing a Match Moving Video with following techniques a) Compositing pipeline b) Object tracking c) Camera Tracking d) Destructive composition techniques 3. Creating a Scene using compositing techniques a) Working with image sequences b) Pass compositing c) Pre-compositions d) Tracking images e) Matting and Garbage masking f) Use of Lens flare g) Roto - scopy h) Use of heat distortion i) Colour correction j) Rendering	72

Text book:

Ron Ganbar "Nuke 101: Professional Compositing and Visual Effects" Peachpit Press; 2 edition (7 March 2014)

Reference book

1. Ron Brinkmann "The Art and Science of Digital Compositing: Techniques for Visual Effects, Animation and Motion Graphics "Morgan Kaufmann; 2 edition (24 May 2008) 2. Jon Gress "[digital] Visual Effects and Compositing" New Riders; 1 edition (20 October 2014)

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Code No.	Subject	Semester No.	
18AXU21	Elective Practical- I – (a) Foley Sound Design	V	
Objective	It helps the students to enrich the audio quality and help them to reproduce the live sound available in the environment which will be used as sound effects in an animation film.		
Outcome	To provide an opportunity to explore and create Foley sound effects Student will be able to produce good quality of sound effects for an	i.	
	Topics Topics	Hours	
	 Foley sound recording equipment's and its specification Producing Foley sound with Concept Mixing and Mastering Ambience sounds Forest Animals Foot steps Water flowing Birds flying sound Rain sound Creating a Sound track for an Animation Film 	48	

Code No.	Subject	Semester No.
18AXU21	Elective Practical- I – (b)Miniature Modelling and Set Design	V
	Topics	Hours
	1. Miniatures	Hours
	2. Hanging Foreground Miniature	
	3. Foreground Miniature	
	4. Cut-outs	
1	5. A Variation on Miniatures	
	6. Forced Perspective	
	7. Mobile Miniatures	
	8. Interior Sets	
	9. Exterior Sets	
	10. Mechanical Effects	
	11. Specialty Props and Animatronics	

Code No.	Subject	Semester No.
18AXU21	Elective Practical- I – (c) Commercial Production	V
	Topics	Hours
	Concept & story board	Hours
	2. Applying Commercial Formats	
	3. Production process	
	4. Pre score & post scoring	
	5. Post production	
	6. Adding Motion Graphics	

Code No.	Subject	Semester No.
16AXU22	INDUSTRIAL TRAINING	V
Objective	To provide the students an opportunity to be part of an existing Animation Production Firm.	

Students should undergo training at the end of the fourth semester for duration of minimum 15 days in an Animation Production Firm.

The following submission by the students before the commencement of fifth semester examination.

- a. Work diary
- b. Project report

18AXU23	Subject Design Thirds	Semester No
Objective	Design Thinking and Culture	VI
Outcome	The course teaches the process of thinking for a production The students will be able to apply the thinking process, effectively in production	their
Unit No.	Topics	
Ĭ	Types and styles of thinking – creative thinking – design strategies – gestalt principles. Vision and Visualisation -Visual Culture-Social Conditions and Effects of Visual Objects- Critical Visual Methodology-Visual Production: Technological, Compositional and Social aspects of visuals.	Hours 10
п	Visual language and culture – World culture, society and ethics, Understanding Popular Culture and Sub culture – Abstract thinking, Linear and lateral thinking – Holistic visual thinking	10
Ш	of visual images – Visual perception – Communication design, Graphic design and informational designs – Visual persuasion in various fields.	10
IV	Introduction semiotics – Analysis - Aspects of signs and symbols – Sign and meanings – Description of signs, – Denotations and connotations – Paradigmatic and syntagmatic aspects of signs – Codes and its concepts – reference systems – Audience interpretations.	9
V	Visual perspectives and its special features: photography, motion picture, television, computer graphics, new media, World Wide Web.	9

Text Book:

White, Alexander W., The Elements of Graphic Design

Reference Books:

- 1. Bryan Lawson., "How Designers Think The Design process Demystified", Architectural press, London.
- 2. Eco, Umberto. Fundamentals of Semiotics
- 3. Jeffrey Anshel, Visual Ergonomics Hand Book, Taylor & Francis Group
- 4. Nick Lacy, Images and Representation, Macmillan, London 1998.
- 5. John Fiske, Understanding Popular Culture, Unwin Hyman, London 1989.

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Code No.	Subject	Semester No.		
18AXU24	Practical XIV- Virtual Typography	VI		
Objective	This Course will help the students The basics of typography and the animation	application in		
Outcome	Students will be able to explore visual effects for typography			
	Topics	Hours		
	1. Typography Basics & Anatomy			
	2. Typography information and Communication	72		
	3. Virtual Typography			
	a. Process of reading			
	b. Eye Movement			
	c. Prospective interpretation of text			
	d. Time Consciousness			
	4. The Transition & Effects			

- 1. Matthias Hillner"Basics Typography Virtual Typography", AVA Publishing, 2009
- 2. Martin Solomon, The Art of Typography An introduction to Typo.icon.ography, Art direction Book Company, New York, 1994.

Code No.	Subject	Semester No.	
18AXU25	Practical XV - Portfolio Design	VI	
Objective	To help the student to create their own portfolio		
Outcome	The students will compile their works in to a beautiful and presentable portfolio.		
	Topics		
	Every individual have to create their own portfolio based on	Hours	
	3. Design Brief a. Identification of a design problem b. Research, positioning the design project c. Requirement analysis d. Finalisation of the brief 4. Creative Processes a. Preparation and observation b. Explorations and ideation c. Analysis and selection 5. Planning and Execution a. Concept generation b. Assets creation and collection c. Visual design	60	

1. Elivio Bonollo, "Product Design A course in first principles", Published in Australia by Elivio Bonollo (lb.publications@gmail.com) 2010.

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Subject	Semester No.	
Major Project - Animated Film	VI	
This course help the student to prove themselves as an animator		
Students will produce an animation film applying the possible techniques and aesthetics of Animation		
Topics	Hours	
Students should produce any one of the following:		
1. 2D Animated Film – Flash OR 2. 3D Animated Film OR 2. For extracted Assignation Film OR	180	
	Major Project – Animated Film This course help the student to prove themselves as an animator Students will produce an animation film applying the possible technic aesthetics of Animation Topics Students should produce any one of the following: 1. 2D Animated Film – Flash OR 2. 3D Animated Film	

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