Study & Evaluation Scheme

of

Bachelor of Science in Animation & Vfx

[Applicable for Batch 2021-24]

[As per CBCS guidelines given by UGC]

Approved in BOS	Approved in BOF	Approved in Academic Council
08/16/2021	08/20/2021	11/14/2021 Vide Agenda No. 6.5.3

Quantum University, Roorkee

22 KM Milestone, Dehradun-Roorkee Highway, Roorkee (Uttarakhand)

Website: www.quantumuniversity.edu.in

Study & Evaluation Scheme
Study Summary

Name of the Faculty	Faculty of Media Studies & Design
Name of the School	Quantum School of Media Studies & Design
Name of the Department	Department of Media Studies & Design
Program Name	Bachelor of Science in Animation & Vfx
Duration	3 Years
Medium	English

Structure of Question Paper (ESE Theory Paper)

The question paper will consist of 5 questions, one from each unit. Student has to Attempt all questions. All questions carry 20 marks each. Parts a) and b) of question Q1 to Q5 will be compulsory and each part carries 2 marks. Parts c), d) and e) of Q1 to Q5 Carry 8 marks each and the student may attempt any 2 parts.

Important Note:

1. *The purpose of examination should be to assess the Course Outcomes (CO) that will ultimately lead to attainment of Programme Outcomes (PO). A question paper must assess the following aspects of learning as planned for a specific course i.e Remember, Understand, Apply, Analyze, Evaluate & Create (reference to Bloom's Taxonomy). The standard of question paper will be based on mapped BL level complexity of the unit of the syllabus, which is the basis of CO attainment model adopted in the university.*

2.Case Study / Caselet is essential in every question paper (wherever it is being taught as a part of pedagogy) for evaluating higher-order learning. Not all the courses might have case teaching method used as pedagogy.

3. There shall be continuous evaluation of the student and there will be a provision of real time reporting on QUMS. All the assignments will be evaluated through module available on ERP for time and access management of the class.

Evaluation Scheme

Type of Papers	Internal Evaluation (%)	End Semester Evaluation(%)	Total(%)
Theory	40	60	100
Practical/ Dissertations/Project Report/ Viva-Voce	40	60	100
Internal Evaluation Components(Theory Papers)			
MidSemester Examination	60Marks		
Assignment–I	30Marks		
Assignment-II	30Marks		
Attendance	30Marks		
Internal Evaluation Components(Practical Papers)			

Quiz One	30Marks
Quiz Two	30Marks
Quiz Three	30Marks
Lab Records/Mini Project	30Marks
Attendance	30Marks
End Semester Evaluation (Practical Papers)	
ESE Quiz	40Marks
ESE Practical Examination(write-up)	20Marks
Viva-Voce	20Marks
Practical performance	20Marks

Structure of Question Paper (Theory Paper)

The question paper will consist of 5 questions, one from each unit. Student has to Attempt all questions. All questions carry 10 marks each. Parts a) and b) of question Q1 to Q5 will be compulsory and each part carries 2 marks. Parts c), d) and e) of Q1 to Q5 Carry 8 marks each and the student may attempt any 2 parts.

Important Note:

1. *The purpose of examination should be to assess the Course Outcomes (CO) that will ultimately lead to attainment of Programme Outcomes (PO). A question paper must assess the following aspects of learning as planned for a specific course i.e Remember, Understand, Apply, Analyze, Evaluate & Create (reference to Bloom's Taxonomy). The standard of question paper will be based on mapped BL level complexity of the unit of the syllabus, which is the basis of CO attainment model adopted in the university.*

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Program Structure – Bachelor of Science in Animation &VFX

Introduction

Bachelor of Science Animation & VFX syllabus is broad and multidisciplinary consists of various subjects, it focuses on creative art and animating the characters for transmission of messages in meaningful and effective way. It is designed for production of various character in virtual format

Bachelor of Science Animation & VFX syllabus are designed in such a way that students grasp all the knowledge related to animation and Visual effects and enhancing employability and entrepreneurial ability of the graduates the Quantum University increase the practical content in the courses wherever necessary. The total number of credit hours in 6 semesters including Student programme will range from 150 to 160 for all the programmes.

The students would be required to record their observations in field and media-industries on daily basis and will prepare their project report based on these observations.

Experiential Learning Programme (ELP)/ Hands On Training (HOT)

This program will be undertaken by the students preferably during the sixth semester for a total duration of 24 weeks with a weightage of 0+20 credit hours. The students will register for any of two modules, listed below, of 0+10 credit hours each.

- Animator
- Video editor
- Making of digital Short Film/Documentary
- Science of Video Editing
- Digital Media
- Content Development
- Voice over production
- Still Photography
- Graphics Designing
- Visual effects

Curriculum (21-24) Version 2021.01

Quantum School of Mass Media & Design

Bachelor of Science in Animation and VFXPC: 05-3-03

BREAKUP OF COURSE

Sr. No	CATEGORY	CREDITS
1	Foundation Core (FC)	4
2	Program Core (PC)	94
3	Program Electives (PE)	-
4	Open Electives (OE)	9
5	Project	12
6	Internship	-
7	Value Added Programs (VP)	12
8	General Proficiency (GP)	5
9	Passion Programs (PROPs)*	-
10	Disaster Management*	2*
	TOTAL NO. OF CREDITS (Without Minor)	136
	TOTAL NO. OF CREDITS (With Minor)	145

*Non-CGPA Audit Course

SEMESTER-WISE BREAKUP OF CREDITS

Sr.No	CATEGORY	SEM 1	SEM 2	SEM 3	SEM 4	SEM 5	SEM 6	TOTAL
1	Foundation Core	2	2	-	-	-	-	4
2	Program Core	17	15	14	15	19	14	94
3	Program Electives							
4	Open Electives		3	3	3			9
5	Projects	-	-	-	-	4	8	12
6	Internships	-	-	-	-	-		
5	VPs	2	2	2	2	2	2	12
6	GP	1	1	1	1	1	-	5
7	PROPs*							
10	Disaster Management*		2*					2*
	TOTAL CREDITS	**22**	**23**	**20**	**21**	**26**	**24**	**136**

* Non-CGP Audit Course

Minimum Credit Requirements:

B.Sc. Animation &VFX: 143 credits

SEMESTER 1

Course Code	Category	Course Title	L	T	P	C	Version	Course Prerequisite
JM3102	FC	General Studies& Current Affairs	2	0	0	2	1.0	Nil
AN3101	PC	Basic of Sketching and Drawings	2	0	4	4	1.0	Nil
GD3101	PC	Introduction to Graphic designing	4	0	0	4	1.0	Nil
AN3102	PC	Preproduction elements	4	0	0	4	1.0	Nil
AN3103	PC	Introduction of Digital Effects	3	0	0	3	1.0	Nil
JM3106	PC	Fundamental of Photography	0	0	4	2	1.0	Nil
VP3101	VP	Personality development program	0	0	4	2	1.0	Nil
GP3101	GP	General Proficiency	0	0	0	1	1.0	Nil
		TOTAL	**15**	**0**	**12**	**22**		

Contact hrs.: 27hrs.

SEMESTER 2

Course Code	Category	COURSE TITLE	L	T	P	C	Version	Course Prerequisite
CE3101	FC	Disaster Management*	2	0	0	2*	1.0	Nil
CY3205	FC	Environmental Studies	2	0	0	2	1.0	Nil
AN3201	PC	2d Digital Animation	2	0	4	4	1.0	Nil
AN3202	PC	Film Production	4	0	0	4	1.0	Nil
GD3202	PC	Advance Graphics Design for Animation	3	0	2	4	1.0	Nil
AN3203	PC	Introduction to classical animation	3	0	0	3	1.0	Nil
	OE	Open Elective I	3	0	0	3		
VP3215	VP	Audio Editing	0	0	4	2	1.0	Nil
GP3201	GP	General Proficiency	**0**	**0**	**0**	**1**	1.0	Nil
		TOTAL	**19**	**0**	**10**	**23**		

Contact hrs.: 29hrs.

SEMESTER 3

Course Code	Category	Course Title	L	T	P	C	Version	Course Prerequisite
AN3301	PC	3-D Modelling and 3-D Texturing	1	0	4	3	1.0	Nil
AN3302	PC	3-D Character Design	1	0	4	3	1.0	Nil
AN3303	PC	Print Media	2	0	0	2	1.0	Nil
AN3304	PC	Motion Graphics & Composite	1	0	4	3	1.0	Nil
AN3305	PC	Compositing for VFX	1	0	4	3	1.0	Nil
	OE	Open Elective II	3	0	0	3	1.0	Nil
VP3315	VP	Video Editing	0	0	4	2	1.0	Nil
GP3301	GP	General Proficiency	0	0	0	1	1.0	Nil
		TOTAL	**9**	**0**	**20**	**20**		

Contact hrs.:29hrs.

SEMESTER 4

Course Code	Category	COURSE TITLE	L	T	P	C	Version	Course Prerequisite
AN3401	PC	3D Architectural Visualization	2	0	4	4	1.0	Nil
AN3402	PC	3D Shading, Lighting and Rendering	1	0	4	3	1.0	Nil
AN3403	PC	Tracking and Match Moving	0	0	4	2	1.0	Nil
JM3403	PC	Cinematography	3	0	0	3	1.0	Nil
AN3404	PC	FX & Simulation	1	0	4	3	1.0	Nil
	OE	Open Elective III	3	0	0	3	1.0	Nil
VP3414	VP	Clay Modeling and Sculptures	0	0	4	2	1.0	Nil
GP3401	GP	General Proficiency	0	0	0	1	1.0	Nil
		TOTAL	**10**	**0**	**20**	**21**		

Contact hrs.: 30hrs.

All students are required to undergo 04 to 06 weeks' summer project after completion of 4th semester. Performance of this project will be evaluated and awarded in 5th semester.

SEMESTER 5

Course Code	Category	Course Title	L	T	P	C	Version	Course Prerequisite
AN3502	PC	3D Animation	2	0	4	4	1.0	Nil
AN3503	PC	Computer Aided 3D Dynamics	1	0	4	3	1.0	Nil
AN3504	PC	Computer Aided 3D Rigging	2	0	2	3	1.0	Nil
AN3505	PC	Voice Over & Sound Design	1	0	4	3	1.0	Nil
AN3506	PC	Lighting & Rendering for VFX	1	0	4	3	1.0	Nil
AN3507	PC	2D Game Art	1	0	4	3	1.0	Nil
VP3514	VP	Aesthetics in Design	1	0	2	2	1.0	Nil
AN3570	PT	Film Pre-Production (Summer project)	0	0	8	4	1.0	Nil
GP3501	GP	General Proficiency	0	0	0	1	1.0	Nil
		TOTAL	**9**	**0**	**32**	**26**		

Contact hrs.: 41hrs.

SEMESTER 6

Course Code	Category	COURSE TITLE	L	T	P	C	Version	Course Prerequisite
AN3601	PC	Advance Rigging	2	0	2	3	1.0	Nil
AN3602	PC	Character Animation	2	0	4	4	1.0	Nil
AN3604	PC	Facial & Lips Synchronization	1	0	4	3	1.0	Nil
AN3605	PC	Game Design & Development	1	0	6	4	1.0	Nil
VP3614	VP	Experimental Printing	0	0	4	2	1.0	Nil
AN3670	PT	Major Project	0	0	16	8	1.0	Nil
		TOTAL	**6**	**0**	**36**	**24**		

Contact hrs.: 42hrs.

B. Choice Based Credit System (CBCS)
Choice Based Credit System (CBCS) is a versatile and flexible option for each student to achieve his target number of credits as specified by the UGC and adopted by our university.
The following is the course module designed for the B..Com program with specialization Honors and Banking and Insurance.
Core competency: Students will acquire core competency in Commerce and Finance and its allied areas.
Program/Discipline Specific Elective Course (DSEC):

Skilled communicator: The course curriculum incorporates basics and advanced training in order to make a graduate student capable of expressing the subject through technical writing as well as through oral presentation.

Critical thinker and problem solver: The course curriculum also includes components that can be helpful to graduate students to develop critical thinking ability by way of solving problems/numerical using basic & advance knowledge and concepts of Commerce and Finance

Sense of inquiry: It is expected that the course curriculum will develop an inquisitive characteristic among the students through appropriate questions, planning and reporting experimental investigation.

Skilled project manager: The course curriculum has been designed in such a manner as to enabling a graduate student to become a skilled project manager by acquiring knowledge about mathematical project management, writing, planning, study of ethical standards and rules and regulations pertaining to business and trade related projects operation.
Ethical awareness/reasoning: A graduate student requires understanding and developing ethical awareness/reasoning which the course curriculums adequately provide.

Lifelong learner: The course curriculum is designed to inculcate a habit of learning continuously through use of advanced ICT technique and other available techniques/books/journals for personal academic growth as well as for increasing employability opportunity.

Value Added Course (VAC): A value added audit course is a non-credit course which is basically meant to enhance general ability of students in areas like soft skills, quantitative aptitude and reasoning ability - required for the overall development of a student and at the same time crucial for industry/corporate demands and requirements. The student possessing these skills will definitely develop acumen to perform well during the recruitment process of any premier organization and will have the desired confidence to face the interview. Moreover, these skills are also essential in day-to-day life of the corporate world. The aim is to nurture every student for making effective communication, developing aptitude and a general reasoning ability for a better performance, as desired in corporate world. There shall be four courses of Aptitude in Semester I, II, III & IV semesters and two courses of Soft Skills in III & IV Semesters and will carry no credit, however, it will be compulsory for every student to pass these courses with minimum 50% marks to be eligible for the certificate. These marks will not be included in the calculation of CGPI. Students have to specifically be registered in the specific course of the respective semesters.

Skill Enhancement Course: This course may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge.

Generic/Open Elective Course (OE): Open Elective is an interdisciplinary additional subject that is compulsory in a program. The score of Open Elective is counted in the overall aggregate marks

under Choice Based Credit System (CBCS). Each Open Elective paper will be of 3 Credits in II, III and IV semesters. Each student has to take Open/Generic Electives from department other than the parent department. Core / Discipline Specific Electives will not be offered as Open Electives.

Non-Credit CGPA : This is a compulsory non credit CGPA course hat does not have any choice and will be of 3 credits. Each student of B.Com Program has to compulsorily pass the Environmental Studies and Disaster Management.

C. Program OutcomesofB.Sc. Animation & VFX program:

PO-01	Create Computer Graphics assets creation, Visual Effects, 3D and Graphic Design.
PO-02	Create a complex project to finish with smoothly in a result-oriented manner both individually and as a team.
PO-03	Demonstrate, communicate ideas, emotion and intent effectively in visual, oral and written forms.
PO-04	Apply thoughtful contributors to society.
PO-05	Analyze learning cycle, and become effective and efficient industry leaders with the quality of entrepreneurship.
PO-06	Evaluate the work collaboratively and effectively in diverse situations.
PO-07	Highly trained to demonstrate their knowledge, skill, dedication and work ethics required to be a successful member of a production team
PO-08	Demonstrate the industrial requirements.
PO-09	Demonstrate their acquired knowledge for the growth of social and ethical values in outdoor activities, such as service learning, internships and field work.
PO-10	Define the content for mentor the staff placed under them to produce desired results.

D. Program Specific Outcomes:

PSO-1	To create competence in the fields of Computer Graphics assets creation, Visual Effects,3D animation and Graphic designing.
PSO-2	re multiple skills that will enhance their employability in different nimation, 3D and Entertainment industry
PSO-3	e ongoing changing trends and keep them updated with the latest technology.
PSO-4	Understand the ongoing changing trends and keep them updated with the latest technology.
PSO-5	Inculcate adequate knowledge, skill, dedication and work ethics required for accomplishment of the assigned task. .

E. Program Educational Objectives (PEO's)

PEO-1	**B.Sc. Animation, VFX & 3D:** After completing graduation students will be equipped with creative and technical skills in various domains of Animation, 3D, VFX and multimedia. This will enable them to be employed globally.
PEO-2	**Animation**: This specialization offered to the students will enhance their knowledge in the field 3D Animation. Students will become an expert in specific domain of 3d Animation and will work in Films, Games and other animation related fields.

PEO-3	**Graphic Design**: This specialization offered to the students will enhance their knowledge in the field of 2D Animation & Graphic Design. Students will achieve expertise in the specific domain of Graphics Design, 2D animation and will be able to work in Films, Graphic design Companies and other animation related fields.

F. Pedagogy & Unique practices adopted:

"Pedagogy is the method and practice of teaching, especially for teaching an academic subject or theoretical concept". In addition to conventional time-tested lecture method, the institute will emphasize on experiential learning:

Role Play & Simulation: Role- play and simulation are forms of experiential learning. Learners take on different roles, assuming a profile of a character or personality, and interact and participate in diverse and complex learning settings. Role-play and simulation function as learning tools for teams and groups or individuals as they "play" online or face-to-face. They alter the power ratios in teaching and learning relationships between students and educators, as students learn through their explorations and the viewpoints of the character or personality they are articulating in the environment. This student-centered space can enable learner-oriented assessment, where the design of the task is created for active student learning. Therefore, role-play& simulation exercises such as virtual share trading, marketing simulation etc. are being promoted for the practical-based experiential learning of our students.

Video Based Learning (VBL)&Learning through Movies (LTM): These days technology has taken a front seat and classrooms are well equipped with equipment and gadgets. Video-based learning has become an indispensable part of learning. Similarly, students can learn various concepts through movies. In fact, many teachers give examples from movies during their discourses. Making students learn few important theoretical concepts through VBL & LTM is a good idea and method. The learning becomes really interesting and easy as videos add life to concepts and make the learning engaging and effective. Therefore, our institute is promoting VBL& LTM, wherever possible.

Field/Live Projects: The students, who take up experiential projects in companies, where senior executives with a stake in teaching guide them, drive the learning. All students are encouraged to do some live project other their regular classes.

Industrial Visits: Industrial visit are essential to give students hand-on exposure and experience of how things and processes work in industries. Our institute organizes such visits to enhance students' exposure to practical learning and work out for a report of such a visit relating to their specific topic, course or even domain.

MOOCs: Students may earn credits by passing MOOCs as decided by the college. Graduate level programs may award Honors degree provided students earn pre-requisite credits through MOOCs. University allows students to undertake additional subjects/course(s) (In-house offered by the university through collaborative efforts or courses in the open domain by various internationally recognized universities) and to earn additional credits on successful completion of the same. Each course will be approved in advance by the University following the standard procedure of approval and will be granted credits as per the approval. Keeping this in mind, University proposed and allowed a maximum of two credits to be allocated for each MOOC courses. In the pilot phase it is proposed that a student undertaking and successfully completing a MOOC course through only NPTEL could be given 2 credits for each MOOC course.

For smooth functioning and monitoring of the scheme the following shall be the guidelines forMOOC courses, Add-on courses carried out by the College from time to time.

a) It will necessary for every student to take at least one MOOC Course throughout the programme.

b) There shall be a MOOC co-ordination committee in the College with a faculty at the level ofProfessor heading the committee and all Heads of the Department being members of theCommittee.

c) The Committee will list out courses to be offered during the semester, which could be requested by the department or the students and after deliberating on all courses finalize a list of courses to be offered with 2 creditsdefined for each course and the mode of credit consideration of the student. The complete process shall be obtained by the College before end of June and end of December for Odd and Even semester respectively of the year in which the course is being offered. In case of MOOC course, the approval will be valid only for the semester on offer.

d) Students will register for the course and the details of the students enrolling under the coursealong with the approval of the Vice Chancellor will be forwarded to the Examination department within fifteen days of start of the semester by the Coordinator MOOC through the Principal of the College.

e) After completion of MOOC course, Student will submit the photo copy of Completioncertificate of MOOC Course to the Examination cell as proof.

f) Marks will be considered which is mentioned on Completion certificate of MOOC Course.

g) College will consider the credits only in case a student fails to secure minimum required credits then the additional subject(s) shall be counted for calculating the minimum credits required for the award of degree.

Special Guest Lectures (SGL) &Extra Mural Lectures (EML): Some topics/concepts need extra attention and efforts as they either may be high in difficulty level or requires experts from specific industry/domain to make things/concepts clear for a better understanding from the perspective of the industry. Hence, to cater to the present needs of industry we organize such lectures, as part of lecture-series and invite prominent personalities from academia and industry from time to time to deliver their vital inputs and insights.
Student Development Programs (SDP): Harnessing and developing the right talent for the right industry an overall development of a student is required. Apart from the curriculum teaching various student development programs (training programs) relating to soft skills, interview skills, SAP, Advanced excel training etc. that may be required as per the need of the student and industry trends, are conducted across the whole program. Participation in such programs is solicited through volunteering and consensus.

Industry Focused programmes: Establishing collaborations with various industry partners to deliver the programme on sharing basis. The specific courses are to be delivered by industry experts to provide practice-based insight to the students.

Special assistance program for slow learners & fast learners: write the note how would you identify slow learners, develop the mechanism to correcting knowledge gap. Terms of advance topics what learning challenging it will be provided to the fast learners.

Induction program: Every year 3 weeks induction program is organized for 1st year students and senior students to make them familiarize with the entire academic environment of university including Curriculum, Classrooms, Labs, Faculty/ Staff members, Academic calendar and various activities.

Mentoring scheme: There is Mentor-Mentee system. One mentor lecture is provided per week in a class. Students can discuss their problems with mentor who is necessarily a teaching faculty. In this way, student's problems or issues can be identified and resolved.

Competitive exam preparation: Students are provided with one class in every week for GATE/ Competitive exams preparation.

Extra-curricular Activities: organizing& participation in extracurricular activities will be mandatory to help students develop confidence & face audience boldly. It brings out their leadership qualities along with planning & organizing skills. Students undertake various cultural, sports and other competitive activities within and outside then campus. This helps them build their wholesome personality.

Career & Personal Counseling: - Identifies the problem of student as early as possible and gives time to discuss their problems individually as well as with the parents. Counseling enables the students to focus on behavior and feelings with a goal to facilitate positive change.Its major role lies in giving: Advice, Help, Support, Tips, Assistance, and Guidance.

Participation in Flip Classes, Project based Learning(A2 Assignment), Workshops, Seminars & writing & Presenting Papers: Departments plan to organize the Flip Classes, Project based Learning(A2 Assignment), workshops, Seminars & Guest lecturers time to time on their respective topics as per academic calendar. Students must have to attend these programs. This participation would be count in the marks of general Discipline & General Proficiency which is the part of course scheme as non-credit course.

Formation of Student Clubs, Membership & Organizing & Participating events: Every department has the departmental clubs with the specific club's name. The entire student's activity would be performed by the club. One faculty would be the coordinator of the student clubs & students would be the members with different responsibility.

Capability Enhancement & Development Schemes: The Institute has these schemes to enhance the capability and holistic development of the students. Following measures/ initiatives are taken up from time to time for the same: Career Counseling, Soft skill development, Remedial Coaching, Bridge Course, Language Lab, Yoga and Meditation, Personal Counseling

*Library Visit & Utilization of QLRC:*Studentsmay visit the library from morning10 AM to evening 8 PM. Library created its resources Database and provided Online Public Access Catalogue (OPAC) through which users can be accessed from any of the computer connected in the LAN can know the status of the book. Now we are in process to move from OPAC to KOHA.

Detailed Syllabus (Semester wise /course wise)

JM3102	Title: General Studies & Current Affairs	L T P C 2 0 0 2
Version No.	1.1	
Course Prerequisites	Nil	
Objectives	This course intends to give basic general knowledge about Indian political system, economy,geography, and culture, and current affairs (national and international) which is essential and beneficialfor a budding journalist.	
Expected Outcome	On completion of this course students should be able to know our political system, our culture and all current national and international issues.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Indian Political System	6
Brief knowledge of the Constitution of India, Centre and its powers, Fundamental rights, President, Vice President, Prime Minister, Election Commission, Parliament houses-Upper House and Lower House , Panchayati Raj, Socio-economic and Political scenario of India.		
Unit II	Indian Economy	8
National Income, GDP & GNP, agriculture, industry and commerce, Budget and its terminology, Economy post COVID 19, World Bank		
Unit III	Indian Geography and Culture	6
States, Rivers and Dams, Agriculture, Forest reserves, Indian demography, Unity in diversity in India: religions, fairs and festivals, dances, languages.		
Unit IV	Indian Constitution & Panel Code	6
Basic of CRPCc& IPC, Article 370, Defamation, CAA and NRC		
Unit V Current Affairs		
Awareness about current regional, national & international issues and events 12		
Text Books	1. Daily News Paper. 2. Competition Success Review (Monthly)	
Reference Books	1.Pratiyogita Darpan (Monthly) 2.Competition Wizard (Monthly) 3. National and Regional Newspaper, (Times of India, Hindustan Times, The Hindu, Indian 4. Express,Garhwal Post, The Economic Times) 5.Magazines (India Today, Frontline, Outlook, and Yojana) Manorama Year Book; MalayaliManorama	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForJM3102

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Students will be able to aware with current scenario of society.	2	Emp
CO2	Students will be understand the contemporary issue and able to related the things	2	S
CO3	Students will be able to develop the opinion and create the new thought about it	2	S
CO4	Students will be able to collect lot of information.	3	Ent
CO5	Students will be able to inculcate the new perception about current scenario.	5	None

CO-PO Mapping for JM3102

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO4	PO 5	PO 6	PO7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	1	1	1	1	1	1	1	1	0	0	2	1	2	2	0
CO 2	1	0	0	0	1	0	2	0	0	0	1	0	2	3	3
CO 3	0	2	3	0	1	1	2	0	0	0	1	0	1	3	3
CO 4	2	0	1	0	0	1	0	0	0	0	0	0	3	3	3
CO 5	3	0	2	0	2	2	2	0	0	0	3	1	3	3	2
Avg	1.4	0.6	1.4	0.25	1	1	1.25	0.2	0	0	1.4	0.4	2.2	2.8	2.2

AN3101	Title: Basic of Sketching and Drawing	L T P C 2 0 4 4
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	This course is design to familiarize our students all the basics of Sketching and Drawing.	
Expected Outcome	On completion of the course students should be able to: undesratnd the strokes of sketch	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Writing with Strokes	10
Lines in different grades o pencils HB +0.8b,Shading in pencil medium,Shading, shading in different angles of pencil strokes warms exercises, paper division, understanding basic geometric shapes.		
Unit II	Textures and Shapes	10
Formatting in different textures in pencil,Simple objects in drawing,Simple shapes of geometrical shapes, understanding different texture pencil shades.		
Unit III	About Landscape	9
Paper division & forming of sky land, stones ,deserts,Trees & plants, roadsides, riversPerspective in lines in landscapes, shading techniques for outdoor lighting.		
Unit IV	Figure drawing & Character design	8
Different head shapes,Characters, character variations. Human anatomy parts like hand, legs, arms, eyes, drawing human anatomy parts, drawing quick sketches, gesture drawings.		
Unit V	Sketching for Visuals	10
Make a sketch for a commercial, sketching for short film poster, Sketching for Building		
Text Books	Drawing for the Absolute Beginner	
Reference Books	Figure drawing made easy (by Adityachari) Anatomy and drawing (by vector parad)	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3101

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Students should be able to Implement the basics Drawing.	1	Emp
CO2	Students should be able to describe all types of pencils, life drawing, and environment study.	4	S
CO3	Students must be able to differentiate all different human poses, and drawing lines.	1	Ent
CO4	Students must be able to Describe the rules of animation, warm up exercise, imagination and memory drawing.	2	Ent
CO5	Students must be able to understand how to operate different traditional techniques of drawing different human anatomy parts.	6	S

CO-PO Mapping for AN3101

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	0	2	1	3	1	3	3	2	3	3	2	3
CO 3	0	2	2	0	2	1	2	1		2	0	0	2	3	1
CO 4	1	1	3	2	2	3	2	2	2	1	2	2	3	1	0
CO 5	3	1	1	3	1	3	2	3	1	1	3	2	0	2	2
Avg	1.8	1.8	2.2	1.4	2	2	2	1.8	2	2	2	2	2	2	1.6

GD3101	Title: Introduction of Graphic designing	L T P C 4 0 0 4
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	The aim of this syllabus is to know our students about digital graphic designing.	
Expected Outcome	On completion of the course students should be able to : design different designing elements.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Design & Graphics	8
Basics of Sketching & Drawing, Elements and principles of design, Introduction to graphic elements.understanding of vector and raster graphics, pixels.		
Unit II	Tools	9
Introduction to interface, software workspace, tools and techniques; understanding symbols and layers, create some graphics using lines, libraries, pen tool brush tool, erazer tool.customizing default workspace.		
Unit III	Visual Art	10
Create visiting card on corel draw, design greeting card on photoshop, design kid's magazine on photoshop , photo manipulation, design a brochure on corel draw.understanding colors and its visual meaning.		
Unit IV	Creating digital characters	10
Design imaginery characters, creating character description, creating supporting characters.		
Unit V	Introduction to digital environment	10
Creating digital background painting, imagine the environment concept, create the sypnosis, colour the objects and props. create different landscape natural elements like stones, rock, grasslands etc.		
Text Books	Designing Brand Identity	
Reference Books	Photoshop CS6 in simple steps (by Kogent learning solutions Inc. -dream tech press)	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForGD3101

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the basic of concept of sketching and drawing.	1	Emp
CO2	Understand the tools and techniques, basic of interface and workspace	2	S
CO3	Create the visual art on various software's like Photoshop and coral draw.	1	S
CO4	Create the imaginary characters and their description for sketching and drawing.	2	Ent
CO5	Understand the basic concepts of digital painting and digital art.	3	Emp

CO-PO Mapping for GD3101

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes				Program Educational Outcomes
	PO 1	PO 2	PO 3	PO4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	0	2	1	3	1	3	3	2	3	3	2	3
CO 3	0	2	2	0	2	1	2	1		2	0	0	2	3	1
CO 4	1	1	3	2	2	3	2	2	2	1	2	2	3	1	0
CO 5	3	1	1	3	1	3	2	3	1	1	3	2	0	2	2
Avg	1.8	1.8	2.2	1.4	2	2	2	1.8	2	2	2	2	2	2	1.6

AN3102	Title: Preproduction elements	L T P C 4 0 0 4
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	The aim of this course is to introduce our students with all the basics of Preproduction.	
Expected Outcome	Student should know about pre production skills	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Basic cinematic techniques	11
Introduction to Film, camera angles, movements, transitions, zoom in zoom out, Pan, Dolly shot, tilt shot. importance of storyboarding.		
Unit II	Composition techniques	9
Camera height, 180 degree rule, rule of third, birds eye view, Staging, Interior and exterior framing. different types of shots, understanding editing.		
Unit III	Techniques of Perspective	10
One point, two point, three point perspective, POV shot, POV projectile, dynamic angles, low angle and high angle shots, human form in perspective. human form in perspective, drawing different archetectural designs.		
Unit IV	Editing Techniques	10
Cut to next shot, cut zoom in, cut zoom out, reveal frame, camera snap, photo to scene, montage sequence, cross cut, impact flash.understand time lapse.		
Unit V	Elements of storyboarding	9
Staging, layout, transitions, storyboard notations: BG, CS, ECS, MS, MCS, LS, WS, EWS, dialogue, action, frames, camera movement arrows, creating storyboard for a story.		
Text Books	The Ultimate Pre Production Checklist for Film & Video	
Reference Books	The art of layout and storyboarding (by Mark t byrne). Prepare to board! (by Nancy Beiman)	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3102

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Students will able to Understand the process of film making and script writing.	2	Emp
CO2	Students will be able to Create the imaginary characters and layout for programs	2	S
CO3	Students will able to Relate with the visual and technical requirements of production	6	S
CO4	Students will able to Understand the process of audio recording and voice over techniques	6	Ent
CO5	Students will able to describe the multiple characters and their description	2	None

CO-PO Mapping for AN3102

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)											Program Specific Outcomes		Program Educational Outcomes	
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	0	2	1	3	1	3	3	2	3	3	2	3
CO 3	0	2	2	0	2	1	2	1		2	0	0	2	3	1
CO 4	1	1	3	2	2	3	2	2	2	1	2	2	3	1	0
CO 5	3	1	1	3	1	3	2	3	1	1	3	2	0	2	2
Avg	1.8	1.8	2.2	1.4	2	2	2	1.8	2	2	2	2	2	2	1.6

AN3103	Title: Introduction of digital effects	L T P C 3 0 0 3

Version No.	**1.1**	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the Role of Digital effects.	
Expected Outcome	On completion of the course students should he able to: Develop understanding of different vfx styles, use of effects in user interface, basic software knowledge to accomplish the perticular effects.	
Unit No.	**Unit Title**	**No. of hours (per Unit)**
Unit I	**Definition of Digital effects**	5
Definition & Meaning of Digital Effects, Use of effects in Animation, VFX and UI.		
Unit II	**Effects use Digitally**	8
Meaning & concept of VFX, Role of Major VFX films, their Directors and VFX Breakdowns. Major digital artworks. Different VFX types and techniques.		
Unit III	**Digital Formats**	9
Major Digital formats: 1) Image ratios and implications 2) Combining footage from different sources – defining layers and settings in illustrator 3) Effects for UI		
Unit IV	**Common VFX**	7
Most common Visual Effects for Animation with famous examples: a. Keying – Chroma, Lighting etc. b. Color Correction c. Miniatures d. Stop Motion e. Animatronics		
Unit V	**Software for Digital Effects**	6
Introduction of software and its working: illustrator and after effects. role of VFX software's and job availability for VFX artist.		
Text Books	1. The filmmakers guide to visual effects by EranDinur	
Reference Books	1. The filmmakers guide to visual effects by EranDinur 2. **Illustration Now!**, Volume 2 by JuliusWiedemann	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3103

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the meaning of Digital effects, effects in Animation & VFX.	1	Emp
CO2	Understand the meaning of Digital effects, effects in Animation & VFX.	2	S
CO3	Create the vector art forms, Create different art works in Photoshop. The student will also be able to make a newcomer understand the basics much proficiently.	1	S
CO4	Understand the color theory in Photoshop software.	2	Ent
CO5	Student should able to understand about the combination of lights and use of diffusers and reflectors	2	Emp

CO-PO Mapping for AN3103

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	0	2	1	3	1	3	3	2	3	3	2	3
CO 3	0	2	2	0	2	1	2	1		2	0	0	2	3	1
CO 4	1	1	3	2	2	3	2	2	2	1	2	2	3	1	0
CO 5	3	1	1	3	1	3	2	3	1	1	3	2	0	2	2
Avg	1.8	1.8	2.2	1.4	2	2	2	1.8	2	2	2	2	2	2	1.6

JM3106	Title: Fundamentals of Photography	L T P C 0 0 4 2
Version No.	1.1	
Course Prerequisites	Nil	
Objectives	The aim of this course to provide knowledge about the Photography and photo editing for a professional.	
Expected Outcome	On completion of the course student should be able to click creative photographs with the natural and artificial lights and also learn the advance photo editing techniques.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Introduction to photography	6
What is photography, camera works & its parts, role and importance of photography Lab- students have to make a pin hole on the principle of camera.		
Unit II	Camera	7
Camera, SLRs, DSLRs, TLR, exposure, aperture, shutter-speed, iso, depth of field, accessories. Lab- practical on manual camera settings.		
Unit III	Composition & lighting	6
Composition of photographs (view point, arrangement) rule of thirds, rule of diagonals, hard light & soft light, Lab- practical on lighting and composition.		
Unit IV	Photo Editing	6
Basics of editing fundamentals, color correction, details reading, Lab- Photoshop		
Unit V	Lights & Combination	
Use of lights and their combination, artificial lights, natural lights, how to use reflectors. Lab- Light based Practical in still studio.		
Text Books	1. The Beginners' photography Guide by Jess Ross	
Reference Books		
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForJM3106

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Student should able to memorize about concept of photography and its process, camera parts and features	4	none
CO2	Student should able to understand about the types of camera and lenses and their modes	3	S
CO3	Student should able to memorize about composition and framing of the shot and lighting setup in photography	3	S
CO4	Student should able to understand the basic concept of photo editing and color correction	3	Ent
CO5	Student should able to understand about the combination of lights and use of diffusers and reflectors	3	Emp

CO-PO Mapping for JM3106

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	0	2	1	3	1	3	3	2	3	3	2	3
CO 3	0	2	2	0	2	1	2	1		2	0	0	2	3	1
CO 4	1	1	3	2	2	3	2	2	2	1	2	2	3	1	0
CO 5	3	1	1	3	1	3	2	3	1	1	3	2	0	2	2
Avg	1.8	1.8	2.2	1.4	2	2	2	1.8	2	2	2	2	2	2	1.6

VP3101	Title: Personality Development Program	L T P C 0 0 4 2
Version No.	2.0	
Course Prerequisites	Nil	
Objectives	To develop wholesome personality of students with major emphasis on spoken English communication.	
Expected Outcome	This VAP-1 Course will be beneficial and helpful in developing all possible dimensions of an effective personality of an individual student pursuing any professional course. The learning outcome of designed VAP course is the wholesome development of an individual personality and the enrichment of English Communication which helps students to become successful in his or her career pursuits.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I-	**Personality Development :**Meaning, Importance of Personality development, Determinants of Personality, Maslow Need Hierarchy Theory	06
Unit II-	**Communication skills:**Introducing Oneself effectively**,** Developing following parts of communication skills: **Listening Skills** - Activity for enriching listening skills. **Speaking Skills** - Extempore, Situational conversation	05
Unit III-	**Speaking Skills contd.** - vocabulary games, Storytelling, Just a minute, Volte- Face, Short Speech, Role plays, Face-off, , (group-wise), Group Discussion Debate, Presentation	05
Unit IV-	**Reading Skills** - Passage reading, News Paper, Success stories, **Writing Skills** – Passage writing, letter, email etiquettes, applications, project writing, invitations, resume writing	05
Unit V-	**Self management:** Goal Setting, SWOT analysis, Self Motivation **Body language:** Gestures & Postures**,** Facial Expressions**,** Physical Appearance **Soft Skills:** Leadership skills , Team work, Image building skills, Interpersonal skills	06
Suggesting Readings:	TEDX Talks; Body language by Allan and Barbara Pease; United Nations Proceedings;Body language of World leaders (Documentary); Cambridge Open Online Dictionary; Collins Dictionary; Professional Communication by Tata McGraw Hill Publishing	
Mode of Evaluation	Internal and External Examinations	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome For VP3101

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Student will be able to understand the soft skills and the initial atticates	4	none
CO2	Students will be able to understand the inter personal and intrapersonal skill	3	S
CO3	Students will be able to apply the formal gesture and communication skills	3	S
CO4	Students will be able to apply all formal behaviors .	3	Ent
CO5	Students will be able to understand the basic of body language .	3	Emp

CO-PO Mapping for VP3101

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	2	1	1	1	1	1	1	0	0	1	1	2	0	2	3
CO 2	2	0	2	0	2	2	3	3	1	3	2	3	3	2	2
CO 3	0	3	2	3	3	2	0	3	2	2	3	1	2	0	3
CO 4	2	3	3	3	3	3	2	2	3	2	1	2	3	3	1
CO 5	3	2	3	3	1	1	3	3	3	3	3	1	3	3	0
Avg	1.8	1.8	2.2	2	2	1.8	1.8	2.2	1.8	2.2	2	1.8	2.2	2	1.8

SEMESTER II

CE3101	**Title: Disaster Management**	L T PC **2 0 0 2**
Version No.	**1.0**	
Course Prerequisites	Nil	**Total No. of Hours: 24**
Objectives	The course is intended to provide a general concept in the dimensions of disasters caused by nature beyond the human control as well as the disasters and environmental hazards induced by human activities with emphasis on disaster preparedness, response and recovery.	
Expected Outcome	Enhance the knowledge by providing existing models in risk reduction strategies to prevent major causalities during disaster.	
Unit No.	**Unit Title**	**No. of hours (per Unit)**
Unit: 1	**Introduction on Disaster**	5
Different Types of Disaster : A) Natural Disaster: such as Flood, Cyclone, Earthquakes, Landslides etc B) Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea, Rail and Road), Structural failures(Building and Bridge), War and Terrorism etc. Causes, effects and practical examples for all disasters.		
Unit II	**Risk and Vulnerability Analysis**	4
Risk: Its concept and analysis 2. Risk Reduction 3. Vulnerability: Its concept and analysis 4. Strategic Development for Vulnerability Reduction		
Unit III	**Disaster Preparedness**	5
Disaster Preparedness: Concept and Nature, Disaster Preparedness Plan Prediction, Early Warnings and Safety MeasuresofDisaster. Role of Information, Education, Communication, and Training, . Role of Government, International and NGO Bodies. . Role of IT in Disaster Preparedness. Role of Engineers on DisasterManagement.		
Unit IV	**Disaster Response**	5
Introduction Disaster Response Plan Communication, Participation, and Activation of Emergency Preparedness Plan Search, Rescue, Evacuation and Logistic Management Role of Government, International and NGO Bodies PsychologicalResponseandManagement(Trauma,Stress,RumorandPanic).ReliefandRecoveryMedicalHealth Response to Different Disasters		
Unit V	**Rehabilitation, Reconstruction and Recovery**	5
Reconstruction and Rehabilitation as a Means of Development. Damage Assessment Post Disaster effects and Remedial Measures. Creation of Long-term Job Opportunities and Livelihood Options, Disaster Resistant House Construction Sanitation and Hygiene Education and Awareness, Dealing with Victims' Psychology, Long-term Counter Disaster Planning Role of EducationalInstitute.		
Text Books	1. Bhattacharya, Disaster Science and Management, McGraw Hill Education Pvt. Ltd.	
Reference Books	1. Dr. Mrinalini Pandey, Disaster Management, Wiley India Pvt.Ltd. 2. Jagbir Singh, Disaster Management: Future Challenges and Opportunities, KW Publishers Pvt.Ltd.	
Mode of Evaluation	Internal and External Examinations	
Recommendation by Board of Studies on	5/13/2020	
Date of approval by the Academic Council	9/13/2020	

Course Outcome for CE3101

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Em)/ Skill(S)/ Entrepreneurship (En)/ None (*Use, for more than one*)
CO1	To learn about the disasters caused by nature and human activities and its types.	1	Em
CO2	To understand the concept of risk and vulnerability analysis.	2	Em
CO3	To understand about the disaster preparedness.	3	Em
CO4	To understand the concept of disaster response.	2	Em
CO5	To understand about the rehabilitation, reconstruction and recovery for disaster management.	3	Em

CO-PO Mapping for CE3101

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)											Program Specific Outcomes		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO 1	2	3	2	1	2	_	2	3	2	_	2	3	2	2
CO 2	2	3	2	1	2	2	2	3	2	_	3	2	2	2
CO 3	2	2	2	2	2	1	2	3	2	2	3	1	2	2
CO 4	2	3	2	_	2	2	2	3	2	2	2	1	2	2
CO 5	2	2	2	2	2	1	2	3	2	2	3	2	2	2
Avg	2	2.6	2	1.2	2	1.2	2	3	2	1.2	2.6	1.8	2	2

CY3205	Title: Environmental Studies	LTPC 2 002
VersionNo.	1.0	
CoursePrerequisites	Nil	
Objectives	Theaimisdevelopinquiringmindsandcuriosityaboutscienceandthenaturalworld.Itwill helpstudentstothinkanalytically,criticallyandcreativelytosolveproblems, judgeargumentsandmakedecisionsinscientificandothercontexts.Makingstudentsaw arehowtoprotecttheEnvironment.	
ExpectedOutcome	SafeguardingtheEnvironmentandalsodevelopawarenesstotheSocietynottofurther deteriorateit andalsosafeguardit	
UnitNo.	UnitTitle	No.ofhours(perUnit)
UnitI	IntroductiontoEnvironmentalStudies&Ecosystems	5
IntroductiontoEnvironmentalStudies,ScopeandImportance,Needforpublicawareness.Whatisanecosystem?Structureand FunctionofEcosystem.Casestudiesofthedifferentecosystemslikeforest,grassland,desertandaquaticecosystems.		
UnitII	Natural Resources	6
RenewableandNon-renewableResources,Landresourcesandland-usechange;Landdegradation,soilerosionanddesertification.Deforestation:Causesandimpacts.Water:Useandover-exploitationofsurfaceandgroundwater,floods, droughts,conflictsoverwater(international&inter-state).Energyresources:Renewableand nonrenewableenergysources,useofalternateenergy.sources,growingenergyneedsandcasestudies.		
UnitIII	Media &EnvironmentalDisaster	6
Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns andglobalbiodiversity hotspots.Indiaasamega-biodiversity nation;EndangeredandendemicspeciesofIndia.Threatstobiodiversity:Habitatloss,poachingofwildlife,man-wildlifeconflicts,biologicalinvasions;Conservationofbiodiversity. Ecosystemandbiodiversityservices:Ecological,economic,social,ethical,aestheticandInformationalvalue.		
UnitIV	EnvironmentalPollution	5
Types,causes,effectsandcontrols;Air,water,soilandnoisepollution.Nuclearhazardsandhumanhealthrisks.Solidwaste management:Controlmeasuresofurbanandindustrialwaste.		
TextBooks	1. P. CJoshi&Namita JoshiATextBookofEnvironmental Science,A.P.H.Pub.NewDelhi. 2. DrB. SChauhanEnvironmentalStudies, Laxmi Publication.	
ReferenceBooks	1. AnubhaKaushik&C. P. KaushikEnvironmentalStudies,NewAgeInternational. 2. MishraD.D.,fundamentalconceptinenvirmentalstudies,SChand&Company 3. N.Arumugam,EnvironmentStudies(UCGsyllabus), Saraspublication. 4. MahuaBasu,FundamentalsofEnvironment studies,Cambridgeuniversitypress.	
ModeofEvaluation	InternalandExternalExamination	
Recommendationby BoardofStudies on	15/06/2020	
Dateofapprovalby the AcademicCouncil	13/09/2020	

Course Outcomes for CY3502

Unit-wise CourseOutcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/Entrepreneurship (Ent)/ None(*Use,formorethan One*)
CO1	UnderstandthenatureofEnvironmentalstudies&Ecosystem.	2	Emp
CO2	Studentwilltounderstandthenaturalresources,i.e.Renewable&nonrenewableresources.	2	S
CO3	Understandthelevelofbiologicaldiversity&conservation.	2	S
CO4	Studentswillabletounderstandthetypesofenvironmentalpollution.	3	Ent
CO5	Students will able to understand the concept of sustainability&sustainable development.	5	None

CO-PO Mapping for CY3205

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate-2,Low-1,Notrelated-0)										Program Specific Outcomes	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
CO 1	2	1	2	0	0	0	2	1	0	0	1	1
CO 2	2	1	2	3	1	1	2	2	1	1	3	2
CO 3	2	2	1	1	1	2	1	1	3	2	0	3
CO 4	1	1	1	1	2	0	2	1	2	1	1	1
CO 5	1	1	1	3	3	2	3	3	2	1	3	3
Avg	1.6	1.2	1.5	1.6	1.4	1.25	2	1.6	1.6	1	1.6	2

AN3201	Title:2d digital animation	L T P C 2 0 4 4
Version No.	1.0	
Course Prerequisites	Nil	
Objective	This subject aims to make student understand the 2d animation process.	
Expected Outcome	On completion of this course, the student should be able to create various animations in 2d.	

Unit No.	Unit Title	No. of Hrs
Unit I	Workspace overview	10
Interface of Animate Panels (property inspector, library panel, movie explorer, history panel, color panel, timeline.		
Unit II	Using stage and tools panels	10
Selecting and deselecting objects on the stage, tool box, overview, creating graphic objects on stage.different features on stage of the interface.		
Unit I II	Working with flash document	11
About flash files, working with project, importing art work into flash, working with PSD files, PSD file import, working with libraries and its item, layer system.		
Unit IV	Drawing basics	10
About vector and bitmap images, flash drawing techniques, overlapping shapes, drawing with pen tool, brush tool, pencil tool, symbols, instances. Traditional drawing and sketching,		
Unit V	Creating Animation	9
Animation basics, creating motion, creating key frames, timeline effects, frame rate, frame by frame animation, creating key frames, onion skinning.creating human walk, animal walk, create bouncing ball.		

Text Books	Animation survival kit
Reference Books	Adobe flash professional CS classroom in a book (by adobe creative team) Adobe press Adobe flash CS6 in simple steps (by Kogent learning solutions Inc. -dream tech press)
Mode of Evaluation	Internal and External Assessment
Recommended by Board of Studied on	07-06-2021
Date of Approval by the Academic Council on	14/11/2021

Course Outcome ForAN3201

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the workspace of flash software with proficiency and work on any version of the software if needed.	4	none
CO2	Understand the use of stage and different panels.	3	S
CO3	Understand the working in flash documents in the animation software.	3	S
CO4	Understand the basics of vector and raster graphics, different format of flash and Photoshop files.	3	Ent
CO5	Understand, implement and apply the artistic skills in a way that contributes to the global development of the animation industry.	3	Emp

CO-PO Mapping for AN3201

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2		2		2	1	3	1	3	3	2	3	3	2	3
CO 3	2	2	0	0	2	0	0	1	3	2	0	1	2	3	1
CO 4	2	2	3	2	2	3	2	2	2	1	2	2	3	0	2
CO 5	3	1		3	1	2	2	3	1	1	3	3		2	2
Avg	2.4	2	2	1.75	2	1.6	1.6	1.8	2.2	2	2	2.4	2.5	1.8	2

AN3202	Title: Film Production	L T P C 4 0 0 4
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	The course will help the student to understand the concept of Film Production.	
Expected Outcome	On completion of the course student will understand the Film Production techniques and will be able to create their own short film.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Language of cinema	11
Shot, Scene, Deep focus, Continuity Editing, Montage, Focus on Sound and Color: Diegetic and Non Diegetic Sound, Screen Sound; Sync Sound; the use of Color as a stylistic Element. movie format and resolution.		
Unit II	Types of Cinema	12
Third Cinema, Non fiction cinema, Early cinema, development of classical Hollywood cinema. Studio era, parallel cinema,		
Unit III	Indian Cinema	13
Early Cinema and the Studio Era, 1950s - Cinema and the Nation (Guru Dutt, Raj Kapoor, Mehboob), 1970s - The Rise of the Angry Man, Globalization and Indian Cinema.		
Unit IV	Production techniques-I	12
Writing Script, Understanding Concept, Character descrption and designing, Storyboarding techniques, Understanding Shots types, designing a short film on paper.		
Text Books	1. Keval J. Kumar, Mass communication in India, Jaico.	
Reference Books	1. Renu Saran, History of Indian cinema, Kindle edition 2. Sarkar N.N. Dvesigning Print Communication, Sagar Publishers	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome For AN3202

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Student will be able to understand the language of cinema	2	S
CO2	Students will able to understand the concept of reporting and the beats in reporting ; Political, Crime, Sports etc.	2	S
CO3	Students will able to understand the work functions of news room and its operations.	2	S
CO4	Understand the process of editing in print media; newspapers , magazines etc.	2	Ent
CO5	Understand & Investigate the facts from various sources and able to prepare questions for a specific interview; rewrite news stories from newspapers on national and international issues.	5	Emp

CO-PO Mapping for AN3202

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	1	2	3	2	1	2	2	3	2	3	1	2	2
CO 2	2		2	0		1	3		3		2	3	3	1	2
CO 3	2	2	0	0	2	1	0	3	2	2	0	0	3	3	1
CO 4	2	1	3		2	3	2	2	1	2	2	2	3	0	2
CO 5	3	1		3	1	2	2	3	2	1	3	3	0	3	3
Avg	2.4	1.75	1.5	1.25	2	1.8	1.6	2.5	2	2	1.8	2.2	2	1.8	2

GD3202	Title: Advance graphic Design for Animation	L T P C 3 0 2 4
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	This Subject is designed to introduce students about advanced graphic designing technique	
Expected Outcome	On completion of this course student should be able to create more complex graphic designs.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Introduction to illustrator	11
Introduction of illustrator software, interaction with interface, workspace, how to import or export files in illustrator, understanding vector art, advantages over raster graphics.traditional drawing practice of design elements.		
Unit II	Creating vector art forms (Photoshop/illustrator)	9
Create characters, backgrounds, environments, design vehicles in vector form, Create different art works in photoshop, sketching all the characters on paper.		
Unit III	Digital concept art (Photoshop/illustrator)	9
Create a hyrid character, design a cartoon character, both with background origin story.		
Unit IV	Color theory	10
Cropping images, prepaqre cutout of some images, colour adjustment of some images, colour adjustment of images, converting coloured images into black and white, placing different background for the images.		
Unit V	Digital design assignments assignments	8
Creating vector art characters, vector art backgrounds, 1 digital painting-portrait, 1 props design, 1 digital landscape design, traditional drawing of different geometric shapes		
Text Books	Animated Storytelling	
Reference Books	Photoshop CS6 in simple steps (by Kogent learning solutions Inc. -dream tech press)	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForGD3202

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the classical animation using traditional methods.	2	Emp
CO2	Create 2d animation drawings with character expressions.	2	S
CO3	Understand & apply design tools and create sketches.	1	S
CO4	Understand the graphic designers drawing Tools.	6	Ent
CO5	Analyze the composition technique and create poster layouts.	2	Emp

CO-PO Mapping for GD3202

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	0	2	2	2	3	3	2	3	3	2	3	3	2	3
CO 3	2	3	2	0	2	3	0	1	0	2	0	0	2	3	1
CO 4	2	2	3	2	2	1	2	2	2	3	2	2	2	1	0
CO 5	3	1	0	3	1	2	3	3	3	1	3	3	2	2	3
Avg	2.4	1.8	2	1.8	2	2.2	1.8	2	2	2.4	2	2.2	2.2	2	1.8

AN3203	Title: Introduction to classical animation	L T P C 3 0 0 3

Version No.	1.0	
Course Prerequisites	Nil	
Objectives	The aim of this course to provide knowledge of classical 2d animation	
Expected Outcome	On completion of the course students should be able to : Draw and understand 2d animation.	
Unit No.	**Unit Title**	No. of hours (per Unit)
Unit I	**Basic of 2d animation**	10
Flip book introduction, animator's drawing tools, difference between 2d and 3d animation, stop motion techniques, clay animation. History of classical animation, importance of 2d artist.		
Unit II	**2d animation drawing**	10
Types of pencils, beginnig life drawing, still life, environment study, observational drawing, using geometric shapes, human anatomy study, basic proportions of male and female anatomy.		
Unit III	**Understanding poses**	9
Drawing quick sketches, exegerating different human poses in action, drawing linces, circles, zig zag lines. Drawing quick gesture drawings, animal and human poses and gestures.		
Unit IV	**Animation**	8
Rule of animation, warm up exercises, drawing from memory, observation and imagination, creating animation character, Character expressions. Walk cycle.		
Unit V	**Drawing assignments**	10
Create 5 pages of figure drawing, 5 pages of quick poses, draw 5 pages of eyes, hands, arms and foot construction.		
Text Books	Animation survival kit	
Reference Books	The everything drawing book: from basic shapes to people and animal (by-Helen south).	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome for AN3203

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the classical animation to different poses	2	Emp
CO2	Create the 2d animation drawings with character expressions	2	S
CO3	Understand & apply principles of animation for frame by frame animation.	2	S
CO4	Understand the animator's drawing tools in Character designing.	3	Ent
CO5	Understand human anatomy study and create different figure drawings.	5	None

CO-PO Mapping for AN3203

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2		1	1	2	1	2	2	3	1	2	0	3	2	3
CO 3	0	2	1		2	3	2	2		2	2	0	1	3	1
CO 4	2	2	3	2	3	3	2	3	3	1	2	2	3	3	3
CO 5	3	2	1	3	1	0	3	2	1	3	3	3		2	2
Avg	2	2.25	1.8	2	2.2	1.8	2	2.2	2.25	2	2.4	1.6	2.25	2.4	2.2

VP3215	Title: Audio Editing	L T P C 0 0 4 2
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	This course is designed to introduce the Audio-video editing yo the students	
Expected Outcome	On completion of the course students should be able to: understand an create editing projects.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Introduction to Editing	11
Introduction to premier pro software, workflow, adding footage, frame rates, aspect ratio, all types of panels, compression.Introduction audition, Audio Clip, Manipulating audio, Auto trim/crop, mute, DC offset, resample, reverse, smooth/enhance, Fade in/out, insert silence, bit depth converter etc.		
Unit II	Digital audio principle	9
Understanding audio formats, audio output, progresive Vs interlaced, Understanding various digital audio formats like .WAV, .AIFF, .MP3, .swf, .WMA etc.		
Unit III	Basic audio editing	8
Rough editing, Overlay edit, Layers, Ripple edit, Razor tool, Understanding all tools on toolbox for editing clips, Moving edited clip. Event tool: move, split, slip and trim multiple events, create fades, apply ASR (attack/sustain/release), etc. Understanding script editor window. Spectrum analysis tools, scrub tool etc., statistics tool (Max, RMS, DC offset, zero crossings), sampler tool etc.		
Unit IV	The art of audio editing	10
Fixing, matching, types of job availability, pacing, When and how to apply, estalishing the portfolio, creating narration content. Audio editing: workflow, real time editing, event based editing, waveform volume and pan envelopes. Edit, record, encode and master digital audio, editing audio by drag and drop options, cross fading audio tracks, balancing sound levels, creating smooth fades etc. Understanding Multichannel audio recording, synchronize audio and video		
Unit V	Creating audio effects	10
Applying various types of audio transitions, blur, noise, speeding the audio, various audio effects.		
Text Books	Digital Audio Editing: Correcting and Enhancing Audio in Pro Tools, Logic Pro, Cubase, and Studio One	
Reference Books	Adobe premiere pro CS6 classroom in a book (by adobe creative team) Adobe press	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForVP3215

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the audition software	2	Emp
CO2	Create various digital audio formats.	2	S
CO3	Apply the Editing Tools.	2	S
CO4	Create the Editing Work flow.	3	Ent
CO5	Create final output audio.	5	None

CO-PO Mapping for VP3215

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	0	2	2	2	1	3	0	3	3	2	3	3	1	3
CO 3	1	2	1	0	3	1	2	3	2	2	1	2	2	3	1
CO 4	2	3	3	3	0	3	2	3	2	0	2	2	3	2	2
CO 5	1	1	1	3	1	2	3	3		1	3	3	1	2	1
Avg	1.8	1.8	2	2	1.8	1.8	2.2	2.2	2.25	1.8	2.2	2.6	2.2	2	1.8

Second year

Semester-3

AN3301	Title:3-D Modelling&3-D Texturing	L T P C 1-0-4-3
Version No.	1.0	
Course Pre requisites		
Objectives	Study of this subject will familiarize the students with the Modellingand texturing in3d	
Expected Outcome	On completion of the course student should be able to: Develop a 3d model, Texture it and understand the importance of lighting.	
Unit No.	UnitTitle	No.ofhours(perUnit)
Unit I	Introduction to Maya	14
The Maya Interface, Viewports, Selecting Objects, Transforming Objects, Connecting Objects, Managing Files. Maya		
Unit II	Mismodeling	08
Creating the NURBS Curves in Maya,Modellingusing NURBS, NURBS Patches in Maya. Surface Editing tools.		
Unit III	Polygonal Modeling	08
Creating Polygonal Surfaces, Modifying Polygonal Surfaces, Modellingusing Polygonal Method. Deformers for modeling		
Unit IV	Lighting	05
The Importance of Lighting, Types of Lights, Shadows, Lighting Effects, Lighting a Scene. Basic Exterior & interior lighting		
Unit V	Creating Textures	10
Shaders, Creating and Editing Shaders, The Hypershade, Textures, Bump and Displacement Mapping, Placing Textures, mapping a Car Using Multiple Textures, Map for game Assert.		
Text Books	Maya®ataGlancebyGeorgeMaestri	
Reference Books	Introducing Maya 2017by DariushDerakhshani	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3301

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand 3d views and user interface of maya.	2	Emp
CO2	Create 3d basic objects using NURBS tools.	2	S
CO3	Create 3d basic objects using polygon tools.	2	S
CO4	Understand importance of lighting.	3	S
CO5	Understand basic of texturing.	5	None

CO-PO Mapping for AN3301

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	2	1	3	1	3	3	2	3	3	2	3
CO 3	1	2	0	0	2	0	0	1	0	2	0	0	2	3	3
CO 4	2	2	3	2	2	3	2	2	2	1	2	2	3	0	0
CO 5	3	0	1	3	1	2	3	3	2	1	3	3	0	2	2
Avg	2.2	1.8	1.8	2	2	1.6	1.8	1.8	1.8	2	2	2.2	2	1.8	2

AN3302	Title: 3D-Character Design	LTPC 1-0-4-3
Version No.	1.0	
Course Pre requisites	Nil	
Objectives	Study of this subject will familiarize the students with how to form a character in 3d	
Expected Outcome	Oncompletion of the course student should be able to: Develop 3d Character with the knowledge of rigging for animation in Maya.	
Unit No.	Unit Title	No. of hours(per Uni)
Unit I	Fundamental of character design	6
Character Development, Understand and design, the different character styles and character types, Develop the specifics and attribute of character, Draw the 2d character for 3d modeling		
Unit II	Modelling and Texturing the character	10
Simple Character with Polygons, Modellingwith Polygon Tools, Working with Symmetry, Using Image Planes, Sculpting the Character, Develop the easy way to working with 3d Application.		
Unit III	Modelling and Texturing the character using sub division	9
Concepts of Modellingwith Subdivision Surfaces, Subdivision Surfaces Levels, Refining Surface Components, Techniques for Texturing Subdivision Surfaces, Designing and Modelling a Character with Subdivision Surfaces,Create a low poly character for gaming pipeline.		
Unit IV	Designing a Humanoid	10
Modellingthe Head, Human Anatomy for Modelers, Methods and Tools,Modelling the Humanoid Torso and Limbs, Shaping and Refining the Torso and Limbs, The Anatomy of the Face, Study the human head and anatomy		
Unit V	Deformations and Rigging	10
Deformers, Blend Shapes, Skeletons and Rigging, Creating Skeleton. Draw the required blend shape before creating in 3d application.		
Textbooks	Maya®ataGlancebyGeorgeMaestri	
Reference Books	Beginners Guide To Character Creation In Maya by Jahirul Amin	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board ofStudieson	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3302

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand character design fundamental.	2	Emp
CO2	Create 3d character using polygon tools.	2	S
CO3	Create concept 3d character using surface tools.	2	S
CO4	Understand human anatomy and create 3d human model.	3	Ent
CO5	Understand basic rigging.	5	Ent

CO-PO Mapping for AN3302

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	2	3	3	2	2	3	2	3	0	2	3
CO 3	2	3	3	0	3	0	3	3	3	0	1	1	2	3	3
CO 4	0	2	0	3	2	3	0	2	2	3	2	2	3	0	3
CO 5	3	0	3	3	0	2	3	0	0	3	3	3	1	3	2
Avg	2	2	2.2	2.2	2	2	2	1.8	1.8	2.4	2.2	2.4	1.6	2	2.6

AN3303	Title:Print Media	LTP C 2-0-0-2
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	To make students aware of the various aspects of news	
ExpectedOutcome	Students will learn the different aspects of news content and presentation skills.	
Unit No.	UnitTitle	No.ofhours(perUnit)
Unit I	Introduction of News	8
News, Meaning&Definition, Elements & Types of News, News Value, Selection of news, News Sources, Objective of News		
UnitII	Challenges before Media	8
Challenges before print media, Comparison between online media & print media, Criteria for good news, Pattern of writing of news		
UnitIII	Presentation	8
Use of Illustrations in Newspaper, Design, Cartoons, Line Diagrams ,Style of Presentation of Newspaper & Magazine, Editorial Page , Page 3 Case Study		
UnitIV	Pagination & Layout	8
Practical Layout of Newspaper &Magazine, Creation of Newspaper &Magazine on Quark Express &InDesign		
UnitV	Designing of page	8
Designing of Page of Newspaper Magazines		
Textbooks	Handbook of Print Media: Technologies and Production Methods	
Reference Books		
ModeofEvaluation	InternalandExternal Assessment	
RecommendationbyBoardofStudieson	07-06-2021	
DateofapprovalbytheAcademicCouncil	14/11/2021	

Course Outcome ForAN3303

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Student should able to remember about definition of news & memorize it.	2	Emp
CO2	Student should able to analyze structure of news & also about types of news	2	S
CO3	Student should able to memorize about responsibilities of reporter	2	S
CO4	Student should able to understand about lead & inverted Pyramid style	3	Ent
CO5	Student should able to design newspaper and magazine	5	None

CO-PO Mapping for AN3303

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	3	2	2	3	0	0	1	0	0
CO 3	1	3	0	2	3	0	3	0	3	0	1	2	2	3	3
CO 4	0	2	1	3	2	3	1	3	2	3	2	2	3	3	3
CO 5	3	1	3	1	2	3	3	2	2	1	3	3	2	3	2
Avg	1.8	2.2	1.8	2.2	2	2	2.2	1.8	2.2	2	1.8	2	2	2.2	2

AN3304	Title: Motion Graphics& Compositing	L T P C 1-0-4-3
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with art of Motion graphics and that it is pieces of animation or digital footage which create the illusion of motion or rotation, and are usually combined with audio for use in multimedia projects.	
Expected Outcome	On completion of the course student should be able to: Create motion graphics with the use of a digital software such as after effects.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Introduction	9
Workflow and Interface, Composition, Viewport and Timeline, Animation and Transform Properties, Shape Layer, Masks and Effects, working with layer option in the timeline panel.		
Unit II	Animation Principles and Types of Key frames and Graph Editors	10
Principles of Animation, Types of Key frames, and Graph Editors, Speed Graph & Value Graph for motion graph		
Unit III	Shape Modifiers from A to Z	9
Merge Path, Offset Path, Pucker& Bloat, Round Corner, Trim Path, Wiggle Path, ZigZag, Repeater and Wiggler, expression		
Unit IV	Text Animation	9
Understanding different types of text animation and animation techniques ,Working with walk cycle animation in After effects.		
Unit V	Modern Data Visualization and Practice with Real projects	8
Animation Techniques, Morphing Animation, Lettering Animation and Real Projects ,Effects Animation		
Text Books	Animated Storytelling by Liz Blazer is an excellent resource on general animation. This book talks about the basics of motion graphics and how animation works from the viewer's perspective.	
Reference Books	1. Disney Animation: The Illusion of Life Book by Frank Thomas and Ollie Johnston 2. The Animator's Survival kit by Richard Williams	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	07-06-2021
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3304

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the basics of Composite.	2	Emp
CO2	Understand the use of types of key frames and graph editors.	2	S
CO3	Create different text animation.	2	S
CO4	Understand different principles of animation	3	Ent
CO5	Create motion graphics projects.	5	None

CO-PO Mapping for AN3304

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	3	0	3	2	2	3	0	0	1	0	0
CO 3	1	0	0	2	3	3	3	3	1	0	1	2	2	2	3
CO 4	2	2	2	0	0	3	1	3	2	3	2	1	1	3	2
CO 5	3	2	3	3	2	3	3	2	2	1	3	3	3	3	2
Avg	2.2	1.8	2	2	2.2	2.2	2.2	2.4	1.8	2	1.8	1.8	1.8	2	1.8

AN3305	Title: Compositing for VFX	L T P C 1-0-4-3
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	This course is designed to help student learn and understand Visual Effects Compositing using a digital software. I.e. After Effects	
Expected Outcome	On the completion of the course students will be able to understand Visual effects and the art of compositing.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Introduction to After Effects	9
Creating a new composition, Video Formats, Nesting and Pre-composing, layer effects		
Unit II	Understanding Graph Editor	9
Types of Graph Editors, Text layers, Shape layer		
Unit III	Rotoscopy	9
Masking and Rotoscoping, Track Matte, Chroma Key and Wire removal expressions		
Unit IV	Introduction to Mocha	9
Tracking, Mocha, Expressions and Time remapping		
Unit V	Compositing	10
Color correction, Multi pass compositing, particles and 3d layers and camera, Camera Animation.		
Text Books	1. Adobe After Effects CS5 Visual Effects and Compositing studio techniques by Mark Christiansen	
Reference Books	1. After Effects Apprentice by Chris and Trish Meyer 2. Creating Motion Graphics with After Effects, 5th edition by Chris Meyer	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3305

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand user interface of after effect.	2	Emp
CO2	Understand graph editor.	2	S
CO3	Apply Track Matte and remove chroma key.	2	S
CO4	Apply tracking on video footage.	3	Ent
CO5	Create motion graphics projects.	5	Emp

CO-PO Mapping for AN3305

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	2	2	2	3	0	3	3	1	0
CO 3	1	3	1	2	3	0	3	1	0	0	3	2	2	3	3
CO 4	2	2	3	3	2	3	1	3	2	3	2	2	0	3	3
CO 5	3	1	0	1	2	3	3	1	3	3	3	1	3	3	3
Avg	2.2	2.2	1.8	2.2	2	2	2	1.8	1.8	2.4	2.2	2.2	2	2.4	2.2

VP3315	Title: Video Editing	L T P C 0-0-4-2
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	This course is design to familiarize our students all the basics of Video editing .	
Expected Outcome	On completion of the course students should be able to: understand to video editing	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Intro to Editing Theory	9
Introduction to the history of film editing, the manipulation of editing, introduction to the editor as storyteller, understanding the narrative structure., Study about pre-production		
Unit II	Intro to Premiere Pro Cs6	9
Screening of Examples, The Premiere Pro CS -6 interface, features and functions, how to import and organize footage basic editing techniques, Learn about Footage File extension.		
Unit III	Editing Exercise -Lab-1	9
Intro & Masking Technique, Practicing/Reviewing skills, New Editing make slow motion technique" Work on Documentary of Place projects, Interview and Film a classmate telling a story for 10 minutes or talking about camera Composition		
Unit IV	Editing Exercise-Lab-2	6
"Motion Tracking &Technique,Intro making ,Working on Documentary projects, Linear Editing & nonlinear Editing		
Unit V	Editing Exercise-Lab-3	6
Color Editing, how to change whole feet age change color, audio input & audio editing, Broadcast setting		
Text Books	Adobe Premiere 6.0: Classroom .Link(https://www.amazon.in/Adobe-Premiere-6-0-ClassroomBook/dp/0201710188/ref=sr_1_38?dchild=1&keywords=Adobe+editing+book+6+book&qid=1601795878&sr=8-38)-Adobe Creative Team (Author)	
Reference Books	E book , YouTube Chanel	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForVP3315

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the workspace of premier pro software with proficiency	2	Emp
CO2	Understand the use of workspace and different panels.	2	S
CO3	Understand the working in premier pro documents in the animation software	2	S
CO4	Write the different formats of audio and video files.	3	Ent
CO5	Understand, implement and apply the artistic skills in a way that contributes to the global development of the animation industry.	5	None

CO-PO Mapping for VP3315

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO1	PO 2	PO 3	PO4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	3	2	2	3	0	0	1	0	0
CO 3	1	3	3	2	3	1	3	0	0	1	0	2	2	3	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	1	3	3	3
CO 5	3	1	3	1	2	3	3	2	2	1	3	3	2	1	2
Avg	2.2	2	2.4	1.8	2	2.2	2.2	1.8	1.6	2.2	1.8	1.8	2	1.8	2

Semester-4

AN3401	Title:3d Architectural Visualization	L T P C 2-0-4-4
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the Role of Architectural Visualization in 3d	
Expected Outcome	On completion of the course students should he able to: Develop understanding of different architectural models	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	DrawingBasics	
•Drawing instruments, equipment's and materials their use, care & maintenance, safety precautions. Code of practice for general and architectural drawings. • Importance of lettering and figures sizes, proportion etc., Perspectives and Design Fundamentals, units and measurements		
Unit II	ArchitectureDesign	
Rendering &Presentation, Principal of Planning, Method of Drawing, Rules &regulation, General Information and table, Rules of Architecture in Designing and approach of planning, Building types, Zoning Regulation. Digital Imaging, Application& usages of Digital Image, Image Mapping, Viewing Animation		
Unit III	3DsMax	
Introduction & Applications of 3Ds Max, UCS Co-ordination System, Shortcut keys, Function keys. understanding floor plans and drawings		
Unit IV	Modeling	
Introduction of Modeling, Features of Modeling., Modifiers – Bend Modifier, Extrude, and Surface vertex weld Modifier, Scene – Built a 3D environment with material, light and cameras. Units setup and measurement in 3d		
Unit V	Texturing & Lighting	
Different types of Texture, render to texture tool, Various scene elements into texture, Lighting, Uses of Lighting, Types of light Categories of lighting situation. Render elements, post processing.		
Text Books	1. Autodesk 3ds Max for Beginners A Comprehensive Guide	
Reference Books	2. Autodesk 3ds Max Bible	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3401

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand drawings tools and create blueprints.	2	Emp
CO2	Understand blueprints and create 3d architectures buildings	2	S
CO3	Understand 3ds max interface, coordinate system and remember shortcuts keys.	2	S
CO4	Create 3d objects and apply materials, light and cameras in 3d scenes.	3	Ent
CO5	Create textures and apply photorealistic light.	5	None

CO-PO Mapping for AN3401

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	2
CO 2	1	2	2	3	0	2	3	2	2	3	0	0	1	0	0
CO 3	2	3	3	1	3	1	3	1	0	1	2	2	2	3	1
CO 4	2	2	1	3	2	3	3	3	2	0	1	1	3	0	3
CO 5	3	1	3	1	3	1	3	2	3	3	2	3	2	3	2
Avg	2.2	2.2	2.4	1.6	2.2	1.8	2.6	2	1.8	2	1.6	1.8	2	1.6	1.6

AN3402	Title:3DShading, Lighting & Rendering	L T P C 1-0-4-3

Version No.	**1.0**	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the Shading, Lighting & Rendering in 3d	
Expected Outcome	On completion of the course student should he able to: Develop a 3d model, with texture, shading and lighting.	
Unit No.	**Unit Title**	**No. of hours (per Unit)**
Unit I	**Maya Modeling overview**	6
Creating primitive objects, Moving Objects in the 3D Space, Maya View Tools, Layouts, Saved Layouts, Channel Box and Manipulators, Grouping and Parenting, Polygonal modeling, NURBS Modelling.outliner, hypergraph		
Unit II	**Rendering Overview**	10
What is rendering, How Maya renders, Shader Networks, Shading Groups, Materials, Lights, Maya architecture, Nodes and Attributes, Hyper Graph, IPR (Interactive Photo realistic Rendering)Concepts of UDIM		
Unit III	**Lighting**	10
Type of lights – usage of each, techniques for each, Light Linking, New linking to Objects (and sets) workflow, Reason for light linking – matching live footage lighting, Light attributes – What you're adjusting and why – show manipulators, Light Fog, Intensity Curves, 3 point light system		
Unit IV	**Shadows**	8
Depth map, What, When and Why to use, Reuse / Share depth maps, Ray traced, What, When and why to use Shadow Techniques (For realism and Optimization), Adding hard or soft shadows to a scene, Shafts of Light – light fog, Trouble – shooting section for shadow problems, rendering layer		
Unit V	**Shading**	10
Arnold for Maya material overview | Opaque materials: diffuse and reflections | Transmissive materials pt1: refractions and caustics | Transmissive materials pt2: sub-surface scattering | Mixing materials, shellac, varnishes and rust | Self illumination | Alterations: anisotropy, bump, normal and displacement, Arnold AO, Map baking		
Text Books	Autodesk Maya A Comprehensive Guide	
Reference Books	Maya at glance	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3402

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand Maya interface and create 3d objects.	2	Emp
CO2	Understand the texture and render 3d objects.	2	S
CO3	Apply lights in 3d scene and create photo realistic graphics for national and international cinema.	2	S
CO4	Understand shadows type and apply in 3d scenes.	3	Ent
CO5	Create objects like glass, metal, etc.	5	None

CO-PO Mapping for AN3402

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	3	2	2	3	0	0	1	0	0
CO 3	1	3	3	2	3	1	3	0	0	1	0	2	2	3	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	1	3	3	3
CO 5	3	1	3	1	2	3	3	2	2	1	3	3	2	1	2
Avg	2.2	2	2.4	1.8	2	2.2	2.2	1.8	1.6	2.2	1.8	1.8	2	1.8	2

AN3403	Title: **Trackingand Match Moving**	**L T P C** **0-0-4-2**
Version No.	**1.0**	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the Camera Tracking And Match Moving	
Expected Outcome	On completion of the course student should be able to: Track any Object From live footage and add 3d object in the scene	
Unit No.	**Unit Title**	**No. of hours (per Unit)**
Unit I	**Tracking overview**	6
Fundamental of Tracking And Match Moving and industry uses, Explains 2d and 3d tracking, explains camera tracking, Motion blur, Camera Rig, Tracker Point		
Unit II	**2D Tracking**	10
Understanding the 2D Tracking Process, Track Placement: Making Every Track Count, Exploring the Anatomy of a 2D Track, Automatic Tracking, camera handling and adding track points		
Unit III	**Using Mocha/After effect**	10
Mocha Basics, Workspace, tracking in Mocha, Applying Tracking Data, Fine-Tune the track, stabilizing footage, **Working with scan data**		
Unit IV	**The Basics of Match moving**	8
Understanding the Basic Technique, Analyzing the Movement, Creating the Proxy Object Exploring a Typical Match move, Importance of Match move / Motion Tracking, Tracking in nuke		
Unit V	**Using PFTrack**	10
PFTrack Basics, Workspace,camera tracking in PfTrack, Object Tracking ,Solving ,**Exporting distorted plate**		
Text Books	Match moving: The Invisible Art of Camera Tracking, 2nd Edition	
Reference Books	Match moving: The Invisible Art of Camera Tracking, 2nd Edition	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3403

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the fundamentals of tracking and match moving.	2	Emp
CO2	Understand the Track 2d objects and replace objects form live action footage	2	S
CO3	Understand the Mocha tools and apply tracking data in after effect.	2	S
CO4	Understand the match moving and learn how to do it.	3	Ent
CO5	Understand the PFTrack, track camera movements and place 3d object in live action footage	5	None

CO-PO Mapping for AN3403

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO2	PO 3	PO4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	3
CO 2	2	2	2	3	0	2	3	2	2	3	3	0	0	0	0
CO 3	1	2	3	0	3	1	3	0	0	1	0	2	2	3	3
CO 4	2	3	1	3	2	3	1	3	2	3	3	1	3	3	3
CO 5	3	0	3	1	2	0	3	2	2	1	3	3	2	1	2
Avg	2.2	2	2.4	1.4	2	1.6	2.2	1.8	1.6	2.2	2.4	1.8	1.8	1.8	2.2

Semester-5

JM3403	**Title: Cinematography**	**L T P C** **3-0-0-3**
Version No.	**1.0**	
Course Prerequisites	Nil	
Objectives	The course will help the student to understand the concept of Cinematography	
Expected Outcome	On completion of the course student will understand the cinematography techniques and will be able to create their own short film and cinematic videos	
Unit No.	**Unit Title**	**No. of hours (per Unit)**
Unit I	**Language of cinema**	9
Shot, Scene, Melodrama, Deep focus, Continuity Editing, Montage, Focus on Sound and Color correction and balance, Screen Sound; Sync Sound; the use of Color as a stylistic Element		
Unit II	**Types of Cinema**	9
Fiction Cinema, Non-fiction cinema, Early cinema, development of classical Hollywood cinema, Rise of south cinema.		
Unit III	**Indian Cinema**	9
Early Cinema and the Studio Era, 1950s - Cinema and the Nation (Guru Dutt, Raj Kapoor, Mehboob), 1970s - The Rise of the Angry Man, Globalization and Indian Cinema		
Unit IV	**Production techniques-I**	8
Writing Script, Understanding Concept, Character description and designing, Storyboarding techniques, Understanding Shots types, Types of shots and camera angles.		
Unit V	**Production techniques-II**	**9**
Responsibility of the cinematographer, Refining the story, Cinematography tools and techniques.		
Text Books	1. Keval J. Kumar, Mass communication in India, Jaico Publishing house.	
Reference Books	1. Renu Saran, History of Indian cinema, Kindle edition 2. Five C's of cinematography by Joseph Rogers, MM Mukhi& sons	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	

Date of approval by the Academic Council	14/11/2021

Course Outcome ForJM3403

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the language of cinema and the primary knowledge of making	2	Emp
CO2	Understand the sequence for a film	2	S
CO3	Understand the history of early stage cinema in India and the most important changes in Indian cinema and its culture.	2	S
CO4	Write script and screenplay for the film and documentaries.	3	Ent
CO5	Understand the roles and responsibilities of the cinematographer and its tool and techniques.	5	None

CO-PO Mapping for JM3403

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	2	3	3	0	3	2	1	2	2	1	3	3	2	2	2
CO 2	2	2	2	3	0	2	3	1	2	3	2	0	1	0	0
CO 3	3	1	3	2	3	2	3	0	2	1	0	1	3	2	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	2	3	3	3
CO 5	3	1	3	3	1	0	3	2	2	1	1	3	2	2	1
Avg	2.4	1.6	2.4	2.2	1.8	1.8	2.2	1.6	2	1.8	1.8	1.8	2.2	1.8	1.8

AN3404	Title:FX & Simulation	L T P C 1-0-4-3
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the FX & Simulation	
Expected Outcome	On completion of the course student should be able to: create Fluids, Particles,hair,fur	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Understanding FX & Simulation/ Particle System	6
Understanding FX & Simulation, INTRODUCTION, create particles, create emitters, Modify the render attributes of particles, collide particles, Use the Hardware Renderer, Apply different types of fields and pre-defined effects, particles properties		
Unit II	Introduction to nParticles	10
• Create nParticles • Collide nParticles with geometry • Simulate liquids • Work with the Maya Nucleus solver • Use the force fields, Introduction to soft bodies simulation		
Unit III	Introduction to Fluids	10
• Learn about various types of fluids in Maya • Apply the dynamic and non-dynamic fluid effects • Modify the fluid components • Paint in the fluid containers • Add ocean and pond effects to your scene • Connect Maya fields to a container, Maya mesh		
Unit IV	Introduction to nHair	8
• Apply nHair to objects • Simulate nHair • Paint textures on nHair, Ai Shading network for hairs		
Unit V	Introduction to Bifrost/ Bullet Physics	10
• Understand the fundamental concept of Bifrost • Create and optimize Bifrost fluids • Add collider to Bifrost fluids • Add mesh to Bifrost particles• Work with rigid and soft bodies • Create a soft body • Create constraints, Rendering attributes of particles		
Text Books	Matchmoving_The_Invisible_Art_of_Camera_Tracking_2005_Sybex	
Reference Books	Matchmoving_The_Invisible_Art_of_Camera_Tracking_2005_Sybex	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	

Date of approval by the Academic Council	14/11/2021

Course Outcome ForAN3404

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand fx and simulation principle and use particle system to create simulation.	2	Emp
CO2	Understand nParticles and create fluid	2	S
CO3	Create ocean, pond etc.	2	S
CO4	Apply nHair to objects and simulate nhair.	3	Ent
CO5	Understand rigid body, soft body and create realistic simulation, which allow him to work for animation and visual effects studios, film companies, game design companies globally.	5	None

CO-PO Mapping for AN3404

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	1	1	0	2	2	2	2	2	3	3	2	2	2	2
CO 2	2	2	2	3	0	2	3	2	2	3	3	0	1	0	0
CO 3	1	3	3	2	2	0	1	0	0	1	0	2	2	3	3
CO 4	1	1	1	3	3	3	1	2	2	3	1	2	3	2	3
CO 5	3	1	3	3	2	3	3	2	3	0	3	2	2	1	2
Avg	2	1.6	2	2.2	1.8	2	2	1.6	1.8	2	2	1.6	2	1.6	2

VP3414	Title:Clay Modelling and Sculptures	L T P C 0 0 4 2
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the rule of clay modeling.	
Expected Outcome	On complition of course the student should be able to create clay models using diffferent sculpting techniques.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Basics of Drawing and Sketching	6
Understanding poses through sketches, human muscle study 3D objects, Lighting and Shading.		
Unit II	Types of Modelling	4
Different types of sculpting techniques, usage of different types of clay.		
Unit III	Understanding tools and Techniques	4
Tools required, wire framing, armature clay modeling, converting character sketch into wireframe.		
Unit IV	Assignment- I	4
Create a human hand using clay techniques(first draw the sketch).		
Unit V	Assignment- II	6
Create character design with the help of clay.		
Text Books	1. Beginner guide to sculpting character in clay– 3D total publishing	
Reference Books	2. Beginner guide to sculpting character in clay– 3D total publishing	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForVP3414

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the planning and drawing concept for clay	2	Emp
CO2	Understand the types of clay and sculpture	2	S
CO3	Understand the sculpturing tools and techniques	2	S
CO4	Create human hand using clay techniques	3	Ent
CO5	Create character design with the help of clay	5	None

CO-PO Mapping for VP3414

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	3	3	2	1	1	2	1	3	1	3	2	3
CO 2	2	2	2	3	2	2	3	2	2	3	3	0	1	1	0
CO 3	1	3	3	2	3	2	0	3	0	1	0	2	2	3	3
CO 4	1	1	3	0	2	3	1	3	2	3	3	3	3	3	0
CO 5	3	1	3	1	1	1	3	2	1	2	3	3	2	1	3
Avg	2	2	2.8	1.8	2.2	2	1.6	2.2	1.4	2	2.4	1.8	2.2	2	1.8

THIRD YEAR

SEMESTER 5

AN3502	**Title:3D Animation**	**L T P C** **2-0-4-4**
Version No.	**1.0**	
Course Prerequisites		
Objectives	Study of this subject will familiarize the students with 3D animation.	
Expected Outcome	On completion of the course students should be able to: Add animation to 3d objects.	
Unit No.	**Unit Title**	**No. of hours (per Unit)**
Unit I	**Basic Of 3d Animation**	
Brief about animation principles, Animation tools in 3D, "Applying classical 2D animation techniques i.e; Stretch squash for 3D character". Bridging the gap between 2d and 3d Animation		
Unit II	**Playback Controls**	
Creating the illusion of weight, Overview of Maya's playback controls, Exploring Maya's animation preferences. Details about graph editor, Bouncing Ball Exercise, Body language., Acting for Animation to understood weight		
Unit III	**Graph Editor**	
Animating object along a motion path, Utilizing the trax-editor to blend animation clips. Controlling attributes with set driven keys, Setup animation clip for game animation		
Unit IV	**Constrains**	
Animating with constraints, Previewing animations in real-time with play blasts, Introduction to scene animation and key framing, dope sheet. Camera Animation		
Unit V	**Animation**	
Animal walk& run cycles, snakes and birds. Biped Character walk cycles, Biped Character run cycles, pushing and pulling objects. Facial animation and lip-sync. Nonlinear Animation with trax editor. Working with character sets and clips. character interactions. Loop animation Clip for game		
Text Books	1. Mastering Autodesk Maya 2017 by Eric Keller.	
Reference Books	2. Introducing Maya 2017 by DariushDerakhshani.	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3502

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand basic of 3d animaiton.	2	Emp
CO2	Understand playback controls in maya.	2	S
CO3	Understand and create graph editor.	2	S
CO4	Create animation Constrains in maya.	3	Ent
CO5	Understand and create animation tools.	5	None

CO-PO Mapping for AN3502

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	3	2	2	3	0	0	1	0	0
CO 3	1	3	3	2	3	1	3	0	0	1	0	2	2	3	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	2	3	3	3
CO 5	3	1	3	1	2	3	3	2	2	1	3	3	2	1	2
Avg	2.2	2	2.4	1.8	2	2.2	2.2	1.8	1.6	2.2	1.8	2	2	1.8	2

AN3503	Title: Computer Aided 3D Dynamics	L T P C 1-0-4-3
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the FX & Simulation	
Expected Outcome	On completion of the course student should be able to: Create Fluids, Particles.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Understanding FX & Simulation/ Particle System	9
Understanding FX & Simulation, INTRODUCTION, create particles, create emitters, Modify the render attributes of particles, collide particles, Use the Hardware Renderer, Apply different types of fields and pre-defined effects		
Unit II	Introduction to nParticles	10
• Create nParticles • Collide nParticles with geometry • Simulate liquids • Work with the Maya Nucleus solver • Use the force fields		
Unit III	Introduction to Fluids	10
• Learn about various types of fluids in Maya • Apply the dynamic and non-dynamic fluid effects • Modify the fluid components • Paint in the fluid containers • Add ocean and pond effects to your scene • Connect Maya fields to a container		
Unit IV	Introduction to nHair	7
• Apply nHair to objects • Simulate nHair • Paint textures on nHair		
Unit V	Introduction to Bifrost/ Bullet Physics	10
• Understand the fundamental concept of Bifrost • Create and optimize Bifrost fluids • Add collider to Bifrost fluids • Add mesh to Bifrost particles• Work with rigid and soft bodies • Create a soft body • Create constraints		
Text Books	Autodesk Maya A Comprehensive Guide by *Sham Tickoo*	
Reference Books	Advanced Maya Texturing and Lighting by John Wiley	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3503

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand fx and simulation principle and use particle system to create simulation.	2	Emp
CO2	Understand nParticles and create fluid	2	S
CO3	Create ocean, pond etc.	2	S
CO4	Apply nHair to objects and simulate nhair.	3	Ent
CO5	Understand rigid body, soft body and create realistic simulation, which allow him to work for animation and visual effects studios, film companies, game design companies globally.	5	None

CO-PO Mapping for AN3503

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	2	3	3	0	3	2	3	2	2	1	3	1	0	2	2
CO 2	2	2	2	1	0	3	3	3	1	3	0	3	1	0	0
CO 3	1	0	3	2	3	1	1	0	0	1	3	2	2	3	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	1	3	3	0
CO 5	3	3	3	2	2	0	3	2	2	1	3	3	2	1	2
Avg	2	1.8	2.4	1.6	2	1.8	2.2	2	1.4	1.8	2.4	2	1.6	1.8	1.4

AN3504	Title: Computer Aided 3D Rigging	L T P C 2-0-2-3
Version No.	1.0	
Course Prerequisites		
Objectives	Study of this subject will familiarize the students with Rigging techniques	
Expected Outcome	On completion of the course students should be able to: Rig any object.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Joints, IK/FK, handles/controls, constraints	
Introduction to bone system/Joints and IK handles, creating bone system and maintaining naming conventions,		
Unit II	Skinning	
Skinning types, import and export of skin weights, IK and FK basics, IK and FK switch		
Unit III	Blend shapes	
Blend Shape, Blend Shape Attributes,		
Unit IV	Deformers	
Introduction to Deformers, Introduction to constrains and implementation to rig. Maintaining proper hierarchy, grouping and creating controls, rigging the characters, Use of deformers in rigging process		
Unit V	Rigging a Character	
create a bone structure, The parent-child relationship, KINEMATICS, Rig Character .		
Text Books	1. Mastering Autodesk Maya 2017 by Eric Keller. *Latest editions of all the suggested books are recommended.	
Reference Books	2. Introducing Maya 2017 by DariushDerakhshani. *Latest editions of all the suggested books are recommended.	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3504

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand Joints, IK/FK, handles/controls, constraints in maya.	2	Emp
CO2	Understand and create Skinning in maya.	2	S
CO3	Create Blend shapes in maya.	2	S
CO4	Undrstand and create Deformers in maya.	3	Ent
CO5	Create a rigging charater in maya.	5	None

CO-PO Mapping for AN3504

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	0	2	1	3	1	0	1	2	0
CO 3	0	3	0	2	3	1	3	1	0	1	2	2	2	3	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	1	3	0	3
CO 5	3	1	3	1	2	3	3	2	2	1	3	3	2	1	2
Avg	2	2	1.8	1.8	2	2.2	1.6	2	1.4	2.2	2.4	1.8	2	1.6	2

AN3505	Title: Voice Over and Sound Design	L T P C 1-0-4-3
Version No.	1.0	
Course Prerequisites		
Objectives	Study of this subject will unable the student to record and design the voice over and sounds.	
Expected Outcome	On completion of the course students should be able to create different sound design and multi track mixing.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Introduction to audition	6
Introduction to audition software, workflow, frame rates, aspect ratio, all types of panels, compression, Audio Clip, Manipulating audio, Auto trim/crop, mute, DC offset, resample, reverse, smooth/enhance, Fade in/out, insert silence, bit depth converter etc. understanding vocal system, vocal process.		
Unit II	Audio format	10
Understanding audio formats, audio output, progressive Vs interlaced, Understanding various digital audio formats like .WAV, .AIFF, .MP3, .swf, .WMA etc.		
Unit III	Understanding tools	6
Rough editing, overlay edit, Layers, Ripple edit, Razor tool, understanding all tools on toolbox for editing clips, Moving edited clip. Event tool: move, split, slip and trim multiple events, create fades, apply ASR (attack/sustain/release), etc. Understanding script editor window. Spectrum analysis tools, scrub tool etc., statistics tool (Max, RMS, DC offset, zero crossings), sampler tool etc.		
Unit IV	Waveform and multitrack	10
Fixing, matching, types of job availability, pacing, When and how to apply, establishing the portfolio, creating narration content. Audio editing: workflow, real time editing, event based editing, waveform volume and pan envelopes. Edit, record, encode and master digital audio, editing audio by drag and drop options, cross fading audio tracks, balancing sound levels, creating smooth fades etc. Understanding Multichannel audio recording, synchronize audio and video		
Unit V	Sound design	10
Applying various types of audio transitions, blur, noise, speeding the audio, various audio effects. adding multiple tracks, adjusting track time, musical instrument file processing		
Text Books	1. Adobe Soundbooth CS5	
Reference Books	2. Electronic Music and Sound Design – by Alessandro Cipriani& Maurizio Giri.	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07- 06- 2022	
Date of approval by the Academic Council	20- 10 - 2022	

Course Outcome ForAN3505

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the human vocal system, its components, and the vocal process	2	Emp
CO2	Understand the practical regimen of vocal warm-ups and maintenance.	2	S
CO3	Create a simple vocal warm up routine.	2	S
CO4	Analyze the texts for vocal performance.	3	Ent
CO5	Understand the Interpret & record vocal performances demonstrating variations in pitch, volume, rate, and vocal quality.	5	None

CO-PO Mapping for AN3505

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	3	2	2	3	0	0	1	0	0
CO 3	1	3	3	2	3	1	3	0	0	1	0	2	2	3	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	1	3	3	3
CO 5	3	1	3	1	2	3	3	2	2	1	3	3	2	1	2
Avg	2.2	2	2.4	1.8	2	2.2	2.2	1.8	1.6	2.2	1.8	1.8	2	1.8	2

AN3506	Title:Lighting & Rendering for VFX	L T P C 1-0-4-3
Version No.	1.0	
Course Prerequisites		
Objectives	Study of this subject will familiarize the students with Lighting & Rendering for VFX techniques.	
Expected Outcome	On completion of the course students should be able to create realistic 3d scenes for vfx movies.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Introduction to lighting	6
Lighting basic, Type of light, three-point lighting, Explain Lighting Techniques Lighting Attribute		
Unit II	Maya Light / Arnold Light	10
Introduction to Maya light, light type, rendering options, render Setting		
Unit III	Shadow casting	6
Shadow Preview, Depth Map Shadows, Ray Trace shadows. Shadow pass		
Unit IV	Image Based Lighting	10
Image Based Lighting with HDRI, three-point lighting setup, creating realistic glass objects, Creating HDRI image.		
Unit V	Lighting a scene for VFX	10
Render Layers and Render Passes, Arnold materials, Advance lighting techniques, Arnold rendering		
Text Books	1. Advanced Maya Texturing and Lighting	
Reference Books	2. Lighting for Product Photography The Digital Photographer's Step-By-Step Guide to Sculpting with Light	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3506

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the lighting basic and lighting techniques.	2	Emp
CO2	Understand the Maya light and Arnold lights.	2	S
CO3	Create shadow and apply to 3d scenes.	2	S
CO4	Create image-based lighting.	3	Ent
CO5	Create the realistic 3d scene for live action movies.	5	None

CO-PO Mapping for AN3506

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	3	0	3	2	2	3	0	0	1	0	0
CO 3	1	0	0	2	3	3	3	3	1	0	1	2	2	2	3
CO 4	2	2	2	0	0	3	1	3	2	3	2	1	1	3	2
CO 5	3	2	3	3	2	3	3	2	2	1	3	3	3	3	2
Avg	2.2	1.8	2	2	2.2	2.2	2.2	2.4	1.8	2	1.8	1.8	1.8	2	1.8

AN3507	Title: 2D Game Art	L T P C 3 0 0 3
Version No.	1.1	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the Role of Game art and design.	
Expected Outcome	On completion of the course students should he able to: Develop understanding of Game design and art involved in creating a game.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Basics of game art	5
Definition & Meaning of game art, Importance of concept art, figure drawing and creature anatomy. Color concept for game environment		
Unit II	Digital Art	8
Understanding of Photoshop, Understanding of vector and raster art, character design variation, different color modes. Color theory		
Unit III	Preproduction process	9
4) Script writing 5) Storyboarding for game. 6) Character design development. 7) Game play		
Unit IV	Post production process	7
f. Audio recordingFX Sound creation g. Animatic recording h. Final voice over recording.		
Unit V	Project Assignment	6
Creating the entire preproduction including script, storyboard variation, character design variation.		
Text Books	Andrew Loomis : Figure Drawing for all its worth.	
Reference Books	Figure Drawing: Design and invention.	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3507

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the workspace of Photoshop software with proficiency and work on any version of the software if needed.	2	Emp
CO2	Understand the use of Concept art and digital painting.	2	S
CO3	Understand the importance of figure drawing in the 2d design software.	2	S
CO4	Understand the basics of vector and raster graphics, different formats of Photoshop files.	3	Ent
CO5	Understand, Implement and apply the artistic skills in a way that contributes to the global development of the animation industry.	5	None

CO-PO Mapping for AN3507

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	2	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	0	2	1	3	1	3	3	2	3	3	2	3
CO 3	0	2	2	0	2	1	2	1		2	0	0	2	3	1
CO 4	1	1	3	2	2	3	2	2	2	1	2	2	3	1	0
CO 5	3	1	1	3	1	3	2	3	1	1	3	2	0	2	2
Avg	1.8	1.8	2.2	1.4	2	2	2	1.8	2	2	2	2	2	2	1.6

VP3514	Title: Aesthetics in Design	L T P C 3 0 0 3
Version No.	1.1	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the Role of design Aesthetics.	
Expected Outcome	On completion of the course students should he able to: implement the core principles of design into any products.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Defining Aesthetics	5
Definition & Meaning of Aesthetics, Role of balance, color, movement, pattern, scale, shape and visual weight.		
Unit II	Implementing the Design	8
Understanding and implementing lines, colors, spacing on websites and apps, adding context.		
Unit III	Principles of Design	9
Contrast, balance, emphasis, proportion, hierarchy, repetition, rhythm, pattern, white space, movement, variety, and unity		
Unit IV	Typography	7
Using different types of fonts and understanding its implementation, Using typography in different mediums using as print media, electronic media.		
Unit V	Project Assignment	6
Creating the entire product design for print media and electronic media.		
Text Books	Andrew Loomis : Figure Drawing for all its worth.	
Reference Books	Figure Drawing: Design and invention.	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForVP3514

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand & design the graphics in vector graphics for different mediums of designing.	2	Emp
CO2	Create the vector art forms, Create different art works in Photoshop. The student will also be able to make a newcomer understand the basics much proficiently.	2	S
CO3	Understand relate with proportion, movement and balance.	2	S
CO4	Understand the qualities of any product design along with visual elements.	3	Ent
CO5	Understand & implement the graphic designing skills using various software skills on a national and international level in the graphic design industry.	5	None

CO-PO Mapping for VP3514

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	3
CO 2	2	2	2	3	0	2	3	2	2	3	3	0	0	0	0
CO 3	1	2	3	0	3	1	3	0	0	1	0	2	2	3	3
CO 4	2	3	1	3	2	3	1	3	2	3	3	1	3	3	3
CO 5	3	0	3	1	2	0	3	2	2	1	3	3	2	1	2
Avg	2.2	2	2.4	1.4	2	1.6	2.2	1.8	1.6	2.2	2.4	1.8	1.8	1.8	2.2

Semester-6

AN3601	Title: ADVANCE RIGGING	L T P C 2 0 2 3
Version No.	1.1	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the Role of design Aesthetics.	
Expected Outcome	On completion of the course students should he able to: implement the core principles of design into any products.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Defining Rigging	5
Intro to Rigging, Parenting, Grouping, Renaming, Rigging Tools, IK & FK, Animation Tools, IK Solver – SC & RP solvers, LRA- Local rotation Axis, Constraints, Cluster Deformers, Ik Spline Solver, Before Start rigging in Maya What to do/don't with Geometry or any object,		
Unit II	Implementing rigging	8
Menu, Rigging Tools, Naming Conversion, Deformers - Uses of deformers, Lattice, wrap, cluster Alignment of pivot points, Colorizing the Controls, Locking Extra Attributes, Parenting, Managing Layers and Introduction to Joints. Parenting, Renaming, Constraints, MAYA expression		
Unit III	Features of rigging -1	9
Set Driven Keys, Adding Attributes, Grouping Parenting, Renaming, Constraints Set Driven Keys, Adding Attributes -Finger Controls Parenting, Renaming, Constraints, Set Driven Keys, Adding Attributes, Control locking Clean-Up, Locking and freezing Attributes, Layers, Final Hierarchy and Skin Tools. Cleanup Rig File.		
Unit IV	Features if rigging-2	7
Joint Setup, mirrors setup, Rotate Order IK setup for leg, Fk setup for leg, IK-FK with one setup, IK FK Blending, how to create Foot Control Spine setup, Hand control and Setup, Game Character Rig		
Unit V	Project Assignment	6
Low poly Character Skin , Mirror Skin		
Text Books	Andrew Loomis : Figure Drawing for all its worth.	
Reference Books	Figure Drawing: Design and invention.	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForAN3601

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the Introduction to Rigging Tool	2	Emp
CO2	Apply Joint, Deformers and constrain	2	S
CO3	Create the set Driven key for rigging process	2	S
CO4	Create the Rig setup	3	Ent
CO5	Understand & apply the Skinning for Rigging	5	None

CO-PO Mapping for AN3601

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped-3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	3	2	2	3	0	0	1	0	0
CO 3	1	3	3	2	3	1	3	0	0	1	0	2	2	3	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	1	3	3	3
CO 5	3	1	3	1	2	3	3	2	2	1	3	3	2	1	2
Avg	2.2	2	2.4	1.8	2	2.2	2.2	1.8	1.6	2.2	1.8	1.8	2	1.8	2

AN3602	Title: Character Animation	L T P C 2 0 4 4
Version No.	1.1	
Course Prerequisites	Nil	
Objectives	Study of this subject will familiarize the students with the Role of design Aesthetics.	
Expected Outcome	On completion of the course students should he able to: implement the core principles of design into any products.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I		5
Introduction acting for animator, Body language, character attitude, character interaction, Live Acting for Students ,		
Unit II		8
Character Description, background story Method Acting		
Unit III		9
Acting for weight pull and push, Acting for dialog animation, About Facial Expression.		
Unit IV		7
Stage acting, Storyboard and script, Screen Play.		
Unit V		6
Animation principles brief, with examples, Students Act with Animation principle.		
Text Books	Andrew Loomis : Figure Drawing for all its worth.	
Reference Books	Figure Drawing: Design and invention.	
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of approval by the Academic Council	14/11/2021	

Course Outcome ForJM3602

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand & apply the principles of Animation	2	Emp
CO2	Create About Character Description	2	S
CO3	Apply Acting for dialog animation	2	S
CO4	Understand the Screen play	3	Ent
CO5	Apply How to use Animation principle	5	None

CO-PO Mapping for JM3602

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	3	3	3	0	3	2	1	2	2	3	3	3	2	2	2
CO 2	2	2	2	3	0	2	3	2	2	3	0	0	1	0	0
CO 3	1	3	3	2	3	1	3	0	0	1	0	2	2	3	3
CO 4	2	1	1	3	2	3	1	3	2	3	3	1	3	3	3
CO 5	3	1	3	1	2	3	3	2	2	1	3	3	2	1	2
Avg	2.2	2	2.4	1.8	2	2.2	2.2	1.8	1.6	2.2	1.8	1.8	2	1.8	2

AN3604	Title:Facial &Lips Synchronization	L T P C 2 0 4 4
Version No.	1.0	
Course Prerequisites	Nil	
Objective	This subject aims to make student understand the 2d animation process.	
Expected Outcome	On completion of this course, the student should be able to create various animations in 2d.	
Unit No.	Unit Title	No. of Hrs.
Unit I	Facial animation	10
What is facial animation, Blend shape, Facial Rig test, Key Frames, Extremes, Breakdowns, Sketch for Expression		
Unit II	Expressions	10
What are the 21 facial expressions? expression sheet, Different type of eye blink & eye movement, X-sheet for Expression		
Unit I II	Character expressions	11
Expression with dialog. Emotion and expression, Biped character expression. Animation layer for expression, How to export/Import Expression,		
Unit IV	Expression sheets	10
TwelveRulesforExpression, Rhythm &Timing, Character animation with act and expression, make an expression sheet for Character		
Unit V	Assignments	9
Biped character Acting with expression. Animation file for Game		
Text Books	Animation survival kit	
Reference Books	Adobe flash professional CS classroom in a book (by adobe creative team) Adobe press Adobe flash CS6 in simple steps (by Kogent learning solutions Inc. -dream tech press)	
Mode of Evaluation	Internal and External Assessment	
Recommended by Board of Studied on	07-06-2021	
Date of Approval by the Academic Council on	14/11/2021	

Course Outcome ForAN3604

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Students will able to Interpret the basic structure of TV script	2	Emp
CO2	Create Learn about Expression sheet	2	S
CO3	Create Expression with dialog animation	2	S
CO4	Understand Rhythm and timing for expression	3	Ent
CO5	understand Expression for Biped Character	5	None

CO-PO Mapping for AN3604

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	2	1	1	1	1	1	1	0	0	1	1	2	0	2	3
CO 2	2	0	2	0	2	2	3	3	1	3	2	3	3	2	2
CO 3	0	3	2	3	3	2	0	3	2	2	3	1	2	0	3
CO 4	2	3	3	3	3	3	2	2	3	2	1	2	3	3	2
CO 5	3	2	3	3	1	1	3	3	3	3	3	1	3	3	0
Avg	1.8	1.8	2.2	2	2	1.8	1.8	2.2	1.8	2.2	2	1.8	2.2	2	2

AN3605	**Title:**GameDesign&Development	**LTP C** 1-0-6-4
VersionNo.	**1.0**	
CoursePrerequisites		
Objectives	StudyofthissubjectwillfamiliarizewithGamedesignanddevelopment.	
ExpectedOutcome	On completion of the course students should be able to design basicgames.	
UnitNo.	**UnitTitle**	**No. ofhours(perUnit)**
UnitI	**GameEngines**	8
EngineConcepts,DevelopmentTools,IntroducingUnity,IDEBasics,UnityConcepts,Sprites		
UnitII	**IntroductiontoScripting**	10
C#LanguageConcepts,CreatingScripts,C#CodingFundamentals,GameLoopsandFunctions		
UnitIII	**SimpleMovementandInput**	8
SimpleMovement,SimpleRotationandScaling,EasyInputHandlinginUnity,		
UnitIV	**PhysicsConcepts**	10
RigidbodyComponents,UnityColliders,PhysicsMaterials,ScriptingCollisionEvents		
UnitV	**Animation**	10
SimpleUnityAnimation,AnimatorStates,ScriptingAnimations,AnimationsandColliders		
TextBooks	1.Beginning3DGameDevelopmentwithUnityAll-in-one,multi-platformgamedevelopment	
ReferenceBooks	2. C#GameProgrammingCookbookforUnity3D 3. LearningC#byDevelopingGameswithUnity3DBeginner'sGuide.	
ModeofEvaluation	InternalandExternalAssessment	
Recommendation byBoardofStudieson	07- 06- 2022	
Date of approval by theAcademicCouncil	14/11/2021	

Course Outcome ForAN3605

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand game design &devlopment.	2	Emp
CO2	Understand and learn coadding for unity 3D.	2	S
CO3	Understand object movement and input	2	S
CO4	Create Physics Concepts for games.	3	Ent
CO5	Create animation in unity 3D	5	None

CO-PO Mapping for AN3605

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	2	1	1	2	2	0	1	0	2	3	3	2	2	2	3
CO 2	2	3	1	3	2	2	3	2	0	2	3	0	3	3	3
CO 3	1	0	2	0	3	3	3	3	2	2	2	3	2	0	2
CO 4	3	3	3	3	3	3	2	2	3	3	0	2	2	3	2
CO 5	3	3	3	3	0	3	2	3	3	3	3	3	3	1	2
Avg	2.2	2	2	2.2	2	2.2	2.2	2	2	2.6	2.2	2	2.4	1.8	2.4

VP3614	Title: Experimental Printing	L T P C 2-0-4-2
Version No.	1.0	
Course Prerequisites	Nil	
Objectives	To impart practical knowledge about Experimental Printing. This course is designed to introduce the basics Designs and Graphics for Print Media-techniques to the students. 1. To make the students aware about the basics designs and graphics for Print Media. 2. To make the students understand the type composition and printing method. 3. To provide hands on training on DTP software – Corel Draw and QuarkXpress.	
Expected Outcome	On completion of the course students should be able to: understand and create phc editing and will understand the elements and designing of newspaper.	
Unit No.	Unit Title	No. of hours (per Unit)
Unit I	Basics Designs for Print Media	4
Aesthetics of design; Elements and Principles of design; Typeface families; Principles of good typography		
Unit II	Basics of Graphics for Print Media	5
Meaning and Concept; Importance of Graphics; Recent Developments in the field of Graphics.		
Unit III	Type Composition and Printing Method	9
Type composition; DTP and use of computer software; Printing methods- letterpress, Cylinder, Rotary, Gravure, Screen, Offset.		
Unit IV	DTP Software's	3
Corel Draw (tool palette , How to work on work environment, color palette, how to import and export file), Quark Express(tool palette , How to work on work environment, color palette, document layout palette, how to import and export file).		
Unit V	Practice of Designing	5
Designing a layout of leaflet and letter head, Design a poster on current issue, Designing of cover page of a magazine, Designing a front page of newspaper.		
Text Books	M V Kamath- Modern Journalism, Vikas Publishing House, NewDelhi. Publications M K Joseph- Basic Source Material for News Writing, Anmol Publications. Sarkar, N.N. Principles of Art and Production, Oxford University Press.	
Reference Books		
Mode of Evaluation	Internal and External Assessment	
Recommendation by Board of Studies on	07-06-2021	
Date of Approval by the Academic Council on	14/11/2021	

Course Outcome ForVP3614

Unit-wise Course Outcome	Descriptions	BL Level	Employability (Emp)/ Skill(S)/ Entrepreneurship (Ent)/ None (*Use , for more than One*)
CO1	Understand the history of printing in India	2	Emp
CO2	Understand the elements and principles of design.	2	S
CO3	Understand & design the layout and composition for graphics	2	S
CO4	Analyze the Techniques of News Editing	3	Ent
CO5	Understand the basic of Photoshop	5	None

CO-PO Mapping for VP3614

Course Outcomes	Program Outcomes (Course Articulation Matrix (Highly Mapped- 3, Moderate- 2, Low-1, Not related-0)										Program Specific Outcomes		Program Educational Outcomes		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PSO 1	PSO 2	PEO 1	PEO 2	PEO 3
CO 1	2	1	1	2	2	0	1	0	2	1	1	2	2	2	3
CO 2	2	3	1	3	2	2	3	2	0	2	3	0	3	3	0
CO 3	1	0	2	0	3	2	3	3	2	2	2	3	0	0	3
CO 4	2	3	2	3	3	3	2	2	3	3	0	2	2	3	2
CO 5	3	3	3	3	0	3	2	3	3	3	3	3	3	1	2
Avg	2	2	1.8	2.2	2	2	2.2	2	2	2.2	1.8	2	2	1.8	2