ROYAL SCHOOL OF COMMUNICATIONS AND MEDIA (RSCOM)

COURSE STRUCTURE & SYLLABUS

(BASED ON NATIONAL EDUCATION POLICY 2020)

For

B.Sc. IN ANIMATION AND VISUAL EFFECTS
(4 years Single Major)

W.E.F

AY - 2025 – 26

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Preamble

The National Education Policy (NEP) 2020 conceives a new vision for India's higher education system. It recognizes that higher education plays an extremely important role in promoting equity, human as well as societal well-being and in developing India as envisioned in its Constitution. It is desired that higher education will significantly contribute towards sustainable livelihoods and economic development of the nation as India moves towards becoming a knowledge economy and society.

If we focus on the 21st century requirements, the higher education framework of the nation must aim to develop good, thoughtful, well-rounded, and creative individuals and must enable an individual to study one or more specialized areas of interest at a deep level, and also develop character, ethical and Constitutional values, intellectual curiosity, scientific temper, creativity, spirit of service, and twenty-first-century capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as professional, technical, and vocational subjects. A higher quality education should be capable enough to enable personal accomplishment and enlightenment, constructive public engagement, and productive contribution to the society. Overall, it should focus on preparing students for more meaningful and satisfying lives and work roles and enable economic independence.

Towards the attainment of holistic and multidisciplinary education, the flexible curricula of the University will include credit-based courses, projects in the areas of community engagement and service, environmental education, and value-based education. As part of holistic education, students will also be provided with opportunities for internships with local industries, businesses, artists, crafts persons, and so on, as well as research internships with faculty and researchers at the University, so that students may actively engage with the practicalaspects of their learning and thereby improve their employability.

The undergraduate curriculums are diverse and have varied subjects to be covered to meet the needs of the programs. As per the recommendations of the UGC,

introduction of courses related to Indian Knowledge System (IKS) is being incorporated in the curriculum structure which encompasses all of the systematized disciplines of Knowledge which were developed to a high degree of sophistication in India from ancient times and all of the traditions and practices that the various communities of India—including the tribal communities—have evolved, refined and preserved over generations, like for example Vedic Mathematics, Vedangas, Indian Astronomy, Fine Arts, Metallurgy, etc.

At RGU, we are committed that at the societal level, higher education will enable each student to develop themselves to be an enlightened, socially conscious, knowledgeable, and skilled citizen who can find and implement robust solutions to its own problems. For the students at the University, Higher education is expected to form the basis for knowledge creation and innovation thereby contributing to a more vibrant, socially engaged, cooperative community leading towards a happier, cohesive, cultured, productive, innovative, progressive, and prosperous nation."

Introduction

The National Education Policy (NEP) 2020 clearly indicates that higher education plays an extremely important role in promoting human as well as societal well-being in India. As envisioned in the 21st-century requirements, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals. According to the new education policy, assessments of educational approaches in undergraduate education will integrate the humanities and arts with Science, Technology, Engineering and Mathematics (STEM) that will lead to positive learning outcomes. This will lead to develop creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills, more in-depth learning, and mastery of curricula across fields, increases in social and moral awareness, etc., besides general engagement and enjoyment of learning and more in-depth learning.

The NEP highlights that the following fundamental principles that have a direct bearing on the curricula would guide the education system at large, viz.

i. Recognizing, identifying, and fostering the unique capabilities of each student to promote her/his holistic development.
ii. Flexibility, so that learners can select their learning trajectories and programmes and thereby choose their own paths in life according to their talents and interests.
iii. Multidisciplinary and holistic education across the sciences, social sciences, arts,

humanities, and sports for a multidisciplinary world.

iv. Emphasis on conceptual understanding rather than rote learning, critical thinking to encourage logical decision-making and innovation; ethics and human & constitutional values, and life skills such as communication, teamwork, leadership, and resilience.

v. Extensive use of technology in teaching and learning, removing language barriers, increasing access for Divyang students, and educational planning and management.

vi. Respect for diversity and respect for the local context in all curricula, pedagogy, and policy.

vii. Equity and inclusion as the cornerstone of all educational decisions to ensure that all students can thrive in the education system and the institutional environment are responsive to differences to ensure that high-quality education is available for all.

viii. Rootedness and pride in India, and its rich, diverse, ancient, and modern culture, languages, knowledge systems, and traditions.

Approach to Curriculum Planning

Choice Based Credit System (CBCS) By UGC

Under the CBCS system, the requirement for awarding a degree or diploma or certificates prescribed in terms of number of credits to be earned by the students. This framework is being implemented in several universities across States in India. The main highlights of CBCS are as below [2]:

- The CBCS provides flexibility in designing curriculum and assigning credits based on the course content and learning hours.
- The CBCS provides for a system wherein students can take courses of their choice, learn at their own pace, undergo additional courses, and acquire more than the required credits, and adopt an interdisciplinary approach to learning.
- CBCS also provides an opportunity for vertical mobility to students from a bachelor's degree programmes to masters and research degree programmes.

Definitions

Academic Credit:

An academic credit is a unit by which a course is weighted. It is fixed by the number of hours of instructions offered per week. As per the National Credit Framework [2].

1 Credit = 30 NOTIONAL CREDIT HOURS (NCH)

Yearly Learning Hours = 1200 Notional Hours (40 Credits x 30 NCH)

30 Notional Credit Hours		
Lecture/Tutorial	**Practicum**	**Experiential Learning**
1 Credit = 15 -22 Lecture Hours	10-15 Practicum Hours	0-8 Experiential Learning Hours

Course of Study:

Course of study indicate pursuance of study in a particular discipline/programme. Discipline/Programmes shall offer Major Courses (Core), Minor Courses, Skill Enhancement Courses (SEC), Value Added Courses (VAC), Ability Enhancement Compulsory Courses (AECCs) and Interdisciplinary courses.

Disciplinary Major:

The major would provide the opportunity for a student to pursue in-depth study of a particular subject or discipline. Students may be allowed to change major within the broad discipline at the end of the second semester by giving her/him sufficient time to explore interdisciplinary courses during the first year. Advanced-level disciplinary/interdisciplinary courses, a course in research methodology, and a project/dissertation will be conducted in the seventh semester. The final semester will be devoted to seminar presentation, preparation, and submission of project report/dissertation. The project work/dissertation will be on a topic in the disciplinary programme of study or an interdisciplinary topic.

Disciplinary/interdisciplinary minors:

Students will have the option to choose courses from disciplinary/interdisciplinary minors and skill-based courses. Students who take a sufficient number of courses in a discipline or an interdisciplinary area of study other than the chosen major will qualify for a minor in that discipline or in the chosen interdisciplinary area of study. A student may declare the choice of the minor at the end of the second semester, after exploring various courses.

Courses from Other Disciplines (Interdisciplinary):

All UG students are required to undergo 3 introductory-level courses relating to any of the broad disciplines given below. These courses are intended to broaden the intellectual experience and form part of liberal arts and science education. Students are not allowed to choose or repeat courses already undergone at the higher secondary level (12^{th} class) in the proposed major and minor stream under this category.

Natural and Physical Sciences: Students can choose basic courses from disciplines such as Natural Science, for example, Biology, Botany, Zoology, Biotechnology, Biochemistry, Chemistry, Physics, Biophysics, Astronomy and Astrophysics, Earth and Environmental Sciences, etc.

i. Mathematics, Statistics, and Computer Applications: Courses under this category will facilitate the students to use and apply tools and techniques in their major and minor disciplines. The course may include training in programming software like Python among others and applications software like STATA, SPSS, Tally, etc. Basic courses under this category will be helpful for science and social science in data analysis and the application of quantitative tools.

ii. Library, Information, and Media Sciences: Courses from this category will help the students to understand the recent developments in information and media science (journalism, mass media, and communication)

iii. Commerce and Management: Courses include business management, accountancy, finance, financial institutions, fintech, etc.,

iv. Humanities and Social Sciences: The courses relating to Social Sciences, for example, Anthropology, Communication and Media, Economics, History, Linguistics, Political Science, Psychology, Social Work, Sociology, etc. will enable students to understand the individuals and their social behaviour, society, and nation. Students be introduced to survey methodology and available large-scale databases for India. The courses under humanities include, for example, Archaeology, History, Comparative Literature, Arts & Creative expressions, Creative Writing and Literature, language(s), Philosophy, etc., and interdisciplinary courses relating to humanities. The list of Courses can include interdisciplinary subjects such as Cognitive Science, Environmental Science, Gender Studies, Global Environment & Health, International Relations, Political Economy and Development, Sustainable Development, Women's, and Gender Studies, etc. will be useful to understand society.

Value-Added Courses (VAC):

Understanding India: The course aims at enabling the students to acquire anddemonstrate the knowledge and understanding of contemporary India with its historical perspective, the basic framework of the goals and policies of national development, and the constitutional obligations with special emphasis on constitutional values and fundamental rights and duties. The course would also focus on developing an understanding among student-teachers of the Indian knowledge systems, the Indian education system, and the roles and obligations of teachers to the nation in general and to the school/community/society. The course will attempt to deepen knowledge about and understanding of India's freedom struggle and of the values and ideals that it represented to develop an appreciation of the contributions made by people of all sectionsand regions of the country, and help learners understand and cherish the values enshrined in the Indian Constitution and to prepare them for their roles and responsibilities as effective citizens of a democratic society.

i. Environmental science/education: The course seeks to equip students with the ability to apply the acquired knowledge, skills, attitudes, and values required to take appropriate actions for mitigating the effects of environmental degradation, climate change, and pollution, effective waste management, conservation of biological diversity, management of biological resources, forest and wildlife conservation, and sustainable development and living. The course will also deepen the knowledge and understanding of India's environment in its totality, its interactive processes, and its effects on the futurequality of people's lives.

ii. Digital and technological solutions: Courses in cutting-edge areas that are fast gaining prominences, such as Artificial Intelligence (AI), 3-D machining, big data analysis, machine learning, drone technologies, and Deep learning with important applications to health, environment, and sustainable living that will be woven into undergraduate education for enhancing the employability of the youth.

iii. Health & Wellness, Yoga education, sports, and fitness: Course components relating to health and wellness seek to promote an optimal state of physical, emotional, intellectual, social, spiritual, and environmental well-being of a person. Sports and fitnessactivities will be organized outside the regular institutional working hours. Yoga education would focus on preparing the students physically and mentally for the integration of their physical, mental, and spiritual faculties, and equipping them with basic knowledge about one's personality,

maintaining self-discipline and self-control, to learn to handle oneself well in all life situations. The focus of sports and fitness components of the courses will be on the improvement of physical fitness including the improvement of various components of physical and skills-related fitness like strength, speed, coordination, endurance, and flexibility; acquisition of sports skills including motor skills as well as basic movement skills relevant to a particular sport; improvementof tactical abilities; and improvement of mental abilities.

These are a common pool of courses offered by different disciplines and aimed towards embedding ethical, cultural and constitutional values; promote critical thinking. Indian knowledge systems; scientific temperament of students.

Summer Internship /Apprenticeship:

The intention is induction into actual work situations**.** All students must undergo internships / Apprenticeships in a firm, industry, or organization or Training in labs with faculty and researchers in their own or other HEIs/research institutions during the ***summer term***. Students should take up opportunities for internships with local industry, business organizations, health and allied areas, local governments (such as panchayats, municipalities), Parliament or elected representatives, media organizations, artists, crafts persons, and a wide variety of organizations so that students may actively engage with the practical side of their learning and, as a by-product, further improve their employability. Students who wish to exit after the first two semesters will undergo 4-credit work-based learning/internship during the summer term to get a UG Certificate.

Community engagement and service: The curricular component of 'community engagement and service' seeks to expose students to the socio- economic issues in societyso that the theoretical learnings can be supplemented by actual life experiences to generate solutions to real-life problems. This can be part of summer term activity or partof a major or minor course depending upon the major discipline.

Field-based learning/minor project: The field-based learning/minor project will attemptto provide opportunities for students to understand the different socio-economic contexts.It will aim at giving students exposure to development-related issues in rural and urban settings. It will provide opportunities for students to observe situations in rural and urban contexts, and to observe and study actual field situations regarding issues related to socioeconomic development. Students will be given opportunities to gain a first- handunderstanding of the policies, regulations, organizational structures, processes, andprogrammes that guide the

development process. They would have the opportunity to

gain an understanding of the complex socio-economic problems in the community, and innovative practices required to generate solutions to the identified problems. This may be a summer term project or part of a major or minor course depending on study.

Indian Knowledge System:

In view of the importance accorded in the NEP 2020 to rooting our curricula and pedagogy in the Indian context all the students who are enrolled in the four-year UG programmes should be encouraged to take an adequate number of courses in IKS so that the ***total credits of the courses taken in IKS amount to at least five per cent of the total mandated credits*** *(i.e. min. 8 credits for a 4 yr. UGP & 6 credits for a 3 yr. UGP).* The students may be encouraged to take these courses, preferably *during the first four semesters of the UG programme*. At least half of these mandated credits should be in courses in disciplines which are part of IKS and are related to the major field of specialization that the student is pursuing in the UG programme. They will be included as a part of the total mandated credits that the student is expected to take in the major field of specialization. The rest of the mandated credits in IKS can be included as a part of the mandated Multidisciplinary courses that are to be taken by every student. All the students should take a Foundational Course in Indian Knowledge System, which is designed to present an overall introduction to all the streams of IKS relevant to the UG programme. The foundational IKS course should be broad-based and cover introductory material on all aspects. Wherever possible, the students may be encouraged to choose a suitable topic related to IKS for their project work in the 7/8th semesters of the UG programme. [5]

(Note: Refer "Guidelines for Incorporating Indian Knowledge in Higher Education Curricula", University Grants Commission, March 2023 for further details)

Experiential Learning:

One of the most unique, practical & beneficial features of the National Credit Framework is assignment of credits/credit points/ weightage to the experiential learning including relevant experience and professional levels acquired/ proficiency/ professional levels of a learner/student. Experiential learning is of two types:

a. ***Experiential learning as part of the curricular structure*** of academic or vocational program. E.g., projects/OJT/internship/industrial attachments etc. This could be either within the Program- internship/ summer project undertaken relevant to the program being studied or as a part time employment (not relevant to the program being studied- up to certain NSQF level only). In case where

experiential learning is a part of the curricular structure the credits would be calculated and assigned as per basic principles of NCrF i.e., 40 credits for 1200 hours of notional learning.

b. ***Experiential learning as active employment*** (both wage and self) post completion of an academic or vocational program. This means that the experience attained by a person after undergoing a particular educational program shall be considered for assignment of credits. This could be either Full or Part time employment after undertaking an academic/ Vocation program.

In case where experiential learning is as a part of employment the learner would earn credits as weightage. The maximum credit points earned in this case shall be double of the credit points earnedwith respect to the qualification/ course completed. The credit earned and assigned by virtue of relevant experience would enable learners to progress in their career through the work hours put in during a job/employment

Award of Degree in Animation and Visual Effects

The structure and duration of undergraduate programmes of study offered by the University as per NEP 2020 include:

Undergraduate programmes of either 3 or 4-year duration with Single Major, with multiple entry and exit options, with appropriate certifications:

UG Certificate: Students who opt to exit after completion of the first year and have secured 40 credits will be awarded a UG certificate if, in addition, they complete one vocational course of 4 credits during the summer vacation of the first year. These students are allowed to re-enter the degree programme within three years and complete the degree programme within the stipulated maximum period of seven years.

UG Diploma: Students who opt to exit after completion of the second year and have secured 80 credits will be awarded the UG diploma if, in addition, they complete one vocational course of 4 credits during the summer vacation of the second year. These students are allowed to re-enter within a period of three years and complete the degree programme within the maximum period of seven years.

3-year UG Degree: Students who will undergo a 3-year UG programme will be awarded UG Degree in the Major discipline after successful completion of three years, securing 120 credits and satisfying the minimum credit requirement.

4-year UG Degree (Honours): A four-year UG Honours degree in the major discipline will be awarded to those who complete a four-year degree programme with 160 credits

and have satisfied the credit requirements as given in Table 6 in Section 5.

4-year UG Degree (Honours with Research): Students who secure 75% marks and above in the first six semesters and wish to undertake research at the undergraduate level can choose a research stream in the fourth year. They should do a research project or dissertation under the guidance of a Faculty Member of the University. The research project/dissertation will be in the major discipline. The students who secure 160 credits, including 12 credits from a research project/dissertation, will be awarded UG Degree (Honours with Research).

Award	Year	Credits to earn	Additional Credits	Re-entry allowed within (yrs)	Years to Complete
UG Certificate	1	40	4	3	7
UG Diploma	2	80	4	3	7
3-year UG Degree (Major)	3	120	x	x	x
4-year UG Degree (Honors)	4	160	x	x	X
4-year UG Degree (Honors with Research)	4	160	Students who secure cumulative 75%marks and above in the first six semesters		

Table: 1: Award of Degree and Credit Structure with ME-ME

Graduate Attributes

Sl.no.	Graduate Attribute	The Learning Outcomes Descriptors
GA1	Disciplinary Knowledge	A student will acquire knowledge and understanding of one or more disciplines. It will provide basic knowledge of Animation and Visual Effects use of creativity in CGI environment.
GA 2	Complex problem solving	The program focuses on good research and ability to identify solution-based thinking, application of theoretical concepts to real life case studies on Animation enabling students to develop problem solving skills.
		The students will be able to apply analytical thought including the analysis and evaluation of policies, and

GA 3	Analytical & Critical thinking	practices in the field of media and media relations. They will be able to identify relevant assumptions or implications. Identify logical flaws and holes in the arguments of others. Analyze and synthesize data from a variety of sources and draw valid conclusions and support them with evidence and examples.
GA 4	Creativity	A student will be able to draw connections between the knowledge gained and the creative task to be executed. Interpret the observations and sketch it into reality. A student will also be able Think 'out of the box' and generate solutions to complex problems in unfamiliar contexts by adopting innovative, imaginative, lateral thinking, interpersonal skills, and emotional intelligence.
GA 5	Communication Skills	A student will develop the ability listen carefully, read texts, and research papers analytically, and present complex information in a clear and concise manner to different groups/audiences
	Research-related skills	A Student will develop a keen sense of observation, inquiry, and capability for asking relevant/ appropriate questions. Should acquire the ability to problematize, synthesize and articulate issues and design research proposals, define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships. Should develop the ability to acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/ in personal research work.
GA 7	Collaboration	Capable of participating in project to work effectively and construct innovative end product in diverse teams both in classroom and in animation industry.
GA 8	Leadership readiness/qualities	A student will be able to operate and organize plan the tasks of a team or an organization and setting direction by formulating an inspiring vision and building a team that can help achieve the vision.
GA 9	Digital and technological skills	Demonstrate and experiment by other digital gadgets for learning, design, illustrate, and utilize relevant information using appropriate software for analysis of data and creation of product.
GA 10	Environmental awareness and action	A student will identify the effects of environmental degradation, climate change, and pollution. They will develop and illustrate the technique of spreading awareness on effective waste management, conservation of biological diversity, management of biological resources and biodiversity, forest, and wildlife

		conservation, and sustainable development and living by producing different Information Education and Communication (IEC) materials.

Program Learning Outcomes (PLO)

PLO-1: Acquiring Knowledge of Animation and Visual effects

A systematic or coherent understanding of the academic field of Animation, its different learning areas and applications, and its linkages with related disciplinary areas/subjects. Procedural knowledge that creates different types of professionals related to Animation & Visual effects area of study, including research and development, teaching and government and public service.

PLO-2: Ability of solving complex problem

The students attain ability to quickly identify the problem and applying critical thinking skills and problem-solving analysis in all dimensions of development and production

PLO-3 - Analytical & Critical thinking

The students will be able to apply analytical thought including the analysis and evaluation of policies, and practices in the field of media and media relations. Ability to understand and skills will be enhanced for identifying problems and issues relating to Animation and Visual effects

PLO-4: Develop and Demonstrate Creativity

A student will be able to demonstrate, perform, or think in different and diverse ways by using tools of new media about the objects and scenarios in the field of multimedia and deal with problems and situationsthat do not have simple solutions. They will be able to think ‘out of the box’ and generate solutions to complex problems in unfamiliar contexts by adopting innovative, imaginative, lateral thinking, interpersonal skills, and emotional intelligence.

PLO-5: Enhance and Execute Communication Skills

The students will develop the ability to listen carefully, read texts and research papers analytically, and present complex information in a clear and concise manner to different groups/audiences through various means of communication. A student will be able to express thoughts and ideas effectively in writing, through films and orally and communicate with others using appropriate media technologies.

PLO-6: Formulate Research-related skills

A Student will develop a keen sense of observation, inquiry, and capability for asking relevant/ appropriate questions. Should acquire the ability to problematize, synthesize and articulate issues and design research proposals, define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships. Students will develop the ability to acquire the understanding of basic research ethics and skills in

practicing/doing ethics in the field/ in personal research work.

PLO-7: Collaboration

Capable to work effectively and respectfully with diverse teams in the classroom and in the media industry in the interests of a common cause and work efficiently as a member of a team.

PLO-8: Develop Leadership readiness/qualities

A student will be able to organize and operate the tasks of a team or an organization and setting direction by formulating an inspiring vision and building a team that can help achieve the vision.

PLO-9: Execute Digital and technological skills

The student will outline and examine using computers and other digital devices for learning, design, illustrate and utilize relevant information by using appropriate software is for analyzing of data and generate media related projects.

PLO 10: Identifying environmental issues, its awareness and action

A student will identify the effects of environmental degradation, climate change, and pollution. They will develop the technique and illustrate awareness on effective waste management, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living by producing different Information Education andCommunication (IEC) materials.

Programme Specific Outcomes

PSO1: Integration of the concept, principles, and theories involved in the subject of animation and visual effects in all aspects

PSO2: Ability to identify and solve complex societal problems using different new media platforms.

PSO3: Student will be able to use their analytical thought in understanding different policies related to new media and its relationship in society.

PSO4: The student will be able to demonstrate 'out of the box' ideas by adopting innovative, imaginative, communicative skills and emotional intelligence.

PSO5: Ability to prepare, compare, and present complex information in a clear and concise manner to audience through various effective communication skills.

PSO6: Student will acquire the ability to identify and analyze societal related issues and design research proposals, understanding research & new media ethics, establish hypotheses and predict cause-and-effect relationships.

PSO7: Student will be skillful to connect and work effectively with diverse team of new

media in the dynamic new media industry.

PSO8: Working effectively with different team members, student will devise and developa leadership quality that can help them to achieve the vision in life.

PSO9: Student will demonstrate skills related to various digital devices, computers and appropriate software for analyzing data and new media related projects.

PSO10: Student will develop techniques and illustrate environmental awareness by producing different Information Education and Communication (IEC) materials.

Teaching Learning Process

Teaching and learning in this programme involve classroom lectures as well as tutorial and remedial classes.

Tutorial classes: Tutorials allow closer interaction between students and teacher as each student gets individual attention. The tutorials are conducted for students who are unable to achieve average grades in their weekly assessments. Tutorials are divided into three categories, viz. discussion-based tutorials (focusing on deeper exploration of course content through discussions and debates), problem-solving tutorials (focusing on problem solving processes and quantitative reasoning), and Q&A tutorials (students ask questions about course content and assignments and consolidate their learning in the guiding presence of the tutor).

Flip classroom: flip classroom allows lecture content from face-to-face class time to before class by assigning it as homework. This allows for more interactive forms of learning to take place during class

Experiential Learning: Experiential learning is a part of the academic curricular of the Animation and visual effects program. Following methods are adopted for Experiential Learning:

- Participating in intra and inter University competition, clubs of the university
- Extra-curricular activities like cultural activities, community outreach programmes,
- Projects and Portfolio
- OJT
- Internship
- Workshop and interacting with expert from the field
- Field trip, excursions, study tour, etc.
- Seminars and conferences organized in the department and University

Remedial classes: The remedial classes are conducted for students who achieve average and above average grades in their weekly assessments. The focus is laid to equip the students to perform better in

the exams/assessments. The students are divided into small groups to provide dedicated learning support. Tutors are assigned to provide extra time and resources to help them understand concepts with advanced nuances. Small groups allow tutors to address their specific needs and monitor them. Following methods are adopted for tutorial and remedial classes:

- Written assignments and projects submitted by students
- Project or assignment -based learning
- Group discussions
- Home assignments
- Class tests, quizzes, debates organized in the department

Assessment Methods

	Component of Evaluation	**Marks**	**Frequency**	**Code**	**Weightage (%)**
A	**Continuous Evaluation**				
i	Analysis/Class test	Combination of any three from (i) to (v) with 5marks each	1-3	C	25%
ii	Home Assignment		1-3	H	
iii	Project		1	P	
iv	PPT Presentation		1-2	S	
v	Viva		1-2	V	
vi	MSE	MSE shall be of 10 marks	1-3	Q/CT	
vii	Attendance	Attendance shall be of 5 marks	100%	A	5%
B	Semester End Examination		1	SEE	70%
	Project				**100%**

PROGRAME STRUCTURE

Royal School of Communication and Media
B.Sc. Animation and Visual Effects

1st Semester

Sl. No.	Subject Code	Name of subjects	Course Level	Credit
		Major Papers		
1	AVE092M101	History of Animation and Multimedia	100	3
2	AVE092M112	Fundamentals of Drawing for Animation	100	3
		Minor Papers		
3	AVE092N111	Color Theory & Abstract	100	3
		Interdisciplinary Course (IDC-1)		
4	IKS992I101	Introduction to Indian Knowledge System - I	100	3
		Ability Enhancement Course (AEC-1)		
5	CEN982A101	CEN I: Introduction to Effective Communication	100	1
6	BHS982A102	Behavioural Science-I	100	1
		Skill Enhancement Courses (SEC-1)		
7	AVE092S111	Characters & Illustration	100	3
		Value Added Course (VAC-1)		
8		Choose from the basket course	100	3
		Total -		**20**

2nd Semester

Sl. No.	Subject Code	Name of subjects	Course Level	Credit
		Major Papers		
1	AVE092M211	Concept Art and Digital Painting	100	3
2	AVE092M212	3D Modelling and Texturing	100	3
		Minor Papers		
3	AVE092N211	Graphic Design	100	3
		Interdisciplinary Course		
4	IKS992I201	Introduction to Indian Knowledge System - II	100	3
		Ability Enhancement Course (AEC-2)		
5	CEN982A201	CEN II: Approaches to Verbal and Non-Verbal Communication	100	1
6	BHS982A202	Behavioural Science -II	100	1
		Skill Enhancement Courses (SEC-2		
7	AVE092S211	Introduction to Cinematography	100	3
		Value Added Course (VAC-2)		
8		Choose from the basket course	100	3
		Total -		**20**

3rd Semester				
Sl. No.	**Subject Code**	**Name of subjects**	**Course Level**	**Credit**
Major Core Papers				
1	AVE092M311	2D Animation	200	4
2	AVE092M312	3D Lighting and Rendering	200	4
Minor Papers				
3	AVE092N311	Introduction to 3D	200	4
Interdisciplinary Course				
4	AVE092I311	Motion Design	200	3
Ability Enhancement Course (AEC-3)				
5	CEN982A301	CEN III – Fundamentals of Business Communication	200	1
6	BHS982A302	Behavioural Science-III	200	1
Skill Enhancement Courses (SEC-3)				
7	AVE092S311	Introduction to Visual Effects	200	3
		Total -		20

4th Semester				
Sl. No.	**Subject Code**	**Name of subjects**	**Course Level**	**Credit**
Major Core Papers				
1	AVE092M411	2D Animation FX and Compositing	200	4
2	AVE092M412	Rigging & 3D Animation Techniques	200	4
3	AVE092M413	Introduction to Chitra Art with Mo-graph (IKS based)	200	4
Minor Papers				
4	AVE092N411	Basics of Video Editing	200	3
5	AVE092N412	Foundation of Visual Effects	200	3
Ability Enhancement Course (AEC)				
7	CEN982A401	CEN IV: Business Communication: Concepts and Skills	200	1
8	BHS982A402	Behavioural Science-IV	200	1
		Total -		20

5th Semester				
Sl. No.	**Subject Code**	**Name of subjects**	**Course Level**	**Credit**
Major Core Papers				
1	AVE092M511	Compositing & CGI Integration	300	4
2	AVE092M512	Overview of Dynamics	300	4
3	AVE092M513	Rigging and 2D Animation	300	4
Minor Papers				
4	AVE092N511	Stop Motion	300	4
5	AVE092I511	Internship	300	4
		Total -		20

6th Semester				
Sl. No.	**Subject Code**	**Name of Subjects**	**Course Level**	**Credit**
Major Core Papers				
1	AVE092M611	Post-production for 2d Animation	300	4
2	AVE092M612	Advanced 3D Dynamics	300	4
3	AVE092M613	Procedural Animation and Compositing for Film	300	4
4	AVE092M604	Film Appreciation & Analysis	300	4
Minor Papers				
5	AVE092N611	Pencil to Pixel	300	4
		Total -		20

7th Semester				
Sl. No.	**Subject Code**	**Name of Subjects**	**Course Level**	**Credit**
Major Core Papers				
1	AVE092M711	Concept for Game Design and Prototype	400	4
2	AVE092M702	Research Methodology	400	4
3	AVE092M713	Visual Effects Production	400	4
4	AVE092M714	Overview of UI/UX	400	4
Minor Papers				
5	AVE092N711	Introduction to Architecture Modelling	400	4
		Total -		20
8th Semester				
Sl. No.	**SubjectCode**	**Name of Subjects**	**Course Level**	**Credit**
1	AVE092M801	Media Entrepreneurship	400	4
Minor Papers				
2	AVE092N811	Papercut Puppetry	400	4
3	AVE092M812	**Project Dissertation/Research Project** (Preferred Option)	400	12
4	AVE092M813	Short Film for 2D Animation	400	4
5	AVE092M814	3D Portfolio Development with Industry Pipeline	400	4
6	AVE092M815	VFX – Portfolio Development	400	4
		Total -		20

Semester I	
Major Paper-1	History of Animation and Multimedia
Subject Code	AVE092M101
Credit	3
L-T-P-C	2-1-0-3
Scheme of Evaluation	Theory

Course Objective: New interpretations of contemporary ideas of animation based on an understanding of the history of animation.

Course Outcomes:

On successful completion of the course, the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Find** the meaning, concept, and process of animation.	**BT 1**
CO 2	**Classify** the characteristics of the different types of animation.	**BT 2**
CO 3	**Develop** the principles of animation theories in Multimedia.	**BT 3**
CO 4	**Analyze** the composition associated with the rise and evolution of animation.	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**History of Animation** Influence of predecessors,1888–1909: Earliest animations on film, 1910s: From original artists to "assembly-line" production studios,1920s: Absolute film, synchronized sound and the rise of Disney,1930s: Color, depth, cartoon superstars and Snow White,1950s: Shift from classic theatrical cartoons to limited animation in TV series for children,2000s–2010s: traditional techniques overshadowed by computer animation.	**15**
II	**History of Mean Methods of Animation** Magic Lanterns and the zoetrope, Puppet Animation, Animated Series, Movies, History of comic and manga, Celluloid Animation, 2D Animation,3D Animation, Motion Graphics, Stop Motion, cut-out animation.	**15**
III	**History of Anime** Origins of Anime (early 1900-1922), Pre-war productions (1923-1939), During the Second World War, Post-war environment, Toei Animation and Mushi Production	**15**
IV	**Case Studies** Study about Fantasmagoria; Art Books of Animated Movies; The Art of Aaron Blaise (Animal Study)	**15**
	Total	**60**

Text Books:

- Blaise, Aaron. (2021). *The Art of Aaron Blaise*. Vol.1. ISBN 1737328801.
- Eugene, Emile. &Courted, Jean Louis. (1908). *Fantasmagorie.* Movie

Reference Books:

- "Of Mice and Magic: A History of American Animated Cartoons" by *Leonard Maltin*
  (A detailed history of animation in America with insights into studios, techniques, and key figures.)

- "Animation: A World History" (3 Volumes) by Giacomo Miceli
  (A comprehensive series covering global animation history, styles, and evolution.)

Credit Distribution			
Theory/Tutorial	**Practicum**	**Experiential Learning**	
60 hrs.	NA	30 hrs. Workshop (10hrs), Presentation (preparation – 3hrs, presentation 40 min), Movie Screening (3hrs 40 min), Casestudies (6hrs 20min)	
Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Two Workshop	NA	10hrs	10hrs
Presentations after observing the workshop	3	40min (20 min each)	3hrs 40min
Movie Screening	NA	10hrs	10hrs
Case studies	NA	6hrs 20min	6hrs 20min
Total Hours			**30**

Semester I	
Major Paper-2	Fundamentals of Drawing for Animation
Subject Code	AVE092M112
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: To equip the students with the foundational concepts of art that will enable them to understand, draw different art styles, study human and animal anatomy.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Recall** the basics of skeleton, muscle, proportion of animal and human anatomy to portray the art in the most compelling way.	**BT 1**
CO 2	**Demonstrate** the understanding of shapes and forms, styles, andtraditions through familiarization with a wide range of design, styles, etc.	**BT 2**
CO 3	**Apply** the knowledge of art to draw prospective drawing and human figures.	**BT 3**
CO 4	**Classify** new interpretations of contemporary ideas of design based on the understanding of Principles of Designs and Elements of Shape.	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**Fundamentals of Animation** Principles of Designs and Elements of Shape, Shape Modification, Stick Figures, Gesture Drawing's Depth Study, Color Theory; Doubt Clearing Assignments	**15**
II	**Human and Animal's Anatomy** Studies of Skeleton, Muscle, Proportion; Studies of Animal Skeleton, Muscles, Proportion; Self Hand and Feet Drawing; Animal Family Study, Head and Body Turn Around	**15**
III	**Still life Using Perspectives** Exterior, Interior, Angle Design by Applying Linear Perspective; Still life Drawing and Composition, Pencil, Black and White and Color, Rendering; Doubt Clearing Assignments	**15**
IV	**Character Designing Using Basic Shapes** Introduction to Character Drawing with Basic Shape, Expression Sheet, Character Style Study, Pose Board, Character Concept Art, Manual, Character Turn Around, Character Personality	**15**
TOTAL		**60**

Text Books:

- Drawing and Anatomy by Victor Perard (1928)
- Illusion of Life by Frank Thomas and Olli Johnston (1981)

Reference Books:

- "Figure Drawing for All It's Worth" by Andrew Loomis
  (Essential for understanding anatomy and proportion, foundational for animators.)
- "Force: Dynamic Life Drawing for Animators" by Michael D. Mattesi
  (Focuses on gesture, energy, and motion, which are crucial in animation drawing.)

Credit Distribution		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40hrs.	30 hrs. Live Sketching (15hrs), Photography for inspirationboard / reference (5hrs), Projects and Portfolio (10).

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time (hrs.)
Live Sketching (human)	NA	15	15
Photography for inspiration board / reference	NA	5	5
Projects and Portfolio	NA	10	10
Total Hours			**30**

Semester I	
Minor Paper-1	Color Theory & Abstract
Subject Code	AVE092N111
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: The objective of Color Theory & Abstract is to enable the students to develop the knowledge of color and its applications in different scenarios.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Define** the application and uses of color	**BT 1**
CO 2	**Classify** the color terminologies and theories	**BT 2**
CO 3	**Develop** the different color schemes on compositions	**BT 3**
CO 4	**Analyze** color psychology in real world scenarios	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**Abstract** Optical illusion, Pencil rendering, Value, composition	**15**
II	**Colour Wheel** Colour wheel – Primary, Secondary and Tertiary Colours	**15**
III	**Grey Scale** Whites & Blacks, Hues, Tints, and Shades	**15**
IV	**Colour Schemes** Monochromatic, Warm, Cool, Complimentary, Split Complimentary, Analogous, Triadic Colour	**15**
	TOTAL	**60**

Textbooks:

- Interaction of Color by Josef Albers
- The Secret Lives of Color by Kassia St. Clair

Reference Books:

- The Color Bible: The definitive guide to color in art and design by Laura Perryman
- "Interaction of Color" by Josef Albers
  (A seminal work in color theory, perfect for deep understanding of color relationships.)

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Extracurricular Activity (10hrs), Mood Board Creation (preparation – 3hrs, presentation 1hrs), Nature Color Walk (1hrs on preparation, 4hrs on presentation), Color Psychology Experiment (5hrs). Case studies (6hrs)

Break up of Experiential learning

Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time (hrs.)
Extracurricular Activity	NA	10 hrs	10 hrs
Mood Board Creation	3 hrs	1 hrs	4 hrs
Nature Color Walk	4 hrs	1 hrs	5 hrs
Color Psychology Experiment	NA	5 hrs	5 hrs
Case studies	NA	6 hrs	6 hrs
Total Hours			**30**

Semester I	
Interdisciplinary Course (IDC-1)	Introduction to Indian Knowledge System - I
Subject Code	IKS992I101
Credit	3
L-T-P-C	2-1-0-3
Scheme of Evaluation	Theory (70%) + Continuous Evaluation (30%)

Credit Distribution (hours)		
L/T	P	EL
60	0	30

Course objective: This Foundation course is designed to present an overall introduction to all the streams of IKS relevant to the UG program. It would enable students to explore the most fundamental ideas that have shaped Indian Knowledge Traditions over the centuries.

Course Outcomes:

On completion of this course students will be able to –

CO Level	Course Outcomes	BT Level
CO1	**Recall** the rich heritage of Indian knowledge systems	BT level 1
CO2	**Describe** the contribution of Indian knowledge systems to the world	BT level 2
CO3	**Demonstrate** knowledge of sociocultural and ethnolinguistic diversity that constitutes the soul of Bharatvarsha	BT level 2
CO4	**Apply** traditional knowledge and techniques in day-to-day life	BT level 3
CO5	**Distinguish** knowledge traditions that originated in the Indian subcontinent	BT level 3

Module	Course Contents	Periods
I	**Introduction to Indian Knowledge Systems (IKS):** -What is the Indian Knowledge System? -Definition of Indigenous/ Traditional Knowledge -Scope, and Importance of Traditional Knowledge. **Ancient India- Bharat Varsha:** -People of Ancient Bharat Varsha -Our great natural heritage: The great Himalayas and the rivers. - The civilizations of the Sindhu-Ganga valley, and the Brahmaputra valley. -Our coastal plains. -Our Nature: Forests and Minerals -Ancient Indian Traditional Knowledge and Wisdom about nature and climate.	15
II	**Indian Heritage of Knowledge:** -Ancient Indian Knowledge: The *Vedas* and its components-the *Vedangas* -Ancient Indian Books and treaties: The *Sastras.* -The Great Indian Epics: The Ramayana and The Mahabharata, -Epics and religious treaties of ancient Assam: Introduction to Madhav Kandali's *Ramayan* and Srimanta Sankardev's *Dasam Skandha Bhagavat* of the Puranas. -Ancient Traditional Knowledge-The *Agamas* -The ancient Buddhist knowledge: *Tripitaka: Vinaya, Sutta* and *Abhidhamma Pitaka* **Languages and language studies in India**: -What is linguistics? -Script and Language -Alphabet of the Indian languages *Varnamala:* Origin, Evolution, and phonetic features. -Languages of India -Important texts of Indian languages: Skills *Siksha,* Expression/Prounciation-*Nirukta,* Grammer-*Vyakarana,* Poetic rhythm- *Chandas.* -Paninian Grammar: A Brief Introduction **Introduction to Fine Arts and Performing Arts of India:** -Ancient Indian classical music and dance forms: The Science of Dramas-*Natyasastra* and the Science of Music-*Gandharva-Veda.* -Aesthetics in Indian Art and Culture. -Folk music and traditional dance forms of the Northeast.	15
III	**Indian Science & Technology** -Ancient India's contribution to Mathematics- Number System. Algebra and Arithmetic, Geometry and Trigonometry. -Origin of Decimal system in India; nomenclature of numbers in the Vedas. Zero and Infinity. Sulba-sutras. Contribution of Brahmagupta and Sridhar Acharya to Mathematics. Important texts of Indian mathematics. • **Indian Astronomy:** Planetary System. Motion of the Planets. Velocity of Light. Eclipse. Astronomy. Navagrahas. Important works in Indian Astronomy. Aryabhata and Nilakantha: Contribution to Astronomical Studies • **Indian Metal Works:** Mining Techniques. Types of Metals. Tools &	15

	Techniques for Metal Smelting with examples. Metalworks in pre-modern India: Special reference to NE India.	
IV	**Contribution of Ancient India to Health Sciences:** -Traditional Indigenous systems of medicines in India: *Ayurveda* and *Yoga:* Elements of *Ayurveda: Gunas* and *Doshas, Pancha Mahabhuta* and *Sapta-dhatu*. -Concept of disease in Ayurveda -Ayurvedic lifestyle practices: *Dinacharya* and *Ritucharya.* -Important Ayurvedic Texts -Hospitals in Ancient India -*Ayurveda*: Gift of India to the modern world.	15
EL	The experiential learning sessions may include: • Field Visits: Organizing visits to historical sites, museums, traditional craft centers, and other places relevant to Indian knowledge systems. • Interactive Sessions: Engaging students in discussions with experts and practitioners in various fields of Indian knowledge systems to gain insights and practical knowledge. • Online Lecture Series: Providing the students with online lectures by distinguished experts in the field of the Indian Knowledge System. • Hands-on Activities: Providing opportunities for students to participate in activities related to traditional arts, crafts, music, dance, agriculture, etc., to understand the practical aspects of Indian knowledge systems. Practical Demonstrations: Conducting workshops or sessions to demonstrate traditional practices, such as yoga, Ayurveda, Vastu Shastra, etc., for the students.	30
	Total	90

Textbooks:

- Mahadevan, B., Bhat Vinayak Rajat, Nagendra Pavan RN. (2022), *Introduction to Indian Knowledge System: Concepts and Applications.* PHI Learning Private

Semester I	
AEC-1	CEN I: Introduction to Effective Communication
Subject Code	CEN982A101
Credit	1
L-T-P-C	1-0-0-1
Scheme of Evaluation	Theory and Practical

Course Objective: To understand the four major aspects of communication by closely examining the processes and outlining the most effective ways to communicate with interactive activities.

Course Outcomes: On successful completion of the course the students will be able to

CO Level	Course Outcomes	Blooms Taxonomy Level
CO 1	**List** the elements and processes that make for successful communication and **recognize** everyday activities that deserve closer attention to improve communication skills	**BT 1**
CO 2	**Contrast** situations that create barriers to effective communication and relate them to methods that are consciously devised to overcome such hindrance	**BT 2**
CO 3	**Apply** language, gestures, and paralanguage effectively to avoid miscommunication and articulate one's thoughts and build arguments more effectively	**BT 3**

Course Outlines:

Course Contents		
Units	**Course Contents**	**Periods**
I	Introduction to Effective Communication • Listening Skills o The Art of Listening o Factors that affect Listening o Characteristics of Effective Listening o Guidelines for improving Listening skills	**5**
II	• Speaking Skills o The Art of Speaking o Styles of Speaking o Guidelines for improving Speaking skills o Oral Communication: importance, guidelines, and barriers	**5**

III	• Reading Skills o The Art of Reading o Styles of Reading: skimming, surveying, scanning o Guidelines for developing Reading skills	**5**
IV	• Writing Skills o The Art of Writing o Purpose and Clarity in Writing o Principles of Effective Writing	**5**

Textbooks:

1. Rizvi, M. Ashraf. (2017). *Effective Technical Communication*. McGraw-Hill.
2. Chaturvedi, P. D. and Chaturvedi, Mukesh. (2014). *Business Communication.* Pearson.
3. Raman, Meenakshi and Sharma, Sangeeta. (2011). *Technical Communication: Principles and Practice* (2nd Edition): Oxford University Press.

Credit Distribution		
Lecture/Tutorial	**Practicum**	**Experiential Learning**
15 hours	-	10 hours - Movie/ Documentary /Podcasts screening - Peer teaching

Semester I	
AEC-2	Behavioural Science -1
Subject Code	BHS982A102
Credit	1
L-T-P-C	1-0-0-1
Scheme of Evaluation	Theory

Course objective: To increase one's ability to draw conclusions and develop inferences about attitudes and behaviour, when confronted with different situations that are common in modern organizations.

Course Outcomes: On completion of the course the students will be able to:

CO1: **Understand** self & process of self-exploration

CO2: **Learn** about strategies for the development of healthy self-esteem

CO3: **Apply** the concepts to build emotional competencies.

Course Outlines:

Modules	Course Contents	Periods
I	**Introduction to Behavioral Science** Definition and need of Behavioral Science, Self: Definition components, Importance of knowing self, Identity Crisis, Gender and Identity, Peer Pressure, Self-image: Self Esteem, Johari Window, Erikson's model.	4
II	**Foundations of individual behavior** Personality- structure, determinants, types of personalities. Perception: Attribution, Errors in perception. Learning- Theories of learning: Classical, Operant and Social	4
III	**Behaviour and communication.** Defining Communication, types of communication, barriers to communication, ways to overcome barriers to Communication, Importance of Non-Verbal Communication/Kinesics, Understanding Kinesics, Relation between behaviour and communication.	4
IV	**Time and Stress Management** Time management: Introduction-the 80:20, sense of time management, Secrets of time management, Effective scheduling. Stress management: effects of stress, kinds of stress-sources of stress, Coping Mechanisms. Relation between Time and Stress.	4
Total		**16**

Textbooks

- J William Pfeiffer (ed.) Theories and Models in Applied Behavioural Science, Vol 3, Management; Pfeiffer &Company
- Blair J. Kolasa, Introduction to Behavioural Science for Business, John Wiley & Sons Inc

Semester I	
Skill Enhancement Courses -1	Characters & Illustration
Subject Code	AVE092S111
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: A personal illustration style and technique that uses both traditional and digital skills and incorporates acquired knowledge, experience, judgement, and unique aesthetic vision.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Bloom's Taxonomy Level**
CO 1	**Define** a character's traits, personality, backstory according to the story	**BT 1**
CO 2	**Relate** different styles through which students can sketchdifferent themes or character design props.	**BT 2**
CO 3	**Build** the different techniques in illustration.	**BT 3**
CO 4	**Analyze** themes of different conceptual art of animation	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**Art Fundamentals** the Basic Structure of Art and Drawing, Breaking Downthe Structure, Skill vs. Emotion in Drawing, The Importance of Story in Drawing, Drawing Art Studies vs Drawing Art Creation Drawing Imaginative Art	**15**
II	**Character forms and proportion** Studies of Skeleton, Muscle, Proportion; Studies of Animal Skeleton, Muscles, Proportion; Self Hand and Feet Drawing; Animal Family Study, Head and Body Turn Around; Understanding the Form and Volume; Doubt Clearing Assignments	**15**
III	**Hair cloth Dynamics** Fundamental of drawing hair, Basic Components of drawing hair, drawing basic hair shapes, drawing clothing and cloth dynamics	**15**
IV	**Character post- production** Creating Clean Lines and Line Art for Finishing Drawings Creating Rough Clean Lines and Line Art for Finishing DrawingsCharacter Page Composition when Drawing Characters, Story board, Pose board, Inspiration board, Expression sheet	**15**
TOTAL		**60**

Textbooks:

- Creating Stylized Characters by Marisa Lewis
- The Silver Way: Techniques, Tips, and Tutorials by Stephen Silver

Reference Books:

- "Character Design from the Ground Up" by Kevin Crossley
  (Practical and creative advice on creating compelling characters with abstract or stylized features.)
- "Creating Characters with Personality" by Tom Bancroft (former Disney animator)
  (A practical guide that walks you through developing unique, animated characters from idea to final design. Includes interviews with top industry artists.)

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
20 hrs.	40 hrs.	30 hrs. Conceptual Sketching (10hrs),Project and Portfolio (15hrs), Photography for inspiration board / reference (2hrs), Case studies (3hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Conceptual Sketching basedtrends	NA	10	10
Project and Portfolio basedtrends	NA	15	15
Photography for inspirationboard / reference	NA	2	2
Case studies	NA	3	3
Total Hours			**30**

Semester II	
Major Course -1	Concept Art and Digital Painting
Subject Code	AVE092M211
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective:

To define the concepts, techniques, principles and practices in Advertising and Public Relations to classify the mysteries of media marketing, positioning, market segmentation and targeting in advertising as well as the significance of media in globalization.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**How** a rough concept of branding, art style, character's traits, personality, props according to the script and use that information as a guide for creating the visuals	**BT 1**
CO 2	**Interpret** the different styles, sketch different themes, cartoons, design, props and environment.	**BT 2**
CO 3	**Construct** the themes of different conceptual art and design	**BT 3**
CO 4	**Analyze** conceptual art and design using various tricks and technique	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**Workspace and Tools** Introduction to User Interfaces, Basic Setting, Text, Layer Management,Tools	**15**
I I	**Masking and Filters** Masking and Filters	**15**
I I I	**Digital Painting and Matte Painting** Still life Painting, how light falls on form, Dynamic light and shadow, Photo basing, digital painting technique and tips, Illustration, Manipulation,	**15**
IV	**Master Layout Design and Background** Master Layout Design, Rough Final layout(beats), Layout and Colouring	**15**

Textbooks:

- Bold Visions: A Digital Painting Bible
- Digital Painting Techniques: Practical Techniques of Digital Art Masters" by 3D Total

Reference Books:

- The Skillful Huntsman: Visual Development of a Grimm Tale" by: Scott Robertson, Design Studio Press
  (Use: A brilliant breakdown of the entire concept art process—from thumbnail to character/environment design.)
- "Art Fundamentals: Theory and Practice" by: 3dtotal Publishing
  (Use: Covers composition, color theory, anatomy, and light—core to visual storytelling in concept art.)

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Photography for inspiration board / reference/visualizationtechnique (6hrs), Project and Portfolio (15hrs), Conceptual Sketching (6hrs), Case studies(3hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Photography for inspiration board / reference/visualizationtechnique	NA	6	6
Project and Portfolio	NA	15	15
Conceptual Sketching	NA	6	6
Case studies	NA	3	3
Total Hours			**30**

Semester II	
Major Course -II	3D Modelling and Texturing
Subject Code	AVE092M212
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: This course would likely enhance the students' abilities in both the technical aspects of 3D modeling and the creative aspects of design and texturing, allowing them to produce high-quality, visually appealing models for a variety of digital applications.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Finding** the object's shape, texture, and appearance using polygons, curves, and other geometric primitives.	**BT 1**
CO 2	**Explain** 3D model to view from any angle and use for a variety ofpurposes, such as visualization, animation, prototyping, etc.	**BT 2**
CO 3	**Apply** the knowledge of shapes and forms to model a character, object,and environment.	**BT 3**
CO 4	**Analyze** new interpretations of contemporary ideas of 3d texturing	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**Modelling:** Introduction; Hardware/Software; Pipeline Demonstration; 3d Interface; Low Poly Modelling; Export/Import; Collision	**15**
II	**Surfacing:** High Poly Modelling; Normal Bake; Masking Height; Bake Other Maps;Substance Painter Materials; Export; Photoshop	**15**
III	**Modularity:** Wall Set–Model; Modularity: Wall Set–Unwrap. Modularity: Wall Set - Height & Normal; Modularity: Wall Set - Materials,Modularity: Wall Set - Export & Import to Unity; Modularity: Wall Set – Unity Prefabs; Modularity: Wall Set - Level Layout	**15**
IV	**Terrain:** Foliage: Palm Tree (model/unwrap), Foliage: Palm Tree, Terrain: SculptingHeight, Terrain: Adding Textures, Terrain: Adding Trees & Decorations. Terrain: Polish	**15**
	TOTAL	**60**

Textbooks:

- Vaughan, William. (2011). Digital Modeling. Edition 1, ISBN 978-0321700896, New RidersPub
- Legaspi, Chris. (2015). Anatomy for 3D Artists: The Essential Guide for CG Professionals.3dtotal Publishing

Reference Books:

- Digital Modeling" by William Vaughan, Published by New Riders
- Introducing Autodesk Maya" by Dariush Derakhshani
  (Good for understanding 3D modeling, rigging, and texturing inside Maya)

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Visualization technique (6hrs), Project and Portfolio (15hrs), Conceptual Sketching (6hrs), Case studies(3hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Visualizationtechnique	NA	6	6
Project and Portfolio	NA	15	15
Shape Exploration Jam	NA	6	6
Iterative Design Showcase	NA	3	3
Total Hours			**30**

Semester II	
Minor Course -I	Graphic Design
Subject Code	AVE092N211
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: To refine the techniques, principles, and practices in Branding to classify the mysteries of media marketing, positioning, market segmentation and targeting in advertising as well as the significance of media in globalization.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	**Choose** different designs and themes	**BT 1**
CO 2	**Illustrate** the Graphic in different types of Branding.	**BT 2**
CO 3	**Apply** ranges of images using different design techniques.	**BT 3**
CO 4	**Analyze** the visual research and development skills through the creation of a Brand Development Guide	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**Fundamentals of Graphic Design** Introduction to interface of software, Implement the fundamentals of color, visual, rhythm, and pattern in design. Use scale, weight, direction, texture, and space in a compositionTypeset text and experiment with letter forms Create your own series of images using different image makingtechniques	**15**
II	**Typography** Review the terminology and measuring system used to describe type Explore how typefaces tell stories and understand the historic evolution Conduct a peer-reviewed typesetting exerciseDesign of a full-scale typographic poster	**15**
III	**Image Making** Make informed design choices using image-based research Create ranges of representation using images Compose spreads for Books Design a Books with your own images.	**15**
IV	**Branding** Synthesize typography, image making, composition and systematic thinking skills through ideation, invention, and conceptualization. Demonstrate visual research and development skills through the creation of a Brand Development Guide Expand a brand identity's palette through the inclusion of graphicmarks or icons, color, secondary typefaces, and/or images	**15**
TOTAL		**60**

Textbooks:

- Grid Systems in Graphic Design, by Josef Müller-Brockman
- Paula Scher: Works, by Tony Brook & Adrian Shaughnessy

Reference Books:

- "Adobe Illustrator Classroom in a Books" (Latest Edition) by Brian Wood (Adobe Press)
- "Adobe Illustrator WOW! Books" by author: Sharon Steuer

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs., 3x30=90			
Lecture /Tutorial	Practicum	Experiential Learning	
20hrs	40 hrs.	30 hrs. Project and Portfolio (15hrs), Poster Designing Challenge (5hrs), Photography for inspiration board / reference (5hrs), Casestudies (5hrs)	
Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required forexecution (hrs.)	Total Time(hrs.)
Project and Portfolio basedtrends	NA	15	15
Poster Designing Challenge	NA	5	5
Photography for inspirationboard / reference	NA	5	5
Case studies	NA	5	5
Total Hours			**30**

Semester II	
Interdisciplinary Course	Introduction to Indian Knowledge System - II
Subject Code	IKS992I201
Credit	3
L-T-P-C	2-1-0-3
Scheme of Evaluation	Theory (70%) + Continuous Evaluation (30%)

Credit Distribution (hours)		
L/T	P	EL
60	0	30

Course objective:

This Foundation course is designed to present an overall introduction to all the streams of IKS relevant to the UG program. It would enable students to explore the most fundamental ideas that have shaped Indian Knowledge Traditions over the centuries.

Course Outcomes:

On completion of this course, students will be expected to –

CO Level	Course Outcomes	BT Level
CO1	**Recall** traditional Indian knowledge traditions constituting Indian culture	BT level 1
CO2	**Summarize differences** between classical literature in Sanskrit and other Indian languages	BT level 2
CO3	**Compare** knowledge traditions originating in NE India	BT level 2
CO4	**Appreciate** the contribution of Indian Knowledge Systems to the world	BT level 3

Module	Course Contents	Periods
I	**Indian Classical Literature** Indian Classical Literature: A Brief Introduction. Ancient Indian Spiritual Poetics-*Kavya*: Contribution of Kalidasa **Diversity and Indian Culture**: Diversity and Indian Culture -Indigenous Faith and Religion -Preservation of culture and indigenous knowledge **The Purpose of** Knowledge Understanding Self-Awareness and Spirituality. -Indian concept and purpose of Knowledge and Education Understanding Spirituality and Materialism: *Para* and *Apara Vidya*	15

II	**Methodology of Indian Knowledge System:** - Shruti and Smriti traditions. - -Introduction to Shastras. - -Manuscriptology: The art and science of documenting knowledge. - -Repositories of ancient manuscripts with special reference to the Northeast India. **Indian Architecture and Town Planning:** - Introduction ancient Indian architecture. - *Sthapatya-Veda*: An Introduction - Indigenous tools & techniques for town planning & Temple Architecture. Lothal, Mohan Jo Daro. - Temple Art: Lepakshi Temple, Jagannath Puri Temple, Konark Sun Temple. - Vernacular architecture of Assam: Special reference to Brahmaputra Valley	15
III	**Indian Agriculture:** - Agriculture: Significance in Human Civilization. - Sustainable Agriculture. - Historical significance of agriculture and sustainable farming in India. - Step Cultivation of India: Special reference to Northeast India. - Wet rice cultivation of Assam. **Indian Textiles:** What is Textile? - Tradition of cotton and silk textiles in India. - The historical contribution of textile and weaving to the Indian economy. - Varieties of textiles and dyes developed in different regions of India with special reference to Northeast India	15

IV	**Indian Polity and Economy:** • Understanding Kingdom and Chiefdom • Role of a king • The Indian idea of a well-organized polity and flourishing economy. • The *Chakravarti* System: Administrative System of Ancient *Bharatvarsha*. • Village administrative system: Northeast India. • *Arthashastra*: Brief synopsis **The outreach of Indian Knowledge System across Geographical Boundaries** • Indian Languages. • Scripts. • Linguistics. • Ayurveda. • Yoga and Meditation. • Textile • Decimal value place system-based arithmetic, Algebra and Astronomy	15
EL	The experiential learning sessions may include: • Field Visits: Organizing visits to historical sites, museums, • traditional craft centers, and other places relevant to Indian knowledge systems. • Interactive Sessions: Engaging students in discussions with experts and practitioners in various fields of Indian knowledge systems to gain insights and practical knowledge. • Online Lecture Series: Providing the students with online lectures by distinguished experts in the field of the Indian Knowledge System. • Hands-on Activities: Providing opportunities for students to • participate in activities related to traditional arts, crafts, music, dance, agriculture, etc., to understand the practical aspects of Indian knowledge systems. • Practical Demonstrations: Conducting workshops or sessions to demonstrate traditional practices, such as yoga, Ayurveda, Vastu Shastra, etc., for the students.	30
	Total	90

Textbooks Books:

1. Mahadevan, B., Bhat Vinayak Rajat, Nagendra Pavan RN. (2022), *Introduction to Indian Knowledge System: Concepts and Applications.* PHI Learning Private Ltd.
2. Mukul Chandra Bora, *Foundations of Bharatiya Knowledge System.* Khanna Books Publishing

Reference Books:

1. Baladev Upadhyaya, *Samskrta Śāstrom ka Itihās*, Chowkhambha, Varanasi, 2010.
2. D. M. Bose, S. N. Sen and B. V. Subbarayappa, Eds., *A Concise History of Science in India*, 2nd Ed., Universities Press, Hyderabad, 2010.
3. Astāngahrdaya, Vol. I, *Sūtrasthāna and Śarīrasthāna*, Translated by K. R. Srikantha Murthy, Vol. I, Krishnadas Academy, Varanasi, 1991.
4. Dharampal, *The Beautiful Tree: Indian Indigenous Education in the Eighteenth Century*, Dharampal Classics Series, Rashtrotthana Sahitya, Bengaluru, 2021.
5. J. K. Bajaj and M. D. Srinivas, *Indian Economy and Polity in Eighteenth century Chengalpattu*, in J. K. Bajaj ed., Indian Economy and Polity, Centre for Policy Studies, Chennai, 1995, pp. 63-84.

Semester II	
AEC-1	Approaches to Verbal and Non-Verbal Communication
Subject Code	CEN982A201
Credit	1
L-T-P-C	1-0-0-1
Scheme of Evaluation	Theory and Practical

Course Objective To introduce the students to the various forms of technical communication and enhance their knowledge in the application of both verbal and non-verbal skills in communicative processes.

Course Outcomes

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**List** the different types of technical communication, their characteristics, their advantages and disadvantages.	**BT 1**
CO 2	**Explain** the barriers to communication and ways to overcome them.	**BT 2**
CO 3	**Identify** the means to enhance conversation skills.	**BT 3**
CO 4	**Determine** the different types of non-verbal communication and their significance.	**BT 4**

Course Outlines:

Modules	Topics (if applicable) & Course Contents	Periods
I	**Technology Enabled Communication** Communicating about technical or specialized topics, Different forms of technology-enabled communication tools used in organizations Telephone, Teleconferencing, Fax, Email, Instant messaging, Blog, Podcast, Videos, videoconferencing, social media	**4**
II	**Communication Barrier** Types of barriers: Semantic, Psychological, Organisational, Cultural, Physiological, Methods to overcome barriers to communication.	**4**
III	**Conversation skills/Verbal Communication** Conversation – Types of Conversation, Strategies for Effectiveness, Conversation Practice, Persuasive Functions in Conversation, Telephonic Conversation and Etiquette Dialogue Writing, Conversation Control.	**4**
IV	**Non-verbal Communication** Body language- Personal Appearance, Postures, Gestures, Eye Contact, Facial expressions Paralinguistic Features-Rate, Pause, Volume, Pitch/Intonation/ Voice/Modulation, Proxemics, Haptics, Artifacts, Chronemics,	**4**
	Total	**16**

Textbooks:

1. Rizvi, M. Ashraf. (2017). *Effective Technical Communication*. McGraw-Hill.
2. Chaturvedi, P. D. and Chaturvedi, Mukesh. (2014). *Business Communication.* Pearson.
3. Raman, Meenakshi and Sharma, Sangeeta. (2011). *Technical Communication: Principles and Practice* (2nd Edition): Oxford University Press.

Semester II	
AEC-2	Behavioural Science -II
Subject Code	BHS982A202
Credit	1
L-T-P-C	1-0-0-1
Scheme of Evaluation	Theory

Course objective: To increase one's ability to draw conclusions and develop inferences about attitudes and behaviour, when confronted with different situations that are common in modern organizations.

Course outcomes: On completion of the course the students will be able to:
CO 1: Develop an elementary level of understanding of culture and its implications on personality of people. **BT 1**
CO2: Understand the concept of leadership spirit and to know its impact on performance of employees. **BT 2**
CO3: Understand and **apply** the concept of Motivation in real life. **BT 3**

Modules	Course Contents	Periods
I	**Culture and Personality** Culture: Definition, Effect, relation with Personality, Cultural Iceberg, Overview of Hofstede's Framework, Discussion of the four dimensions of Hofstede's Framework.	4
II	**Attitudes and Values** Attitude's definition: changing our own attitudes, Process of cognitive dissonance Types of Values, Value conflicts, Merging personal and Organisational values	4
III	**Motivation** Definition of motivation with example, Theories of Motivation (Maslow, McClelland's theory& Theory X and Y)	4
IV	**Leadership** Definition of leadership, Leadership continuum, types of leadership, Importance of Leadership, New age leaderships: Transformational & transactional Leadership, Leaders as role models.	4
Total		**16**

Textbooks:

- J William Pfeiffer (ed.) Theories and Models in Applied Behavioural Science, Vol 3, Management; Pfeiffer &Company
- Blair J. Kolasa, Introduction to Behavioural Science for Business, John Wiley & Sons Inc.
- Organizational Behaviour by Kavita Singh (Vikas publishers, 3rd Edition).

Semester II	
Skill Enhancement Course II	Introduction to Cinematography
Subject Code	AVE092S211
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: This course aims to provide a comprehensive understanding of the fundamental principles of filmmaking, with a focus on the use of cameras, lighting, scripting, character design, and storyboarding. It will empower students to harness these concepts to produce high-quality audio-visual content by the end of this course.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Find** the basics of the camera, it is working, and its functions and distinguish between various camera body parts, different shot sizes and various camera setups. Visualize the Rule of Thirds for better composition.	**BT 1**
CO 2	**Relate** the fundamentals of lighting that affects the visual mood and atmosphere of a scene. It also helps with better storytelling, shaping character experience and enhancing the cinematic lighting techniques.	**BT 2**
CO 3	**Construct** a script, design characters and story boarding.	**BT 3**
CO 4	**Apply** the knowledge of camera, lighting, scripting, designing characters and story boarding to explore the new dimensions of audio video editing and to generate a final product.	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**Fundamentals of Camera:** Basics of Camera, its functions, Single camera and multi-camera setup, accessories, composition, Rule of thirds, different types of shots.	**15**
II	**Fundamentals of Lighting:** Importance of lighting,3 point Lighting, 5-point Lighting, Silhouette,	**15**
III	**Scripting:** Scripting writing, Character designing, Storyboarding, Animatic,	**15**
IV	**Editing:** Understanding interface and editing concept, uses of transition, effects and tools, audio integration, Exporting final output.	**15**
TOTAL		**60**

Textbooks:

- Brown, Blain; Cinematography: Theory and Practice, Second Edition: Image Making for Cinematographers and Directors; Focal Press, 2011.
- Katz, D Steven; Film Directing Shot by Shot: Visualizing from Concept to Screen; MichaelWiese

Reference Books:

- "Cinematography: Theory and Practice" by author: Blain Brown
- "Film Directing Shot by Shot: Visualizing from Concept to Screen" by Steven D. Katz

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs., 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (5hrs), Study tour(5hrs), shooting (15hrs), Interaction with industry expert (5)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	5
Study Tour	NA	4	5
Shooting	NA	20	15
Interaction with industry expert	NA	1	5
		Total Hours	**30**

Semester III	
Major Course -I	2D Animation
Subject Code	AVE092M311
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: This course introduces the fundamentals of 2D animation, focusing on storyboards, animatics, and key principles like color, shape, biomechanics, and fluidity. Students will learn to create animated sequences that convey clear narratives with visual consistency.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Relate** storyboard and animatic sequence and overall flow of the story and whether the images effectively convey the intended narrative.	**BT 1**
CO 2	**Illustrate** animatic sequence 2-dimensional images drawing or creating each individual frame of the animation by hand or using digital software	**BT 2**
CO 3	**Apply** the knowledge of color, shapes, and forms to retain mood the mass of subject to create smooth sequence.	**BT 3**
CO 4	**Analyze** the knowledge of Bio-Mechanics and animated sequence	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**2D Digital Animation:** Interface, Timeline, Properties and Library, Character Tracing, Sack animation, Ball animation and 12 principles of animation	**15**
II	**Bio-Mechanics / Organic Animation (Digital):** Head Turn, Walk, Jump (all view), Run Cycle, Walk-Run-Stop, Character balance, Lip chart	**15**
III	**Biomechanics of 2d Animation:** Fighting Scene, turn around, secondary animation, follow through animation. In depth study on Time and space	**15**
IV	**Animatic:** Video reel with dialogue and Time	**15**
TOTAL		**60**

Textbooks:

- Williams, Richard. (2001). *The Animator's Survival Kit*
- *Timing for Animation, 40th Anniversary Edition (greyscale)*

Reference Books:

- "Animation 1: Learn to Animate Cartoons Step by Step" by author: Preston Blair
- "The Illusion of Life: Disney Animation" by author *Frank Thomas & Ollie Johnsto*

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Inspiration board / reference/visualization technique (6hrs), Project and Portfolio (15hrs), Conceptual Sketching (6hrs), Case studies (3hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
inspiration board / reference/visualizationtechnique	NA	6	6
Project and Portfolio	NA	15	15
Conceptual Sketching	NA	6	6
Case studies	NA	3	3
Total Hours			**30**

Semester III	
Major Course -I	3D Lighting and Rendering
Subject Code	AVE092M312
Credit	4
L-T-P-C	0-0-8-4
Scheme of Evaluation	Practical

Course Objective: Students will have a strong grasp of natural light properties, lighting nodes, and various rendering engines, as well as the skills to produce high-quality rendered images and walkthroughs. Students will also complete a final project to demonstrate their technical and creative abilities in 3D lighting and rendering.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Recall** Key Concepts of Natural Light and basic lighting tools and whether the images effectively convey the intended narrative.	**BT 1**
CO 2	**Explain** light node with the attributes	**BT 2**
CO 3	**Apply** the features of different render engines by optimizing render settings for efficiency and quality	**BT 3**
CO 4	**Analyze** new scenes by rendering them in different types of lights.	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
I	**3D lighting – 1:** Introduction to nature light and its properties, basic lights of the software.	15
II	**3D lighting – 2:** Light nodes and its attributes.	15
III	**Rendering:** Arnold Engine, V-ray Engine, Corona Rendering, / Render-man Engine by Pixar Studios, Cycle render	15
IV	**Project**: Students will have to individually submit rendered images/walkthrough submit in a storage device. Teachers will supervise the projects.	15
TOTAL		**60**

Textbooks:

- (2000). Digital Lighting and Rendering by Birn Jeremy.
- Lighting for Animation: The Art of Visual Storytelling" by Jeanette Barnes

Reference Books:

- "Digital Lighting and Rendering" by Jeremy Birn
- "Lighting for Animation: The Art of Visual Storytelling" by Jasmine Katatikarn & Michael Tanzillo (Blue Sky Studios)

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs., 3x30=90)			
Lecture /Tutorial	Practicum	Experiential Learning	
	60 hrs.	30 hrs. Conceptual Prototype (10hrs),Project and Portfolio (15hrs), (3hrs), Case studies (5hrs)	
Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time (hrs.)
Conceptual Prototype	NA	8	12
Project and Portfolio based on trends	NA	10	20
Case studies	NA	5	5
Total Hours			**30**

Semester III	
Minor Course -I	Introduction to 3D
Subject Code	AVE092N311
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: This course builds foundational 3D modeling skills using basic shapes, texturing, and lighting techniques. Students will create and render models for applications in gaming, animation, and storytelling, developing the ability to visualize and present 3D concepts effectively.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms TaxonomyLevel**
CO 1	**Define** the object's shape, texture, and appearance using basic primitives.	**BT 1**
CO 2	**Relate** texturing for a variety of purposes, such as gaming props, animation etc.	**BT 2**
CO 3	**Apply** the knowledge of lights to light a subject & object.	**BT 3**
CO 4	**Analyze** new ideas by rendering different subjects & object.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Modelling:** Introduction; Hardware/Software; Pipeline Demonstration; 3d Interface;Low Poly Modelling; Export/Import;	**15**
II	**Texturing:** UV Unwrapping, Nodes, baking texturing maps	**15**
III	Lighting: One-, Two- and Three-point lighting, Studio lighting, using HDRI Maps for Lighting.	**15**
IV	**Rendering:** Render the object & subject using different renderer.	**15**
	TOTAL	**60**

Textbooks:

- Vaughan, William. (2011). Digital Modeling. Edition 1, ISBN 978-0321700896, New Riders Pub
- Legaspi, Chris. (2015). Anatomy for 3D Artists: The Essential Guide for CG Professionals. 3dtotal Publishing

Reference Books:

- 3D Animation Essentials *by Beane*
- Introducing Autodesk Maya" (Latest Edition***)*** *by Dariush Derakhshani*

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Conceptual Prototype (10hrs),Project and Portfolio (15hrs), (3hrs), Case studies (5hrs)

Break up of Experiential learning

Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Conceptual Prototype	NA	10	10
Project and Portfolio based on trends	NA	15	15
Shape Exploration	NA	5	5
		Total Hours	**30**

Semester III	
Interdisciplinary Course	Motion Design
Subject Code	AVE092I311
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: The Motion Design Basics course introduces students to the fundamentals of visual storytelling using Photoshop and After Effects. It focuses on developing skills in creating dynamic graphics, animated text, and simple transitions by combining design principles with animation techniques. Students will learn to design assets in Photoshop and animate them in After Effects, gaining a foundational understanding of keyframes, motion paths, timing, and compositing. The course aims to build creative confidence and technical proficiency for entry-level motion graphics work.

Course Outcomes:

On successful completion of the course the students will be able to:

CO Level	Course Outcomes	Blooms Taxonomy Level
CO 1	**Recall** the basic tools, functions, and terminology used in Photoshop and After Effects.	**BT 1**
CO 2	**Explain** the principles of motion design and how design elements work in animated compositions	**BT 2**
CO 3	**Apply** the keyframes, transitions, and basic animation techniques to create motion graphics using After Effects.	**BT 3**
CO 4	**Analyze** the design elements and animation timing to enhance visual appeal and storytelling in motion graphics.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to After Effects** Introduction to the UI of software, composition, tools, encoder, and rendering, Keyframe Animation	**15**
II	**Introduction to Motion Graphics** Creating holographic HUD, Motion posters, animating texts, shapes and masking, trim path, and different type of effects, Path Animation, Puppet Tool,	**15**
III	**Introduction to Effects** Parallax animation, understanding assets and effects, Chroma key, Tracking and Stabilizing and Mocha Tracking	**15**
IV	**Project** Students will have to individually submit projects of each sub contents in a storage device. Teacher will supervise the projects	**15**
	TOTAL	**60**

Textbooks:

- Motion Graphic Design: Applied History and Aesthetics *by Krasner*
- Design for Motion: Fundamentals and Techniques of Motion Design *by Austin Shaw*

Reference Books:

- The Motion Graphics Handbook *by McKissick*
- Creating Motion Graphics with After Effects *by Chris & Trish Meyer*

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (5hrs), Typography Motion & Color Sync (10hrs), Visual Metaphor Design (5hrs), Morphing Challenge (10)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	5
Typography Motion & Color Sync	NA	4	10
Visual Metaphor Design	NA	20	5
Morphing Challenge	NA	1	10
		Total Hours	**30**

Semester III	
AEC-1	CEN III – Fundamentals of Business Communication
Subject Code	CEN982A301
Credit	1
L-T-P-C	1-0-0-1
Scheme of Evaluation	Theory and Practical

Course Objective: The aim of the course is to develop essential business communication skills, including effective writing, speaking, and interpersonal communication, to enhance professional interactions, collaboration, and successful communication strategies within diverse corporate environments.

Course Outcomes: On successful completion of the course the students will be able to:

CO Level	Course Outcomes	Blooms Taxonomy Level
CO 1	Define and list business documents using appropriate formats and styles, demonstrating proficiency in written communication for various business contexts.	**BT 1**
CO 2	Demonstrate confident verbal communication skills through persuasive presentations, active listening, and clear articulation to engage and influence diverse stakeholders.	**BT 2**
CO 3	Apply effective interpersonal communication strategies, including conflict resolution and active teamwork, to foster positive relationships and contribute to successful organizational communication dynamics	**BT 3**

Course Outlines:

Units	Course Contents	Periods
I	**Business Communication: Spoken and Written** • The Role of Business Communication • Classification and Purpose of Business Communication • The Importance of Communication in Management • Communication Training for Managers • Communication Structures in Organizations • Information to be Communicated at the Workplace • Writing Business Letters, Notice, Agenda and Minutes	**5**
II	**Negotiation Skills in Business Communication** • The Nature and Need for Negotiation o Situations requiring and not requiring negotiations • Factors Affecting Negotiation o Location, Timing, Subjective Factors • Stages in the Negotiation Process o Preparation, Negotiation, Implementation • Negotiation Strategies	**5**
III	**Ethics in Business Communication** • Ethical Communication • Values, Ethics and Communication • Ethical Dilemmas Facing Managers • A Strategic Approach to Business Ethics • Ethical Communication on the Internet • Ethics in Advertising	**5**
IV	**Business Etiquettes and Professionalism** • Introduction to Business Etiquette • Interview Etiquette • Social Etiquette • Workplace Etiquette • Netiquette	**5**
	Total	20

Textbooks:

1. Business Communication *by Shalini Verma*
2. Business Communication *by P.D. Chaturvedi and Mukesh Chaturvedi*

Semester III	
AEC-2	Behavioural Science -III
Subject Code	BHS982A302
Credit	1
L-T-P-C	1-0-0-1
Scheme of Evaluation	Theory

Course objective: To increase one's ability to draw conclusions and develop inferences about attitudes and behaviour, when confronted with different situations that are common in modern organizations. To enable the students to understand the process of problem solving and creative thinking.

Course outcomes: On completion of the course the students will be able to:

CO1: Understand the process of problem solving and creative thinking.
CO2: Develop and enhance of skills required for decision-making.

Modules	Course Contents	Periods
I	**Problem Solving Process** Defining problem, the process of problem solving, Barriers to problem solving (Perception, Expression, Emotions, Intellect, surrounding environment)	4
II	**Thinking as a tool for Problem Solving** What is Thinking: The Mind/Brain/Behaviour Critical Thinking and Learning: -Making Predictions and Reasoning. -Memory and Critical Thinking. - Emotions and Critical Thinking.	4
III	**Creative Thinking** - Definition and meaning of creativity, - The nature of creative thinking: Convergent and Divergent thinking, - Idea generation and evaluation (Brainstorming) - Image generation and evaluation. - The six-phase model of Creative Thinking: ICEDIP model	4
IV	**Building Emotional Competence** Emotional Intelligence – Meaning, components, Importance and Relevance Positive and Negative emotions Healthy and Unhealthy expression of emotions	4
Total		**16**

Textbooks:

- J William Pfeiffer (ed.) Theories and Models in Applied Behavioural Science, Vol 3, Management; Pfeiffer &Company
- Blair J. Kolasa, Introduction to Behavioural Science for Business, John Wiley & Sons Inc.

Semester III	
Minor Course -I	Introduction to Visual Effects
Subject Code	AVE092D313
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: The Introduction to Visual Effects (VFX) course provides a foundational understanding of VFX history, core techniques like compositing, keying, and motion tracking, and the role of VFX in storytelling. Students gain hands-on experience with industry tools such as Adobe After Effects learning to create basic effects and understand the VFX pipeline. The course also introduces team roles, industry workflows, and career pathways in film, television, and digital media.

Course Outcomes:

On successful completion of the course the students will be able to:

CO level	Course Outcomes	Blooms Taxonomy Level
CO 1	**Define** the holographic sequence and overall flow of the story and whether the images effectively convey the intended narrative.	**BT 1**
CO 2	**Demonstrate** live action world into imaginary world using VFX software	**BT 2**
CO 3	**Apply** the knowledge of. VFX for creating FX in shorts	**BT 3**
CO 4	**Analyze** appealing sequence using VFX technique and tools	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to After Effects:** Introduction to the UI of software, composition, tools, encoder, and rendering, Keyframe Animation	**15**
II	**Introduction Motion Graphics:** Creating holographic HUD, Motion posters, animating texts, shapes and masking, trim path, and different type of effects, Path Animation, Puppet Tool,	**15**
III	**Introduction Effects:** Parallax animation, understanding assets and effects, Chroma key, Tracking and Stabilizing and Mocha Tracking	**15**
IV	**Project:** Students will have to individually submit projects of each sub contents in a storage device. Teacher will supervise the projects	**15**
	TOTAL	**60**

Textbooks:

1. Brown, Blain; Cinematography: Theory and Practice, Second Edition: Image Making forCinematographers and Directors; Focal Press, 2011.
2. Katz, D Steven; Film Directing Shot by Shot: Visualizing from Concept to Screen; MichaelWiese

Reference Books:

- The Visual Effects Handbook: Hollywood's Next-Generation Guide to Digital Filmmaking *by Goulekas*
- Adobe After Effects Classroom in a Book (*Adobe Press)* – Hands-on projects for beginners in compositing and basic VFX.

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs., 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (10hrs), Color Grading a Scene (5hrs), VFX Moodboard & Color Breakdown (10hrs), Rotoscope & Recolor Challenge (5)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	10
Color Grading a Scene	NA	4	5
VFX Moodboard & Color Breakdown	NA	20	10
Rotoscope & Recolor Challenge	NA	1	5
		Total Hours	**30**

Semester IV	
Major Course 1	2D Animation FX and Compositing
Subject Code	AVE092M411
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: To define the concepts, techniques, principles and practices in Advertising and Public Relations to classify the mysteries of media marketing, positioning, market segmentation and targeting in advertising as well as the significance of media in globalization.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Recall** 2D effects animation (also known as FX animation) special visual effects used in animation to create complex and dynamic effects or natural elements.	**BT 1**
CO 2	**Illustrate** each movement timing, spacing, and squash and stretch. These principles help to create a sense of weight, momentum, and fluidity in the animation	**BT 2**
CO 3	**Develop** technical proficiency, and attention to detail to create smooth and realistic 2d animation that captures the essence of the movement trying to depict.	**BT 3**
CO 4	**Analyze** Pseudo 3d (2.5D) and compile the shot	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Advance 2D Animation:** Separating biomechanics in performance, character dissection, rigging, tween classic | shape |motion animation and Lip-syncing with sound Character Coloring, Character Light and Shade, Guide Layer, Masking, introduction to Motion Path Animation and tweening, camera	**15**
II	**FX:** Water, air, fire, sand, and other various dynamics of 2D animation; Understanding physics in 2D; Pseudo 3d (2.5D)	**15**
III	**Compositing:** Compositing 2D animation with background, Color grade, Lighting and FX	**15**
IV	**Projects:** Students will have to individually submit projects of each sub content in a storage device. Teachers will supervise the projects.	**15**
	Total	**60**

Textbooks

- Williams, Richard. (2001). *The Animator's Survival Kit*
- Elemental Magic: The Art of Special Effects Animation *by Joseph Gilland*

Reference Books:

- Animated Performance: Bringing Imaginary Animal, Human and Fantasy Characters to Life *by Nancy Beiman*
- Digital Compositing for Film and Video *by Steve Wright*

Credit Distribution		
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Inspiration board / reference/visualization technique (6hrs), Project and Portfolio (15hrs), Elemental Burst Challenge (6hrs), 2D VFX Analysis Journal (3hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
inspiration board / reference/visualizationtechnique	NA	6	6
Project and Portfolio	NA	15	15
Elemental Burst Challenge	NA	6	6
2D VFX Analysis Journal	NA	3	3
Total Hours			**30**

Semester IV	
Major Course	Rigging & 3D Animation Techniques
Subject Code	AVE092M412
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: This course teaches the fundamentals of rigging and 3D animation, covering skeleton setup, IK/FK, controllers, and skinning. Students will create production-ready rigs and animate characters with expressive movement for games, films, and storytelling using industry-standard tools.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	Define different types of editors that govern the movement and behavior of objects.	**BT 1**
CO 2	Explain the setting up of different types of rigging for organic and inorganic models.	**BT 2**
CO 3	Develop the form of animations that can be related with different types of materials, sizes, shapes, and characters.	**BT 3**
CO 4	Analyze the various elements of rigging with different types of animation using principles of animation.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Nodes & Connections:** Node Editor, Utility Nodes, Connection Editor & SDK, Constraints, Joints, and FK/IK Handles,	**15**
II	**Rigging & Skinning of organic and inorganic:** Arm Set-up, Leg Set-up, setting up the Skeleton, Finishing the Rig with Controls, Skin Binding and Painting Weights, Facial Rigging, Character Pose with self-reference.	**15**
III	**Animation Principles:** Introduction to Animation (Timeline, Slider, Key Frames), Graph Editor, Different materials of bouncing balls together with Concept,	**15**
IV	**Animation Exercise:** Biped progressive walk, Run Cycle, Jump with distance, Basic face expressions with Joy, anger, shock, etc.	**15**
	TOTAL	**60**

Textbooks:

- 3D Animation Essentials: New Directions for Evaluation
- 3D Animation for the Raw Beginner Using Maya *by R. King*

Reference Books:

- Body Language: Advanced 3D Character Rigging *by Eric Allen & Kelly L. Murdock*
- Animation Methods: Rigging Made Easy *by David Rodriguez*

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90			
Lecture /Tutorial	Practicum	Experiential Learning	
	60 hrs.	30 hrs. Conceptual Prototype (10hrs),Project and Portfolio (15hrs), (3hrs), Case studies (5hrs)	
Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Conceptual Prototype	NA	8	12
Project and Portfolio based ontrends	NA	10	20
Case studies	NA	5	5
Total Hours			**30**

Semester IV	
Major Course	Introduction to Chitra Art with Mograph
Subject Code	AVE092M413
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: This course explores how traditional Indian art forms like Madhubani, Warli, and Pattachitra can inspire modern animation through their unique visual styles and storytelling techniques. Students will learn to incorporate visual metaphors, symbolic character designs, and mythological themes into contemporary animation, creating culturally rich narratives that blend heritage with innovation.

Course Outcomes:

On successful completion of the course the students will be able to:

CO Level	Course Outcomes	Blooms Taxonomy Level
CO 1	**Define** the traditional Indian art forms, such as Madhubani art, Warli art, or Pattachitra, can inspire modern animation techniques.	**BT 1**
CO 2	**Relate** the use of visual metaphors, storytelling techniques, and character design to convey deeper cultural meanings.	**BT 2**
CO 3	**Applying** the incorporation of these unique visual styles into contemporary animation.	**BT 3**
CO 4	**Analyze** how Indian mythology, folklore, and traditional art forms can be effectively portrayed through animation.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Illustrator Basics:** Overview of Illustrator Interface, Navigation and Workspace, Customization, Understanding Artboards, Using the Pen Tool, Creating Basic Shapes, Editing Paths, and Anchor Points	**15**
II	**Organizing and Exporting Objects:** Organizing Artwork with Layers, Creating and Editing Masks, Using Clipping Masks,	**15**
III	**Introduction to Mo-graph:** Motion Paths and Graph Editor, Shape Layers and Vector Graphics, Complex Keyframing	**15**
IV	**Project:** Students will have to submit a project of each sub-content using only the predefined software.	**15**
	TOTAL	**60**

Textbooks:

- Madhubani Art: Indian Art Series *by Bharti Dayal*
- Way: An Easy Introduction to Adobe Illustrator
- Adobe After Effects Classroom in a Book *published by Adobe Press*

Reference Books:

- Indian Folk and Tribal Paintings by B.N. Goswamy
- Traditional Indian Painting by A.K. Coomaraswamy

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (10hrs) Study Tour (10 hrs) Character from the Past (5 hrs) Interaction with industry expert (5 hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	10
Study Tour	NA	4	10
Character from the Past	NA	20	5
Interaction with industry expert	NA	1	5
		Total Hours	**30**

Semester IV	
Minor Course IV	Basics of Video Editing
Subject Code	AVE092N411
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: This course introduces the basics of camera operations, shot composition using the rule of thirds, and lighting techniques to enhance visual storytelling. Students will learn to use editing software to combine shots and analyze the final output by integrating camera work, lighting, character design, and storyboarding for effective audio-visual composition.

Course Outcomes:

On successful completion of the course the students will be able to:

CO Level	Course Outcomes	Blooms Taxonomy Level
CO 1	**Show** the basics of the camera, how it works, and its functions. Distinguish between various camera body parts, different shot sizes and various camera setups using Rule of Thirds for better composition	**BT 1**
CO 2	**Relate** the fundamentals of lighting that affects the visual mood and atmosphere of a scene. It also helps with better storytelling, shaping character experience and enhancing the cinematic lighting techniques	**BT 2**
CO 3	**Apply** the knowledge of software to construct a product from different shots.	**BT 3**
CO 4	**Analyze** the final product/composition containing camera, lighting, designing characters and story boarding/scripting to explore the new dimensions of audio video editing	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Fundamentals of Camera:** Basics of Camera, its functions, Single camera and multi-camera setup, accessories, composition, Rule of thirds, different types of shots.	15
II	**Introduction of Lighting:** Importance of lighting,3 point Lighting, 5-point Lighting,	15
III	**Video Software:** Adobe Premiere Introduction, hardware requirements; capturing; Timeline in depth; mixing; Exporting – all the video formats.	15
IV	**Video project:** Students will have to shoot and edit a short documentary/film and submit it for the purpose of the course. The film will be scripted, shot and edited by individual/group student for the fulfilment of the course.	15
TOTAL		**60**

Textbooks:

- Cinematography: Theory and Practice *by Blain Brown*
- Lighting for Cinematography *by David Landau*

Reference Books:

- The Filmmaker's Handbook *by Steven Ascher & Edward Pincus*
- Grammar of the Shot *by Roy Thompson & Christopher Bowen*

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (10hrs) Study Tour (5hrs) Shooting (10hrs) Interaction with industry expert (5hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	10
Study Tour	NA	4	5
Shooting	NA	20	10
Interaction with industry expert	NA	1	5
		Total Hours	**30**

Semester IV	
Minor Course V	Fundamentals of Visual Effects
Subject Code	AVE092N412
Credit	3
L-T-P-C	1-0-4-3
Scheme of Evaluation	Practical

Course Objective: This course introduces students to Adobe After Effects, focusing on composition, animation, and visual effects. Students will learn key tools for motion graphics, including path animation, puppet tools, camera projection, tracking, and green screen removal. The course also covers advanced text, shape, and masking animations, culminating in a project showcasing practical application.

Course Outcomes:

On successful completion of the course the students will be able to:

CO Level	Course Outcome	Blooms Taxonomy Level
CO 1	**Choose** the holographic sequence and overall flow of the story and whether the images effectively convey the intended narrative.	**BT 1**
CO 2	**Relate** the live action world with VFX to transform it into Imaginary world using VFX software	**BT 2**
CO 3	**Apply** the types of typography of different text to be able to adapt for creating any graphics.	**BT 3**
CO 4	**Analyze** the knowledge of VFX to create appealing composition.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to After Effects:** Introduction to the UI of software, composition, tools, encoder, and rendering	**15**
II	**Fundamentals of Visual Effects:** Path Animation, Puppet tool Animation, Camera Projection, Understanding assets and effects and Stabilizing, Tracking, Green Screen Removal	**15**
III	**Visual Effects:** Animating texts, shapes Animation, masking, trim path,	**15**
IV	**Video project:** Students will have to individually submit projects of each sub contents in a storage device. Teacher will supervise the projects	**15**
	TOTAL	**60**

Textbooks:

- The Visual Effects Arsenal: VFX Solutions for the Independent Filmmaker - *Bill Byrne*
- The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures *by Jeffrey A. Okun & Susan Zwerman (Editors)*

Reference books:

- Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students *by Ellen Lupton*
- Design for Motion: Fundamentals and Techniques of Motion Design *by Austin Shaw*

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs., 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (10hrs) Study Tour (4hrs) Shooting (10hrs) Interaction with industry expert (6hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	10
Study Tour	NA	4	4
Shooting	NA	20	10
Interaction with industryexpert	NA	1	6
		Total Hours	**30**

Semester IV	
AEC-1	CEN IV: Business Communication: Concepts and Skills
Subject Code	CEN982A401
Credit	1
L-T-P-C	1-0-0-1
Scheme of Evaluation	Theory and Practical

Course Objective: This course is designed to enhance employability and maximize the students' potential by introducing them to the principles that determine personal and professional success, thereby helping them acquire the skills needed to apply these principles in their lives and careers.

Course Outcomes: After the successful completion of the course, the students will be able to

CO Level	Course Outcome	Blooms Taxonomy Level
CO 2	**Demonstrate** understanding the importance of verbal and non-verbal skills while delivering an effective presentation.	**BT 2**
CO 3	**Develop** professional documents to meet the objectives of the workplace	**BT 3**
CO 3	**Identify** different life skills and internet competencies required in personal and professional life.	**BT 3**

Course Outline:

Units	Course Contents	Periods
I	**Presentation Skills:** Importance of presentation skills, Essential characteristics of a good presentation, Stages of a presentation, Visual aids in presentation, Effective delivery of a presentation	**5**
II	**Business Writing:** Report writing: Importance of reports, Types of reports, Format of reports, Structure of formal reports Proposal writing: Importance of proposal, Types of proposal, structure of formal proposals Technical articles: Types and structure	**5**
III	**Preparing for jobs:** Employability and Unemployability, Bridging the Industry-Academia Gap Knowing the four- step employment process, writing resumes, Guidelines for a good resume, Writing cover letters Interviews: Types of interviews, what does a job interview assess, strategies of success at interviews, participating in group discussions.	**5**

IV	**Digital Literacy and Life Skills:** **Digital literacy:** Digital skills for the '21st century', College students and technology, information management using Webspace, Dropbox, directory, and folder renaming conventions. Social Media Technology and Safety, Web 2.0. **Life Skills**: Overview of Life Skills: Meaning and significance of life skills, Life skills identified by WHO: self-awareness, Empathy, Critical thinking, Creative thinking, Decision making, problem-solving, Effective communication, interpersonal relationship, coping with stress, coping with emotion. Application of life skills: opening and operating bank accounts, applying for PAN, Passport, online bill payments, ticket Booking, gas Booking	**5**

Texts:

- Business Communication *by Shalini Verma References*
- Technical Communication *by Meenakshi Raman and Sangeeta Sharma*

Credit Distribution		
Lecture/Tutorial	**Practicum**	**Experiential Learning**
15 hours	-	10 hours - Movie/ Documentary screening - Field visits - Peer teaching - Seminars - Library visits

Semester IV	
AEC-2	Behavioural Science -IV
Subject Code	BHS982A402
Credit	1
L-T-P-C	1-0-0-1
Scheme of Evaluation	Theory

Course objective: To increase one's ability to draw conclusions and develop inferences about attitudes and behaviour, when confronted with different situations that are common in modern organizations.

Course outcomes: On completion of the course the students will be able to
CO1: Understand the importance of individual differences
CO2: Develop a better understanding of self in relation to society and nation
CO3: Facilitation for a meaningful existence and adjustment in society

Modules	Course Contents	Periods
I	**Managing Personal Effectiveness** Setting goals to maintain focus, Dimensions of personal effectiveness (self-disclosure, openness to feedback and perceptiveness), Integration of personal and organizational vision for effectiveness, A healthy balance of work and play, Defining Criticism: Types of Criticism, Destructive vs Constructive Criticism, Handling criticism and interruptions.	**4**
II	**Positive Personal Growth** Understanding & developing positive emotions, Positive approach towards future, Impact of positive thinking, Importance of discipline and hard work, Integrity and accountability, Importance of ethics in achieving personal growth.	**4**
III	**Handling Diversity** Defining Diversity, Affirmation Action and Managing Diversity, Increasing Diversity in Work Force, Barriers, and Challenges in Managing Diversity.	**4**
IV	**Developing Negotiation Skills** Meaning and Negotiation approaches (Traditional and Contemporary) Process and strategies of negotiations. Negotiation and interpersonal communication. Rapport Building – NLP.	**4**
Total		**16**

Textbooks:

- J William Pfeiffer (ed.) Theories and Models in Applied Behavioural Science, Vol 3, Management; Pfeiffer &Company
- Blair J. Kolasa, Introduction to Behavioural Science for Business, John Wiley & Sons Inc.

Semester V	
Major Course:1	Compositing & CGI Integration
Subject Code	AVE092M511
Credit	4
L-T-P-C	0-0-8-4
Scheme of Evaluation	Practical

Course Objective: This course teaches core and advanced skills in digital compositing using tools like After Effects and Nuke. Students will learn to integrate CGI with live-action footage, enhancing visual storytelling through professional post-production techniques.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Define** the fundamentals of digital compositing, including techniques like matte painting, chroma keying, and rotoscoping.	**BT 1**
CO 2	**Demonstrate** the process of integrating CGI elements into live footage using tracking, camera projection, and 3D elements.	**BT 2**
CO 3	**Apply** advanced compositing techniques using software such as Aftereffects and Nuke, incorporating color grading and optical	**BT 3**
CO 4	**Classify** a complete compositing project showcasing learned techniques, demonstrating creativity, technical ability, and visual	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Fundamentals of Compositing:** Digital Compositing, Camera Projection and Animation, Understanding Mattes and Chroma Keying: Green Screen & Chroma Keying, Rotoscoping, Matte Painting, Sky Replacement	**15**
II	**CGI Integration & Advanced Compositing:** Tracking, Camera Tracking & Match moving, Motion Tracking (2D & Mocha Integration), Working with 3D Elements in After Effects, Color Correction & Grading, working with 3D Plugins Element 3D, Enhancing CGI with Optical Effects (Lens Flares, Glows, Distortion)	**15**
III	**Introduction to The Foundry Nuke:** Introduction to the UI of the software, Composition, Tools, Encoder and Rendering; Understanding node system; Image projection, using effects and node system to add visual effects, Color correcting footage.	**15**
IV	**Project:** Students will have to individually submit projects of each sub content in a storage device. Teachers will supervise the projects.	**15**
	Total	**60**

Textbooks:

- Digital Compositing with Nuke *by Lee Lanier*
- The Foundry Nuke X 101: Professional Compositing and Visual Effects *by Ron Ganbar*

Reference books

- Nuke 101: Professional Compositing and Visual Effects *by Ron Ganbar*
- Compositing Visual Effects: Essentials for the Aspiring Artist *by Steve Wright*

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs., 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (5hrs), Study tour(4hrs), shooting (20hrs),

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	5
Study Tour	NA	4	4
Shooting	NA	20	5
Interaction with industry expert	NA	1	1
		Total Hours	**30**

Semester V	
Major Course:2	Overview of Dynamics
Subject Code	AVE092M512
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: This course is designed to provide students with in-depth knowledge and practical skills in soft body dynamics, hair simulation, n-Cloth, and particles within a 3D animation software, focusing on the simulation and rendering of realistic physical behavior and interactions. By the end of the course, students will apply these techniques to individual projects under supervision.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**List** the fundamentals of soft body, rigid body, n-cloth, dynamic constraints, fields, and solvers.	**BT 1**
CO 2	**Relate** Maya's native dynamics to simulate collisions, destruction effects, and secondary motion.	**BT 2**
CO 3	**Apply** n-Cloth properties to simulate cloth behavior on different surfaces and objects.	**BT 3**
CO 4	**Examine** the application of various dynamic simulations by showcasing a complete dynamics-based project.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
1	Introduction to Soft body Rigid body, n-cloth, Dynamic Constraints, Fields & Solvers.	15
2	**Maya's native dynamics simulating collisions:** (falling objects, destruction effects) Adding secondary motion like **bouncing, rolling, stacking**	15
3	**n-cloth:** Playing with n-Cloth properties: Applying cloth on human body, and Flag simulation with n-cloth.	15
4	**Project:** Students will have to individually submit projects of each sub contents in a storage device. Teacher will supervise the projects	15
	TOTAL	**60**

Textbooks:

- Learning Maya 6: Dynamics *by Alias Learning Tools*
- Maya Studio Projects: Dynamics *by Todd Palamar*

Reference books:

- Autodesk Maya Dynamics: Work with Particles, Fluids, Cloth and More *by John Kundert-Gibbs & R. James K. Morrison*
- Maya Visual Effects: The Innovator's Guide *by Eric Keller*

• **NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs., 3x30=90**		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (15hrs) Study Tour (5hrs) Acting with Emotion (5hrs) Interaction with Props (5hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time (hrs.)
Project	NA	5	15
Study Tour	NA	4	5
Acting with Emotion	NA	20	5
Interaction with Props	NA	1	5
		Total Hours	**30**

Semester V	
Elective 1	Rigging and 2D Animation
Subject Code	AVE092M513
Credit	4
L-T-P-C	2-0-4-4
Scheme of Evaluation	Practical

Course Objective: This course covers the full animation production process, from planning to final output. Students will learn to create model sheets, storyboards, animatics, and develop skills in keyframing, in-betweening, lip-syncing, coloring, and basic character rigging.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Relate** the storyboard and animatic *sequence* and overall flow of the story and whether the images effectively convey the intended narrative.	**BT 1**
CO 2	**Compare** each movement timing, spacing, and squash and stretch to create a sense of weight, momentum, and fluidity in the animation	**BT 2**
CO 3	**Organize** with technical proficiency, and attention to detail to create smooth and realistic 2D animation that captures the essence of the movement trying to depict.	**BT 3**
CO4	**Analyze** the knowledge of Rigging and animation	**BT 4**

Course Outlines:

Modules	Course Contents	Periods
1	**Industrial Pipeline:** Plan animation production and set deadline for production	15
2	**Rigging:** Hand and expression sheet, eye blink, Model sheet, background sheet, and storyboarding, Layout process, X sheet/ dope sheet, scratch sound recording. Animatics, Character dissection and rigging tool	15
3	**Animation** Keyframe animation, in-between animation, test, clean up, test, lip-sync, Inking and Coloring	15
4	**Project and Portfolio:** Student will submit the Project and portfolio	15
	TOTAL	**60**

Textbooks:

- The Art of Rigging (Toon Boom Harmony Edition) by Tony Ross / Toon Boom Certified Trainers

Reference Books:

- How to Cheat in Adobe Animate CC: The Art of 2D Animation *by Chris Georgenes*

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Flipbook Warm-Up (6hrs), Project and Portfolio (15hrs), Conceptual Sketching (6hrs), Case studies(3hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time (hrs.)
Flipbook Warm-Up	NA	6	6
Project and Portfolio	NA	15	15
Conceptual Sketching	NA	6	6
Case studies	NA	3	3
Total Hours			**30**

Semester V	
Minor 1	Stop Motion
Subject Code	AVE092N511
Credit	4
L-T-P-C	2-0-4-4
Scheme of Evaluation	Practical

Course Objective: Student shall be guided on to execute Stop Motion Animation. Student shall cover every step in details, ranging from what and how a story for stop motion animation should be and how does it differ from other forms of storytelling

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Understand** interface and workflow of the software for effective work	**BT 1**
CO 2	**Review** the storyboard overall flow of the story and whether the images effectively convey the intended narrative.	**BT 2**
CO 3	**Apply** the knowledge of color, shapes and forms to retain mood and the mass of subject to create smooth *sequence.*	**BT 3**
CO 4	**Demonstrate** the knowledge of stop motion	**BT 4**

Course Outlines:

Modules	Name	Course Contents	Periods
I	**Introduction to Software and Staging**	Interface, Tool, Timeline, Properties, setup and shooting	**15**
II	**Storyboard**	Storytelling, Script, shot division /screenplay, storyboard	**15**
III	**Puppetry in stop motion**	Bio-Mechanic, 12 principles of animation, Time and spacing, arcs, multiple objects and replacement.	**15**
IV	**Project and portfolio**	Video reel with dialogue and Time	**15**
Total			**60**

Textbooks:

- Effects Stop Motion Animation: How to Make and Share Creative Videos
- Stop Motion: Craft Skills for Model Animation

Reference Books:

- 01 First Steps - Stop Motion Studio Tutorial
- The Stop Motion Filmography *by Ray Harryhause*

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (10), Stage set up (5), Shooting (10), Interaction with industry expert (5)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	10
Stage set up	NA	4	5
Shooting	NA	15	10
Interaction with industryexpert	NA	1	5
		Total Hours	**30**

Semester VI	
Major Course 1	Post-production for 2D Animation
Subject Code	AVE092M611
Credit	4
L-T-P-C	2-0-4-4
Scheme of Evaluation	Practical

Course Objective: This course introduces the basics of 2D animation, focusing on storyboards, animatics, and core principles like color, shape, biomechanics, and fluidity to create clear, visually consistent animated sequences.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	**Define** the film noir through the visual style and aesthetic of a 2D animation film, which can be achieved through a combination of elements such as cinematic look, lighting, art style and color grading.	**BT 1**
CO 2	**Develop** the way in which a 2D scene is captured on film or digital media are shot composition, and layout process, and they all contribute to the overall interpretation of the scene.	**BT 2**
CO 3	**Apply** the knowledge of post-production to **compose** 2D animation shots.	**BT 3**
CO 4	**Analyze** the new interpretations of contemporary ideas of animation based on an understanding of 2D animation production.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Industrial Pipeline on Pre-Production:** outline and brief, Script and Style, Storyboarding, Animation and Production, Audio Mix and Delivery.	**15**
II	**Compositing in post-production:** Layering, Interpolation, Timeline Management, Fine tuning, Rendering	**15**
III	**Final Editing in post-production:** 2D Footage Editing	**15**
IV	**Project and Portfolio:** Student will submit the Project and portfolio	**15**
TOTAL		**60**

Textbooks:

- The Art of Digital Video Editing: A Practical Guide for TV & Film *by Michael R. Goodman*
- After Effects Apprentice *by Trish and Chris Meyer*

Reference Books:

- The Sound Effects Bible *by Ric Viers*
- The Visual Story: Creating the Visual Structure of Film, TV, and Digital Media *by Bruce Block*

Credit Distribution		
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Inspiration board / reference/visualization technique (6hrs), Project and Portfolio (15hrs), Conceptual Sketching (6hrs), Case studies (3hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
inspiration board / reference/visualizationtechnique	NA	6	6
Project and Portfolio	NA	15	15
Conceptual Sketching	NA	6	6
Case studies	NA	3	3
Total Hours			**30**

Semester VI	
Major Course 2	Advanced 3D Dynamics
Subject Code	AVE092M612
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: By the end of this course, students will be able to develop a strong understanding and practical skills in the application of particle systems, hair styling, dynamics, and rendering in 3D environments.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	**Identify** and describe the fundamental concepts of particle systems, including menus, attributes, and emitters.	**BT 1**
CO 2	**Explain** the process of creating and customizing different particle effects such as fire, smoke, explosions, and particles into glass.	**BT 2**
CO 3	**Apply** the techniques for hair styling, hair dynamics, and rendering, integrating these into character designs.	**BT 3**
CO 4	**Analyze** and develop individual creative projects demonstrating the application of particle and hair system techniques.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Particle System in 3D Dynamics:** Introduction to particle Menus, attributes, Emitters Attributes.	**15**
II	**Simulations:** Particle Instancer, Creating fire, smoke, explosion, Particles into Glass.	**15**
III	**Grooming:** Creating hair on a character, Hair Styling, Hair Dynamics, and Rendering,	**15**
IV	**Project** Students will have to individually submit project of each sub contents in a storage device. Teachers will supervise the projects.	**15**
	TOTAL	**60**

Textbooks:

- Hair: The Fascinating World of Hair, Its Growth, and Car *by Joseph J. M*
- The Particle Adventure *by Eric T. L. and Ian M*

Reference Books:

- Maya Visual Effects: The Innovator's Guide *by Eric Keller*
- Introduction to Maya Fluid Effects *by Duncan Brinsmead*

	Credit Distribution	
Lecture /Tutorial	**Practicum**	**Experiential Learning**
	60 hrs.	30 hrs. Inspiration board / reference/visualizationtechnique (6hrs), Project and Portfolio (15hrs), Conceptual Sketching (6hrs), Case studies(3hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
inspiration board / reference/visualizationtechnique	NA	6	6
Project and Portfolio	NA	15	15
Industry Exposure	NA	6	6
Case studies	NA	3	3
Total Hours			**30**

Semester VI	
Major Course 3	Procedural Animation and Compositing for Film
Subject Code	AVE092M613
Credit	4
L-T-P-C	2-0-4-4
Scheme of Evaluation	Practical

Course Objective: This course teaches advanced compositing and VFX using Nuke and Houdini, covering keying, tracking, 3D compositing, and simulations like fire and smoke. Students will learn to create professional VFX shots ready for industry pipelines.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Recall** the fundamental concepts of compositing, including Nuke interface, node system, image formats, rotoscoping, tracking, and rendering.	**BT 1**
CO 2	**Explain** the intermediate compositing techniques such as keying, advanced roto, matte painting integration, multi-pass compositing, and color grading.	**BT 2**
CO 3	**Apply** the advanced compositing and CGI integration techniques using Nuke and Houdini, including 3D camera projection, deep compositing, particle systems, and VFX integration.	**BT 3**
CO 4	**Analyze** a complete VFX shot using professional compositing workflows, combining 3D elements, live footage, and procedural effects into a seamless final composition.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Nuke & Compositing Basics:** • Overview of Nuke Interface & Workflow • Understanding Nodes, Image Formats & Color Spaces • Basic Compositing Techniques (Transform, Merge, Keymix) • Working with Rotoscoping, Wire Removal, & Masking • Sky Replacement, Day to Night, Tracking Basics (2D Tracking), Render and Output Settings	**15**
II	**Advanced Compositing Techniques:** • Keying & Green Screen Removal (Keylight, Primatte, IBK Gizmo) • Advanced Rotoscoping Techniques • 3D Tracking & Camera Projection, Matte Painting Integration • Advanced Color Correction & Grading with Day and Night transition, Motion Blur & Depth of Field • Multi-Pass Compositing & AOVs	**15**

III	**3D in Nuke & VFX Integration** • Working with 3D Geometry & Cameras, Lighting & Shadows in Nuke • Particle Systems & Atmospheric Effects, Deep Compositing Workflow • Integration with 3D Software (Houdini, Maya) • Final Project: Full Shot Compositing	**15**
IV	**Introduction to Houdini & Procedural Effects** • Houdini Interface & Procedural Workflow • Understanding Nodes & Attributes, Creating Procedural Geometry, Introduction to VFX & Expressions • Particle Simulations & Dynamics • Pyro & Flip Fluids (Fire, Smoke, Water), Exporting Simulations to Nuke for Compositing	**15**
	TOTAL	**60**

Textbooks:

- Advanced Animation and Rendering Techniques: Theory and Practice - *Alan Watt, Mark Watt*
- Compositing Visual Effects: Essentials for the Aspiring Artist (2nd Edition) - *Steve Wright*

Reference Books:

- The VES Handbooks of Visual Effects (3rd Edition) - *Jeffrey A. Okun, Susan Zwerman*
- Houdini Foundations by SideFX (Official)
- The Art and Science of Digital Compositing *by Ron Brinkmann*

	Credit Distribution	
Lecture /Tutorial	**Practicum**	**Experiential Learning**
	60 hrs.	30 hrs. Inspiration board / reference/visualizationtechnique (6hrs), Project and Portfolio (15hrs), Conceptual Sketching (6hrs), Case studies(3hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
inspiration board / reference/visualization technique	NA	6	6
Project and Portfolio	NA	15	15
Conceptual Sketching	NA	6	6
Case studies	NA	3	3
Total Hours			**30**

Semester VI	
Major Course 4	Film Appreciation & Analysis
Subject Code	AVE092M604
Credit	4
L-T-P-C	3-1-0-4
Scheme of Evaluation	Theory

Course Objective: This course aims to provide students with a comprehensive understanding of film language, visual storytelling techniques, and the evolution of cinema and visual effects. Through the study of narrative structures, cinematography, mise-en-scene, editing, sound design, and film genres, students will develop the ability to analyze and appreciate films critically. Additionally, students will explore contemporary trends in animation and digital filmmaking, with a focus on the impact of VFX, virtual production, and AI technologies in modern storytelling.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Relate** to the history and evolution of the language of films and visual storytelling.	**BT 1**
CO 2	**Explain** the key elements of filmmaking – narrative, cinematography, mise-en-scene, editing, sound, and genres.	**BT 2**
CO 3	**Develop** the understanding of film analysis techniques & criticism	**BT 3**
CO 4	**Examine** the contemporary trends in filmmaking	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Film Language & Visual Storytelling:** Understanding Film as an Art Form, Overview of the history of evolution of films, Overview of the history and evolution of Visual effects in Media	**13**
II	**Analyzing the Elements of Film:** Narrative, Cinematography, mise-en-scene, editing, sound, Film genres	**13**
III	**Film Analysis Techniques & Criticism:** Film Criticism, Observation & Interpretation, Acting Techniques & Character Development, Symbolism, Metaphor & Subtext in Film Language	**13**
IV	**Contemporary Trends in Animation Filmmaking:** Evolution of Digital Filmmaking & Streaming Era, Influence of Technology (VFX, Animation, Virtual Production, AI in Filmmaking), Practical: Analyzing a Short Film/Scene in Class	**13**
	TOTAL	**52**

Textbooks:

- Film Art: An Introduction *by David Bordwell & Kristin Thompson*
- A Short Guide to Writing About Film *by Timothy Corrigan*
- Understanding Movies *by Louis Giannetti*

Reference Books:

- How to Read a Film by James Monaco
- Understanding Movies *by* Louis Giannetti

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs., 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Conceptual Prototype (10hrs), Project and Portfolio (15hrs), (3hrs), Case studies (5hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time (hrs.)
Conceptual Prototype	NA	8	12
Project and Portfolio based ontrends	NA	10	20
Case studies	NA	5	5
		Total Hours	**30**

Semester VI	
Minor Course 1	Pencil to Pixel
Subject Code	AVE092N611
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: Student shall execute 2d Animation. Student shall cover every step in details, ranging from what and how a story for stop motion animation should be and how does it differ from other forms of storytelling.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Find the** animation skills in using industry-standard animation software	**BT 1**
CO 2	**Classify** the storyboard overall flow of the story and whether the images effectively convey the intended narrative.	**BT 2**
CO 3	**Apply** the knowledge of color, shapes and forms to retain mood and the mass of subject to create smooth *sequence.*	**BT 3**
CO 4	**Examine** the knowledge of Bio-Mechanics and animated sequence	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to the software:** Interface, Tool, Timeline, Properties, tweening	**15**
II	**Digital animation:** 12 principles of digital animation	**15**
III	**Storyboard and character:** Storytelling, Script, shot division screenplay, storyboard/ animatic and simple shapes, character building and rigging	**15**
IV	**Project:** Scene to animate	**15**
TOTAL		**60**

Textbooks:

- The Illusion of Life: Disney Animation *by Frank Thomas and Ollie Johnston*
- Cartoon Animation *by Preston Blair*

Reference Books:

- Character Animation *by Eric Goldberg*

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project (5hrs), Study tour(4hrs), Editing (5) shooting (20hrs), Interaction with industry expert

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Project	NA	5	5
Study Tour	NA	4	10
Editing	NA	20	5
Interaction with industry expert	NA	1	10
Total Hours			**30**

Semester VII	
Major Course 1	Concept for Game Design and Prototype
Subject Code	AVE092M711
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: Students construct their own games with visual storytelling, game mechanics and strategic gameplay. Devise rules that engage players and prototype components like cards, tokens and boards. Through hands-on playtesting and critique, refine your ideas into playable games that challenge and entertain.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Define** the basics of Game Play, Game theory, Equilibrium	**BT 1**
CO 2	**Interpret** the interface of the software and explore Nash Equilibrium	**BT 2**
CO 3	**Apply** the knowledge of Game Design to build the blueprint	**BT 3**
CO 4	**Analyze** the game prototype	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Game:** Game players, strategy, payoff, information set, equilibrium	**15**
II	**Game Theory Strategies and Equilibrium:** Types of game theory, Strategies, Nash Equilibrium, Software uses	**15**
III	**Game Design:** Types, game genres, game moment and RPGs, Blueprint, Game environment, game component	**15**
IV	**Project:** Prototyping of analog, Digital, gamification	**15**
	TOTAL	**60**

Textbooks:

- The Books of Board Games: An Introduction to Modern Tabletop Gaming *by Oliver Roeder*
- Make Your Own Board Game: Designing, Building, and Playing an Original Tabletop Game *by Jesse Terrance Daniels*

Reference Books:

- Introduction to (Tabletop) Role-playing Game Design *by Brent Newhall*

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Prototype making (10hrs), Study Tour (preparation – 3hrs, presentation 1hrs), Brainstorming (1hrs on preparation, 4hrs on presentation), Interacting with expert (5hrs). Case studies (6hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Prototype making	NA	10 hrs	10 hrs
Study Tour	3 hrs	1 hrs	4 hrs
Brainstorming	4 hrs	1 hrs	5 hrs
Interacting with expert	NA	5 hrs	5 hrs
Case studies	NA	6 hrs	6 hrs
Total Hours			**30**

Semester VII	
Major Course 2	Research Methodology
Subject Code	AVE092M702
Credit	4
L-T-P-C	3-1-0-4
Scheme of Evaluation	Theory

Course Objective: To make the students aware of research culture among academics and professionals in different fields. To undertake research in their specific academic fields on philosophical, epistemological understanding of the elements of research. To provide knowledge skills of various types of research designs and its procedures to conduct research to meet the national and international requirements.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Define** the different aspects of research.	**BT 1**
CO 2	**Demonstrate** the research methods critically, creatively, and independently	**BT 2**
CO 3	**Apply** the different research articles from different sources and categorize them	**BT 3**
CO 4	**Analyse** the evaluates in-depth information from diverse sources	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Research:** Definition & Concept (Variables, Hypothesis, Theory), Objectives, scope and importance of Research, Types of research, Approaches to research (quantitative and qualitative and mixed method); Steps in research, Concept of reliability, Validity.	**13**
II	**Methods & methodologies of Research:** Qualitative- Quantitative Technique, Content Analysis, Sample Survey Method, Observation Methods, Experimental Studies, Case Studies, Interview Method, Focus Groups, Ethnography Narrative Analysis, Historical research, Sampling techniques.	**13**
III	**Data Collection:** Data Collection Techniques, Primary Data, Secondary Data, Methods of collecting data, Statistical Analysis (Descriptive & Inferential Statistics), Central Tendency, Dispersion, Presentation, and Interpretation of Research Findings	**13**
IV	**Report Writing:** Research Proposal and Report Writing, Presentation of research reports, Referencing and Citation Style, Ethics in Research	**13**
	TOTAL	**52**

Textbooks:

- *Mass Media Research*, Roger, Wimmer. D and Dominick, Joseph,R; Thomson Wadsworth; 2006.

Reference Books:

- Berger, Arthur Asa; *Media Research Techniques*; Second Edition; Sage Publications, New Delhi; 1998.
- Fiske, John; *Introduction to Communication Studies*; Third Edition; Routledge Publications; 1982.
- Croteau, David and Hoynes; *Media/Society: Industries, Images and Audiences;* William; Forge Press; 2002.
- Kothari, C.R; *Research Methodology: Methods and Techniques*; New Age International Ltd. Publishers; 2013.

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. R&D (10hrs), Field Study (preparation – 3hrs, presentation 1hrs), Creative Writing (1hrs on preparation, 4hrs on presentation), Interacting with actor (5hrs). Case studies (6hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
R&D	NA	10 hrs	10 hrs
Field Study	3 hrs	1 hrs	4 hrs
Creative Writing	4 hrs	1 hrs	5 hrs
Interacting with expert	NA	5 hrs	5 hrs
Case studies	NA	6 hrs	6 hrs
		Total Hours	**30**

Semester VII	
Major Course 3	Visual Effects Production
Subject Code	AVE092M713
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: This course offers a comprehensive overview of the VFX production pipeline, covering pre-production, 3D modeling, animation, FX simulations, and compositing. Students will learn to integrate CG with live-action footage and develop a professional showreel, preparing them for entry-level roles in film, TV, advertising, and gaming industries.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	**Define** the VFX production pipeline and demonstrate an understanding of pre-production processes such as storyboarding, cinematography, and previs.	**BT 1**
CO 2	**Classify** 3D asset creation techniques, including modelling, texturing, shading, lighting, animation, and FX simulations, using industry-standard tools.	**BT 2**
CO 3	**Apply** compositing workflows, including match moving, rotoscoping, multi-pass compositing, colour grading, and integrating CG into live-action footage.	**BT 3**
CO 4	**Analyse** a final VFX project, demonstrating project planning, asset management, rendering optimization, and development of a professional showreel tailored for the VFX industry.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Visual Effects & Pre-Production** 1. Understanding VFX & Industry Overview 2. VFX Production Pipeline 3. Concept Development & Storyboarding 4. Introduction to Camera & Cinematography for VFX 5. Introduction to Previsualization (Previs)	**15**
II	**3D Asset Creation & Animation** 1. 3D Modeling for VFX 2. Shading, Lighting & Rendering 3. Introduction to Animation & Rigging 4. Particle Effects & Simulations o Using Houdini / Blender for FX Simulations o Fire, Water, Smoke, Destruction FX o Procedural Workflows	**15**

III	**Compositing & post-production** 1. Introduction to Compositing 2. Match moving & Rotoscoping 3. Advanced Compositing Techniques o 3D Projection & Camera Mapping o Multi-Pass Compositing o Color Grading & Look Development 4. Integration of CG with Live-Action o Shadow Matching & Reflections o Depth & Parallax Effects o Advanced Matte Painting	**15**
IV	**Final Project & Industry Preparation** 1. Project Planning & Asset Management o Shot Breakdown for Production o Using Shot Grid or Production Tracking Tools 2. Rendering & Optimization o Render Layering Techniques o GPU vs CPU Rendering o Render Passes & Post-Processing 3. Portfolio Development & Showreel Creation o Choosing & Editing Best Shots o Creating a Demo Reel for VFX Studios	**15**
	TOTAL	**60**

Textbooks:

- Producing VFX: A Guide to Managing the Process *by Charles Finance & Susan Zwerman*
- Filming the Fantastic: A Guide to Visual Effects Cinematography *by Mark Sawicki*

Reference Books:

- The Visual Effects Producer: Understanding the Art and Business of VFX *by Charles Finance & Susan Zwerman*
- Digital Compositing for Film and Video (4th Edition) *by Steve Wright*

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Extracurricular Activity (10hrs), Shoot & Asset Collection (preparation – 3hrs, presentation 1hrs), Editing (1hrs on preparation, 4hrs on presentation), Industry exposure (5hrs). Project (6hrs)

Break up of Experiential learning

Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Extracurricular Activity	NA	10 hrs	10 hrs
Shoot & Asset Collection	3 hrs	1 hrs	4 hrs
Editing	4 hrs	1 hrs	5 hrs
Industry exposure	NA	5 hrs	5 hrs
Project	NA	6 hrs	6 hrs
		Total Hours	**30**

Semester VII	
Major Course 4	Overview of UI/UX
Subject Code	AVE092M714
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: This course provides students with essential skills in interface design and user experience research. It emphasizes user-centered design, enabling learners to create intuitive UI/UX solutions. Through wireframing, prototyping, and usability testing, students develop and refine functional designs, leading to a high-quality final prototype.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Recall** the principles of interface design and the different methods undertaken to study user experiences.	**BT 1**
CO 2	**Demonstrate** user-centered design principles to the creation of effective UI/UX solutions.	**BT 2**
CO 3	**Apply** wireframing, prototyping, and usability testing techniques to develop functional design outputs.	**BT 3**
CO 4	**Analyze** the designs to plan and execute a final quality output of the prototype.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to User Interface**: UI history, User Centered Thinking, Context and Empathy, UI Design Process, User Xperience, Action History, UX processes and development	**15**
II	**Wire framing:** Design wireframes for a website or app based	**15**
III	**Prototyping:** Turn a wireframe into an interactive prototype, Usability Testing	**15**
IV	**Mobile Design:** Redesign an existing website with a mobile-first approach	**15**
	TOTAL	**60**

Textbooks:

- Do not Make Me Think: A Common-Sense Approach to Web Usability *by Steve Krug*
- The Design of Everyday Things *by Don Norman*

Reference Books:

- Hooked: How to Build Habit-Forming Products by Nir Eyal
- Lean UX: Designing Great Products with Agile Teams *by* Jeff Gothelf & Josh Seiden

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. R&D (10hrs), (preparation – 3hrs &1hrs), Brainstorming (1hrs on preparation, 4hrs on presentation), Interacting with UI/UX expert (5hrs). Case studies (6hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
R&D	NA	10 hrs	10 hrs
Studio Visit	3 hrs	1 hrs	4 hrs
Brainstorming	4 hrs	1 hrs	5 hrs
Interacting with UI/UX expert	NA	5 hrs	5 hrs
Case studies	NA	6 hrs	6 hrs
		Total Hours	**30**

Semester VII	
Minor Course 1	Introduction to Architectural Modelling
Subject Code	AVE092N711
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: The objective of this course is to equip students with the fundamental skills required for architectural modeling, texturing, and rendering using 3ds Max. Students will learn how to create detailed and realistic architectural models from various architectural styles, apply different textures and materials, and produce high-quality renders using industry-standard render engines.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Find** different forms of architecture to visualize the art form for better composition.	**BT 1**
CO 2	**Compare** the different era architecture into digital form.	**BT 2**
CO 3	**Apply** the knowledge of texture to beautify an architecture of different era.	**BT 3**
CO 4	**Examine** the appealing renders using models, texture, and lights.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Modelling**: Introduction to 3ds Max to create different types of Prehistoric, Modern, Classical, Vernacular, Contemporary Architectures, Importance of architecture in different historical periods	**15**
II	**Types of Modifiers:** Extrude, Modifiers, Object Modifiers, Edit Modifiers, and World-Space Modifiers	**15**
III	**Materials & Texturing:** Baking of different Maps such as Diffuse Map, Metallic Map, Roughness Map, Transmission Map, Height Map, Displacement Map, and Sub Surface Scattering Map, Texturing software to finalize the look	**15**
IV	**Physically Based Rendering** Using Render Engine like Arnold, V-ray, Lumion to export the final Render	**15**
	TOTAL	**60**

Textbooks:

- Architectural Model Building: Tools, Techniques & Materials 1st Edition *by Roark T. Congdon*
- A Practical Study in the Discipline of Architectural Model making *by James Taylor-Foster*

Reference Books:

- The Theory of Architecture: Concepts, Themes, and Practices *by Paul-Alan Johnson*
- The Impact of Building Information Modelling *by Ray Crotty*

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Extracurricular Activity (10hrs), Room Interior Modelling (preparation – 3hrs, presentation 1hrs), Style Recreation Exercise (1hrs on preparation, 4hrs on presentation), Digital Environment Composition (5hrs). Case studies (6hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Extracurricular Activity	NA	10 hrs	10 hrs
Room Interior Modelling	3 hrs	1 hrs	4 hrs
Style Recreation Exercise	4 hrs	1 hrs	5 hrs
Digital Environment Composition	NA	5 hrs	5 hrs
Case studies	NA	6 hrs	6 hrs
		Total Hours	**30**

Semester VIII	
Minor Course 1	Media Entrepreneurship
Subject Code	AVE092M801
Credit	4
L-T-P-C	3-1-0-4
Scheme of Evaluation	Theory

Course Objective:

* To understand the fundamentals of entrepreneurship in the context of media
* To develop critical thinking and problem-solving skills to address challenges in media entrepreneurship
* To learn about the legal aspects of Media Business in India

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Define** and explain fundamental concepts, nature, scope, and types of entrepreneurships, with a focus on media entrepreneurship.	**BT 1**
CO 2	**Demonstrate** the various entrepreneurship theories and frameworks and explain their relevance in the context of media startups.	**BT 2**
CO 3	**Apply** the ideation techniques, market analysis tools, and business planning strategies to identify and evaluate entrepreneurial opportunities in the media sector.	**BT 3**
CO 4	**Analyze** the legal, ethical, and regulatory frameworks to assess their implications in the context of starting and running media enterprises.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Introduction to Entrepreneurship:** Meaning, definition and concept of entrepreneurship, Nature and scope of media entrepreneurship, Historical overview and evolution of media startups, Entrepreneurs versus inventors, Challenges and risks in media entrepreneurship, Types of entrepreneurs: Clarence Danhof Classification, Arthur H. Cole Classification, Classification Based on Ownership, Classification, Classification, Classification Based on the Scale of the Enterprise	13
II	**Theories of Entrepreneurship:** Theories: Economic, Classical, Neo Classical, Psychological, Personality Traits, Need for achievement, Sociological, Anthropological entrepreneurial, Opportunity based Entrepreneurship theory, Resource based Entrepreneur, Financial Capital/ Liquidity, Social Capital or Social Network Theory, Entrepreneurial Motivation – The Needs Framework, Manifest Needs Theory	13

III	**Opportunities** Startup Ecosystem in India, Market analysis and identifying niche audiences, Ideation techniques and opportunity recognition in media, Sources of new Idea, creative problem solving, opportunity recognition, product planning and development, creating a Business Plan, Startup India, Stand-up India, Make in India, Digital India, Ministry of Skill Development, and their initiatives, NSDA, NSDC	13
IV	**Legal Aspects** Regulations to set up a new business, Legal issues in setting up the organization, patents, business methods patents, trademarks, copyrights, trade secrets, licensing, product safety and liability, insurance, contracts, Indian Contract Act, 1872, Sale of Goods Act, 1930, The Competition Act, 2002, Ethical dilemmas in media entrepreneurship, social responsibility, and community engagement.	13
	TOTAL	**52**

Textbooks:

- Dahiya, S. (2023). Digital First: Entrepreneurial Journalism in India, OUP, UK
- Berger, A.A. (2018). Media and Communication Research Methods: An Introduction to Qualitative and Quantitative Approaches. SAGE Publications

Reference Books:

- Ferrier, Michelle & Mays, Elizabeth. (2017). Media Innovation and Entrepreneurship. Rebus Community.
- Lamont, Ian. (2017). Lean Media: How to Focus Creativity, Streamline Production, and Create Media That Audiences Love. I30 Media Corporation.

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Startup Idea Sprint (10hrs), Build-a-Brand Challenge (preparation – 3hrs, presentation 1hrs), Audience Testing & Iteration (1hrs on preparation, 4hrs on presentation), Startup Pitch Day (5hrs). Case studies (6hrs)

Break up of Experiential learning

Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Startup Idea Sprint	NA	10 hrs	10 hrs
Build-a-Brand Challenge	3 hrs	1 hrs	4 hrs
Audience Testing & Iteration	4 hrs	1 hrs	5 hrs
Startup Pitch Day	NA	5 hrs	5 hrs
Case studies	NA	6 hrs	6 hrs
		Total Hours	**30**

Semester VIII	
Minor Course 1	Papercut Puppetry
Subject Code	AVE092N811
Credit	4
L-T-P-C	1-0-6-4
Scheme of Evaluation	Practical

Course Objective: students shall be guided on to execute Paper cut puppetry Animation. Student shall cover what and how a story for Paper puppetry animation should be.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Find** the interface and workflow of the software for effective work	**BT 1**
CO 2	**Explain** the storyboard overall flow of the story and whether the images effectively convey the intended narrative.	**BT 2**
CO 3	**Apply** the knowledge of Paper cut rigs to create smooth *sequence.*	**BT 3**
CO 4	**Analyze** the knowledge of Paper cut mechanism	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Software and Staging:** Interface, Tool, Timeline, Properties, setup, and shooting	**15**
II	**Storyboard:** Storytelling, Script, shot division /screenplay, storyboard	**15**
III	**Puppetry**: Time and spacing, arcs, multiple objects, and replacement.	**15**
IV	**Final portfolio:** Video reel with dialogue and Time	**15**
	TOTAL	**60**

Textbooks:

- Paper Puppet Palooza by Norma V. Toraya
- Playing with Pop-ups: The Art of Dimensional, Moving Paper Designs *by Helen Hiebert*

Reference Books:

- Shadow Puppets and Shadow Play by David Currell
- Paper Cut: An Exploration into the Contemporary World of Papercraft Art and Illustration *by Owen Gildersleeve*

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Shoot (10hrs), Pre-Production (preparation – 3hrs, presentation 1hrs), Shadow Theatre Scene (1hrs on preparation, 4hrs on presentation), Collaborative Puppet Play (5hrs). Cultural Puppet Reinterpretation (6hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Shoot	NA	10 hrs	10 hrs
Pre-Production	3 hrs	1 hrs	4 hrs
Project	5 hrs	4 hrs	9 hrs
Puppet Play	NA	1 hrs	1 hrs
Cultural Puppet Reinterpretation	NA	6 hrs	6 hrs
		Total Hours	**30**

Semester VIII	
Major Course 3	Short Film for 2D Animation
Subject Code	AVE092M813
Credit	4
L-T-P-C	0-0-8-4
Scheme of Evaluation	Practical

Course Objective: Students will gain a comprehensive understanding of the animation production process, from the initial planning stages to the final output. They will develop practical skills in creating 2D animation. The course will cover the importance of understating teamwork and Industry pipeline.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Recall** the storyboard and animatic *sequence* and overall flow of the story and whether the images effectively convey the intended narrative.	**BT 1**
CO 2	**Illustrate** with technical proficiency, and attention to detail to create smooth and realistic 2D animation that captures the essence of the movement trying to depict.	**BT 2**
CO 3	**Develop** the knowledge of 2D animation to generate short films	**BT 3**
CO 4	**Examine** the animated short films	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Industrial Pipeline** Plan for animation production and set deadlines for production	**15**
II	**Per Production and production** Script, Storyboard Animatic, character background, Sound Animation workflow and animation production	**15**
III	**Postproduction** Compositing and Editing	**15**
IV	**Final Project** Student will submit the Project (Short Film) duration 1 min	**15**
	TOTAL	**60**

Textbooks:

- The Animation Books: A Complete Guide to Animated Filmmaking
- The Animator's Survival Kit *by Richard Williams*

Reference Books:

- Directing the Story: Professional Storytelling and Storyboarding Techniques *by Francis Glebas*
- Writing for Animation, Comics, and Games *by Christy Marx*

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Production (10hrs), Scratch Sound (preparation – 3hrs, presentation 1hrs), Animatics (1hrs on preparation, 4hrs on presentation), Interacting with animator (5hrs). Case studies (6hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Production	NA	10 hrs.	10 hrs.
Scratch Sound	3 hrs	1 hrs	4 hrs.
Animatics	1 hrs	4 hrs	5 hrs.
Interacting with animator	NA	5 hrs	5 hrs.
Case studies	NA	6 hrs	6 hrs
		Total Hours	**30**

Semester VIII	
Major Course 4	3D Portfolio Development
Subject Code	AVE092M814
Credit	4
L-T-P-C	0-0-8-4
Scheme of Evaluation	Practical

Course Objective: To equip students with industry-standard 3D production pipeline knowledge and to develop a professional portfolio tailored to animation, gaming, VFX, or product visualization industries. To encourage creativity while adhering to global industry workflows and to enhance collaboration, communication, and presentation skills.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcomes**	**Blooms Taxonomy Level**
CO 1	**Choose** the complete 3D production pipeline, industry roles, software, and documentation standards.	**BT 1**
CO 2	**Explain** the process of asset creation, optimization techniques, and technical checks used in industry workflows.	**BT 2**
CO 3	**Apply** the industry-standard tools and techniques to create optimized 3D assets, work collaboratively on a simulated project, and manage asset pipelines.	**BT 3**
CO 4	**Analyze** the portfolio work, incorporating peer and industry feedback, and present assets using professional standards.	**BT 4** (Analyze)

Course Outline:

Modules	Course Contents	Periods
I	**Industry pipeline and understanding-** Introduction to 3D Production Pipelines: Pre-production, Production & Post-production (Animation, Gaming, VFX & Product Design), Understanding Roles & Responsibilities (Modeler, Texture Artist, Animator, Lighting Artist, FX Artist, Compositor), Software, Tools (Industry-standard), Industry Documentation (Asset List, Naming Conventions, File Management), Analysing Showreels from Top 3D Studios & Artists	**15**
II	**Asset creation and optimization-** 3D Modelling for Portfolio (Hard Surface & Organic Modelling, High Poly vs Low Poly), Asset Optimization (for games, animation, or AR/VR), Texturing & UV Mapping (PBR Texturing Workflow, UV Layout Best Practices, Material Library Creation), Asset Integration (Importing to Game Engines/Rendering Software), Technical Checks (Polygon Count, Topology, Edge Flow), Asset Documentation (Turntable, Wireframe Renders, Texture Maps)	**15**

III	**Industry project simulation & collaboration- Simulated Industry Project (Teamwork)** (Assigning Roles (like a mini-studio), Developing Asset/Scene Pipeline)**, Project Management** (Using Trello/Shot-Grid, Milestone Tracking & Feedback Loops)**, Cross-platform Testing** (Portfolio-ready for Web, Unreal, Unity)**, Case Studies:** (Reviewing Successful 3D Portfolios from Industry Learning from Industry Failures)	**15**
IV	**Final Portfolio development & showcase-** Structuring the Portfolio (Asset Showcase, Breakdown Sheets, Wireframe, Textures, Final Renders), **Presentation Techniques** (Video Turntable, Marmoset Viewer, Sketch-fab)**, Personal Branding** (Online Portfolio Website (Art-Station, Behance), Resume & Showreel Integration)**, Peer Review & Industry Critique, Final Portfolio Submission**	**15**
	TOTAL	**60**

Text Books:

- 3D Art Essentials *by Ami Chopine*
- Digital Modelling *by William Vaughan*
- The Game Artist's Guide to Maya *by Michael McKinley*

Reference Books:

- Game Asset Pipeline *by Ben Garnell*
- Production of Pipeline Fundamentals for Film and Games *by Renee Dunlop*

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Shoot (10hrs), Pre-Production (preparation – 3hrs, presentation 1hrs), Interacting with animator (1hrs on preparation, 4hrs on presentation), Case Study (5hrs). Post-Production (6hrs)

Break up of Experiential learning

Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Shoot	NA	10 hrs	10 hrs
Pre-Production	3 hrs.	1 hrs	4 hrs
Interacting with animator	NA	1 hrs	5 hrs
Case Study	4 hrs	5 hrs	5 hrs
Post-Production	NA	6 hrs	6 hrs
		Total Hours	**30**

Semester VIII	
Major Course	VFX – Portfolio Development
Subject Code	AVE092M815
Credit	4
L-T-P-C	0-0-8-4
Scheme of Evaluation	Practical

Course Objective: This course prepares students to create a professional VFX portfolio and showreel aligned with industry standards. Students will analyze trends, identify target roles, curate their best work, and present their skills through effective storytelling and editing. Emphasizing technical refinement and career preparation, the course ensures students develop a strong online presence and gain essential tools like a resume, cover letter, and interview skills to confidently enter careers in VFX, film, gaming, and advertising.

Course Outcomes:

On successful completion of the course the students will be able to:		
CO Level	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	**Recall** the importance of VFX portfolios, analyse industry trends, and suitable roles and project types for the portfolio.	**BT 1**
CO 2	**Relate** the asset collection, shot selection, and refinement techniques to curate high-quality content for a VFX showreel.	**BT 2**
CO 3	**Apply** the ability to edit, present, and showreel with storytelling, pacing, and professional formatting.	**BT 3**
CO 4	**Analyze** a complete portfolio package, including an online presence, resume, cover letter, and showreel, ready for industry submission.	**BT 4**

Course Outline:

Modules	Course Contents	Periods
I	**Understanding Portfolio Requirements & Industry Standards** • Importance of a VFX Portfolio in the Industry • Analysing Showreels from Top VFX Studios & Artists • Understanding Target Roles (Compositor, FX Artist, Animator, Matte Painting Artist) • Choosing the Right Type of Projects for Your Portfolio • Researching VFX Industry Trends (Film, TV, Advertising, Games)	**15**
II	**Asset Collection & Shot Selection** • Reviewing Previous Coursework & Projects • Selecting Best Shots (Modelling, Animation, FX, Compositing) • Enhancing and Refining Existing Work	**15**

III	**Editing & Presentation Techniques** • Storytelling (Flow & Narrative) • Editing Techniques for Showreels (Timing, Pacing, Music Selection) • Adding Intro Titles, Shot Breakdowns, and Contact Information • Resolution, Formats, and Upload Guidelines (YouTube, Art-Station) • Receiving Peer & Instructor Feedback (Review Sessions)	**15**
IV	**Final Portfolio Submission & Career Preparation** • Final Quality Check – Polishing Shots & Presentation • Submitting Final Portfolio for Evaluation • Creating an Online Portfolio/Website (Art-Station, Behance, Personal Site) • Writing an Effective Resume and Cover Letter for VFX Roles • Preparing for Portfolio Reviews & Interviews	**15**
	TOTAL	**60**

Textbooks:

- VFX Artistry: A Visual Tour of How the Studios Create Their Magic by Spencer Drate
- The VES Hand Book of Visual Effects (2nd Edition) by Jeffrey A. Okun & Susan Zwerman

Reference Books:

- The VES Handbook of Visual Effects by: Jeffrey A. Okun, Susan Zwerman
- Digital Compositing for Film and Video by: Steve Wright
- The Visual Effects Producer: Understanding the Art and Business by: Charles Finance & Susan Zwerman

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Shoot (10hrs), Pre-Production (preparation – 3hrs, presentation 1hrs), Interacting with animator (1hrs on preparation, 4hrs on presentation), Case Study (5hrs). Post-Production (6hrs)

Break up of Experiential learning			
Activity	Time required for preparation(hrs.)	Time required for execution (hrs.)	Total Time(hrs.)
Shoot	NA	10 hrs	10 hrs
Pre-Production	3 hrs.	1 hrs	4 hrs
Interacting with animator	NA	1 hrs	5 hrs
Case Study	4 hrs	5 hrs	5 hrs
Post-Production	NA	6 hrs	6 hrs
		Total Hours	**30**