

SACRED HEART COLLEGE (AUTONOMOUS), THEVARA

KOCHI, KERALA, 682013



CURRICULUM AND SYLLABUS

CHOICE BASED COURSE CREDIT AND SEMESTER SYSTEM

(CBCSS)

MA DIGITAL ANIMATION PROGRAMME

INTRODUCED FROM 2020 ADMISSION ONWARDS

BOARD OF STUDIES IN DIGITAL ANIMATION

Sacred Heart College, Thevara, Kochi, Kerala

2020

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INTRODUCTION

The Animation program prepares graduates for a wide range of careers in the industry such as Traditional animation, 2D Digital Animation, Illustration, CGI, 3D animation Film making.

The skills taught in the courses encompass craft at a technical level; yet also include design, drawing, critical thinking, creativity, daring, collaboration, and a fundamental awareness of theory and history. Throughout the program, students are engaged in all aspects of animation/post production, from concept development and production design to the completion of finished segments.

INTRODUCTION

The program begins with design/animation history, theory and traditional hand skills, then progresses to current design/animation practices and technology. Students create script, storyboard, drawings, clay models, 2D animations, virtual models, 3D animations and lot more. The program encourages innovation while stressing strong technical and presentation skills. Students gain a background in design/animation history and theory and then experiment and develop their own creative approaches. The Candidates become eligible for a Post-graduation after four semesters of study, spanning over a period of 2 years and successful completion of the Examination.

COURSE STRUCTURE

The programme has symmetrical approach – that is, four semesters. Emphasis is laid on practical and projects. Every semester has practical courses. The course ends with course ending practical projects.

ELIGIBILITY

- I. Basic academic qualification is a Graduation in any field (However preference will be given to candidates Any Degree with Media skills and knowledge i.e., Multimedia, Animation, Graphics, Communication, Visual Arts, Painting, Theatre, Architecture and Music)
- II. Candidates must clear a written test based on Aptitude, General topics related to Media, English and an Interview.
- III. The written test and interview will have equal weightage (i.e.; 50:50), based on which a Merit List will be drawn.

REGULATIONS FOR POST GRADUATE PROGRAMMES UNDER CREDIT SEMESTER SYSTEM (CSS) – 2020

1. TITLE

These regulations shall be called '**REGULATIONS FOR POST GRADUATE PROGRAMMES UNDER CREDIT SEMESTER SYSTEM (CSS) – 2020**'

2. SCOPE

Applicable to all Post Graduate (PG) programmes of the college with effect from 2020-21 admissions. The provisions herein supersede all the existing regulations for the Post Graduate programmes of the college.

3. DEFINITIONS

- i. '**Programme**' means the entire course of study and examinations.
- ii. '**Duration of Programme**' means the period of time required for the conduct of the programme. The duration of post-graduate programme shall be of 4 semesters and M Phil programmes shall be 2 semesters.
- iii. '**Semester**' means a term consisting of a minimum of 90 working days, inclusive of examination, distributed over a minimum of 18 weeks of 5 working days, each with 5 contact hours of one-hour duration
- iv. '**Course**' means a segment of subject matter to be covered in a semester. Each Course is to be designed variously under lectures / tutorials / laboratory or fieldwork/ study tour /seminar / project / practical training / assignments/evaluation etc., to meet effective teaching and learning needs.
- v. '**Credit (Cr)**' of a course is the numerical value assigned to a course according to the relative importance of the content of the syllabus of the programme.
- vi. '**Extra credits**' are additional credits awarded to a student over and above the minimum credits required for a programme
- vii. '**Programme Credit**' means the total credits of the PG/M Phil Programmes. For PG programmes the total credits shall be 80 and for M.Phil. it shall be 40.
- viii. '**Programme Elective course**' Programme Elective course means a course, which can be chosen from a list of electives and a minimum number of courses is required to complete the programme.
- ix. '**Programme Project**' Programme Project means a regular project work with stated credits on which the student undergoes a project under the supervision of a teacher in the parent department / any appropriate Institute in order to submit a dissertation on the project work as specified.

- x. **'Internship'** is on-the-job training for professional careers.
- xi. **'Plagiarism'** Plagiarism is the unreferenced use of other authors' material in
 - a. Dissertations and is a serious academic offence.
- xii. **'Seminar'** seminar means a lecture by a student expected to train the student in self-study, collection of relevant matter from the books and Internet resources, editing, document writing, typing and presentation.
- xiii. **'Evaluation'** means every course shall be evaluated by 25% continuous (internal) assessment and 75% end course/end semester (external) assessment.
- xiv. **'Repeat course'** is a course that is repeated by a student for having failed in that course in an earlier registration.
- xv. **'Audit Course'** is a course for which no credits are awarded.
- xvi. **'Department'** means any teaching Department offering a course of study approved by the college / Institute as per the Act or Statute of the University.
- xvii. **'Department Council'** means the body of all teachers of a Department in a College.
- xviii. **'Faculty Advisor'** is a teacher nominated by a Department Council to coordinate the continuous evaluation and other academic activities undertaken in the Department.
- xix. **'College Co-ordinator'** means a teacher from the college nominated by the College Council to look into the matters relating to CSS-PG System.
- xx. **'Letter Grade'** or simply **'Grade'** in a course is a letter symbol (O, A, B, C, D, etc.) which indicates the broad level of performance of a student in a course.
- xxi. Each letter grade is assigned a **'Grade point'** (GP) which is an integer indicating the numerical equivalent of the broad level of performance of a student in a course.
- xxii. **'Credit point'** (CP) of a course is the value obtained by multiplying the grade point (GP) by the Credit (Cr) of the course $CP = GP \times Cr$.
- xxiii. **'Semester Grade point average'** (SGPA) is the value obtained by dividing the sum of credit points (CP) obtained by a student in the various courses taken in a semester by the total number of credits taken by him/her in that semester. The grade points shall be rounded off to two decimal places. SGPA determines the overall performance of a student at the end of a semester.
- xxiv. **'Cumulative Grade point average'** (CGPA) is the value obtained by dividing the sum of credit points in all the courses taken by the student for the entire programme by the total number of credits and shall be rounded off to two decimal places.
- xxv. **'Grace Marks'** means marks awarded to course/s, as per the orders issued by the college from time to time, in recognition of meritorious achievements in NCC/NSS/Sports/Arts and cultural activities.

4. ATTENDANCE

Being a regular college, physical presence in the regular activities, especially, classes and exams, is mandatory for the students. However, if a student secures 75% of attendance he/she is eligible to appear for the exams, provided there are no other impediments like disciplinary proceedings, malpractice record etc.

- i. **Absence:** A student found absent for one hour in the forenoon or afternoon session is deprived of the attendance for the entire session as far as eligibility for final exam is concerned.
- ii. The hour related calculation in a course is meant for awarding marks for the course concerned, where applicable.
- iii. **Late entry:** A student is supposed to be in time for the class. Late arrival related treatment is left to the discretion of the individual teacher. However, as a norm, a late arriving student may be permitted to the class, if it is not inconvenient or distraction to the class as such; though attendance MAY NOT BE GIVEN. Late arrival beyond 5 minutes is treated as ABSENCE; though the teacher may consider permitting the student to sit in the class.
- iv. **Leave:** A student has to formally report his/her absence with reasons either in advance, or immediately after the absence for obtaining an approved leave. This applies to all sorts of leave – medical, on duty or other.
- v. The student is supposed to report in prescribed format on the very next day of the absence; however, up to a week's time is permitted. Afterwards, the leave applications will not be considered.
- vi. The student has to retain a copy/section of the approved leave form and produce the same as proof, in case there is any confusion regarding the leave sanctioning. In the absence of such proof, the claims will not be entertained.
- vii. **Duty Leave:** A student representing the college in sports, arts, social service or academic matters, has to get sanction from the class teacher concerned and submit the leave application form duly endorsed by the class teacher and Head of the department, and submit it to the Vice Principal. The same will be forwarded by the Vice Principal for attendance entry. **SPORTS:** The approval of the Department of Physical Education and the class teacher is required. The time limit for submission mentioned above is applicable in the case of duty leave as well.
- viii. **Condonation:** A student may have the privilege of condonation of attendance shortage (up to a maximum of 10 days) on the basis of genuineness of the grounds of absence (medical reasons or college duty), duly recommended by the department. This is not a matter of right. It is a matter of privilege based on Principal's discretion and the good conduct of the student on the campus. A student of PG programme may have only one such opportunity.
- ix. **Re-admission:** A student whose attendance is inadequate will have to discontinue the studies. Such students, whose conduct is good, may be re-admitted with the approval of governing council, on the basis of recommendation from the department, and assurance from the student and the guardian regarding good conduct and compliance in academic and discipline matters. For this the prescribed re-admission fee has to be paid. As a condition for re-admission, the student should have cleared all academic arrears, or should have appeared for the exams in which he/she is having an arrear (if the results are not out), and should have fulfilled all academic assignments prescribed by the department for compensating for his lack of attendance.

- x. **Unauthorised absence & removal from rolls:** A student absent from the classes continuously for 10 consecutive working days without intimation or permission, shall be removed from the rolls, and the matter intimated to the student concerned. On the basis of recommendation of the department concerned, re-admission process may be permitted by the Principal.

5. PROGRAMME REGISTRATION

- i. A student shall be permitted to register for the programme at the time of admission.
- ii. A PG student who registered for the programme shall complete the same within a period of 8 continuous semesters from the date of commencement of the programme.

6. PROMOTION:

A student who registers for the end semester examination shall be promoted to the next semester. However, in extreme circumstances, a student having sufficient attendance who could not register for the end semester examination may be allowed to register notionally by the Principal with the recommendation of the Head of the department concerned and, by paying the prescribed fee.

7. EXAMINATIONS

All the End Semester Examinations of the college will be conducted by the Controller of Examination. The Principal will be the Chief Controller of Examinations. An Examination committee consisting of the Chief Controller of Examinations, Controller of Examinations, Additional Chief Superintendent, Deans, IQAC Coordinator and other faculty members nominated by the Principal will act as an advisory body on the matters relating to the conduct of examinations.

8. EVALUATION AND GRADING

The evaluation scheme for each course shall contain two parts;

- a. **Continuous Internal Assessment (CIA) and**
- b. **End Semester Examination (ESE).**

The internal to external assessment ratio shall be 3:1, for both courses with or without practical. For all courses except the courses offered by the school of communications, there shall be a maximum of 75 marks for external evaluation and maximum of 25 marks for internal evaluation. In the case of courses offered by the school of communications, the internal to external assessment ratio shall be 1:1. (In their cases, the components for evaluation and their respective marks shall be determined by their Board of Studies). Both internal and external evaluation shall be carried out in the mark system and the marks are to be rounded to the nearest integer.

- a. **Continuous Internal Assessment (CIA)/ Continuous Assessment:** The internal evaluation shall be based on predetermined transparent system involving periodic written tests, assignments, seminars/viva/field study/industrial visits/study tour etc. with respect to theory courses and based on written tests, lab skill/records/viva voce etc. with respect to practical courses. The marks assigned to various components for internal evaluation as follows.

Components of Internal Evaluation

	Components	Marks (Theory)	Marks (Practical)
i	Assignments	15	15
ii	Seminar	10	10
iii	Field study /Study-Tour/ Viva Voce etc.	5	5
iv	A written tests (2 x 5)	10	10
v	Workshops/ Exhibition/ Screening /Industrial Visit	10	10
	Total	50	50

- i. **Assignment:** Every student shall submit one assignment as an internal component for every course.

Components	Marks
Punctuality	2
Content	7
Research	3
Presentation	3
Total	15

- ii. **Seminar:** The seminar lecture is expected to train the student in self-study, collection of relevant matter from the books and Internet resources, editing, document writing, typing and presentation.

Components	Marks
Content	5
Presentation	2
Research	3
Total	10

- iii. A quiz or viva or field study or study tour or any suitable method shall be used by the course teacher to assess the students and a maximum of **5 marks** shall be awarded for this component.
- iv. **Class Tests:** Every student shall undergo two class tests as an internal component for every course.

Components	Marks
Laboratory Involvement	5
Written/ Lab Test	10
Record	5
Viva Voce	5
Total	25

- v. Workshops or Exhibition or Screening or Industrial Visit or any suitable method shall be used by the course teacher to assess the students and a maximum of **10 marks** shall be awarded for this component.

b. End Semester Examination (ESE): The End Semester Examination in theory courses shall be conducted by the college with question papers set by external experts/ question bank. The evaluation of the answer scripts shall be done by the examiners based on a well-defined scheme of evaluation given by the question paper setters/Prepared as per the direction of the Chairman, Board of Examiners. The evaluation of the End Semester Examinations shall be done immediately after the examination preferably through the centralised valuation.

c. Project: Project work is a part of the syllabus of most of the programmes offered by the college. The guidelines for doing projects are as follows:

- i. Project work shall be completed by working outside the regular teaching hours.
- ii. Project work shall be carried out under the supervision of a teacher in the concerned department or an external supervisor.
- iii. A candidate may, however, in certain cases be permitted to work on the project in an industrial/ Research Organization/ Institute on the recommendation of the Supervisor.
- iv. There should be an internal assessment and external assessment for the project work in the ratio 2:2
- v. The external evaluation of the project work consists of valuation of the dissertation (project report) followed by presentation of the work and viva voce.
- vi. The mark and credit with grade awarded for the program project should be entered in the grade card issued by the college.

a) Components of Internal Evaluation for Projects

Components	Marks
Topic/Area selected	5
Experimentation/Data collection	10
Punctuality-Regularity	5
Compilation	10
Content	10
Presentation	10
Total	50

b) Components of External Evaluation for Projects

Components	Marks
Topic/Area selected	5
Objectives	5
Experimentation/Data collection	5
Content/Analysis	10
Presentation	10
Conclusions/Findings/Summary	10
Reference	5
Total	50

d. Comprehensive Viva-voce

Comprehensive Viva-voce shall be conducted at the end of the programme, which covers questions from all courses in the programme as per the syllabus.

Note: The Board of studies of the concerned subject is permitted to make changes, if necessary, in the credits and internal–external ratio for the projects and comprehensive viva-voce without changing the total credit 80.

e. Grade and Grade Points

For all courses (theory & practical), Letter grades and grade point are given on a 10-point scale based on the total percentage of marks, (CIA+ESE) as given below: -

Percentage of Marks	Grade Point (GP)	Indicator
95 and above	10	A⁺ Outstanding
85 to below 95	9	A Excellent
75 to below 85	8	B⁺ Very Good
65 to below 75	7	B Good
55 to below 65	6	C⁺ Fair
45 to below 55	5	C Average
40 to below 45	4	D Pass
Below 40	0	D Deficient (Fail)

Grades for the different semesters and overall programme are given based on the corresponding SGPA/CGPA as shown below:

SGPA/CGPA	Grade	Indicator
9.0 and above	A⁺	Outstanding
Equal to 8.0 and below 9.0	A	Excellent
Equal to 7.0 and below 8.0	B⁺	Very Good
Equal to 6.0 and below 7.0	B	Good
Equal to 5.0 and below 6.0	C⁺	Fair
Equal to 4.0 and below 5.0	C	Pass
below 4.0	D	Deficient (Fail)

A **separate minimum of 40% marks** required for a pass for both internal evaluation and external evaluation for every course.

A candidate who has not secured minimum marks/credits in internal examinations can re-do the same registering along with the end semester examination for the same semester, subsequently. A student who fails to secure a minimum marks/grade for a pass in a course will be permitted to write the examination along with the next batch.

After the successful completion of a semester, Semester Grade Point Average (SGPA) of a student in that semester is calculated using the formula given below. For the successful completion of semester, a student should pass all courses and score at least the minimum CGPA grade 'C'. However, a student is permitted to move to the next semester irrespective of her/his SGPA.

Credit Point (CP) of a course is calculated using the formula

CP = Cr x GP, where Cr = Credit; GP = Grade point

Semester Grade Point Average (SGPA) of a Semester is calculated using the formula

SGPA = TCP/TCr, where

TCP = Total Credit Point of that semester = $\sum_1^n CP_i$;

TCr = Total Credit of that semester = $\sum_1^n Cr_i$

Where n is the number of courses in that semester

Cumulative Grade Point Average (CGPA) of a Programme is calculated using the formula

$$CGPA = \frac{\sum (SGPA \times TCr)}{\sum TCr}$$

SGPA/CGPA shall be round off to two decimal places

To ensure transparency of the evaluation process, the internal assessment marks awarded to the students in each course in a semester shall be published on the notice board/website at least one week before the commencement of external examination. There shall not be any chance for improvement for internal mark.

The course teacher and the faculty advisor shall maintain the academic record of each student registered for the course which shall be forwarded to the controller of examinations through the Head of the Department and a copy should be kept in the department for at least two years for verification.

9. ADMISSION

The eligibility criteria for admission to all PG programmes shall be published by the college along with the notification for admission.

10. REGISTRATION FOR THE EXAMINATION

- All students admitted in a programme with remittance of prescribed fee are eligible for the forthcoming semester examinations.
- Online application for registration to the various End Semester Examinations shall be forwarded to the CE along with prescribed fee for each course in prescribed format.
- The eligible candidates who secure the prescribed minimum attendance of the total duration of the course and possess other minimum qualification prescribed in the regulations for each course shall be issued the hall tickets. The hall ticket shall be downloaded by the students from the college website.
- The mode of fee remittance shall be through the prescribed bank.

11. SUPPLEMENTARY EXAMINATIONS

Candidates who failed in an examination can write the supplementary examination conducted by the College along with regular examinations.

12. IMPROVEMENT OF EXAMINATION

There will be no improvement examinations for PG programmes

13. PROMOTION TO THE NEXT HIGHER SEMESTER

A candidate shall be eligible for promotion from one semester to the next higher semester if,

- e. He / she secures a minimum 75 % attendance and registered for the End Semester Examination of the programme for which he/she is studying.
- f. His / her progress of study and conduct are satisfactory during the semester completed, as per the assessments recorded by the course teachers and the Head of the Department concerned.

14. CERTIFICATES

1. Diploma and Degree certificates are issued by the Mahatma Gandhi University, Kottayam as per the act and statutes of the University on the submission of the consolidated mark / score cards of the students by the College.
2. A consolidated mark / scored card shall be issued to the candidates after the publication of the results of the final semester examination taken by the candidate.
3. A Course Completion Certificate with classification shall be issued to students till the provisional certificate is issued by the university.

15. AWARD OF DEGREE

The successful completion of all the courses with 'C' grade shall be the minimum requirement for the award of the degree.

16. MONITORING

There shall be a Monitoring Committee constituted by the Principal consisting of faculty advisors, HoD, a member from teaching learning evaluation committee (TLE) and the Deans to monitor the internal evaluations conducted by college. The Course teacher, Class teacher and the Deans should keep all the records of the internal evaluation, for at least a period of two years, for verification.

Every Programme conducted under Credit Semester System shall be monitored by the College Council under the guidance of IQAC Coordinator, Controller of Exams, academic Deans and HoDs. An academic committee consisting of the Vice Principal, Deans and teachers nominated by the Principal shall look after the day-to-day affairs of these regulations.

17. GRIEVANCE REDRESSAL MECHANISM

In order to address the grievance of students regarding Continuous internal assessment (CIA) a three-level Grievance Redressal mechanism is envisaged. A student can approach the upper level only if grievance is not addressed at the lower level.

Level 1: At the level of the concerned course teacher

Level 2: At the level of a department committee consisting of the Head of the Department, a coordinator of internal assessment for each programme nominated by the HoD and the course teacher concerned.

Level 3: A committee with the Principal as Chairman, Dean of the Faculty concerned, HOD of the department concerned and one member of the Academic council nominated by the principal every year as members.

POSTGRADUATE PROGRAMME OUTCOMES (POs)

At the end of the programme the students are able to,

PO1

Exercise their critical thinking in creating new knowledge leading to innovation, entrepreneurship and employability.

PO2

Effectively communicate the knowledge of their study and research in their respective disciplines to their stakeholders and to the society at large.

PO3

Make choices based on the values upheld by the institution, and have the readiness and know-how to preserve the environment and work towards sustainable growth and development.

PO4

Develop an ethical view of life and have a broader (global) perspective transcending the provincial outlook.

PO5

Explore new knowledge independently for the development of the nation and the world and are able to engage in a lifelong learning process.

PROGRAMME SPECIFIC OUTCOMES (PSOs) OF MA DIGITAL ANIMATION (MADGA)

At the end of the programme a student should be able to:

PSO1

Understand the history of animation, the basics of animation, visual effects, film techniques, and develop software skills required to demonstrate competence in these fields.

PSO2

Understand all processes involved in pre-production, production and post-production in digital animation.

PSO3

Adapt to new ideas and technology and constantly upgrade their skills with a passion for independent and lifelong learning.

PSO4

Develop confidence for innovative entrepreneurship and display a positive attitude towards keeping oneself updated in specialized areas.

PSO5

Develop a conceptual understanding, critical awareness and the relevant skills for acquiring technical knowledge in diverse areas of digital animation, visual effects and film techniques and experience an environment conducive to cultivating the skills required for a successful career, entrepreneurship or higher studies.

CONSOLIDATED SCHEME

MA DIGITAL ANIMATION (MADGA)						
Semester	Course Code	Course Paper	Course Title	Course Type	Hours Per Week	Credits
1	20P1DGAT01	1-1	History of Animation	Theory	4	4
	20P1DGAP01	1-2	Concept, Layout & Storyboarding	Practical	6	4
	20P1DGAP02	1-3	2D Design	Practical	5	4
	20P1DGAP03	1-4	3D Design	Practical	5	4
	20P1DGAP04	1-5	Film Techniques	Practical	6	4
						20
2	20P2DGAT02	2-1	Media Ethics, Laws and Education	Theory	4	4
	20P2DGAP05	2-3	Object Animation & Pixilation	Practical	4	4
	20P2DGAP06	2-2	Traditional Animation	Practical	6	4
	20P2DGAP07	2-4	3D Advanced Studies	Practical	5	4
	20P2DGAP08	2-5	CG Foundation	Practical	3	4
						20
3	20P3DGAP09	3-1	3D Animation	Practical	5	4
	20P3DGAP10	3-2	Compositing	Practical	4	4
	20P3DGAP11	3-3	Editing	Practical	3	4
	20P3DGAP12	3-4	Post Production	Practical	3	4
	20P3DGAPJ1	3-5	Research Methodologies	Project	5	4
						20
4	20P4DGAPJ2	4-1	2D Digital Animation Project	Project	5	5
	20P4DGAPJ3	4-2	3D Animation Project	Project	5	5
	20P4DGAPJ4	4-3	Port folio	Project	5	5
	20P4DGAIN1	4-4	Internship	OJT		3
	20P2DGACV1	4-5	Comprehensive Viva-voce	Viva-voce		2
						20
Total Credits						80

SYLLABUS

20P1DGAT01: HISTORY OF ANIMATION

COURSE OUTCOMES

- Integrate the concepts, principles and theories involved in the physics of animation in all aspects of drawing.
- To understand the different animation companies around the world and the styles of animation
- To evaluate and understand the aesthetics of wide range of animation movies
- Provides an overview of the evolution of animation, and how animation came into existence
- The process of animation techniques developed with various equipment and how the process was performed
- To understand the pioneers and the efforts that took place in the field of animation

Module 1

A Brief Pre-History – Phenakistoscope, Praxinoscope, Kinetoscope, Zoetrope, Thaumatrope, Early comic strips. Pioneers in animation - Winsor McCay, Otto Messmer, Max Fleischer, Walt Disney, John Bray. Use of Cels, Peg System.

Module 2

Study on the films related to American computer animation studios - The Disney Studios.

Module 3

Short Study on the films related to European & Canadian computer animation studios. Experimental animations from the National Film Board of Canada.

Module 4

Japanese Animation, Character Study-Manga, Movies, Pioneers of Japanese Animation and Studios.

Module 5

History on the origin of Computer graphics. Overview on the recording techniques and animation hardware. Analysis on the new age of computer technology in the field of Animation

References:

1. Leonard Maltin (1980) *Of Mice and Magic: A History of American Animated Cartoons*, - Plume.
2. Jonathan Clements & Helen McCarthy (2007), *The Anime Encyclopedia: A Guide to Japanese Animation Since 1917*, Titan Books Ltd.
3. Charles Solomon(1989), *Enchanted Drawings: The History of Animation*, Knopf.
4. Terrence Masson (1999), *CG 101: A Computer Graphics Industry Reference*, New Riders Press; 1 edition.
5. Tom Sito (2015), *Moving Innovation: A History of Computer Animation* , The MIT Press.
6. Christopher Finch (2013), *The CG Story: Computer-Generated Animation and Special Effects* , The Monacelli Press.
7. Garth Gardner PhD (2002), *Computer Graphics and Animation: History, Careers, Expert Advice* Garth Gardner Company.

20P1DGAP01: CONCEPT, LAYOUT & STORYBOARDING

COURSE OUTCOMES

- Understanding animation Pre-production
- Creating concepts
- Understanding and writing Scripts
- Designing story characters
- Creation of storyboard layouts
- Creation of Animatics

Module 1

Techniques of Animation – Different Types of Animation - Workflows of Different Types of Animation - Preproduction, Production and Post-Production Stages - Types of Animation - Experimental Animations.

Module 2

Developing Idea/ Concept - Story - Basic Elements of a Story – Types of Stories - Creating Story Ideas - Sources of Story Line - Adaption - Character Roles - Characterization– Dialogues – Basic Structure Of A Story – Old and Modern Structures – Concept of Acts –Theme – Subplots – Tone – Genre - Writing for Different Types and Groups of Audience – Animation Script - Animation Script Vs. Live Action Movie Script – Shot – Scene – Sequence – Screenplay Format – Elements of Screenplay Format – Montage.

Module 3

Character Designing - Features of a Character – Types/Kinds of Characters – Designing Props and Assets of Character – Creating Turn-around / Character Model Sheets – Blueprints - Character Size Comparison Charts – Character Attitude Poses

Module 4

Story Board - Definition - Importance of Story Boarding - Different Types of Story Boards - Story Board Formats - Elements of Storyboarding (Design, Colour, Light and Shadow, Perspective, Staging, Composition Rules) - Concept of Panels and Its Usages- Floor Plans - Storyboarding Movements - Illustrating Camera Techniques in a Story Board - Visual Continuity – Transitions - Digital Storyboarding.

Module 5

Introduction to the creation of Animatic – Scanning Storyboard panels and synchronizing it with the sound tracks.

References:

1. Christy Marx, *Writing for Animation, Comics and Games*.
2. Jean Ann Wright, *Animation Writing and Development: From Script Development to Pitch*.
3. Christopher Hart, *How to Draw Animation - Learn the Art of Animation from Character Design to Storyboards and Layouts*.
4. John Hart , *The Art of the Storyboard - Storyboarding for Film, TV, and Animation*
5. Jeffrey Scott, *How to Write for Animation*

6. Wendy Tumminello , *Exploring Storyboarding*

7. Don Bluth *Don Bluth's Art of Storyboard*:

20P1DGAP02: 2D DESIGN

COURSE OUTCOMES

- Develop the skill of quick drawing, Life Sketches with Line of Action
- Draw the dimensions for layout design
- Study of the Anatomy of Human Body
- Study of the Anatomy of Animals and Birds
- Analyse Characters according to the concept/story
- Creating Character Model sheet, Facial Expressions and Gestures

Module 1

Sketching and Loosening exercises - Drawing from: Observation, Memory and Imagination - Still-life Drawing – Use of Basic Shapes and Forms - Sketching Poses (Study of Live Models, Attitude, Gestures) – Quick Sketches – Thumbnail Sketches - Life Sketching (Line of Action, Stick Figures, Balance, Rhythm, Positive and Negative Spaces) – Line of action in Simple Rice Sack, Box Ball Cylinder Form - Silhouettes - Caricaturing Fundamentals – Exaggeration.

Module 2

Perspective Drawing: Horizon/Eye Level – Vanishing Points – Orthogonal Lines - One Point Perspective - Two Point Perspective - Three Point Perspective - Multi- Point Perspective - Overlapping and Intersection of Shapes in One Point, Two Point and Three Point Perspective Views - Foreshortening.

Module 3

Human Anatomy: Male and Female Anatomy – Body Structure, Proportion and Construction of Body Parts (Torso, Face, Eyes, Nose, Ears, Mouth, Hand, Feet Etc.) - Anatomy of Different Age Groups (Babies, Kids, Teens, Young Adults, Aged) – Basic Proportions – Basic Understanding of the Skeletal and Muscle System - Basic anatomy; format and composition Balance and movement; focus and edge; relation of figure to environment - Study of Poses – Human Forms in Perspective.

Module 4

Character Types: Realistic, Stylised/Semi-Realistic and Cartoony - Understanding Cartoon Characters: Cartoon Constructions – Character Development - Drawing from Basic Shapes – Proportion (Short Fat, Tall - Distortion of Proportions - Cartoon Character: Faces, Eyes, Mouths, Hairs, Nose, Hands, Feet - Expressions: Facial and Hand .

Module 5

Anatomy of Animals, Birds, Reptiles: Body Structure - Basic Forms, Proportion and Construction of Body Parts, Head, Legs, Tails - Use of Perspectives While Drawing Animals, Birds, Reptiles and Insects- Classic Cartoon Characters: Humans, Animals, Birds, Reptiles - Types of Construction: Cute, Screwball, Goofy, Heavy and Pugnacious - Fairy Tale Characters: Gnomes, Elves, Dwarfs, Hobbits and Witches.

References:

1. Preston Blair (1994), *Cartoon Animation (Collector's Series)* Walter Foster Publishing.
2. Richard Williams (2009), *Animator's Survival kit*, Faber; Main - Revised Edition.
3. Andrew Loomis (2011), *Drawing the Head and Hand*, Titan Books.
4. Victor Perard (2006), *Anatomy and Drawing*, New Enlarged Edition.
5. Joseph D'Amelio, *Perspective Drawing Hand Book*.

20P1DGAP03: 3D DESIGN

COURSE OUTCOMES

- Understand the basic concepts and techniques of 3D modeling and texturing
- Evaluate and grasp the 3D design for form and animation
- Create surfaces and lighting set-ups that strengthen the overall design
- Analyse the use of 3D cameras in the layout designs
- Explore the basic rendering techniques
- Create a strengthened foundation on 3D design

Module 1

Modeling using polygons and sub divisional surfaces.

Module 2

Basic Texturing, Projections, Maps, Materials, Shaders, Unwrapping, UV Texturing

Module 3

Basic lighting concepts, Interior, Exterior and Production lighting techniques.

Module 4

Introduction to 3D cameras and layouts.

Module 5

Basic Rendering techniques and passes

References:

1. Jeremy Birn (2000), *Digital Lighting and Rendering*, New Riders Press.
2. William Vaughan (2012), *Digital Modeling*, New Riders; 1 edition.
3. Lee Lanier (2006), *Advanced Maya Texturing and Lighting*; Sybex.
4. Adam Watkins (2012), *Getting Started in 3D with Maya*; 1 edition.

20P1DGAP04: FILM TECHNIQUES

COURSE OUTCOMES

- Use an understanding of film technique and photography as an art medium as a tool to analyze films
- Use reflective visual reading, composition, framing and speaking skills to recognize, develop and articulate personal standards, predispositions, and theories regarding film and critical responses to the film.
- Evaluate digital video projects/photographs, identify items for improvement, and implement changes.
- Develop communication skills through presentation of film themes and aesthetics in essays and in class discussions.
- To develop creativity and analytical skills in students by identifying the quality story in digital photography
- Develop an understanding of the industry as a whole by executing all components of development, pre-production, production and post-production planning

Module 1

Visual Grammar and Aesthetics of Frame Composition: Study of Camera angles and movements

Module 2

Methods and Techniques of Digital Imaging: Photography, ISO, Shutter speed

Module 3

Creating Visual arts, technology of imaging moving objects Cinematography

Module 4

Types, Methods, Design of Light and Art of Lighting, Changing trends in Film Lighting Setup

Module 5

Creating the visual space for Screen, Elements of film screen, Art Direction

References:

1. David Stump (2014), *Digital Cinematography: Fundamentals, Tools, Techniques, and Workflows*, Focal Press.
2. Michael Rabiger (2013), *Directing: Film Techniques and Aesthetics*, Focal Press; 5 edition.
3. David Landau (2014), *Lighting for Cinematography: A Practical Guide to the Art and Craft of Lighting for the Moving Image*, Continuum Publishing Corporation; Reprint edition.
4. Henry Horenstein (2011), *Digital Photography: A Basic Manual*, Little, Brown and Company; 1 edition.

20P2DGAT02: MEDIA ETHICS, LAWS AND EDUCATION

COURSE OUTCOMES

- Understand how Indian media laws and regulations compare with those of other nations
- Understand how media policies and regulations enable or constrain effective media environments
- Understand the obligations and rights of media practitioners in the execution of their duties
- Understand some of the problems and limitations of applying old media laws in new media environments
- Be able to appreciate the complex issues associated with media regulation
- Understand changing media landscapes and their possible legal implications.

Module 1

Ethics – Branches of Ethics, Media Ethics – Mass Media and the shape of the Human Moral Environment. Applied Ethics – Ethical issues in different media professions – Journalism, Cinema, Advertising, Photography, Graphic Design, Animation etc.- Overview of Codes and Regulations in India. Digital Media Ethics. Media ethics-print and broadcasting-code of Ethics for AIR and Doordarshan. Official Secret Act, 1923, Press Ombudsman.

Module 2

Media Education – Objectives and Skills – Key Concepts, Media Scenario: Present Trends – Different Starting points for Media Education – Media Impact in Society – Social and Psychological impacts

Module 3

Indian Constitution-Salient features, Fundamental Rights and Directive Principles. Freedom of Press & Parliamentary Privileges. Powers of President & Governor. Case studies with regard to Freedom of Speech & Expressions. Hierarchy of Courts, (Civil and Criminal), Cognizable & Non Cognizable cases, Anticipatory bail, Bailable & Non Bailable offences, defamation, sedition, types of writs.

Module 4

Press Legislations in India. The Press & Registration of Books Act of 1867. Drug & Magic Remedies (Objectionable Advertisement) Act of 1954 The Working Journalists and other Newspaper Employees (Conditions of Service & Miscellaneous Provisions) Act of 1955. Press Council Act of 1978- Cable Television Networks (Regulation) Act of 1995. Video and Audio piracy. Information Technology Bill. Cyber Laws-Censorship Guidelines-Press Accreditation Rules etc.

Module 5

The Cinematograph Act of 1952, Young persons (Harmful Publications) Act of 1956, Copyright Act. Of 1957, Contempt of Court Act, Consumer Protection Act. Right to Information Act 2005-Intellectual Property Right.

References:

- Rossi, Philip J. (1994) Mass Media and the Moral Imagination. Sheed & Ward, U.S.
- Srambickal, Jacob. Media Education in India.
- Pattyn, Bart (2001-12) Media Ethics. VS Verlag für Sozialwissenschaften,
- Christmas, Clifford (1997) Communication Ethics and Universal Values. SAGE Publications, Inc,
- Ess, Charles (2009) Digital Media Ethics. Polity; 1 edition.
- Andrew Belsey and Ruth Chadwick (1992). Ethical issues in journalism and mass media. London, New York: Routledge
- J. S Mudholkar (1975). Press Laws. Kolkata: Eastern Law House

- Ursula Smartt (2006). Media Law for Journalists. London, Thousand Oaks, New Delhi: Sage
- Bloy (2006). Media Law. London, Thousand Oaks, New Delhi: Sage
- Venkatlyer (2000). Mass Media Laws And Regulations In India. New Delhi: Bahri Sons (India Research Press)
- Monroe Edwin Price, Stefaan G. Verhulst (2001). Broadcasting Reform in India: Media Law from a Global Perspective. Oxford: Oxford University Press
- Peter Lunt, Sonia Livingstone (2011). Media Regulation: Governance and the Interests of Citizens and Consumers. London, Thousand Oaks, New Delhi: Sage
- B. Manna (2006). Mass Media And Related Laws In India. Kolkata: Academic Publishers
- Monroe E. Price, StefaanG.Verhulst, Libby Morgan (2013). Routledge Handbook of Media Law. London, New York: Routledge
- Kaye Stearman (2012). Freedom of Information. New York: The Rosen Publishing
- Chris Reed (2004). Internet Law: Text and Materials. New York, Melbourne, Cape Town: Cambridge

20P2DGAP05: OBJECT ANIMATION & PIXILATION

COURSE OUTCOMES

- To make a basic foundation in animation through Stop motion techniques.
- Demonstrate an understanding of movements of real life objects through frames.
- Understand the vast classifications related to Animation and Digital Filmmaking
- Shall be familiar with Industry standard stop motion techniques.
- Familiar with foundation topics such as Anatomical and Figure Drawing, Film Techniques etc.
- Become a team person who can complete their expertise at the best possible way.

Module 1

Introduction to animation techniques – drawn, cut-out and stop motion.

Module 2

Creating a cut-out animation

Module 3

Creating a flip book using drawings

Module 4

Creating a stop motion animation- pixilation/ sand /time lapse/ clay

Module 5

Exploring other methods in animation

References:

1. Preston Blair (1994), *Cartoon Animation (Collector's Series)* Walter Foster Publishing.
2. Richard Williams (2009), *Animator's Survival kit*, Faber; Main - Revised Edition.
3. Ollie Johnston and Frank Thomas (1995), *Disney Animation - The Illusion of Life*, Disney Editions; Rev Sub edition.
4. John Halas Harold Whitaker, Tom Sito (2009), *Timing for Animation*, Focal Press; 2 edition.

20P2DGAP06: TRADITIONAL ANIMATION

COURSE OUTCOMES

- Develop the skill of quick drawing, Draw Life Sketches with Line of Action
- Basics of Animation Principles
- Planning of Animation
- Gesture in Character Animation, Weight, Mass and Momentum in Animation
- Analysis of Two Legged Animation
- Analysis of four Legged Animation

Module 1

Introduction of the Animation Equipments: Line Tests (Cels/Sheets – Light Box – Peg Bar – Peg Holes –Field Charts – Camera [Studio Rostrum Camera]) – Introduction of the Basic Principles of Animation – Animation Methods: - Straight Ahead, Pose to Pose, Combination of Both.

Module 2

Animation Basics: - Planning an Animation: Timing – Slow-in/Slow-out - Line of Action – Path of Action – Key Drawings (Extremes and Breakdowns) – Maintaining Volume –Timing Ladder and Numbering of Animation Drawings – In Betweens – Clean-Up – Flipping Key Drawings - Using The Exposure Sheet (X Sheet) - Squash and Stretch: Anticipation – Action & Reaction - Wave Principle: Secondary Action – Follow through and overlapping action.

Module 3

Introduction to Acting – Pantomime - Acting Analysis – Acting Concepts – Actor vs. Animator – Discussion of the animation - Acting for Animators – Character Acting: Studies from movies - Motion Analysis - Basics of Animation Acting - Posing, Timing, and Staging - Voice Acting - Facial Expressions - Body Language.

Module 4

Pose, Anticipation, Delivery, Overshoot, Cushion and Settle in: - Gestures: Head, Hand and Shoulder - Surprise Reaction: Takes and Double Takes – Anticipation – Overlapping Actions.

Module 5

Animating Human Walk: Normal – Progressive, Cycle - Animating Character Run : Normal – Progressive, Cycle - Staging and Appeal, Exercises in fine-tuning animation – Movements Four Legged and Two Legged Animals.

References:

1. Ollie Johnston, Frank Thomas *The Illusion of Life: Disney Animation*
2. Richard Williams *The Animator's Survival Kit*
3. Harold Whitaker and John Halas *Timing for Animation*
4. Tony White *Animation from Pencils to Pixels: Classical Techniques for the Digital Animator*
5. Tony White *The Animator's Workbook: Step-By-Step Techniques of Drawn Animation*
6. Eadweard Muybridge *The Male and Female Figure in Motion*

20P2DGAP07: 3D ADVANCED STUDIES

COURSE OUTCOMES

- Understand about inverse kinematics and forward kinematics
- Evaluate the role of constraints to control the bones
- Analyse the method of Advance unwrapping and texture creation in Photoshop
- Explore the possibilities of Character Modeling
- Application of Animation principles using biped
- Evaluate the basic concept and application of Dynamics

Module 1

Creating realistic character models and conceptual models.

Module 2

Rigging, Creating bone setup, Controllers IK and FK connections.

Module 3

Skinning, fixing gizmo of influential area.

Module 4

Advanced Rigging Techniques- Biped, Quadraped and Robotic

Module 5

Dynamics and other simulations, Different Particle systems.

References:

1. Autodesk (2007), *The Art of Maya: An Introduction to 3D Computer Graphics 4th Edition*; Sybex; 4th edition.
2. Tina O'Hailey (2013), *Rig it Right! Maya Animation Rigging Concepts* (Computers and People) 1st Edition; Focal Press; 1 edition.
3. David Rodriguez (2013), *Animation Methods - Rigging Made Easy: Rig your first 3D Character in Maya*; CreateSpace Independent Publishing Platform.
4. Todd Palamar (2009), *Maya Studio Projects: Dynamics*; Sybex.

20P2DGAP08: CG FOUNDATION

COURSE OUTCOMES

- To set a foundation in computer generated imaging through Digital 2D graphical toolsets.
- Demonstrate an understanding of graphic design principles in applied practice.
- Understand the vast classifications related to Animation and Digital Filmmaking
- Shall be familiar with Industry standard graphic toolsets and plug-ins -Adobe Photoshop.
- Familiar with foundation topics such as Color Theory, Anatomical and Figure Drawing, Film Techniques etc.
- Become a team person who can complete their expertise at the best possible way.

Module 1

Introduction to raster images – Image resolution - RGB, CMYK Indexed colour modes and their applications, Basic drawing in Photoshop – Using airbrush, pencil, paint brush tools.

Module 2

Concept of layers in Photoshop – Transparency and blending modes – creative use of layers and blending modes.

Module 3

Using the selection tools, using the path tool to create selections – Type tools in Photoshop. Introduction – Bitmap Painting and Vector Drawing, colours, colour variability and gradients, file types, formats, resolution and size.

Module 4

Channels – using alpha channels to save selections – Colour correction in Photoshop – adjusting hue, saturation and value of images. Paint packages – Photoshop, painter. Selections and masks, custom brushes, working with layers.

Module 5

Creation of Textures for Unwrapping and Digital Painting

References:

1. Adobe Creative Team (2012), *Adobe Photoshop CS6 Classroom in a Book*, Adobe Press; 1 edition.
2. Ben Willmore & Dan Ablan (2009), *Adobe Photoshop CS Studio Techniques*, Adobe Press; 1 edition.
3. Adobe Creative Team (2012), *Adobe Illustrator Classroom in a Book*, Adobe Press; 1 edition.
4. Luanne Seymour Cohen (2004), *Adobe Illustrator CS Creative Studio*, Adobe Press.

20P3DGAP09: 3D ANIMATION

COURSE OUTCOMES

- Examine the role and developments of 3D arts in past and present cultures throughout the world.
- Better understanding on 3D art applications, aesthetic judgment, and to increase visualizing power and critical thinking skills.
- To strengthen the artistic background of a student to a cognizable level.
- Analyze the developments in the techniques of 3D Animation and its importance in Media and modern Architectural concept.
- Evaluate the impact of industrial revolution and its influence in the 3D graphics.
- Create new concepts and designs through advanced 3D Technology.

Module 1

Introduction to basic 3D animation

Module 2

Basic walk cycle, run cycle, Push/Pull, Jump

Module 3

Advanced Character Animation using Animation principles

Module 4

Advanced Facial Animation techniques

Module 5

Acting sequence, 2-character interaction scenes

References:

1. Keith Osborn (2015), *Cartoon Character Animation with Maya: Mastering the Art of Exaggerated Animation*; Fairchild Books.
2. Jason Osipa (2010), *Stop Staring: Facial Modeling and Animation Done Right* 3rd Edition; Sybex.
3. Jae-jin Choi (2004), *Maya Character Animation*, 2nd Edition.
4. Andy Beane (2012), *3D Animation Essentials* 1st Edition.

20P3DGAP10: COMPOSITING

COURSE OUTCOMES

- Students will be able to discover various Visual FX methods where they can perform their best.
- Build precision, control and fluency within VFX work environments.
- Demonstrate an understanding of compositing and color correction in applied practice.
- Shall be familiar with Industry Standard Compositing -VFX toolsets and plug-ins
- Shall be able to work and fulfill various visual effects requirements such as Rotoscope, Paint-Prep, Tracking etc.
- Become a team person who can complete their expertise at the best possible way
- Will be able to handle an entire VFX sequence of a project with 2D, 3D elements and real footages.

Module 1

Exploring the Transform Properties, Key framing. Interpolation Techniques Layer Compositing

Module 2

Masking, Rotoscoping and Painting FX

Module 3

Keying, Stabilizing & Tracking, Chroma key, Particles

Module 4

3D Compositing and FX, Audio Editing, Time Remapping

Module 5

Title Graphics and Using the Render Queue, Mixing

References:

1. Doug Kelly, *Digital Compositing In Depth: The Only Guide to Post Production for Visual Effects in Film*
2. Lee Lanier (2015), *Compositing Visual Effects in After Effects: Essential Techniques*, Focal Press.
3. Mark Christiansen (2013), *Adobe After Effects CC Visual Effects and Compositing Studio Techniques*, Adobe Press; 1 edition.
4. Jon Gress (2014), *Visual Effects and Compositing*, New Riders; 1 edition.,

20P3DGAP11: EDITING

COURSE OUTCOMES

- Understand video formats and principles.
- Better understand techniques editors use to construct stories.
- Apply professional style color correction.
- Evaluate and analyze working knowledge of non-linear editing software.
- Evaluate digital video projects, identify items for improvement, and implement changes.
- Edit and compress video for use in various delivery modes of digital media using standard digital video editing software.

Module 1

Basic Editing Terminologies, NLE editing

Module 2

Editing Principles

Module 3

Transitions, Effects, Contrast

Module 4

Exploring Time Controls and Audio, Parallelism, Symbolism

Module 5

Simultaneity, Leit motiff, Formats, Render and Export

References:

1. Sergei Eisenstein (1969), *Film Form And Film Sense* , Harcourt; Edition Unstated edition.
2. Robert M. Goodman (2002), *Patrick McGrath, Editing Digital Video : The Complete Creative and Technical Guide*, McGraw-Hill Education TAB; 1 edition.
3. Adobe Creative Team (2013), *Adobe Premiere Pro CC Classroom in a Book*, Adobe Press; 1 edition
4. Michael Hughes (2012) , *Digital Filmmaking for Beginners A Practical Guide to Video Production*, McGraw-Hill Education TAB; 1 edition.

20P3DGAP12: POST PRODUCTION

COURSE OUTCOMES

- Understand different post-production methods where they can perform their best.
- Create a project with a video output/portfolio showcasing various post-production expertise.
- Study and practice the foundations of filmmaking through various pre-production methods.
- Practice the filming with Cameras and different production requirements.
- Demonstrate an understanding of post-production principles in applied practice
- Create a portfolio of specializations under post-production.

OBJECTIVE

- Students develop a skill to combine CG and Live shots in order to create a Film scene, where both virtual characters are introduced along with real characters. They master in visual effects which is a process by which imagery is created and/or manipulated outside the context of a live action shot. Visual effects involve the integration of live-action footage and generated imagery to create environments which look realistic, but would be dangerous, expensive, impractical, or simply impossible to capture on film. They will be using Matte paintings and stills: digital or traditional paintings or photographs which serve as background plates for keyed and rotoscoped elements.

Project submission as per mentioned by Instructor

20P3DGAPJ1: RESEARCH METHODOLOGIES**COURSE OUTCOMES**

- Develop an understanding of design research.
- Understand and apply quantitative and qualitative research techniques
- Have adequate knowledge of measurement & scaling techniques as well as the quantitative data analysis.
- Have a basic awareness of data analysis and hypothesis testing procedures.
- Demonstrate knowledge of research processes (reading, evaluating, and developing)
- Perform literature reviews using print and online databases
- Identify, explain, compare and prepare the key elements of a research proposal/report.
- Understand and apply Research Methodology for various design research needs.

Module 1

Introduction to research: What and Why; Current issues with research and the need for a research methodology; Major facets of research. Introduction to RM – a research methodology-its main components, and examples to explain the components.

Module 2

Types of design research, determining type of research to be persuaded. Starting research: Clarification of requirements: Identifying research topics, carrying out literature search, consolidating the topic into research questions and hypotheses, and developing a research plan.

Module 3

Types of descriptive study; Processes for carrying out descriptive studies for Developing an understanding a facet of design and its influences; Introduction to associated descriptive study real-time and retrospective research methods for data collection such as protocol analysis, questionnaire surveys, interviews. Introduction to quantitative and qualitative data analysis methods.

Module 4

Types of prescriptive study; Processes for developing design support and associated Prescriptive study research methods; Types of support evaluation; Processes for evaluating a design support, and associated Evaluation study research methods; Types and structures of research documentation; Approaches and guidelines for documenting and reporting research process and outcomes

Module 5

Project: Research Paper

References:

1. Blessing, L.T.M.(2009), and Chakrabarti, A. DRM, a Design Research Methodology, Springer.
2. Blessing,L.T.M.,andChakrabarti,A.DRM:ADesignResearchMethodology,in
3. International Conference on The Science of Design (2002) –The Scientific Challenge for the 21st Century, INSA, Lyon, France, 15-16,.
4. Blessing, L.T.M, Chakrabarti, A.(1995), and Wallace, K.M. A Design Research Methodology, Proceedings of the International Conf. in Engineering Design, Prague, Vol.1, pp50-55.
5. Blessing ,L.T.M.,Chakrabarti A.and Wallace (1998), K.M.An Overview of Design Studies in Relation to a Design Research Methodology, Designers: the Key to Successful Product Development, Frankenberger & Badke-Schaub (Eds.), Springer-Verlag.
6. Chakrabarti.A.(2009) A Course of Teaching DRM-a Methodology for Design Research, Special Issue on Design Pedagogy, Dan Frey, Bill Binmingham and Clive Dym (Eds.), AIEDAM,

20P4DGAPJ2: 2D DIGITAL ANIMATION PROJECT

COURSE OUTCOMES

- Understanding the Digital Animation Software
- Creating Dialogue Animation
- Creating Human Character Animation
- Creating Animal Character Animation
- Creating Special Effects
- Creating Digital Animation Film

Module 1

Basic Tools, Interface, Panels, Timeline, Tweening, Guide Layer, Masking, Symbols - Creating a Character in Symbols.

Module 2

Phonetics – Standard Mouth Shapes - Dialogue Animation – The Sound Track - Phrasing – Accents – Attitudes – Recoding of Dialogues and Voice-Over –Marking in X Sheets – Synchronizing Sound. - Dialogue Animation of Humanoid Characters.

Module 3

Human Characters – Animating Walks and Runs - Drop Jump – Jump - Mass and Weight - Animation of Four Legged and Two Legged Animals: Normal and Stylized Movements of animals | Bird Flight / Movements in Different Stages - Movements of Reptiles - Animating Insects and Fishes.

Module 4

Animating Special Effects: - Sky, Lightening, Rainfall, Snow, Water Drops, Water Ripples, Waves, Smokes, Fire, Explosions Etc.

Module 5

Project: Creation of a Classical 2D animation short animation film with sound synchronization.

References:

1. Barry Kelly, Tim Jones, David Wolfe, Allan Rosson (2007), *Foundation Flash Cartoon Animation*, Apress; 2007 edition.
2. Chris Jackson (2010), *Flash Cinematic Techniques: Enhancing Animated Shorts and Interactive Storytelling*, Focal Press; 1 edition.
3. Preston Blair (1994), *Cartoon Animation (Collector's Series)* Walter Foster Publishing.
4. Richard Williams (2009), *Animator's Survival kit*, Faber; Main - Revised Edition.

20P4DGAPJ3: 3D ANIMATION PROJECT (ANIMATION SHORT MOVIE)

COURSE OUTCOMES

- Preproduction: Creating Concept with Story, Script and Character Development.
- Preproduction: Developing Storyboard with Animatics
- Production: Character, Props, BG Modeling
- Production: Unwrapping and Texturing and Lighting
- Production: Rigging, Animation and Rendering.
- Post Production: Final Compositing Video with Audio

OBJECTIVES

- Students develop an innovative body of work making use of the skills and knowledge acquired during the previous courses. This guided project culminates in a final presentation accompanied by a written component.
- Working closely with the professor, students define specific production goals to explore or complete an animation project of their choosing. Emphasis is on the conceptual, aesthetic and technical processes. Students are encouraged to share their specific areas of expertise while producing individually directed projects.
- They will be experiencing the 3D Animation Film Production techniques which involves all three sectors, i.e., Pre-Production, Production and Post-Production.

20P4DGAPJ4: PORTFOLIO

COURSE OUTCOMES

- They get to showcase their ability as an artist in their discipline.
- Analyse and identify the current learning needs.
- Effective documentation of the planning, process and outcomes of a single course.
- Creation of a effective Blog or Site to reflect practice and professional development.
- Creation of Specialised Animation Styles, interactive elements and production techniques for a production oriented output.

OBJECTIVE

- They get to showcase their ability as an artist in their discipline. The employers want to know how skilled you are right now, and that's why when you have the opportunity to show them your talent, you better choose the works that show that talent wisely. It's easier to stand out for people with a portfolio because ostensibly the work you are showcasing is your own and no one else's.

20P4DGAIN1: INTERNSHIP

COURSE OUTCOMES

- Efficiently work on live projects in the industry.
- Interactive effectively with animation industry professionals and collaborate with other individuals and as members of a team
- Facing challenges in the industry with confidence
- Analyse and create animation designs for effective communication.

OBJECTIVE:

- To acquire practical industry based experience. Internship is on the job training to assimilate professionalism in one's career. The students will have to undergo an Internship at a T V Studio/Channel/Animation Studio for a fortnight during the fourth semester. The students would prepare individual reports after the Internship and the same should be attested by the organization under which the student did the internship. The students' comprehensive report will be submitted to the HOD for evaluation. A faculty member will monitor the students during the internship.

15P4DGACV1
COMPREHENSIVE VIVA-VOCE

COURSE OUTCOMES:

- To enable the students to review and evaluate the overall work done by the student in four Semesters of Programme

Presentation and evaluation of the overall work done by the student in four Semesters of MADGA through Viva-Voce.

Marks: 100

Method: Viva-Voce