

SCHEME & SYLLABUS
B.Sc(Animation & Multimedia)
(Choice Based Credit System)



Department of Computer Science and Applications
UICAIS
Sant Baba Bhag Singh University
2019

INTRODUCTION

The CBCS provides an opportunity for the students to choose courses from the prescribed courses comprising core, elective/minor or skill based courses. The courses can be evaluated following the grading system, which is considered to be better than the conventional marks system.

The basic idea is to look into the needs of the students so as to keep up-to-date with development of higher education in India and abroad. CBCS aims to redefine the curriculum keeping pace with the liberalization and globalization in education. CBCS allows students an easy mode of mobility to various educational institutions spread across the world along with the facility of transfer of credits earned by students.

1. Curriculum Structure: B.Sc(Animation & Multimedia) degree programme will have a curriculum with Syllabi consisting of following type of courses:

I. Ability Enhancement Courses (AEC): The Ability Enhancement (AE) Courses may be of two kinds: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC). AECC courses are the courses based upon the content that leads to Knowledge enhancement; These are mandatory for all disciplines.

SEC courses are value-based and/or skill-based and are aimed at providing hands-on-training, competencies, skills, etc.

A. Ability Enhancement Compulsory Courses (AECC): Environmental Science, English Communication/MIL Communication.

B. Skill Enhancement Courses (SEC): These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge.

II. Core Courses (CR): A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course. These courses are employability enhancement courses relevant to the chosen program of study. Program core comprises of Theory, Practical, Project, Seminar etc. Project work is considered as a special course involving application of knowledge in solving/analyzing/exploring a real life situation/ difficult problem.

III. Elective Courses: Elective course is generally a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/subject of study or with provides an extended scope or

which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill. Accordingly, elective course may be categorized as:

A. Discipline Specific Elective (DSE) Course: Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective.

B. Project (I): An elective course designed to acquire special/advanced knowledge, such as supplement study/support study to a project work, and a candidate studies such a course on his own with an advisory support by a teacher/faculty member is called dissertation/project.

2. Nomenclature Used:

A. Graduate Core Courses

- i. Core Course(CR)
- ii. Information Technology (IT)
- iii. Software Development (SD)
- iv. Industrial Training & Project (I)
- v. Theory Subject (T)
- vi. Practical (P)
- vii. Industrial Training(I)
- viii. Core Information Technology Course (CR-IT)
- ix. Core Animation Course (CR-AM)

B. Ability Enhancement Courses (AEC):

- i. Ability Enhancement Compulsory Courses (AECC)
- ii. Skill Enhancement Courses (SEC).

C. Elective Courses (EL)

- i. Discipline Specific Elective (DSE)
- ii. Project (I)

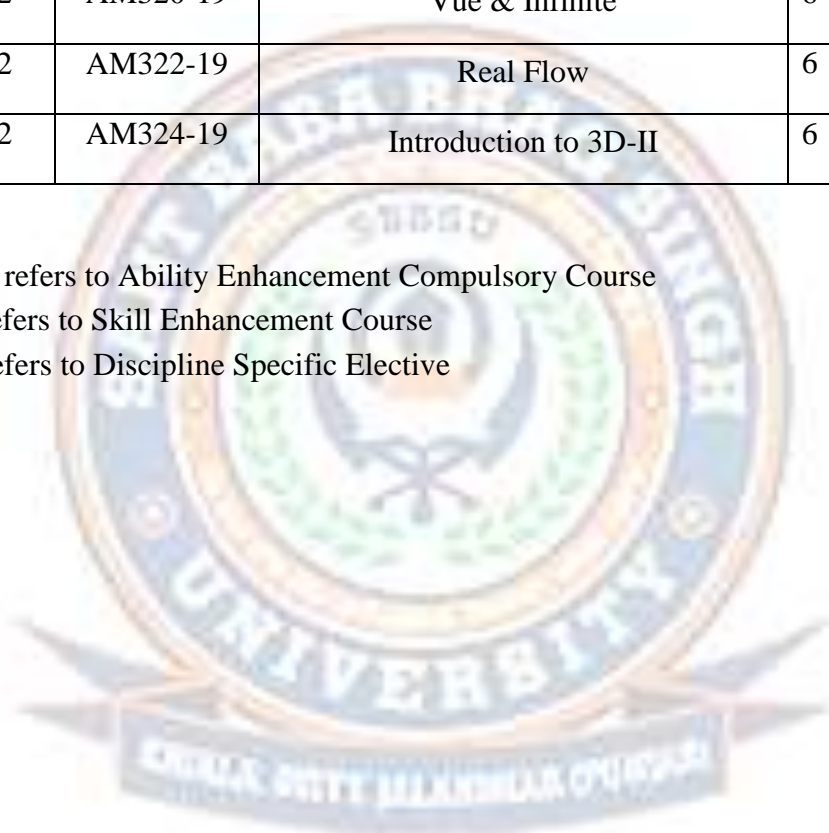
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S.No	Subject Type	Subject Code	Subject	Semester	Page No
Scheme				1-6(All)	1-15
1	AECC	ENG121*-19	Communication Skills I	1	16
2	CR-IT	CSA131*-19	Introduction to Information Theory and Applications	1	17-18
3	CR-AM	AM101-19	Principle of Animation	1	19
4	CR-AM	AM103-19	Basic of Motion Graphics	1	20
5	CR-AM	AM105-19	Animation Drawing	1	21
6	CR-IT	CSA 135*-19	Introduction to Information Theory and Applications (Lab)	1	22
7	CR-AM	AM107-19	Animation Drawing (Lab)	1	23
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10	CR-AM	AM104-19	Script Writing and Story Board Design	2	27
11	AECC	ENG114*-19	Communication Skills II	2	28
12	CR-AM	AM106-19	Color Theory and Image Graphics	2	29
13	CR-AM	AM108-19	Basic 2d- 3D Animation (Lab)	2	30
14	CR-AM	AM110-19	Print &Advertising Graphics (Lab)	2	31
15	CR-AM	AM201-19	Audio and Video Editing	3	33
16	CR-AM	AM203-19	Fundamentals of Pre-Production	3	34
17	CR-AM	AM205-19	Animation – Modeling	3	35
18	CR-AM	AM207-19	Final Cut Pro	3	36
19	CR-AM	AM209-19	Digital Film Making (Lab)	3	37
20	CR-AM	AM211-19	Audio and Video Editing (Lab)	3	38
21	SEC-1	AM213-19	Photoshop	3	39
22	SEC-1	AM215-19	Art Foundation	3	40

23	SEC-1	AM217-19	Film Appreciation	3	41
24	CR-IT	CSA202*-18	Fundamentals of Computer Graphics	4	43
25	CR-AM	AM202-19	Essentials of post-production	4	44
26	CR-AM	AM204-19	Animation & Rigging	4	45
27	CR-IT	CSA240*-19	Fundamentals of Computer Graphics(Lab)	4	46
28	CR-AM	AM206-19	Virtual Set designing (Lab)	4	47
29	CR-AM	AM208-19	Camera & Lighting in 3d (Lab)	4	48
30	SEC-2	AM210-19	VFX- Visual Effects	4	49
31	SEC-2	AM212-19	Photography	4	50
32	SEC-2	AM214-19	Lightroom	4	51
33	CR-AM	AM301-19	Fundamentals of Aesthetis	4	52
34	AECC	SSE303*-19	Human Values & Professional Skills	5	54
35	AECC	EVS101*-19	Environmental Studies	5	55
36	CR-AM	AM305-19	Texturing and Shading(Lab)	5	56
37	CR-AM	AM307-19	Digital Compositing (Lab)	5	57-58
38	CR-AM	AM309-19	Minor Project	5	59
39	SEC-3	AM311-19	Art of Video Editing	5	60-61
40	SEC-3	AM313-19	Advanced Photoshop	5	62
41	SEC-3	AM315-19	Cinema 4D	5	63
42	DSE-1	AM317-19	Flash	5	64
43	DSE-1	AM319-19	STOPMOTION	5	65
44	DES-1	AM321-19	Mudbox	5	66
45	CR-AM	AM302-19	Publicity Designing & Media Laws	6	68
46	CR-AM	AM304-19	Animation dynamics	6	69
47	CR-AM	AM306-19	Special Effects in Feature Films	6	70

48	CR-AM	AM308-19	Introduction to Game Designing – (Lab)	6	71
49	CR-AM	AM310-19	Major project	6	72
50	CR-AM`	AM312-18	Six Week Industrial /Institutional Training	6	73
51	SEC-4	AM314-19	Rigging Techniques	6	74
52	SEC-4	AM316-19	After Effects	6	75
53	SEC-4	AM318-19	Sound Production	6	76
54	DSE-2	AM320-19	Vue & Infinite	6	77
55	DSE-2	AM322-19	Real Flow	6	78
56	DSE-2	AM324-19	Introduction to 3D-II	6	79

- AECC refers to Ability Enhancement Compulsory Course
- SEC refers to Skill Enhancement Course
- DSE refers to Discipline Specific Elective



COURSE CLASSIFICATION					
1. Ability Enhancement Compulsory Course		L	T	P	Credits
1.	Communication Skills I	2	0	0	2
2.	Communication Skills II	4	0	0	4
3.	Human Values & Professional Skills	4	0	0	4
3.	Environmental Studies	3	0	0	3
Total Credits					13
2. Professional Core Courses (Theory)		L	T	P	Credits
1.	Introduction to Information Theory and Applications	4	1	0	5
2.	Principle of Animation	5	0	0	5
3.	Basic of Motion Graphics	4	0	0	4
4.	Animation Drawing	5	0	0	5
5.	2D Animation	5	0	0	5
6.	Script Writing and Story Board Design	5	0	0	5
7.	Color Theory and Image Graphics	5	0	0	5
8.	Audio and Video Editing	3	1	0	4
9.	Fundamentals of Pre-Production	3	1	0	4
10.	Animation – Modeling	4	0	0	4
11.	Final Cut Pro	4	0	0	4
12.	Fundamentals of Computer Graphics	3	1	0	4
13.	Essentials of post-production	5	0	0	5
14.	Animation & Rigging	5	0	0	5
15.	Fundamentals of Aesthetes	5	0	0	5
16.	Publicity Designing & Media Laws	4	0	0	4
17.	Animation dynamics	4	0	0	4
18.	Special Effects in Feature Films	4	0	0	4
					81
3. Professional Core Courses (Practical)		L	T	P	Credits
1.	Introduction to Information Theory and Applications (Lab)	0	0	4	2
2.	Animation Drawing (Lab)	0	0	4	2
3.	Communication Skills -I (Practical)	0	0	2	1
4.	Basic 2d- 3D Animation (Lab)	0	0	4	2
5.	Print & Advertising Graphics (Lab)	0	0	4	2
6.	Digital Film Making(Lab)	0	0	4	2
7.	Audio and Video Editing (Lab)	0	0	4	2
8.	Fundamentals of Computer Graphics(Lab)	0	0	4	2
9.	Virtual Set designing (Lab)	0	0	4	2
10.	Camera & Lighting in 3d (Lab)	0	0	4	2
11.	Texturing and Shading (Lab)	0	0	4	2
12.	Digital Compositing (Lab)	0	0	4	2
13.	Minor Project	0	0	6	3

14.	Introduction to Game Designing – Lab	0	0	4	2
15.	Major project	0	0	6	3
16.	Six Weeks Industrial/Institutional Training	NA	NA	NA	2
Total Credits					33
4. Skill Enhancement Subjects		L	T	P	Credits
1.	SEC-1	4	0	0	4
2.	SEC -2	3	0	0	3
3.	SEC -3	3	0	0	3
4.	SEC -4	4	0	0	4
Total Credits					14
5. Discipline Specific Elective		L	T	P	Credits
1.	DSE-1	3	0	0	3
2.	DSE-2	3	0	0	3
Total Credits					6

Table 1: Skill Enhancement Elective Subjects

Sr. No.	Course Type	Course Title	Remark
1.	SEC-1	Photoshop	Student can chose one subject out of these four Elective subjects in 3 rd Semester.
2.	SEC-1	Art Foundation	
3.	SEC-1	Film Appreciation	
4.	SEC -2	VFX- Visual Effects	Student can chose one subject out of these four Elective subjects in 4 th Semester.
5.	SEC -2	Photography	
6.	SEC -2	Lightroom	
7.	SEC -3	Art of Video Editing	Student can chose one subject out of these four Elective subjects in 5 th Semester.
8.	SEC -3	Advanced Photoshop	
9.	SEC -3	Cinema 4D	
10.	SEC -4	Rigging Techniques	Student can chose one subject out of these four Elective subjects in 6 th Semester.
11.	SEC -4	After Effects	
12.	SEC -4	Sound Production	

Table 2: Discipline Specific Elective Subjects

Sr. No.	Course Type	Course Title	Remark
1.	DSE-1	Flash	Student can chose one subject out of these four Elective subjects in 5 th Semester
2.	DSE-1	STOPMOTION	
3.	DSE-1	Mudbox	
4.	DSE-2	Vue & Infinite	Student can chose one subject out of these four Elective subjects in 6 th Semester.
5.	DSE-2	Real Flow	
6.	DSE-2	Introduction to 3D-II	



COURSE SCHEME (B.Sc. (Animation& Multimedia))

Semester 1

I. Theory Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	AECC	ENG121*-19	Communication Skills I	2:0:0	2:0:0	2	2
2	CR-IT	CSA131*-19	Introduction to Information Theory and Applications	4:1:0	4:1:0	5	5
3	CR-AM	AM101-19	Principle of Animation	5:0:0	5:0:0	5	5
4	CR-AM	AM103-19	Basic of Motion Graphics	4:0:0	4:0:0	4	4
5	CR-AM	AM105-19	Animation Drawing	5:0:0	5:0:0	5	5
6	PT	PT10-1/PT103/PT105	Physical Training (NSO/NCC/NS S)	0:0:2	NC	2	NC

II. Practical Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-IT	CSA 135*-19	Introduction to Information Theory and Applications (Lab)	0:0:4	0:0:2	4	2
2	CR-AM	AM107-19	Animation Drawing (Lab)	0:0:4	0:0:2	4	2
3	AECC	ENG123*-19	Communication Skills -I (Practical)	0:0:2	0:0:1	2	1

* Subjects taken from B.Sc(IT) Semester 1st.

Total Credits: 26
Total Contact Hours: 33

Semester 2

I. Theory Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-AM	AM102-19	2D Animation	5:0:0	5:0:0	5	5
2	CR-AM	AM104-19	Script Writing and Story Board Design	5:0:0	5:0:0	5	5
3	AECC	ENG114*-19	Communication Skills II	2:0:0	2:0:0	2	2
4	CR-AM	AM106-19	Color Theory and Image Graphics	5:0:0	5:0:0	5	5
5	PT	PT102/ PT104/ PT106	Physical Training (NSO/NCC/ NSS)	0:0:2	NC	2	NC

II. Practical Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-AM	AM108-19	Basic 2d-3D Animation (Lab)	0:0:4	0:0:2	4	2
2	CR-AM	AM110-19	Print & Advertising Graphics (Lab)	0:0:4	0:0:2	4	2
3	AECC	ENG116*-19	Communication Skills II(Practical)	0:0:2	0:0:1	2	1

* Subjects taken from B.Sc(IT) Semester 2nd.

Total Credits: 22
Total Contact Hours: 29

Semester 3

I. Theory Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-AM	AM201-19	Audio and Video Editing	3:1:0	3:1:0	4	4
2	CR-AM	AM203-19	Fundamentals of Pre-Production	3:1:0	3:1:0	4	4
3	CR-AM	AM205-19	Animation – Modeling	4:0:0	4:0:0	4	4
4	CR-AM	AM207-19	Final Cut Pro	4:0:0	4:0:0	4	4
5	PT	PT201/ PT203/ PT205	Physical Training (NSO/NCC/NS S)	0:0:2	NC	2	NC

II. Practical Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-AM	AM209-19	Digital Film Making (Lab)	0:0:4	0:0:2	4	2
2	CR-AM	AM211-19	Audio and Video Editing (Lab)	0:0:4	0:0:2	4	2

III. Skill Enhancement Course

S No.	Course Type	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	SEC-1	4:0:0	4:0:0	4	4

Skill Enhancement Subjects

Sr. No.	Course Type	Course Code	Course Title
1	SEC-1	AM213-19	Photoshop
2	SEC-1	AM215-19	Art Foundation
3	SEC-1	AM217-19	Film Appreciation

Total Credits: 24

Total Contact Hours: 30



Semester 4

I. Theory Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-IT	CSA202*-18	Fundamentals of Computer Graphics	3:1:0	3:1:0	4	4
2	CR-AM	AM202-19	Essentials of post-production	5:0:0	5:0:0	5	5
3	CR-AM	AM204-19	Animation & Rigging	5:0:0	5:0:0	5	5

II. Practical Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-IT	CSA240*-19	Fundamentals of Computer Graphics(Lab)	0:0:4	0:0:2	4	2
2	CR-AM	AM206-19	Virtual Set designing (Lab)	0:0:4	0:0:2	4	2
3	CR-AM	AM208-19	Camera & Lighting in 3d (Lab)	0:0:4	0:0:2	4	2

II. Skill Enhancement Course

S No.	Course Type	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	SEC-2	3:0:0	3:0:0	3	3

Skill Enhancement Subjects

Sr. No.	Course Type	Course Code	Course Title
1	SEC-2	AM210-19	VFX- Visual Effects
2	SEC-2	AM212-19	Photography
3	SEC-2	AM214-19	Lightroom

* Subjects taken from B.Sc(IT) Semester 4th.

Total Credits: 23

Total Contact Hours: 29



Semester 5

I. Theory Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-AM	AM301-19	Fundamentals of Aesthetics	5:0:0	5:0:0	5	5
2	AECC	SSE303*-19	Human values and Professional Skills	3:1:0	3:1:0	4	4
3	AECC	EVS101*-19	Environmental Studies	3:0:0	3:0:0	3	3

II. Practical Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-AM	AM305-19	Texturing and Shading(Lab)	0:0:4	0:0:2	4	2
2	CR-AM	AM307-19	Digital Compositing (Lab)	0:0:4	0:0:2	4	2
3	CR-AM	AM309-19	Minor Project	0:0:6	0:0:3	6	3

III. Skill Enhancement Course

S No.	Course Type	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	SEC-3	3:0:0	3:0:0	3	3

Skill Enhancement Subjects

Sr. No.	Course Type	Course Code	Course Title
1	SEC-3	AM311-19	Art of Video Editing
2	SEC-3	AM313-19	Advanced Photoshop
3	SEC-3	AM315-19	Cinema 4D

IV. Discipline Specific Elective Subjects

S No.	Course Type	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	DSE-1	3:0:0	3:0:0	3	3

Sr. No.	Course Type	Course Code	Course Title
1	DSE-1	AM317-19	Flash
2	DSE-1	AM319-19	STOPMOTION
3	DES-1	AM321-19	Mudbox

Total Credits: 25
Total Contact Hours: 32



Semester 6

I. Theory Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-AM	AM302-19	Publicity Designing & Media Laws	4:0:0	4:0:0	4	4
2	CR-AM	AM304-19	Animation dynamics	4:0:0	4:0:0	4	4
3	CR-AM	AM306-19	Special Effects in Feature Films	4:0:0	4:0:0	4	4

II. Practical Subjects

S No.	Course Type	Sub Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	CR-AM	AM308-19	Introduction to Game Designing – (Lab)	0:0:4	0:0:2	4	2
2	CR-AM	AM310-19	Major project	0:0:6	0:0:3	6	3
3	CR-AM	AM312-18	Six Week Industrial /Institutional Training	NA	NA	NA	2

III. Skill Enhancement Course

S No.	Course Type	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	SEC-4	4:0:0	4:0:0	4	4

Skill Enhancement Subjects

Sr. No.	Course Type	Course Code	Course Title
1	SEC-4	AM314-19	Rigging Techniques
2	SEC-4	AM316-19	After Effects
3	SEC-4	AM318-19	Sound Production

IV. Discipline Specific Elective Subjects

S No.	Course Type	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	DSE-2	3:0:0	3:0:0	3	3

Discipline Specific Elective Subjects

Sr. No.	Course Type	Course Code	Course Title
1	DSE-2	AM320-19	Vue & Infinite
2	DSE-2	AM322-19	Real Flow
3	DSE-2	AM324-19	Introduction to 3D-II

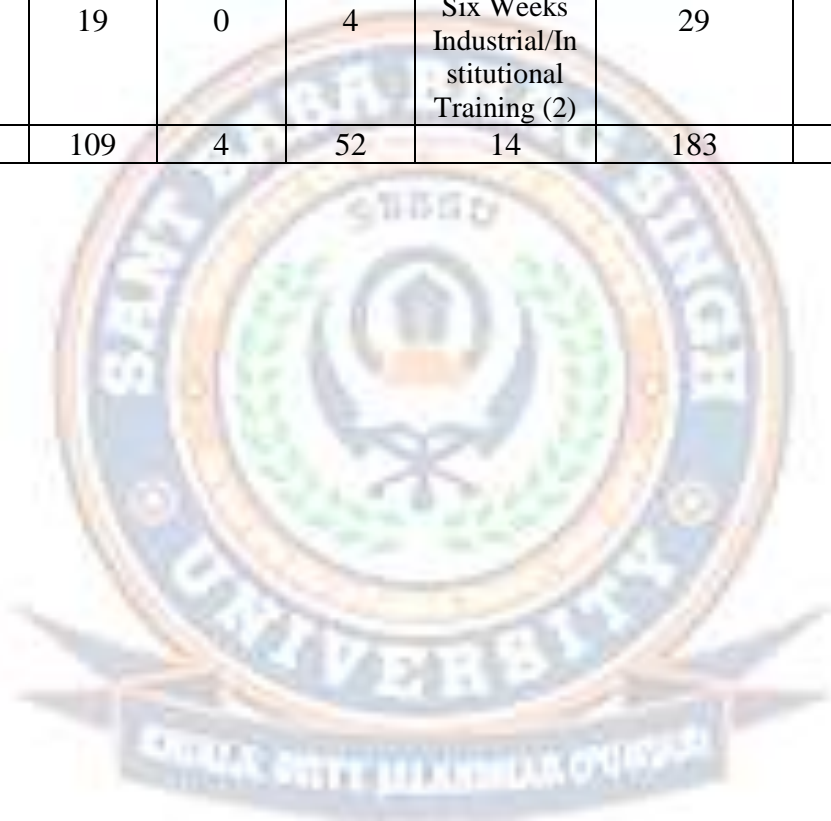
Total Credits: 26

Total Contact Hours: 29



Summary of Scheme

Sem	L	T	P	Project/ Training /Seminar	Contact hrs per week	Credits
1	20	1	10		33	26
2	17	0	10		29	22
3	18	2	8		30	24
4	16	1	12		29	23
5	19	0	8	6 (Minor Project)	33	26
6	19	0	4	6 (Major Project), Six Weeks Industrial/In stitutional Training (2)	29	26
Total	109	4	52	14	183	147



First Semester



Course Code	ENG121*-19
Course Title	Communication Skills-I
Type of Course	AECC
L T P	2:0:0
Credits	2
Course pre-requisite	Knowledge of English Language
Course Objectives	The objective of this course is to : 1.assist the students to acquire proficiency, both in spoken and written language

SYLLABUS

UNIT-I

Basics of Communication Skills: Communication, Process of Communication, Types of Communication-Verbal and Non verbal communication, Channels of Communication-Upward, Downward, Horizontal, Barriers to Communication, Role of Communication in society.

UNIT-II

Listening Skills: Listening Process, Hearing and Listening, Types of Listening, Effective Listening, Barriers of Effective Listening, Note Taking

Reading Skills: Purpose of reading, Process of reading, reading skills Models and strategies, scanning, skimming, SQ3R, Approaches of Reading, Comprehension passages for practice.

UNIT III

Writing Skills: Purpose of writing, Effective writing, Types of writing, Business Correspondence, Precise writing, Memo writing, minutes of meeting.

UNIT-IV

Speaking Skills: Speech process, Skills of effective speaking, Role of audience, Feedback Skill, Oral Presentation.

RECOMMENDED BOOKS			
Sr. No	Author(s)	Title	Publisher
1.	Bhupender Kour	Effectual Communication Skills	S.K. Kataria and Sons
2.	R. Datta Roy and K.K. Dheer	Communications Skills	Vishal Publishing Company
3.	The Essence of Effective Communication	Ludlow and Panthon	Prentice Hall of India

Course Code	CSA131*-19
Course Title	Introduction to Information Theory and Applications
Type of Course	CR-IT
L T P	4 1 0
Credits	5
Course Prerequisites	Basics of Computer
Course Outcome (CO)	Learning basic computer concepts Become aware of some of the ways that information technology continues to change everything To prepare students with the latest knowledge in Computer Hardware & Networking.

SYLLABUS

UNIT I:

Information - Definition, Characteristics & Interpretation, Data & its logical & physical concepts, Windows OS and its installation, Control Panel

Computers: History of Computers and their classification, Block Diagram of Computer, Basic Organization, Memory: - Units of memory, bit, byte, word, Primary RAM, ROM, EPROM etc. Secondary: - Magnetic-Floppy and Hard disks. Optical: - CDROM, WORM etc. Concept of Virtual Memory and Cache Memory and their needs, Computer Operation, Instruction Cycle, Program flow of control with and without interrupts, Computer Arithmetic:- Number systems binary, Octal, Hexadecimal, Binary Addition, Subtraction and Multiplication, Floating point representation and arithmetic.

UNIT II:

Input/ Output Peripherals: Keyboard, Mouse, Joy stick, Digitizer, Light Pen, track Ball, Voice and Speech Recognition, Scanners, Vision Input Output Devices, Monitor, Printer, Plotter.

UNIT III:

Computer Software: Software, Relationship between Hardware and Software, Logical System Architecture showing relationship between hardware

Types of Software: System Software, Application Software, Firmware, Functions of System Software

Types of System Software: Operating Systems, Language Translators, Utility Programs, Communications Software.

Application Software: Word Processing, Spreadsheet, Database, Graphics Personal Assistance, Education, Entertainment Software.

UNIT IV:

Networks: Type of Networks (LAN, MAN, WAN, etc), Network configuration: Basic ISO - OSI, Protocols: - Protocol and its need, Internet -Introduction to Internet terminologies and concept of WWW, HTTP, e-mail, Search engine, Domain name etc.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Computer Organization & architecture Designing & Performance	William Stallings	Prientice Hall of India
2.	Computer Networks	Andrew S. Tanenbaum	Prientice Hall of India
3.	Information Technology The Breaking Wave	Denis P Curtin, Kim Foley, KunalSen Cathleen Morin	TMG



Course Code	AM101-19
Course Title	Principles of Animation
Type of Course	CR-AM
L T P	5 0 0
Credits	5
Course Prerequisites	Basic knowledge of computer
Course Outcome (CO)	To understand how to create realistic and impressive animation

SYLLABUS

UNIT I:

Animation: Its definition, early examples of Animation.

History of Animation: Stop Motion Photo Animation, Zoetrope, Thaumatrope, Cel and Paper Animation, early Disney's Cell Animation Processes.

UNIT II:

Types of Animation: Cell Animation, Stop Motion Animation, Computer Animation, 2-D Animation, 3-D Animation, 2D Animation (Vector Based), Motion Graphics (Typography, Animated Logos), Stop Motion (Acclamation, Cut-Outs)

UNIT III:

Skills for an Animation Artist: Visual and creative development of an Artist, importance of observation with minute details, efficiency to draw gestures, facial expressions, good listener, hard work and patience, creative and innovative.

UNIT IV:

Basic Principles of Animation: Illusion of Life, straight action and pose to pose Timing, Exaggeration, Drama and Psychological Effect, Fade in and Fade out, Squash and Stretch, Anticipation, staging, follow through and overlapping action, Arcs, Solid Drawing, Appeal, slow in and slow out, Secondary Action.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	The complete animation course	Chris Patmore Pub	Baron's Educational Series
2.	Animation Unleashed	Ellen Be`ssen	Michael Weise Productions
3.	The Animator's Survival Kit	Richard Williams	Arrar Straus & Giroux

Course Code	AM103-19
Course Title	Basic of Motion Graphics
Type of Course	CR-AM
L T P	4 0 0
Credits	4
Course Prerequisites	Basic knowledge of computer
Course Outcome (CO)	The objective of this course is to develop a basic understanding of the animation of still graphics in 2D

SYLLABUS

UNIT I:

Animating Graphics: Basics of Television Graphic Animation, Animating Logos, Titles, Camera Animation, Creating Fire Effects, Explosions.

UNIT II:

Rendering of Graphic: Mental Ray Techniques, Layer Based Rendering, Global Illumination, Final Gather, Caustics.

UNIT III:

Compositing: Introduction to Tools, Color Keying, Color Correction, Montage, Channel Ids, Compositing CG with Live Footage.

UNIT IV:

Submissions: A short Clip Advertising/News Logo (Motion Graphics).

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Stereoscopic Digital Cinema	Bernard Mendi Buru	Focal Press
2.	Conversations with Creators of Stereo	Ray Zone	The Scarecrow Press
3.	Design for communication: conceptual graphic design basics	Elizabeth Resnick	John Wiley & Sons

Course Code	AM105-19
Course Title	Animation Drawing
Type of Course	CR-AM
L T P	5 0 0
Credits	5
Course Prerequisites	Artistic mind set
Course Outcome (CO)	Introduction the first step of animation pipeline and all knowledge of sketching

SYLLABUS

UNIT -I

Drawing and Sketching: Concept of drawing, free hand drawing exercises from object and nature to study proportion, volume and visual perspective, rapid sketching techniques, rapid sketching from live models, sketching from memory, live act

Various Mediums: Pencil Colours, Charcoal, Pen and Ink, Water Colors, Poster Colors, Oil Pastel Colors, other waste material such as sand, stones, grass, hardboard, color papers & clay etc.

UNIT-II

Still Life: Study from any kind of form (basket, artificial fruits books, containers, bottles, round objects, drapery etc), still life with line as well light and shade. Rhythmic relationship between line, mass, value and texture; emphasis on variety of visual experiences.

UNIT-III

Anatomy Study: Simple free-hand drawing from human figure to study proportion. Centre of gravity, inclination of main masses based on anatomical structure.

UNIT-IV

Memory Drawing and Outdoor Sketching: Exercises in drawing from memory to develop the sense of observation and the capacity to retain and recall images and their co-ordination Introduction to various aspects and techniques of drawing and sketching both indoors and outdoors.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Basic Drawing Techniques	Richard Box	Winsor & Newton
2.	Still Life	Sanjay Shelar	JyotsanaPrakashan
3.	Drawing and Anatomy	Victor Perard	Kingsport Press

Objective: This subject will give students basic information about computers and students will be able to work in Word, Power Point & Excel.

1. Installation of operating systems.
2. Working with control panel
3. Working with Word: Typing, Formatting, Border & Shading, Tables, Chart, Mail Merge etc.
4. Working with Power Point: Simple presentation, inserting image, charts, clip art, animation etc.
5. Working with Excel: Applying Formulas, Drawing Charts etc.



AM107-19 Animation Drawing (Lab)

L T P
0 0 4

Objective: This subject will give students all the information about Animation drawing and students will be able to work on 3D software in the next level of studies.

1. Creating outdoor scene using Pencil Colors
2. Drawing Different types of facial expressions.
3. Rhythmic relationship between line, mass, value and texture; emphasis on variety of visual experiences.
4. Concept of drawing, free hand drawing exercises from object and nature to study proportion, volume and visual perspective, rapid sketching techniques, rapid sketching from live models, sketching from memory, live action.



Objective: This subject will give students basic information about language, their speaking skills, listening skills, reading skills and writing skills.

UNIT-I

Speaking and Discussion Skills:

Oral Presentation, Planning and organizing content for presentation, Use of audio /Visual Aids, Making Slides for presentation , Group Discussion ,Debate, Extempore speaking, Interview Skills, Mock interview, Mock Dialogues (Pair Speaking), Cue Card Speaking, Meeting/ Conferences.

UNIT-II

Listening Skills:

Listening to any recoded material and asking oral/written questions for listening comprehension.

Reading Skills:

Active Reading of passages for Reading comprehensions, paraphrase, Summary writing.

UNIT III

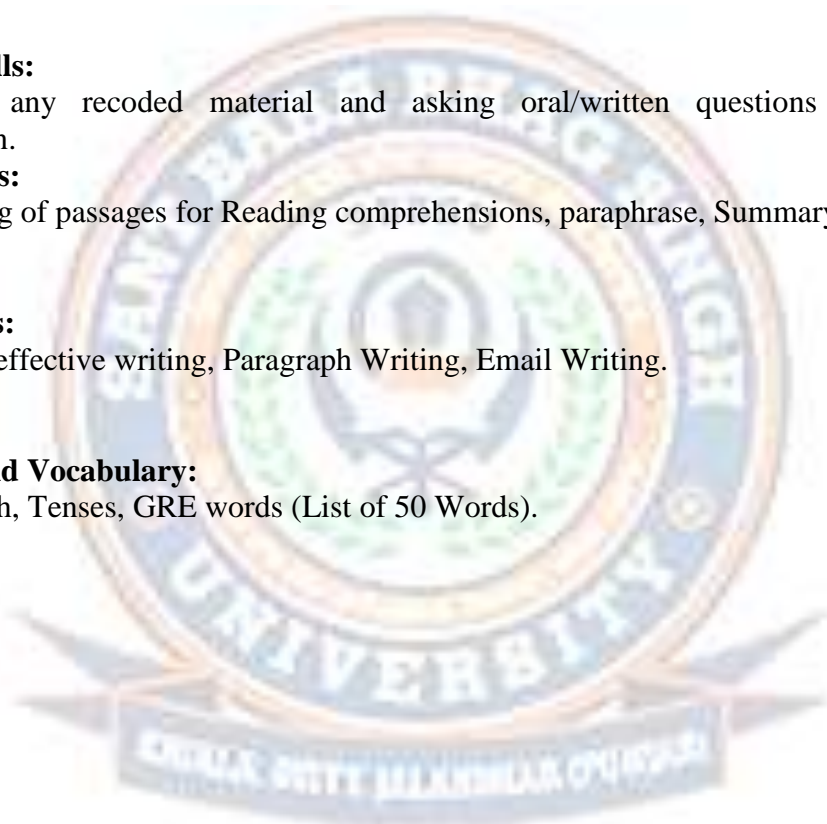
Writing Skills:

Guidelines of effective writing, Paragraph Writing, Email Writing.

UNIT-IV

Grammar and Vocabulary:

Parts of Speech, Tenses, GRE words (List of 50 Words).



The logo of Sri Baba Bhagawan University is a circular emblem. It features a central lamp (diya) with a flame, set against a green background. The lamp is surrounded by a circular border containing the text "SRI BABA BHAGAWAN UNIVERSITY" in blue capital letters. Below the circle is a blue banner with white text in Devanagari script, which reads "सत्यमेव जयते" (Satyameva Jayate).

Second Semester

Course Code	AM102-19
Course Title	2D Animation
Type of Course	CR-AM
L T P	5 0 0
Credits	5
Course Prerequisites	Knowledge of Software
Course Outcome (CO)	The main objective of this course is to provide students with an overall foundation of systems analysis and design to effectively and efficiently design and implement system.

SYLLABUS

UNIT I:

Introduction: 2D graphics editing features: Basic geometric transformations – Boolean, operations on shapes – Object stroke attributes, Objects fill attributes – Shading, techniques (blends – gradients) Packaged effects (extensions – plug-ins), Features specific to the program in use, History and future trends of computer animation application in the visual arts.

Drawing in System, Working with timeline, Working in flash

UNIT II:

2D animation frame: sequencing features, Straight-ahead animation, Key frames animation, Motion paths, Applying geometric transformation over time, Intertwining options, Looping and palindrome motion, Tools used for 2D Animation, Keyframing, how to animate frame by frame

UNIT III:

Animation Secondary Motion: Walk cycle, Run cycle, jump, Document and timeline window feature, Tools and commands palettes, Media-selection tools and techniques Asset-management features.

UNIT IV:

Stop Motion Animation: using characters in stop motion animation

Compositing: Process, Tools used, Timing, Spacing, Overlapping, Slow in, Slow out, In between, How to adjust, increase and decrease timing & spacing, Understanding & application of overlapping, Tangent editing.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Cartoon Animation	Preston Blair	Walter Foster
2.	Foundation flash cartoon animation	Tim Jones	Friends of ED
3.	How to Cheat in Adobe Flash (THE ART OF DESIGN AND ANIMATION)	Chris Georgenes	Focal Press

Course Code	AM104-19
Course Title	Script Writing and Storyboard Design
Type of Course	CR-AM
L T P	5 0 0
Credits	5
Course Prerequisites	Script Writing
Course Outcome (CO)	Understanding of coloring, layouts and other technique in designing for Advertisement

SYLLABUS

UNIT I:

Script Writing: Terminology, Concepts, Themes & Loglines, Beat Sheets, Treatments & Outlines, Approaches to Developing Character and Dialogue, Screenplay Format and Conflict

UNIT II:

Writing Scenes, Rewriting, Soap, Talk Shows, Music, Variety and Live Event scripts, Feature Film, Documentaries, Docu-dramas and Multi-media, Subplots, Pitches, Troubleshooting, and Marketing

UNIT III:

Story Boards: Introduction, Storyboarding Tools, Methods and techniques, Visual storytelling and narrative structure , Story Boarding for Animation, Feature Film, Theatre , Advantages of Storyboarding , Interactive Storyboarding, Storyboard table

UNIT IV:

Topic , Timeline , Character Development, Sketches, Color scheme, Shot composition, Camera angle

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	The Art Of Dramatic Writing	LajosEgri	Wildside Press
2.	Creating Visual Communications with Graphic Impact	Robin Landa	Wiley
3.	Creative Advertising	Mario Pricken	Thames & Hudson

Course Code	ENG114*-19
Course Title	Communication Skills-II
Type of Course	AECC
L T P	2 0 0
Credits	2
Course Prerequisites	Knowledge of English Language
Course Outcome (CO)	After completion of this course students will be able to: 1. Formulate an effective communication strategy for any message, in any medium, and in any situation. 2. Write clearly, concisely, and convincingly. 3. Develop skills of effective communication - both written and oral. 4. Acquaint with application of communication skills in outside world.

SYLLABUS

UNIT I:

Grammar: Parts of Speech, Use of appropriate tense, Voice , Reported Speech, Sentence Structure; Simple, Compound, Complex, Vocabulary-One word substitution.

UNIT II:

Writing Skills: Application for employment , Resume Writing , Paragraph Writing Construction-Kinds of Paragraphs, Preparing of Matter for meeting : Notice, agenda ,Conference

UNIT III:

Speaking Skills: Effective oral Presentation, Slide making, Use of audio Visual aids

UNIT IV:

Oral Communication and its Application: Group Discussion, Customer Care Relations (PR Skills), Interview Skills (Conducting and appearing for interviews),Telephone handling manners

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Business Communication	K. K. SinhaGalgoti	Galgotia Publishing Company
2.	Media and Communication Management	C. S. Rayudu -	Himalaya Publishing House, Bombay.
3.	Essentials of Business Communication	Rajendra Pal and J. S. Korlhalli -	Sultan Chand & Sons, New Delhi

Course Code	AM106-19
Course Title	Color Theory and Image Graphics
Type of Course	CR-AM
L T P	5 0 0
Credits	5
Course Prerequisites	Knowledge of Software
Course Outcome (CO)	The main objective of this course is to provide students with an overall foundation of systems analysis and design to effectively and efficiently design and implement system.

SYLLABUS

UNIT I:

Color Palettes: Mixing of Primary, Secondary and tertiary colors, tint, tones and Shades Color Wheel

UNIT II:

Color Scheme: Complementary, split complementary, analogues, warm and cool, working in series, Outdoor drawing

UNIT III:

Color in Practice: Color in advertising and graphic design Colors used logos, print ad's, layouts.

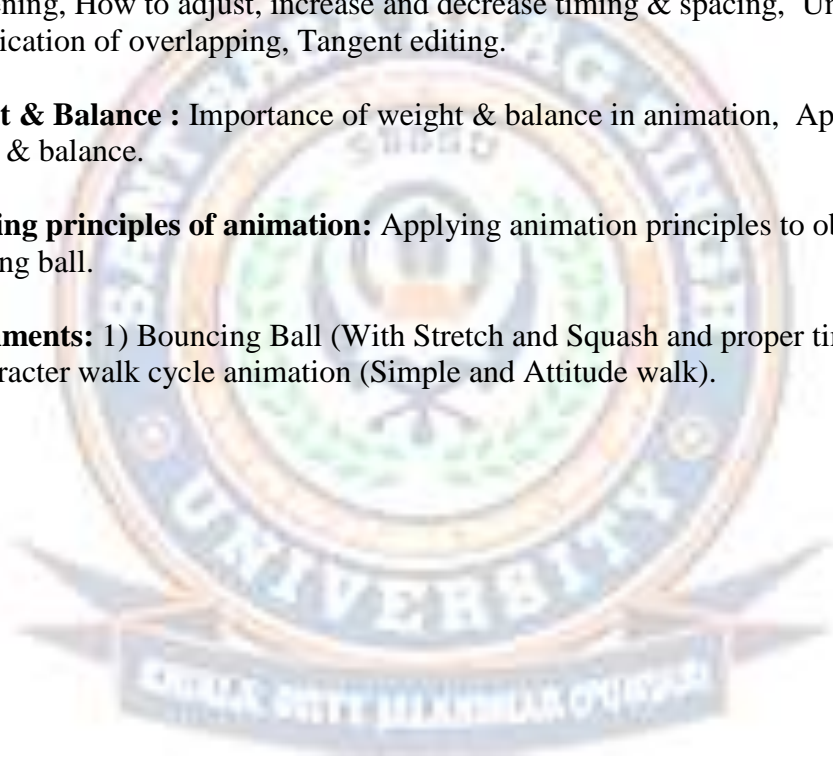
UNIT IV:

RGB colors and CMYK colors: HUE, Intensity/Chrome/saturation, value, Spectrum Manipulating images by using contrast, Brightness Hue, saturation, channel mixer

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Color Theory Made Easy: A New Approach to Color Theory and How to apply it to Mixing Paints	Jim Ames	Watson-Guptill
2.	Design Elements, Color Fundamentals: A Graphic Style Manual for Understanding How Color Affects Design	Aries Sherin	Rockport Publishers
3.	Color Theory Made Easy: A New Approach to Color Theory and How to Apply it to Mixing Paints	Jim Ames	Watson-Guptill

Objective: Acquire knowledge about the basic concept of animation techniques in 2D and 3D software's.

1. **Introduction to Animation in Maya:** Maya's usefulness for animation and its advantages , Animation related interface of Maya and animation preferences
2. **Tools used for Animation in Maya :** Keyframing, playback and playblast, Introduction to Tangents, Graph editor, Dope sheet.
3. **Planning Animation & Different methods of blocking:** Straight-ahead approach, Pose-to-pose approach, Staging, Timing, Spacing, Overlapping, Slow in, Slow out, In betweenning, How to adjust, increase and decrease timing & spacing, Understanding & application of overlapping, Tangent editing.
4. **Weight & Balance :** Importance of weight & balance in animation, Applications of weight & balance.
5. **Applying principles of animation:** Applying animation principles to object like bouncing ball.
6. **Assignments:** 1) Bouncing Ball (With Stretch and Squash and proper timing).
2) Character walk cycle animation (Simple and Attitude walk).



AM110-19 Print &Advertising Graphics (Lab)

L T P
0 0 4

Objective: Acquire knowledge about the basic concept of print & advertising graphics.

UNIT I

The creative brief Fundamentals: Understanding Design Principles: Concept Formation, Format, Design, Layout, And Graphics.

Designing of Office Stationery: Visiting Cards, Letter Heads, calendars.

UNIT II:

Print Media: Types: Trademark/Logo, Newspaper/Magazine Advertising, Direct Mail Advertising, Poster/Display Advertising, , Billboard Advertising, Kiosks. Newspaper/Magazine Advertising: Full Page Ads, Double Split Ads, Teaser Ads, Product /Brand launching Ads

UNIT III:

Poster Designing: Essentials/Qualities of Poster Designing, Poster as a strong medium of Advertising, study of Classic Posters, Innovative Designs for Animation Films, Slogans

UNIT IV:

Brochure / Pamphlet/Leaflet Designing :Designing Brochures for an Advertising Agency, Educational Institutions, Animation Company



UNIT-I: Grammar:

To recognize part of speech of particular word in given sentence, To use appropriate tense , Exercise on- Voice, Reported speech and Sentence Structure, Vocabulary-One word substitution.

UNIT-II: Writing Skills:

Job Application, Resume Writing, Paragraph Writing, Preparing of Matter for meeting: Notice, agenda, Conference.

UNIT III: Speaking Skills: How to deliver an effective power point Presentation, Slide making, Effective use of audio Visual aids

UNIT-IV: Oral Communication and its Application:

Group Discussion, Mock Interview (Conducting and appearing for interviews), and Role plays. Conducting a successful official meeting.



*Third
Semester*

Course Code	AM201-19
Course Title	Audio and Video Editing
Type of Course	CR-AM
L T P	3 1 0
Credits	4
Course Prerequisites	Introduction to web designing
Course Outcome (CO)	The main objective of the subject is to impart the basic understanding of the methods and techniques of audio and video editing.

SYLLABUS

UNIT 1:

Introduction to Audio, about audio Channels , Audio Mixer Panel , Unlinking and Editing Audio Working with Submix Tracks , Panning and Balancing Audio , Automation and Recording during Playback ,Break out Audio Clips , Audio Transitions , Audio Effects.

UNIT II:

Video Editing ,Video Broadcast standards , Video Terminologies ,Stages of video Making , Basic Editing , Video Compositing ,Video Broad cast , Video Editing , Project Panel, Media Browser , Monitor Panel ,Resource Central , Metadata Panel, Timeline Panel , Importing Files.

UNIT III:

Opening Projects , Saving Projects, Video Capturing , DV and HDV Capturing, capturing clips with device control , capturing clips without device control Batch Capturing , Time code , Offline Files , Clip properties and Data rate , metadata , Tools Panel.

UNIT IV:

Working with Monitor Panel, Working with Timeline Panel, Working with Clips, Adjusting Trim Clips in the Trim Panel, Replacing Clips, Merge Clips, History Panel, Working with Sequences, Using Markers Story boards and rough cuts, creating a universal lead counter, transitions, exporting video and still images, exporting DVD or Blue Ray Discs, Exporting to Web and Mobile Devices, Working with Title Designer.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Editing Digital Video	Robert Goodman	Patrick Mcgrath
2.	Film & Video Editing	Roger Crittenden	Routledge
3.	Video Editing	Muzaffer Beggiri	Data Becker

Course Code	AM203-19
Course Title	Fundamentals of Pre Production
Type of Course	CR-AM
L T P	3 1 0
Credits	4
Course Prerequisites	Knowledge about Pre production
Course Outcome (CO)	This course covers fundamentals of Pre Production of Digital film making. The main objective of the subject is to impart the knowledge of animation pre-production pipeline & workflow.

SYLLABUS

UNIT I:

Introduction to Pre-production: Importance of pre-Production in creating a Project.

Concept, Story writing: Developing a Concept for Animation, Essentials Elements of a story: Start, Middle and Ending of a story.

UNIT II:

Screenplay: Definition and Elements of Screenplay, Creating a Screenplay.

Character development: Physical Attributes. Visual appearance. Nature. Characteristics. Model Sheet.

UNIT III:

Props & Environment development: Props & Environment illustration. Blueprint, **Storyboarding:** Process of creating storyboard, Importance of storyboard in Film making.

UNIT IV:

Visual references: Types of visual references.

Dubbing, Songs: Process of Dubbing of Dialogues, Voiceovers, songs etc.

Practical/Submissions: Concept for a Short Animation Movie, Screenplay for a Short Animation Movie, Story Board using Storyboarding Software, Small Project (minimum 5 minutes) of Dubbing/Song/Dialogue Recording.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Animation writing & development	Jean Wright	Focal Press.
2.	The Illusion of life	Frank Thomas	Disney Editions
3.	Animator's Survival kit	Richard Williams	Faber and Faber.

Course Code	AM205-19
Course Title	Animation Modeling
Type of Course	CR-AM
L T P	4 0 0
Credits	4
Course Prerequisites	Knowledge about Animation Modeling.
Course Outcome (CO)	This course covers nurbs modeling, polygon modeling etc.

SYLLABUS

UNIT I:

Introduction to Nurbs Modeling: Nurbs Modeling overview & its use. Nurbs components.

Nurbs Curves: Types of Curves, Curve creation, Curve Editing, Applications of Curves, Nurbs Surfaces, Nurbs primitives, Surface creation, Revolve, Extrude, Loft, Boundary, Birail, Applications of Surfaces.

UNIT II:

Introduction to Polygon Modeling: Polygon Modeling overview & Usefulness, Polygon primitives & components, topology, edge flow, Polygon Tools: Mesh tools, Edit Mesh tools, Tools Applications.

UNIT III:

Practicals /Submissions: Props, Inorganic objects, Character accessories, Vehicle Model, Car Modeling, Bike Modeling, War Vehicle, Character Model, Cartoon Character Body Modeling, Cartoon Character Face Modeling, Hyper Realistic Body, Quadraped Modeling.

UNIT IV:

Maya Basics: Outliner, Hierarchies & parenting, Timeline & keyframing, Materials (shaders), playblasting.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Animation writing & development	Jean Wright	Focal Press.
2.	Cartoon Animation	Preston Blair	Walter Foster
3.	Animator's Survival kit	Richard Williams	Faber and Faber.

Course Code	AM207-19
Course Title	Final Cut Pro
Type of Course	CR-AM
L T P	4 0 0
Credits	4
Course Prerequisites	Knowledge about Final cut pro.
Course Outcome (CO)	This course covers post production workflow, video formats, FCP etc.

SYLLABUS

UNIT I:

Post-Production Workflow and Industry Workflow.

Nonlinear and Nondestructive Editing, Video Formats Compatible with Final Cut Pro, Audio Formats Compatible with Final Cut Pro ,Video Format Basics, Time code, codecs.

UNIT II:

Overview of the Final Cut Pro Interface, Browser basics, Viewer Basics, Canvas Basics, Timeline and toolbox

UNIT III:

Understanding Projects, Clips, and Sequences, Building Blocks of Projects, Creating and Organizing Projects, Working with Projects, Connection between Clips and Media Files, File naming Considerations

UNIT IV:

Preferences and presets, Getting Media into FCP, Working with view and clips, Time line and canvas, Sequence and Editing, Trimming Edits, Transitions, Compositing and Special Effects, Rendering, Final Output, Effects and FX Builder.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Apple Pro Training Series: Getting Started with Final Cut Guide, Adobe Reader	Matthew Geller	Peachpit Press
2.	Apple Pro Training Series: Final Cut Express 4	Diana Weynand	Peachpit Press
3.	Final Cut Pro X 10.4 - Apple Pro Training Series: Professional Post-Production	Brendan Boykin	Peachpit Press

AM209-19 Digital Film Making (Lab)

L T P
0 0 4

Objective: The main objective of the subject is to impart practical knowledge about non-linear editing and how it can be used for film & television editing & post- preproduction.

- 1. Digital Camera Functioning:** Types of Digital Cameras, working of a digital camera.
- 2. Shooting a Clip/Footage:** Outdoor, indoor, landscapes, live action.
- 3. Software's used in Editing:** Fundamentals of non linear & digital audio/video editing
- 4. Role of an Editor in Film Making:** Do's and don'ts of editing, working on an editing table, project setting, clips management, timeline settings & controls, tools.
- 5. Audio Track Editing:** Audio editing {normalization, mixing, cross fading, dynamics, filters, mono/stereo formats, noise gate.
- 6. Editing the Footage:** Importing clips, trimming clips, splitting clips, manipulating audio content, adding transitions, changing speed of a clip, changing opacity, applying special effects, superimposing an image, exporting a movie.

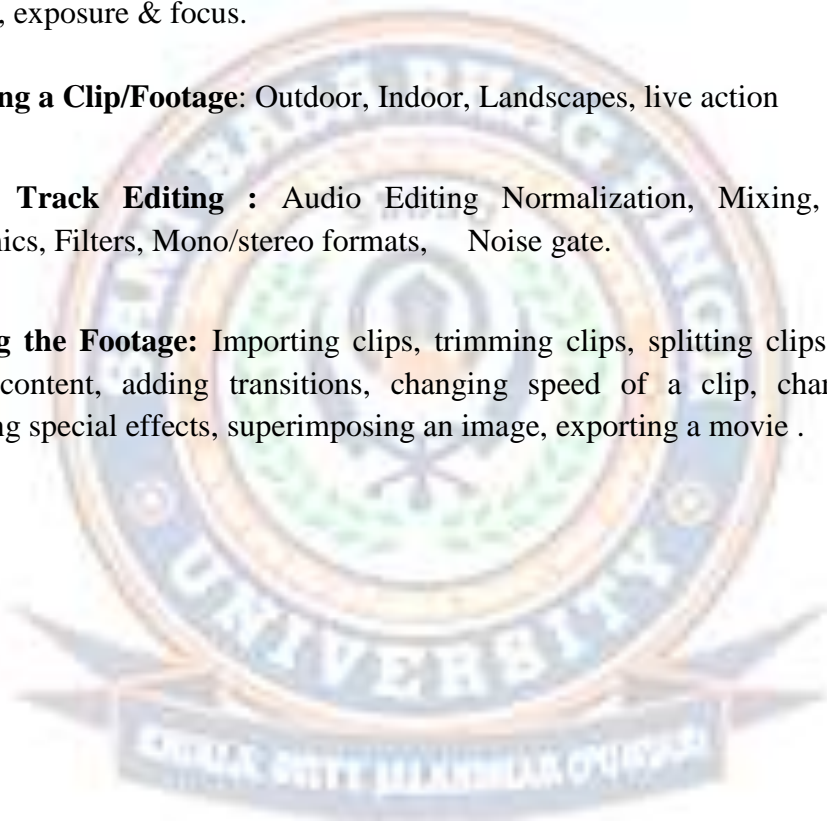


AM211-19 Audio and Video Editing (Lab)

L T P
0 0 4

Objectives: This course is designed to provide a comprehensive introduction to audio and video editing leading to the ability to understand contemporary terminology of audio video editing.

1. **Digital Camera Functioning** : Types of Digital Cameras, Working of a Digital Camera. Indoor & outdoor lighting. Types of conventional cameras & its functioning. Lenses, exposure & focus.
2. **Shooting a Clip/Footage:** Outdoor, Indoor, Landscapes, live action
3. **Audio Track Editing** : Audio Editing Normalization, Mixing, Cross-fading, Dynamics, Filters, Mono/stereo formats, Noise gate.
4. **Editing the Footage:** Importing clips, trimming clips, splitting clips, manipulating audio content, adding transitions, changing speed of a clip, changing opacity, applying special effects, superimposing an image, exporting a movie .



Course Code	AM213-19
Course Title	Photoshop
Type of Course	SEC-1
L T P	4 0 0
Credits	4
Course Prerequisites	Knowledge about Photoshop
Course Outcome (CO)	This course covers the art Photoshop

SYLLABUS

UNIT I: Introduction to graphics, vector graphics & bitmaps, Understanding image size & resolution, Relation between resolution, File sizes & output, Using Menu & Colour palettes

UNIT II:

Concept of Path (Segment, Anchor, Curved, Closed, Open, Subpath), Working with Photoshop Tools, Working with Masks & Histogram, Importing & Exporting images

UNIT III:

Working with Layers, Channels & paths, Actions, History, Using navigator & Photoshop plugins, Integrating with Web pages, Understanding Digital Images

UNIT IV:

Vector Art, Ruler, Add Depth, Text Effects, Mixer Brush, Blending Modes Tricks, Painterly Effects.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Adobe Photoshop CS5 Classroom	Adobe Creative Team	Focal Press
2.	Layers: The Complete Guide to Photoshop's Most Powerful Feature	Matt Kolowsky	Focal Press
3.	Adobe Photoshop CC Classroom	Andrew Faulkner, Conrad Chavez	Adobe Press

Course Code	AM215-19
Course Title	Art Foundation
Type of Course	SEC-1
L T P	4 0 0
Credits	4
Course Prerequisites	Knowledge about Art Foundation
Course Outcome (CO)	This course covers the art foundation.

SYLLABUS

UNIT I:

Design: These tools and concepts will be discussed early in the semester so students can successfully use them in their artwork. We will use a variety of media to use these effectively. Elements: line, shape, form, color, value, texture, and space Principles: balance, contrast, emphasis, movement, rhythm, proportion, and unity

UNIT II:

Drawing: Sketches will be the basis of our art making in this course. We will focus on using sketches as our planning process during this class. Learning how to plan will be stressed and practiced with every project! We will also use drawing as a form of art making in a portrait and/or a still life drawing

UNIT III:

Complementary relations between art & Design:- Cognitive Instrumental, Abstraction of the concrete concretization of the abstract, Artist as notator Designer as tool maker, Inductive, classificatory deductive

UNIT IV:

Sculpture and Ceramics: In this course, we are going to begin working in a three-dimensional manner. Understanding space and how to use it effectively will be the goal of these projects. Students will learn how to create three-dimensional artwork by modeling and working with clay as well as other materials. They will also learn how to properly glaze their ceramic pieces to finish them.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Illustrator Foundations: The Art of Vector Graphics, Design and Illustration in Illustrator	Rafiq Elmansy	Focal Press
2.	The Arts in Schools : Principles, Practice and Provision	Ken Robinson	Calouste Gulbenkian Foundation
3.	The Art of C. G. Jung	The Foundation of the Works of C.G. Jung	WW Norton & Co

Course Code	AM217-19
Course Title	Film Appreciation
Type of Course	SEC-1
L T P	4 0 0
Credits	4
Course Prerequisites	Knowledge about Film Appreciation
Course Outcome (CO)	This course covers the concept of film appreciation.

SYLLABUS

UNIT I:

The Motion Picture Industry (Indian): Production & Distribution, Censorship, Art and Technique of Motion pictures

Production Manipulation: Script, Actors, Sets, Costumes, Aspect Ratio, Film Stock

UNIT II:

Manipulation during Filming: Lenses, Camera Distance & Position, Composition, Camera movement, Lighting, Sound

UNIT III:

Postproduction Manipulation: Processing and Printing, Editing, Special effects, Music, Sound Effects, Post Synchronization or dubbing

UNIT IV:

Editing the Footage: Importing clips, trimming clips, splitting clips, manipulating audio content, adding transitions, changing speed of a clip, changing opacity, applying special effects, superimposing an image, exporting a movie.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	The Film Appreciation Book	Jim Piper	Sky Hourse
2.	The Film Appreciation Book: The Film Course You Always Wanted to Take	Jim Piper	Allworth
3.	The technique of film animation	John Halas	Hastings House

The logo of Shaheed Bhagat Singh University is a circular emblem. It features a central lamp (diya) with a flame, set against a green background with a laurel wreath. The words "SHAHID BHAGAT SINGH UNIVERSITY" are inscribed around the perimeter of the circle. Below the circle is a banner with the motto in Hindi: "कर्मणो मत्ते मर्त्यमश्नुते" (Karmaṇo mātē mṛtyam aśnute).

Fourth Semester

Course Code	CSA202*-18
Course Title	Fundamentals of Computer Graphics
Type of Course	Core
L T P	3 1 0
Credits	4
Course Prerequisites	Knowledge of C++ programming
Course Outcome (CO)	This course is designed to provide a comprehensive introduction to computer graphics leading to the ability to understand contemporary terminology, progress, issues, and trends.

SYLLABUS

UNIT I:

Introduction to Computer Graphics: Definition, Advantages of computer graphics, Applications of computer graphics, Graphics Hardware, Display devices, Raster Scan and Random Scan.

UNIT II:

Raster Scan Graphics: Points, Lines and Line segment, Line drawing algorithms, Digital Differential Algorithm, Bresenham's Line Drawing Algorithm, Midpoint Circle Generation Algorithm, Scan line Polygon Filling Algorithm.

UNIT III:

Transformation: Two Dimensional Transformation, Matrix Representation, Translation, Rotation, Scaling, Reflection, Shear

Clipping & Windowing: Viewing transformation, 2-D clipping, Simple Visibility Algorithm, End point codes, Midpoint Subdivision Algorithm, Cohen Sutherland Line Clipping Algorithm, Polygon Clipping Algorithm (Sutherland-Hodgman algorithm), Windowing Transformation

UNIT IV:

Three Dimensional Viewing: Viewing Coordinates, 3D Viewing Pipeline, Projections, Types of Projections- Perspective Projection-Transformation matrix, Applications, Anomalies and types of perspective projections, Parallel Projection-Transformation matrix, Applications and types of parallel projections, Comparison of perspective and parallel projections, 3D Clipping, Fractals and their classification

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Computer Graphics	Donald Hearn & M. Pauline Baker	PHI
2.	Computer Graphics	Hill Jr	PrenticeHall
3.	Computer Graphics	Steven Harrington	McGraw-Hill

Course Code	AM202-19
Course Title	Essentials of post-production
Type of Course	CR-AM
L T P	5 0 0
Credits	5
Course Prerequisites	-
Course Outcome (CO)	The main objective of the subject is to impart the practical knowledge about Digital compositing & post-production of various media.

SYLLABUS

UNIT I:

Digital Compositing: What is Compositing, Fundamentals of Digital Compositing, Capturing through Fire wire, Various File Formats or video extensions?

Introduction to Adobe After Effects: Learning the toolbar, Introduction to the interface of the Adobe After Effects, Compositing the real life shoot with CG (Computer Generated) characters or Environment. Blending of CG (Computer Generated) lights Cameras with real shoot.

UNIT II:

Project Setting, Timeline, Layers: Organizing Footages, Composition settings in Adobe After Effects, Basic settings, Presets & Resolutions. Advanced settings, Rendering plug-ins, Maintaining timing, spacing, Proper play speed of video. Creating layers, Managing Layers, Their Properties. Blending modes, Layer styles.

Key framing, Transitions

Basics of key framing (whether the video is in PAL or NTSC.), How to move, Copy key frames. Animate the key frames, Adding the key frames, Learning about the transition effect & transition completion. Learning transition gallery.

UNIT III:

Video Effects & Motion: Color correction in video, Creating virtual animated backgrounds, Visual Effects Using Various Plug-in, Text animation in Adobe After Effects, Virtual cameras, lights, Learning the uses of particles & dynamics. Different types of effect making like fire, dust, etc.

Audio Effects: Sound Recording & Editing, Audio capturing & Synchronization. Controlling Pitch and tempo, Merging with the scenes, Encoding.

Chroma Keying: Basics of chroma keying, What is Blue/Green Screen Imaging., Why Blue/Green color be used, Lighting Chroma Key Properly, Green screen, Blue screen removal. Wire removal.

UNIT IV:

Output: Learning supporting output video formats, Work with output module settings, Rendering and exporting, Render Queue panel, Encoding & compression options for movies. Rendering final movie Video & audio Editing & merging.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Adobe after effect visual effects & compositing	Mark Christiansen	Adobe Press
2.	Digital compositing for film & video	Steve Wright	Sybex
3.	Professional digital compositing: Essential Tools and Techniques	Lee Lanier	Sybex

Course Code	AM204-19
Course Title	Animation & Rigging
Type of Course	CR-AM
L T P	5 0 0
Credits	5
Course Prerequisites	-
Course Outcome (CO)	The main objective of the subject animation rigging.

SYLLABUS

UNIT I:

Rigging Basics, Bones and Joints, Skin, Binding. Kinematics (IK & FK) Requirements for a clean Model. Clean UVs. Binding, Smooth Binding, Rigid Binding. Editing the Smooth Skin, Painting of Skin weights, Editing Skin weights, Mirror Skin Weights, Copy skin weights, Resetting Skin weights, Pruning small weights, Normalizing Weights.

UNIT II:

Creating and Editing Flexors. Lattice, Sculpt, joint Cluster, Painting Cluster weights. Rigging the controls. Joints and hierarchies, Concept of Skeleton. Connecting Joint, Removing Joint, Inserting Joint, Re-routing Joint, Mirror Joint, Orientation of joints, Joint limits & damping. Set preferred angle, Assuming preferred angle.

UNIT III:

IK handle tool, IK Solvers, IK Spline, IK controls, IK handle, End effectors, Using locators, Stickiness, Switching between IK/FK, Adding the controls and attributes, Grouping and Parenting.

UNIT IV:

IK handle tool, IK Solvers, IK Spline, IK controls, IK handle, End effectors. Using locators. Stickiness. Switching between IK/FK, Adding the controls and attributes, Grouping and Parenting, Rigging a arm and hand, Advanced rig.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Animation Methods - Rigging Made Easy: Rig your first 3D Character in Maya	Book by David Rodriguez	CreateSpace
2.	Digital Creature Rigging: The Art and Science of CG Creature Setup in 3ds Max	Stewart Jones	A K Peter
3.	Rig it Right! Maya Animation Rigging Concepts, 2nd edition	Tina O'Hailey	Routledge

Objectives: This course is designed to provide a comprehensive introduction to computer graphics leading to the ability to understand contemporary terminology, progress, issues, and trends.

1. Write a program for 2D line drawing using Bresenham's algorithm.
2. Write a program for 2D line drawing using DDA algorithm.
3. Write a program for circle drawing using Bresenham's algorithm.
4. Write a program for drawing ellipse using mid point algorithm.
5. Write a program for Line Clipping.
6. Write a program for rotation of an object.
7. Write a program for scaling of an object to a desired scale.
8. Write a program for translation.
9. Write a program for reflection of an object.
10. Write a program for Polygon filling as Raster Graphics Display.
11. Write a program for Polygon Clipping.
12. To implement Cohen–Sutherland 2D clipping and window–viewport mapping.
13. Write a program to draw a complex object of your choice such as a hut using simple graphic functions.



AM206-19 Virtual Set Designing (Lab)

L T P
0 0 4

Objectives: This course is designed to provide a comprehensive introduction to virtual set designing lab leading to the ability to understand contemporary terminology, progress, issues, and trends.

UNIT I:

Introduction to 3DS Max & Interface: Modeling, texturing, advanced lighting, animation.

Basics of AutoCAD: Making basic Geometric shapes, Complete Basic CAD drawings, with borders, text and dimensions, Use Paper Space, and Model space, Edit drawings with ERASE, OOPS, COPY, EXTEND, TRIM, MIRROR, UNDO REDO and MOVE commands.

UNIT II:

Introduction to Adobe After Effects: Introduction to the After Effects interface, Effects, Parenting, Masking, 3D, Lights and Cameras, Expressions, Painting, Motion tracking.

UNIT III:

Lighting: Applying Lights in an Interior and creating shadows, Creating Lights in Cones, Bed Lights, Falls Lights, Table Lamps.

UNIT IV:

Rendering: Concepts of Rendering, Scan Line Rendered.

Practical's/Submissions: Textures and layouts for 3D production, Object modeling, Virtual set, Credit sequences (for films and animation), 3D Animated Logo, Architectural walkthroughs.

AM208-19 Camera & Lighting in 3d (Lab)

L T P
0 0 4

Objectives: This course is designed to provide a comprehensive introduction to camera & lighting in 3d leading to the ability to understand contemporary terminology, progress.

1. Nature of light, light sources.
2. Tree point Lighting.
3. Lights & shadows in Maya.
4. Ray tracing.
5. Light Rig.
6. Mood & Ambience.
7. Maya Software renderer.
8. Introduction to Mental ray.
9. Indoor & outdoor lighting.
10. Types of conventional cameras & its functioning.
11. Lenses, exposure & focus.
12. Cameras in Maya.
13. Shot planning.
14. Motion Blur & Depth of Field



Course Code	AM210-19
Course Title	VFX- Visual Effects
Type of Course	SEC-2
L T P	3 0 0
Credits	3
Course Prerequisites	-
Course Outcome (CO)	The main objective of the subject VFX- Visual Effects

SYLLABUS

UNIT I:

Color Grading
Particles

UNIT II:

Visual effects for film, commercials
Removal inserts
3D tracking,

UNIT III:

Matchmoving
Design
Photo Reconstruction

UNIT IV:

2D tracking
3D calibration and tracking
Automatic tracking
Integrating match move

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Art and Science of Digital Compositing, 2 nd ed.	Brinkman , Ron	Morgan Kaufmann
2.	The Filmmaker's Guide to Visual Effects	Eran Dinur	CRC Press
3.	Matchmoving: The Invisible Art of Camera Tracking, 2nd Edition	Tim Dobbert	Sybex

Course Code	AM212-19
Course Title	Photography
Type of Course	SEC-2
L T P	3 0 0
Credits	3
Course Prerequisites	-
Course Outcome (CO)	The main objective of the subject is to show concept of photography.

SYLLABUS

UNIT I:

Photography: Importance of Photography in relation to Design and Communication

Types of Cameras, Handling the Camera, understanding different kinds of camera and exposures, Understanding different kinds of films, Camera– Parts & Lenses

UNIT II:

Function– Aperture, Shutter Speed, Film, ISO, Experiment with different light & angles, Composition & layout, Table Top Photography

UNIT III:

Fashion photography, Indoor and outdoor photography, Art photography, Developing Black and White film in the dark room

UNIT IV:

Digital Capture: Digital Image formation Image Sensors Different Capturing Method Digital camera Scanner Frame Grabber, Understanding how digital cameras work Digital camera types Floppy Disc type, Flash Card type, Hard Disc type Overview of current digital cameras.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	The Art of Photography: An Approach to Personal Expression	Bruce BurnBaum	Bruce BurnBaum
2.	The Digital Photography Book	Scott Kelby	Peachpit
3.	The Digital Photography Book	Scott Kelby	Peachpit Press

Course Code	AM214-19
Course Title	Lightroom
Type of Course	SEC-2
L T P	3 0 0
Credits	3
Course Prerequisites	-
Course Outcome (CO)	The main objective of the subject Light Room

SYLLABUS

UNIT I:

Introduction: Lightroom Workflow

The Lightroom Interface: Panels, Filmstrip, Setting Preferences, Frequently used keyboard shortcuts

UNIT II:

Library: Importing and reviewing images, Editing and ranking images, Quick Develop mode, Using Collections, Asset management–Metadata and Keywords, Recommended workflow

UNIT III:

Develop: Navigating the image and view options, Using and creating Presets, Snapshots and History, Making Color and Tonal Adjustments, Using Adjustment brushes and the Gradient Tool, Creating Gray scale or Toned images, Detail and Lens Corrections, Exporting and Photoshop workflow integration

UNIT IV:

Slideshow: Building a slideshow, Image selection, Configuring the Slideshow, Using Templates and settings, Playing and Exporting

Print: Selecting photos, Using Templates, Print Layout, Output Settings–Color management

Web: Selecting photos, Gallery templates, Customizing settings, Uploading website via FTP

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Adobe Lightroom 6 / CC Video Book: Training for Photographers Kindle Edition	Tonny Northrup	Mason press
2.	Adobe Lightroom 6 / CC Video Book: Training for Photographers	Anthony Justin Northrup and Chelsea Northrup	Mason Press
3.	Adobe Lightroom 6 / CC Video Book	Northrup Tony	Mason Press



Fifth Semester

Course Code	AM301-19
Course Title	Fundamental of Aesthetics
Type of Course	CR-AM
L T P	5 0 0
Credits	5
Course Prerequisites	History of Ancient Aesthetics, Role of Play
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about complete and theoretical studies of Aesthetics.

SYLLABUS

UNIT I:

Defining Aesthetics, What is Aesthetics, Aesthetic Experience, Plato , Aristotle.

History of Indian Aesthetics: Five Schools, Bharatmuni, Natyashashtra,

UNIT II:

Nine types of Rasa : The principle study of Rasa like: Love, Joy, Wonder, Peace, Anger, courage, Fear, Sadness, Disgust.

UNIT III:

Six types of Bhavas : The principle study of Bhavas like: Unruffled feeling, Comrade feeling, Servant-Master attitude, Mother Child feeling, Loved-Beloved feeling, Oneness with God.

UNIT IV:

Applied Media Aesthetics: What is Applied Media Aesthetics, Fundamental Elements of Applied Media Aesthetics, difference between Applied Media Aesthetics and Traditional Aesthetics

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Indigenous Aesthetics: Native Art, Media, and Identity	Steven Leuthold	University of Texas Press
2.	.Art Beauty and Creativity: Indian and Western Aesthetics	Shyamala Gupta	D K Print World.
3.	Fundamentals of Aesthetics	Claude Rufenacht	Quintessence Publishing Co Inc.,U.S.

Course Code	SSE303*-19
Course Title	Human Values & Professional Skills
Type of Course	AECC
L T P	3 1 0
Credits	4
Course Prerequisites	Nil
Course Outcome (CO)	To help the students to discriminate between valuable and superficial in the life.

SYLLABUS

UNIT I:

Introduction – Need, Basic Guidelines, Content and Process for Value Education Understanding the need, basic guidelines, content and process for Value, Education. Self Exploration- its content and process; Natural Acceptance and Experiential Validation- as the mechanism for self exploration. Continuous Happiness and Prosperity- A look at basic Human Aspirations, Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario.

UNIT II:

Understanding Harmony in the Human Being – Harmony in Myself! Understanding human being as a co-existence of the sentient „I and the material “Body” Understanding the needs of Self (“I”) and “Body” – Sukh and Suvidha, Understanding the Body as an instrument of Understanding the characteristics and activities of “I” and harmony in “I”

UNIT III:

Understanding Harmony in the Family and Society- Harmony in Human, Human Relationship Understanding harmony in the Family- the basic unit of human interaction, Understanding values in human-human relationship, Trust (Vishwas) and Respect (Samman) as the foundational values of relationship Understanding the meaning of Vishwas; Difference between intention and competence Understanding the meaning of Samman, Difference between respect and differentiation; the other salient values in relationship

Understanding Harmony in the Nature and Existence – Whole existence as Co-existence Understanding the harmony in the Nature, Interconnectedness and mutual fulfillment among the four orders of nature recyclability and self-regulation in nature Understanding Existence as Co-existence (Sah-astitva) of mutually interacting units in all-pervasive space Holistic perception of harmony at all levels of existence

UNIT IV:

Implications of the above Holistic Understanding of Harmony on Professional Ethics Natural acceptance of human values, Definitiveness of Ethical Human Conduct, Basis for Humanistic Education, Humanistic Constitution and Humanistic, Universal Order Competence in professional ethics: Ability to utilize the professional competence for augmenting universal human order ,Ability to identify the scope and characteristics of people-friendly and ecofriendly production systems ,Ability to identify and develop appropriate technologies and management patterns for above production systems.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Small is Beautiful: a study of economics as if people mattered	E.F. Schumacher	Blond & Briggs, Britain.
2.	Science and Humanism	PL Dhar, RR Gaur	Commonwealth Purblishers
3.	Human Values	A.N. Tripathy	NewAge International

Course Code	EVS101*-19
Course Title	Environmental Studies
Type of Course	AECC
L T P	3 0 0
Credits	3
Course Prerequisites	Knowledge of chemistry
Course Outcome (CO)	Evaluate local, regional and global environmental topics related to resource use and Management. Propose solutions to environmental problems related to resource use and Management. Describe threats to global biodiversity, their implications and potential solutions

Syllabus

UNIT I:

Introduction: Definition and scope and importance of multidisciplinary nature of environment. Need for public awareness.

Natural Resources: Natural Resources and associated problems, use and over exploitation, case studies of forest resources and water resources.

UNIT II:

Ecosystems: Concept of Ecosystem, Structure, interrelationship, producers, consumers and decomposers, ecological pyramids-biodiversity and importance. Hot spots of biodiversity

UNIT III:

Environmental Pollution: Definition, Causes, effects and control measures of air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards. Solid waste Management: Causes, effects and control measure of urban and industrial wastes. Role of an individual in prevention of pollution. Pollution case studies. Disaster Management : Floods, earthquake, cyclone and landslides

UNIT IV:

Social Issues and the Environment: From Unsustainable to Sustainable development, Urban problems related to energy, Water conservation, rain water harvesting, watershed management. Resettlement and rehabilitation of people; its problems and concerns. Case studies. Environmental ethics: Issues and possible solutions. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust.

Recommended Books			
Sr. no.	Name	Authors	Publications
1.	Environment Biology.	K. C. Aggarwal	Nidhi Publications.
2.	Environment Protection and Laws	Jadhav, H &Bhosale, V.M	Himalaya Publications
3.	Principle of Environment Science	Cunningham	Wiley

AM305-19 Texturing and shading (Lab)

L T P
0 0 4

Objectives: This course is designed to provide a comprehensive introduction to texturing and shading.

Shading

1. Other types of shaders
2. Layered Shader
3. Shading Map.
4. Utility nodes, Reverse Node.
5. Applying two materials on either sides of a surface.
6. 3D Paint.
7. Painting various attributes like Color, bump. Transparency etc.
8. Adding dust, dirt, rust etc. to an object.

Texturing

1. Learning the Toolbar.
2. Practice of creating basic textures.
3. Basic Wrapping of textures onto surfaces.
4. Concept of UVs.
5. Difference between 2D maps and 3D maps.
6. Tiling, Placing, Cropping, Transforming, Blurring etc.
7. Planar, Cylindrical, Spherical.
8. Adjusting Textures on NURBS surfaces.
9. Polygon Projection Techniques.
10. Basics of unwrapping the UVs.
11. Transparency.
12. Alpha layering.
13. Raytrace Options.
14. Matte Opacity.
15. Making realistic textures

AM307-19 Digital Compositing (Lab)

L T P
0 0 4

Objectives: This course is designed to provide a comprehensive introduction to digital compositing.

Digital Compositing

1. What is Compositing?
2. Fundamentals of Digital Compositing.
3. Capturing through Fire wire.
4. Various File Formats or video extensions.

Introduction to Adobe After Effects

1. Learning the toolbar.
2. Introduction to the interface of the Adobe After Effects.
3. Compositing the real life shoot with CG (Computer Generated) characters or Environment.
4. Blending of CG (Computer Generated) lights & cameras with real shoot.

Project Setting, Timeline, Layers

1. Organizing Footages
2. Composition settings in Adobe after Effects.
3. Basic settings, Presets & Resolutions.
4. Advanced settings, rendering plug-ins.
5. Maintaining timing, spacing & proper play speed of video.
6. Creating layers.
7. Managing Layers & their Properties.
8. Blending modes & Layer styles

Key framing, Transitions

1. Basics of key framing (whether the video is in PAL or NTSC.)
2. How to move & copy keyframes.
3. Animate the key frames.
4. Adding the key frames.
5. Learning about the transition effect & transition completion.
6. Learning transition gallery.

Video Effects & Motion

1. Color correction in video.
2. Creating virtual animated backgrounds.
3. Visual Effects Using Various Plug-in.
4. Text animation in Adobe After Effects.
5. Virtual cameras, lights.
6. Learning the uses of particles, & dynamics.
7. Different types of effect making like fire, dust, etc.

Audio Effects

1. Sound Recording & Editing.
2. Audio capturing & Synchronization.
3. Controlling Pitch and tempo.
4. Merging with the scenes.
5. Encoding.

Chroma Keying

1. Basics of chroma keying.
2. What is Blue/Green Screen Imaging.
3. Why Blue/Green color be used?
4. Lighting Chroma Key Properly.
5. Green screen, Blue screen removal.
6. Wire removal.

Output

1. Learning supporting output video formats.
2. Work with output module settings.
3. Rendering and exporting.
4. Render Queue panel.
5. Encoding & compression options for movies.
6. Rendering final movie.
7. Video & audio Editing & merging.



AM309-19 Minor Project

L T P
0 0 6

Objective - The main objective of the subject is to make a short animation film by students as their Individual Show reel.

The student is required to make a Show reel/Individual Project of minimum 2 Minutes. The student can choose between the following options:

- a. Motion Graphics.
- b. 3-D Animation.
- c. Digital Compositing.



Course Code	AM311-19
Course Title	Art of Video Editing
Type of Course	SEC-3
L T P	3 0 0
Credits	3
Course Prerequisites	Basics of editing
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about Media and various Media Theories.

SYLLABUS

UNIT I:

Introduction to After Effects: Setting up a project, Creating a project, Importing footage Item, Opening & closing a project, Saving a project

Importing media: File formats supported for import in After Effects, Preparing still image file for import into After Effects, Using interpretation rules, Importing image containing alpha channel, Importing layered adobe Photoshop files, Importing layered Adobe illustrator files

UNIT II:

Working with imported footage: Introducing the switch columns, Seeing & hearing A/V panel, Global composition switches, Flipping switches in the switches panel, Finding the hidden panel, Knowing the time graph, Changing position, Changing scale, Changing degree of rotation, Adjusting the anchor point, Fading opacity, Modifying motion path

UNIT III:

Composition setting: Setting general preferences, Setting import preferences, Setting output preferences, Setting grid & guides preferences, Setting label colors & label defaults preferences, Replacing & substituting footage, Nesting a composition

Creating mattes: Understanding transparency, Working with tracks matte, Using layer's alpha channel as a track matte, Using layer's luminance as a track matte, Inverting mattes, Using the preserve transparency switch

UNIT IV:

Transform modes: Using add, Using multiply, Using Screen, Using overlay, Using soft light, Using hard light, Using color dodge & color burn, Using darken & lighten, Using exclusion & difference, Using hue, saturation, color & luminosity, What is interpolation, Controlling change through interpolation, Interpolation method, Changing speed of a layer, Using time reverse key frame assistant, Time stretching a layer, About time remapping, Reversing the playback direction of a layer

Working with render queue: About rendering, Using the render queue window, Changing render settings, Saving a RAM preview as a rendered movie, Choosing compression option

Using effects: Using all standard effect (adjust, audio, blur, sharpen, channel etc.) Particles, What is particle, Understanding the particle playground effect

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Editing Digital Video: The Complete Creative and Technical Guide	Robert M. Goodman	McGraw Hill Education
2.	Film And Video Editing Theory: How Editing Creates Meaning	Michael Frierson	Routledge
3.	The Technique of Film and Video Editing: History, Theory, and Practice	Ken Dancyger	Routledge



Course Code	AM313-19
Course Title	Advanced Photoshop
Type of Course	SEC-3
L T P	3 0 0
Credits	3
Course Prerequisites	Basics of editing
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about advanced photoshop.

SYLLABUS

UNIT I:

Image Correction and Using the Toolbar: Working extensively with the Healing Brush, Spot Healing Brush and Patch Tools, Using the CS5 Clone Source panel to Rotate, align, and create up to 5 Clone sources, eliminating red eye in a photograph with the Red Eye Tool, Cropping and Transformations, Straightening a crooked image using the Ruler Tool, Correcting the tonal range of a too dark/light

UNIT II:

Image using the dodge/burn tool: A look at the different selection tools, Vibrance vs. Saturation
Introduction to basic Layer Masks: Using an Adjustment Layer to effect only a Portion of the image with a Layer Mask, Transformations, Transformation of Smart Objects, Scale, Rotate, Skew, Warp, Duplicate

UNIT III:

Introduction to basic Layer Masks: Using an Adjustment Layer to effect only a Portion of the image with a Layer Mask, Transformations, Transformation of Smart Objects, Scale, Rotate, Skew, Warp, Duplicate
Liquify: What is liquify and how does it work, The magic of Liquify, The danger of Liquify

UNIT IV:

Creative Composition: Layer Creativity, Combining Multiple Images, Making a Realistic Composition, Compositing a Person into a new environment, Creative Layer Composite
Combining layer effects and type: Drawing a custom shape layer, Selecting and formatting a paragraph, Creating text along a path

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Adobe Photoshop CS5 Classroom	Adobe Creative Team	Focal Press
2.	Layers: The Complete Guide to Photoshop's Most Powerful Feature	Matt Kolowsky	Focal Press
3.	Adobe Photoshop CC Classroom in	Andrew Faulkner,	Adobe

	a Book	Conrad Chavez	
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Course Code	AM315-19
Course Title	Cinema 4D
Type of Course	SEC-3
L T P	3 0 0
Credits	3
Course Prerequisites	Basics of editing
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about Media and cinema 4D.

SYLLABUS

UNIT I:

Introduction, 3d space, Main menus , Command palettes, Arranging objects viewports, Render options, Objects and Attribute manager, Material manager. Material and shaders.

UNIT II:

Exploring object hierarchy, Creating, selecting, and transforming objects, Object categories active and passive objects, Comparing object types, The Attribute Manager, Creating a basic model with primitive and null objects

UNIT III:

Lighting and Rendering , Multi pass rendering in cinema 4d, sky is limit, Global illumination, IES Lights, Body paint 3d, direct painting on UVW meshes.

Advance Render, Global illumination, HDRI, Caustics, Ambient Occlusion and sky simulation.

Pyro cluster, Animation, The Timeline, F-Curve, Non-linear animation, Audio support, particles, Walk cycle with c motion, pose morph.

UNIT IV:

Dynamics Effects, Rigid body dynamics, soft body dynamics, Aerodynamics forces. MOCCA, Inverse kinematics, Forward kinematics, Visual Selector, Poser mixer, Morph tool ,Sketch and toon ,Integration ,3d formats, 2d image and animation formats, compositing formats, 2d vector Formats.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Cinema 4D Beginner's Guide	Jen Rizzo	Packt
2.	Light Shadow Space: Architectural Rendering with Cinema	4D By Horst Sondermann	Springer Vienna
3.	Cinema 4D : the artist's project sourcebook	Anne Powers	Routledge

Course Code	AM317-19
Course Title	Flash
Type of Course	DSE-1
L T P	3 0 0
Credits	3
Course Prerequisites	Basic Knowledge Of Flash
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about Flash.

SYLLABUS

UNIT I:

Animation Fundamentals: –Introduction, History, Systems, Techniques, managing windows & panels, Toolbox, Document window

Drawing in Flash: – Working with objects Using Primary drawing tools, Working with selection tools Creating lines, choosing line styles Drawing panels Symbols & instances

Working with colors & text: Color basics Color panels, Colormixer panels Text field types Text tool, Font Export & Display, Font symbols Modifying text

UNIT II:

Basic Interactivity to Flash Movies: Actions & Event Handlers, Making Actions happen with Event handlers

Graphics & 2D Animation: Working with Graphics, Animation software, Flash Symbols Working with Libraries! Inspection Basic methods of Flash Animation Frame–by–Frame Animation, Modifying multiframe sequences Tweening, Integrating multiple Animation systems

UNIT III:

Motion Guide Paths, Mask layers, Button Intro, Intro to Scripting, Setting 1 scenes for first project, Button and action scripting for project, How to effectively plan an animation project.

UNIT IV:

Character Animation Techniques: Storyboard, Cartoon Animation Basics, Animation Keys & In Betweening, Coloring the art, Flashed Tweening, Backgrounds & Scenery

Integrating Media Files with Flash: Adding sound, Importing Sounds to Flash, Synchronizing Audio to animations stopping sounds, Editing, Audio in Flash

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	The Flash Books	Scott kelby	DC Comics
2.	The Flash By Geoff Johns Book One	Geoff Johns	DC Comics
3.	Adobe Flash Professional CC Classroom in a Book	Adobe	Pearson Education India

Course Code	AM319-19
Course Title	STOPMOTION
Type of Course	DSE-1
L T P	3 0 0
Credits	3
Course Prerequisites	Basic Knowledge Of stopmotion
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about stopmotion.

SYLLABUS

UNIT I:

Camera Capturing Techniques

UNIT II:

Camera Angle

UNIT III:

Frame by frame shoot

Editing

UNIT IV:

Sequence Edit and Composite in Video and Compositing softwares

Render

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Stop Motion: Craft Skills for Model Animation	Susannah Shaw	Focal press
2.	The art of stop motion animation	Ken A. Priebe	Course Technology PTR
3.	The Animator's Survival Kit: A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion and Internet Animators	Richard Williams	Faber

Course Code	AM321-19
Course Title	Mudbox
Type of Course	DSE-1
L T P	3 0 0
Credits	3
Course Prerequisites	Basic Knowledge Of Mudbox
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about Mudbox.

SYLLABUS

UNIT I:

Time lapse Masking
Sculpturing Technique

UNIT II:

Texturing
Lighting technique

UNIT III:

Lighting technique
Rendering Technique
DisplacementMap

UNIT IV:

Mesh Preparation
Painting, Drawing
Painting HDRI
Vector Art with selection and path in GIMP

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Digital Sculpting with Mudbox: Essential Tools and Techniques for Artists	Mike de la flor	Routledge
2.	Digital Sculpting with mudbox	Bridgette Mongeon	Focal press
3.	Mudbox 2013 Cookbook	Jeremy Roland	Packt Publishing Limited



Sixth Semester



Course Code	AM302-19
Course Title	Publicity Designing & Media Laws
Type of Course	CR-AM
L T P	4 0 0
Credits	4
Course Prerequisites	Basic Knowledge of web designing
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about Publicity Designing, promotion of Projects/Products which plays an important role in the success of the Project. The other part of the subject is to impart knowledge about the Film Criticism /developing reviews.

SYLLABUS

UNIT I:

Various Mediums of Publicity: Print Media – Newspapers, Magazines, Brochures, Posters, Leaflets, Pamphlets, Dangers, posters etc. Outdoor Advertising, Hoardings, Cutouts, Bus Panels, Posters. Electronic Media – Audio (Radio, FM), Audio-Visual (Television), Internet Websites, Online advertising, Blogs, Banners, Emails, Cinema, Exhibitions, Trade Fairs.

UNIT II:

Media Laws in India: Indian print Media in the context of Globalization, Copyright Act – Recent Indian Laws, Contempt of Court- Civil and Criminal Contempt, Defamation,

UNIT III:

Press Commissions and Press Council of India; Press Institute of India; Audit Bureau of Circulation, Indian Newspapers Society; Editors Guild of India; Press information Bureau; Directorate of Audio visual Publicity (DAVP).

UNIT IV:

Publicity, propaganda, PR as a management function.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Truth, Lies and Advertising : The Art of Account Planning	John Steel	Wiley
2.	Modern publicity	Sebastian Hayes	Sebastian Hayes
3.	Media Law and Ethics	M Neelamalar	Prentice Hall India Learning Private Limited

Course Code	AM304-19
Course Title	Animation Dynamics
Type of Course	CR-AM
L T P	4 0 0
Credits	4
Course Prerequisites	Basic Knowledge Of Animation dynamics.
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about animation effects.

SYLLABUS

UNIT I:

Introduction to Dynamics: The overview of fur menus, hair, Ocean locators and wakes, particles, Ultimate fluid.

Hair & Fur : The time will spend more with the core node of the system of Hair and Fur, description. The process will go through of the loading the plugin of fur and go through each of the attribute one by one in the fur and hair description.

UNIT II:

Cloth : Overview of Nucleus node, Realistic cloth simulation, Scene scale and settings, time scale, Mass, Dynamics forces, Friction, rigidity, Passive object collisions, glue strength, Pressure, Tearing Surfaces, Caching cloth, Deformation Resistance. Introduction to particles (10%): particles is the robust toolset for simulating complex physics, simulations and an intuitive workflow for creating liquids, clouds, smoke, spray and dust effects using particles.

UNIT III:

Introduction to Ultimate Fluids (10%): It is used for to create realistic fire effects; Navier-stokes fluid solver; Spring mesh fluid solver, interactive fluids with particles, advanced heat dynamics, combustible fluids, soft surface simulations, realistic liquid simulations.

UNIT IV:

Introduction to Paint Effect (10%): Popular highlights include toon rendering, mesh brush, optimizing scene, light based effects, control curves based effects, secondary animation, custom brushes. Submissions, Character Hair.Waving Flag.Character Cloth.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	The Animator's Survival Kit	Richard Williams	Fabor and Fabor
2.	Animation writing & development	Jean Wright	Focal Press.
3.	Media Law and Ethics	M Neelamalar	Prentice Hall India Learning Private Limited

Course Code	AM306-19
Course Title	Special Effects in Film Feature
Type of Course	CR-AM
L T P	4 0 0
Credits	4
Course Prerequisites	Basic Knowledge Of Special Effects in film feature
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about effects in film features.

SYLLABUS

UNIT I:

Introduction to Digital Compositing, Historical Perspective, Terminology, .The Digital Representation of Visual Information. Image Generation, Image Input Devices, Digital Image File Formats, .Basic Image Manipulation, Colour Manipulations, Geometric Transformation Basics of Compositing, the Matte Image, Multisource Operators, Masks, Compositing with Pre-multiplied Images.

UNIT II:

Matte Creation and Manipulation, Procedural Matte Extraction, Matting Techniques , Image Tracking and Stabilization ,Tracking and Element Into a Plate ,Manual Manipulation of Tracking curves, Stabilizing a Plate, Tracking Multiple Points , Interface Interaction , The Nuke Window.

UNIT III:

Understanding Nodes and the Node Graphs, the Properties Panel
Other Controls On All Properties Panels.

Indicators on Nodes, Viewer Nodes and Viewer Pane, Timeline Controls, Key frame Indication, The Curve Editor Pane, Displaying a Channel Set,

UNIT IV:

Display Gain and Gamma

Viewer Composite Display Modes 26, Region of Interest (ROI), Customizing Your Layout
Image Viewing and Analysis

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Special effects: History and Technique	Richard RicKitt	Aurum Press
2.	Special Effects: In film and Television	Jake Hamilton	DK Children
3.	The Invisible Art: The Legends of Movie Matte Painting	Mark Cotta Vaz, Craig Barron	Chronicle Books

AM308-19 Introduction to Game Designing (Lab)

L T P
0 0 4

Objectives: This course is designed to provide a comprehensive introduction to game designing, character sketching, Zbrush etc.

Game Art designing fundamentals.

Basic concept of game designing, Character sketching, concept of character developing.

Game character & Environment design.

Modeling a base mesh in Maya, concept of topology, Environment devolving.

Introduction to Zbrush

User Interface, over view of tools, shortcuts, Import & Export of mesh

Detailing the base mesh into

Zbrush

Tools and Technique for detailing the mesh

Normal Maps

Overview of Normal maps, import & Export of normal maps

Z-brush – Maya Integration

Overview of z-brush and Maya integration

Texturing

Process of texturing for game, UVW mapping , Texture making (using Photoshop)

Baking maps

Overview of Baking maps , process for baking maps

Light Baking

Overview of Light Baking, process for baking Lights

Scene Optimization

Overview of scene optimization, process for optimization

File Import Export

The concept of file importing and Exporting Submissions Low poly Game Character

Environment of Exterior Environment of Interior

AM310-19 Major Project

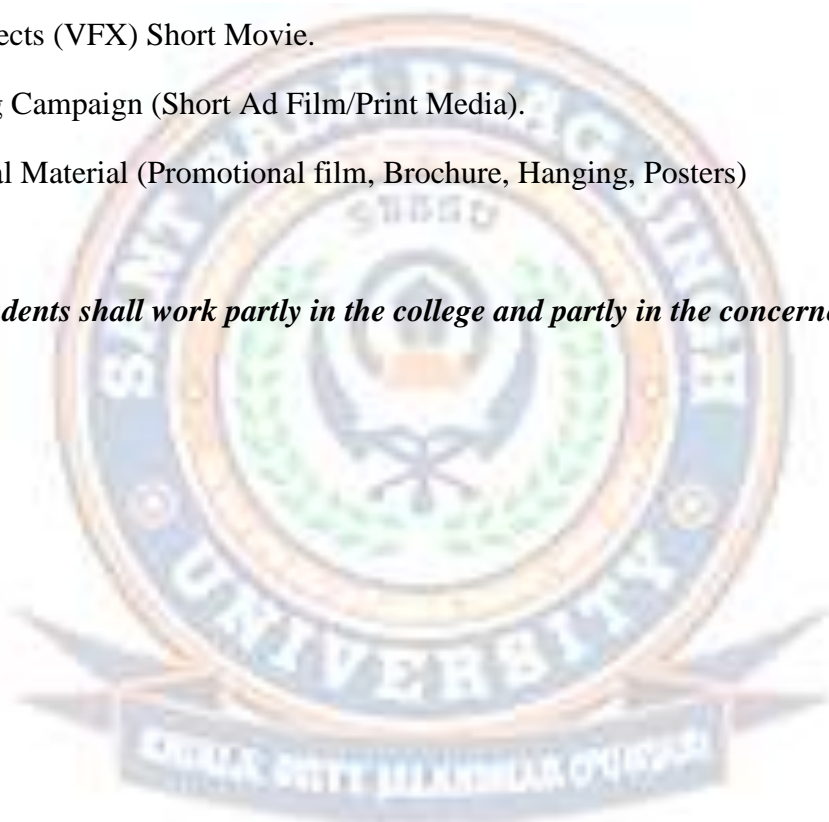
L T P
0 0 6

Objective - The main objective of the subject is to make a short animation film by students as their Project Show reel so that the student can be easily assimilated in the Industry .The students can choose the area of Specialization keeping in view their interest.

For Specialization Project/Show reel (AM-605) the students will have choice between the following Specializations:

- A. Short Animation Movie (2-D /3-D).
- B. Special Effects (VFX) Short Movie.
- C. Advertising Campaign (Short Ad Film/Print Media).
- D. Promotional Material (Promotional film, Brochure, Hanging, Posters)

Note: The students shall work partly in the college and partly in the concerned Industry.



AM312-19 Six Weeks Industrial/Institutional Training

L T P
0 0 0

The 6 week industrial training must be undertaken in reputed industry. The student must submit a mid term report after one month. The student will submit Training Report along with training certification from industry. A presentation will be given by the student in front of Faculty of concerned department.



Course Code	AM314-19
Course Title	Rigging Techniques
Type of Course	SEC-4
L T P	4 0 0
Credits	4
Course Prerequisites	Basic Knowledge Of Rigging Techniques
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about rigging techniques.

SYLLABUS

UNIT I:

Skin: Bind Skin, Detach Skin, Go To Bind Pose, Edit Smooth Skin, Edit Rigid Skin.

UNIT II:

Skeleton: Joint Tool, Ik Handle Tool, Ik Spline Handle Tool, Insert Joint Tool, Reroot Skeleton, Remove Joint, Connect Joint, Mirror Joint, Orient Joint, Set Preferred Angle,

UNIT III:

Assume Preferred Angle, Enable Ik Handle Snap, Enable Ik Fk Control, Enable Selected Ik Handle, Disable Selected Ik Handle.

UNIT IV:

Switching between IK/FK ,Adding the controls and attributes. Grouping and Parenting. Rigging a arm and hand, Advanced rig.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	The Complete Rigger's Apprentice: Tools and Techniques for Modern and Traditional Rigging	Brion Toss	International Marine/Ragged Mountain Press
2.	Introduction to Rigging Techniques, Procedures, and Applications	Various Anonymous Army Personnel	Skyhouse
3.	The Complete Rigger's Apprentice: Tools and Techniques for Modern and Traditional Rigging	Brion Toss	International Marine/Ragged Mountain Press

Course Code	AM316-19
Course Title	After Effects
Type of Course	SEC-4
L T P	4 0 0
Credits	4
Course Prerequisites	Basic Knowledge Of Sound Production
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about Production, sound.

SYLLABUS

UNIT I:

Introduction to After Effects: Setting up a project, creating a project, Importing footage Item, opening & closing a project, saving a project

UNIT II:

Importing media: File formats supported for import in After Effects, Preparing still image file for import into After Effects, Using interpretation rules, importing image containing alpha channel, Importing layered adobe Photoshop files, importing layered Adobe illustrator files

UNIT III:

Working with imported footage: Introducing the switch columns, Seeing & hearing A/V panel, Global composition switches, Flipping switches in the switches panel, finding the hidden panel, Knowing the time graph, Changing position, Changing scale, changing degree of rotation, Adjusting the anchor point, Fading opacity, Modifying motion path,

UNIT IV:

Understanding key frame, Setting key frames, Moving & copying key frames, Setting & animating a layer property in timeline window, Setting & animating anchor point, Setting & animating mask property, Modifying mask, Putting mask in motion, Using mask with effects

Composition setting: Setting general preferences, Setting import preferences, Setting output preferences

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Adobe After Effects CC Classroom in a Book	Lisa Fridsma	adobe Press
2.	Adobe After Effects CC Classroom in a Book	Andrew Faulkner and Brie Gyncild	adobe Press
3.	After Effects and Cinema 4D Lite: 3D Motion Graphics and Visual Effects Using CINEWARE	Chris Jackson	Routledge

Course Code	AM318-19
Course Title	Sound Production
Type of Course	SEC-4
L T P	4 0 0
Credits	4
Course Prerequisites	Basic Knowledge Of Sound Production
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about Production, sound.

SYLLABUS

UNIT I:

Introduction to Sound:History of audio engineering, Application of studio studies,Wave theory, Basics electronics, Decibels & metering,Ear training, Post Production, Sound for films/television, ADR/dubbing, Foley, Sound effects, Background music, Location sound, Cleaning audio, Mastering standards

Digital Technology: Basics of digital audio, Bit rate, Sampling, Digital storage medium, Midi, Digital consoles

UNIT II:

Live Sound: Equipment (amplifiers/speaker/crossovers), Microphone techniques, Analogue/digital mixing desks, Ambiences/acoustics, Instruments & stage gear, Basics power management, Equalization and dynamics, Mixing FOH & MOH(sound cheek), Management

UNIT III:

Recording Arts: Analog tape recording, Hard disc recording, Multi track recording using protocols, Microphones & miking techniques, Signal flow, Editing tools & techniques, Midi in protocols

UNIT IV:

Acoustics & Studio Design: Studio design and aesthetics, Studio dynamics and testing, Studio equipment, Budgeting, Materials and procurement, Studio setup and installation

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Audio Engineering 101: A Beginner's Guide to Music Production	Tim Dittmar	Focal Press
2.	Mixing Secrets for the Small Studio	Mike Senior	Routledge
3.	Dance Music Manual: Tools, Toys and Techniques	Rick Snoman	Focal Press

Course Code	AM320-19
Course Title	Vue 8 Infinite
Type of Course	DSE-2
L T P	3 0 0
Credits	3
Course Prerequisites	Basic Knowledge Of Vue 8 Infinite
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about Publicity Designing, which plays an important role in the success of the Project.

SYLLABUS

UNIT I:

Terrains
Vegetation
EcoSystem Generation III
Atmospheres

UNIT II:

Natural Elements
Lighting
Rendering

UNIT III:

Compositing
Animation

UNIT IV:

Materials
Interface & Workflow
Import & Export



RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Vue 7: From the Ground Up: The Official Guide by Ami Chopine and Vladimir Chopine	Ami Chopine, Vladimir Chopine	Focal Press
2.	Vue 7: Beyond the Basics by Richard Schrand	Richard Schrand	Cengage Learning PTR
3.	Vue.js: Up and Running	Callum Macrae	Shroff/O'Reilly

Course Code	AM322-19
Course Title	Real Flow
Type of Course	DSE-2
L T P	3 0 0
Credits	3
Course Prerequisites	Basic Knowledge Of Real Flow
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about software real flow.

SYLLABUS

UNIT I:

GUI and Layouts, Node Types, Export Central, Dynamics Considerations, Simulation Workflow, Python Scripting Pedestrian Tunnel Flood Project, Project Directories.

UNIT II:

Importing Geometry, Kill Daemons, Emitter Particle Parameters, Object-Particle Interaction Parameters, Keyframes and Curve Editor, Performance Considerations

UNIT III:

Adding Details, Rigid Body Dynamics, Wet Maps High Resolution Simulation and Extra Elements, Monitoring Simulations, Secondary Splash Elements Meshing it All, Setting Up a Mesh, Meshing Parameters

UNIT IV:

Optimizing a Mesh, Meshing Performance Importing Assets and Rendering, Importing and Exporting SD Files, Importing Meshes, Rendering Meshes, Rendering Particles, Rendering Wetmaps, Rendering Mesh Attributes

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Introduction to Sculpting Fluid Dynamics: Real Flow Techniques	Wayne England	Hollywood, Calif.
2.	Fluid mechanics	Ajay Harish	SimScale
3.	An Introduction to Fluid Dynamics	George Batchelor	Cambridge University

Course Code	AM324-19
Course Title	Introduction to 3D-II
Type of Course	DSE-2
L T P	3 0 0
Credits	3
Course Prerequisites	Basic Knowledge Of 3D Animation
Course Outcome (CO)	The main objective of the subject is to impart the knowledge about 3D animation.

SYLLABUS

UNIT I:

Hierarchy and Maya Object Structure

Understanding Nodes

Parents and Children

UNIT II:

Understanding Shading Concepts

Shading

Shader Types

Working with various Shaders and there parameters

UNIT III:

Animation in Maya

Creating Key frames

Copying Key frames and Moving Pivots

Fine Tuning Animation

Working with UVs and Camera

UNIT IV:

Basics of Lighting

Spot Light

Area Light

Directional Light

Components of Photoshop related to 3D Models and texture.

RECOMMENDED BOOKS			
Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	The Art of MayaTM: An Introduction to 3D Computer Graphics	Alias Learning Tool	Sybex
2.	The art of Maya :an Introduction	Tim H. Brown	San Rafael , Calif: Autodesk
3.	Introduction to 3D Data	Heather Kennedy	Wiley