ROYAL GLOBAL UNIVERSITY
GUWAHATI

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 - 2023 – 24

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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 rolein 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 andmust 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 quality higher 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 from 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 practises that the various communities of India—including the tribal communities—have evolved, refined and preserved overgenerations, 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 certificateis 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 mainhighlights 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 opportunity for vertical mobility to students from a bachelor's degree programme 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 and demonstrate 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 sections and 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 willalso 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 fitness activities 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; improvement of 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 undergoa 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 society so 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 part of a major or minor course depending upon the major discipline.

Field-based learning/minor project: The field-based learning/minor project will attempt to 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, andto observe and study actual field situations regarding issues related to socioeconomic development. Students will be given opportunities to gain a first- hand understanding of the policies, regulations, organizational structures, processes, and programmes that guide the development process. They would havethe 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 ofa major or minor course depending on the subjectof 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 introductorymaterial 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 earned with 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 majordiscipline 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 sixsemesters		

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

Graduate Attributes

Sl.no.	Graduate Attribute	The Learning Outcomes Descriptors
GA1	DisciplinaryKnowledge	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 utilise relevant information using appropriate software for analysis of data and creation of end 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 diverseways by using tools of new media about the objects and scenarios in the field of multimedia and deal with problems and situations that 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 CommunicationSkills

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 also orally and communicate with others using appropriate media technologies.

PLO-6: Formulate Research-relatedskills

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 hypothesesusing 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 diverseteams 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 achievethe 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's 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 and Communication (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 develop a 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 involves 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 allow 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 5 marks each	1-3	C	25%
ii	Home Assignment		1-3	H	
iii	Project		1	P	
iv	Seminar		1-2	S	
v	Viva /Presentation		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

RSCOM
B.Sc. AVE

1st Semester

Sl. No.	Subject Code	Names 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	AVE092N113	Color Theory & Abstract	100	3
		Skill Enhancement Courses (SEC-1)		
4	AVE092S111	Characters & Illustration	100	3
		Value Added Course (VAC-1)		
5		Choose from the basket course	100	3
		Interdisciplinary Course (IDC-1)		
6		Indian Knowledge System I	100	3
		Ability Enhancement Course (AEC-1)		
8	AEC982A101	Communicative English and Behavioural Science-I	100	2
		Total -		**20**

2nd Semester

Sl. No.	Subject Code	Names 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
		Skill Enhancement Courses (SEC-2)		
4	AVE092S211	Introduction to Cinematography	100	3
		Value Added Course (VAC-2)		
5		Choose from the basket course	100	3
		Interdisciplinary Course		
6		Indian Knowledge System II	100	3
		Ability Enhancement Course (AEC-2)		
8	AEC982A201	Communicative English and Behavioural Science-II	100	2
		Total -		**20**
Conferring the Certificate in Animation & Visual Effects, (CAVE)				

3rd Semester				
Sl. No.	**Subject Code**	**Names of subjects**	**Course Level**	**Credit**
Major Core Papers				
1	AVE092M311	2D Animation	100	4
2	AVE092M312	3D Lighting and Rendering	100	4
Minor Papers				
3	AVE092N311	Introduction to 3d	100	4
Skill Enhancement Courses (SEC-3)				
4	AVE092S313	Introduction to Visual Effects	100	3
Interdisciplinary Course				
6		Choose from the basket course	100	3
Ability Enhancement Course (AEC-3)				
8	AEC982A301	Communicative English and Behavioural Science-III	100	2
		Total -		20

4th Semester				
Sl. No.	**Subject Code**	**Names of subjects**	**Course Level**	**Credit**
Major Core Papers				
1	AVE092M411	2D Animation FX and Compositing	100	4
2	AVE092M412	3D Animation Techniques and Dynamics	100	4
	AVE092M413	Advanced Visual Effects Techniques	100	4
Minor Papers				
3	AVE092N411	Clay Modelling		6
Interdisciplinary Course				
6		Choose from the basket course		
Ability Enhancement Course (AEC)				
8	AEC982A401	Communicative English and Behavioural Science-IV		2
		Total -		20

5th Semester				
Sl. No.	**Subject Code**	**Names of subjects**	**Course Level**	**Credit**
Major Core Papers				
1	AVE092M511	Visual magic		4
2	AVE092M512	Introduction to Architecture Modelling		4
3	AVE092M513	Specialization 2d/3d		4
Minor Papers				
4	AVE092N511	Intro to Motion Graphics		4
Internship				

5		Internship		4
		Total -		20

6th Semester

Sl. No.	Subject Code	Names of subjects	Course Level	Credit
Major Core Papers				
1	AVE092M611	Introduction Substance Painter		4
2	AVE092M612	Post production for 2d Animation		4
3	AVE092M613	Post production 3d Animation		4
4	AVE092M614	Camera Projection and Integration		4
Minor Papers				
5	AVE092N611	Camera Projection and Integration		4
6		**Total -**		20

7th Semester

Subject Code	Names of subjects	Course Level	Credit
Major Core Papers			
Minor Papers			
	Total -		

8th Semester

Subject Code	Names of subjects	Course Level	Credit
Major Core Papers			
Research Methodology			
Dissertation/Research Project			
	Total -		

Semester I

Major Course: 1

Title of the Paper: History of Animation and Multimedia **Course Level: 100**

Subject Code: AVE092M101
L-T-P-C: 2-1-0-3 **Credit Units: 3**

Course Objectives:

New interpretations of contemporary ideas of animation based on an understanding of history of animation.

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI. No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Relate** the meaning, concept, and process of animation.	**BT 1**
CLO 2	**Classify** the characteristic features of the different types of animation.	**BT 2**
CLO 3	**Understand** the principles of animations theories in Multimedia.	**BT 2**
CLO 4	**Interpret** the composition associated with the rise and evolution of animation.	**BT 2**

Detailed Syllabus:

Modules	**Topics (if applicable) & 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 Book:

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

References:

1. https://www.britannica.com/summary/animation
2. http://animation-ua.com/en/school-animation/history-of-animation/178-history-of-animation

Credit Distribution		
Theory/Tutorial	Practicum	Experiential Learning
60 hrs.	NA	30 hrs. Workshop (10hrs), Presentation (preparation – 3hrs, presentation 40 min), Projects (3hrs 40 min), Case studies (6hrs 20min)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time (hrs.)
Two Workshop	NA	10	10
Presentations after observing the workshop	3	40min (20 min each)	3hrs 40min

Projects	NA	10 hrs	10hrs
Case studies	NA	6hrs 20min	6hrs 20min
		Total Hours	**30**

Major Course: 2

Title of the Paper: Fundamentals of Drawing for Animation **Course Level: 100**

Subject Code: AVE092M112

L-T-P-C: 0-1-4-3 **Total credits: 3**

Course Objectives:

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

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Relate to the** basics Skeleton, Muscle, Proportion of animal and human anatomy to portray the Art in the most compelling way.	**BT 1**
CLO 2	**Demonstrate the understanding of** shapes and forms, styles, and traditions through familiarization with a wide range of design, styles, etc.	**BT 3**
CLO 3	**Executing** the knowledge of art in their attempts to draw prospective drawing and human figures.	**BT 3**
CLO 4	**Develop** new interpretations of contemporary ideas of design based on an understanding of Principles of Designs and Elements of Shape.	**BT 3**

COURSE OUTLINE:

Modules	Topics (if applicable) & Course Contents	Periods
I	**Fundamentals of Animation** Principles of Designs and Elements of Shape, Shape Modification, Stick Figures, Gesture Drawing's Depth Study, Colour Theory; Doubt Clearing Assignments	**20**
I	**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; Understanding the Form and Volume; Doubt Clearing Assignments	**10**

III	**Still life Using Perspectives** Exterior, Interior, Angle Design by Applying Linear Perspective; Still life Drawing and Composition, Pencil, Black and White and Colour 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 Book:

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

References:

1. https://www.youtube.com/watch?v=uDqjIdI4bF4
2. https://www.youtube.com/watch?v=8J39SslgJsQ

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40hrs.	30 hrs. Live Sketching (15hrs), Photography for inspiration board / 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 for exhibition	NA	10	10
		Total Hours	**30**

Minor Course: 1
Subject: Color Theory & Abstract

Course Level: 100

Subject Code: **AVE092N113**

L-T-P-C : **0-0-6-3** **Total credits: 3**

Course Objectives:

The objective of **Colour Theory & Abstract** is to enable the students to develop the knowledge of colour and its applications in different scenarios.

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI. No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Identify and understand** the application and uses of colour	**BT 2**
CLO 2	**Identify** the colour terminologies and theory.	**BT 3**
CLO 3	**Demonstrate** and apply the different colour schemes on compositions	**BT 3**
CLO 4	Be able to **analyze** colour psychology in real world scenarios	**BT 4**

COURSE OUTLINE:

Modules	**Course Contents**	**Periods**
I	**Colour Wheel** Colour wheel – Primary, Secondary and Tertiary Colours	**15**
II	**Grey Scale** Whites & Blacks, Hues, Tints and Shades	**15**
III	**Colour Schemes** Monochromatic, Warm, Cool, Complimentary, Split Complimentary, Analogous, Triadic Colour	**15**
IV	**Abstract** The Rule of Thirds, Unique corners, Diagonal method, Value composition	**15**
	TOTAL	**60**

Text Book:

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

References:

The Colour Bible: The definitive guide to colour in art and design by Laura Perryman

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
NA	60 hrs.	30 hrs. Extracurricular Activity (10hrs), Cultural activities (preparation – 3hrs, presentation 1hrs), Street Play (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.)
Extracurricular Activity	NA	10 hrs	10 hrs
Cultural activities	3 hrs	1 hrs	4 hrs
Street Play	4 hrs	1 hrs	5 hrs
Interacting with actor	NA	5 hrs	5 hrs
Case studies	NA	6 hrs	6 hrs
		Total Hours	**30**

Skill Enhancement Courses: 1 (SEC-1)

Subject: Characters & Illustration

Course Level: 100

Subject Code: AVE092S111

L-T-P-C : 1-0-4-3 **Total credits: 3**

Course Objectives:

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

Course Learning Outcomes

On successful completion of the course the students will be able to:		
SI. No	**Course Outcome**	**Bloom's Taxonomy Level**
CLO 1	**Classify** a character's traits, personality, backstory according to the story	**BT 1**
CLO 2	**Summarize** different styles through which student can sketch different themes or character design props.	**BT 2**
CLO 3	**Experiment** the different techniques in illustration.	**BT 3**
CLO 4	**Analyze** themes of different conceptual art of animation	**BT 4**

COURSE OUTLINE:

Modules	**Course Contents**	**Periods**
1	**Art Fundamentals** The Basic Structure of Art and Drawing, Breaking Down the Structure, Skill vs. Emotion in Drawing The Importance of Story in Drawing Drawing Art Studies vs Drawing Art Creation Drawing Imaginative Art	**15**
2	**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**
3	**Hair cloth Dynamics** Fundamental of drawing hair, Basic Components of drawing hair, drawing basic hair shapes, drawing clothing and cloth dynamics	**15**
4	**Character post- production** Creating Clean Lines and Line Art for Finishing Drawings Creating Rough Clean Lines and Line Art for Finishing Drawings Character Page Composition when Drawing Characters	**15**

	Story board, Pose board, Inspiration board, Expression sheet	
TOTAL		**60**

Text Book:

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

References:

1. **https://www.youtube.com/watch?v=YytdLj89iXE**
2. **https://www.youtube.com/watch?v=gI62rHNtg2w**

	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 based trends	NA	10	10
Project and Portfolio based trends	NA	15	15
Photography for inspiration board / reference	NA	2	2
Case studies	NA	3	3
		Total Hours	**30**

Semester II

Major Course: 1

Title of the Paper: Concept Art and Digital Painting **Course Level: 100**

Subject Code: AVE092M211

L-T-P-C : 1-0-4-3 **Total credits: 3**

Course Objectives:

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

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Reproduce** rough art style, character's traits, personality, props according to the script and use that information as a guide for creating the visuals	**BT 1**
CLO 2	**Visualize** different styles sketch different themes, cartoons, design, props and environment.	**BT 2**
CLO 3	**Explore** themes of different conceptual art and design	**BT 3**
CLO 4	**Construct** conceptual art and design using various tricks and technique	**BT 4**

COURSE OUTLINE:

Modules	**Course Contents**	**Periods**
I	**Workspace and Tools** Introduction to User Interfaces, Basic Setting, Text, Layer Management, Tools	**15**

II	**Masking and Filters** Masking and Filters	**15**
III	**Digital Painting and Matte Painting** Still life Painting, How light falls on form, Dynamic light and shadow, Photobasing, 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**
TOTAL		**60**

Text Book:

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

References:

1. https://www.youtube.com/watch?v=fJvcllrOrr4
2. https://www.youtube.com/watch?v=XHprIlkY8Q4.

	Credit Distribution	
Lecture /Tutorial	Practicum	Experiential Learning
	60 hrs.	30 hrs. Photography for 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.)

Photography for 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**

Major Course: 2

Title of the Paper: Introduction to 3D Modelling and Texturing **Course Level: 100**

Subject Code: AVE092M212

L-T-P-C : 1-0-4-3 **Total credits: 3**

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI. No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Identifying** the object's shape, texture, and appearance through the use of polygons, curves, and other geometric primitives.	**BT 2**
CLO 2	**Construct** 3D model to view from any angle and use for a variety of purposes, such as visualization, animation, prototyping, etc.	**BT 3**
CLO 3	**Apply** the knowledge of shapes and forms to model a character, object and environment.	**BT 3**
CLO 4	**Develop** new interpretations of contemporary ideas of 3d texturing	**BT 4**

COURSE OUTLINE:

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 -	**15**

	Unity Prefabs; Modularity: Wall Set - Level Layout	
IV	**Terrain** Foliage: Palm Tree (model/unwrap), Foliage: Palm Tree, Terrain: Sculpting Height, Terrain: Adding Textures, Terrain: Adding Trees & Decorations; Terrain: Polish	**15**
TOTAL		**60**

Text Book:

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

References:

1. **https://www.youtube.com/watch?v=_UC0F3ZiuEU**
2. **https://www.youtube.com/watch?v=YMzKgFed7vA**

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
Case studies	NA	5	5
		Total Hours	**30**

Minor Course: 1

Title of the Paper: Graphic Design **Course Level: 100**

Subject Code: AVE092N211

L-T-P-C : 0-1-4-3 **Total credits: 3**

Course Objectives:

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI. No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Compare** different design and themes	**BT 2**
CLO 2	**Apply** the Graphic in difference type of Branding.	**BT 3**
CLO 3	**Illustrate** ranges of images using different design techniques.	**BT 3**
CLO 4	**Demonstrate** visual research and development skills through the creation of a Brand Development Guide	**BT 3**

COURSE OUTLINE:

Modules	**Course Contents**	**Periods**
I	**Fundamentals of Graphic Design** Introduction to interface of software, Implement the fundamentals of colour, visual, rhythm, and pattern in design. Use scale, weight, direction, texture, and space in a composition Typeset text and experiment with letter forms Create your own series of images using different image making techniques	**19**
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 exercise Design of a full-scale typographic poster	**11**
III	**Image Making** Make informed design choices using image-based research	**15**

	Create ranges of representation using images Compose spreads for book Design a book with your own images	
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**

Text Book:

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

References:

1. https://www.youtube.com/watch?v=xntKz5gLoNI
2. https://www.tourboxtech.com/en/news/best-graphic-design-books-for-designer.html

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90		
Lecture /Tutorial	Practicum	Experiential Learning
20hrs	40 hrs.	30 hrs. Project and Portfolio (15hrs),Study tour (5hrs), Photography for inspiration board / reference (5hrs), Case studies (5hrs)

Break up of Experiential learning			
Activity	Time required for preparation (hrs.)	Time required for execution (hrs.)	Total Time (hrs.)
Project and Portfolio based trends	NA	15	15
Study Tour	NA	5	5

Photography for inspiration board / reference	NA	5	5
Case studies	NA	5	5
		Total Hours	**30**

Skill Enhancement Courses: 2 (SEC-2)

Title of the Paper: Introduction to Cinematography **Course Level: 100**

Subject Code: AVE092S211

L-T-P-C : 1-0-4-3 **Total credits: 3**

Course Objectives:

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Understanding** the basics of camera, it's 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 2**
CLO 2	**Understanding** the fundamentals of lighting that affects the visual mood and atmosphere of a scene. It also helps in better storytelling, shaping character experience and enhancing the cinematic lighting techniques.	**BT 2**
CLO 3	**Understanding** to construct a script, design characters and story boarding.	**BT 2**
CLO 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 3**

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	**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**

Text Book:

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

References:

1. https://www.youtube.com/watch?v=KRC-6fMbw7k
2. https://www.youtube.com/watch?v=bVlTlTRhRDc

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 industryexpert	NA	1	1
		Total Hours	**30**

Semester III

Major Course: 1

Title of the Paper: 2D Animation **Course Level: 100**

Subject Code: AVE092M311

L-T-P-D : 1-0-4-3 **Total credits: 3**

Course Objectives:

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

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Review** storyboard and animatic *sequence* and overall flow of the story and whether the images effectively convey the intended narrative.	**BT 1**
CLO 2	**Convert** animatic *sequence* 2-dimensional images drawing or creating each individual frame of the animation by hand or using digital software	**BT 2**
CLO 3	**Apply** the knowledge of color, shapes and forms to retain mood the mass of subject to create smooth *sequence.*	**BT 3**
CLO 4	**Demonstrate** the knowledge of Bio-Mechanics and **Construct** animated sequence	**BT 4**

COURSE OUTLINE:

Modules	**Course Contents**	**Periods**
I	**2D Digital Animation** Interface and Tool, Timeline, Properties and Library, Character Dissection, Character Tracing, Character Coloring, Character Light and Shade, Guide Layer, Masking, Motion Path Animation, Rolling Coin, Bouncing Ball, Pendulum, Flag	**15**

II	**Bio-Mechanics / Organic Animation (Digital)** Head Turn, Man Walk, Man Jump (all view), Run Cycle, Walk-Run-Stop, Character balance, Lip-syncing with sound	**15**
III	**Bio mechanics 2d Animation** Head Turn, Man Walk, Man Jump (all view), Run Cycle, Walk-Run-Stop, Character balance.	**15**
IV	**Animatic** Storyboard with dialogue and Time	**15**
TOTAL		**60**

Text Book:

1. Williams, Richard. (2001). *The Animator's Survival Kit*

References:

1. https://www.youtube.com/watch?v=fJvcllrOrr4
2. https://www.youtube.com/watch?v=XHprIlkY8Q4.

	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/visualization technique	NA	6	6
Project and Portfolio	NA	15	15
Conceptual Sketching	NA	6	6
Case studies	NA	3	3
		Total Hours	**30**

Major Course: 2

Title of the Paper: 3D Lighting and Rendering **Course Level: 100**

Subject Code: AVE092M312

L-T-P-D : 1-0-4-3 **Total credits: 3**

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI. No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Review** storyboard and animatic *sequence* and overall flow of the story and whether the images effectively convey the intended narrative.	**BT 1**
CLO 2	**Construct** animatic *sequence 3*-dimensional creating each individual frame of the animation using digital software	**BT 2**
CLO 3	**Apply** the knowledge of Light retain mood of subject to create appealing *sequence.*	**BT 3**
CLO 4	**Examine** the objects and subject with the dynamic elements of the environment	**BT 4**

COURSE OUTLINE:

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. Teacher will supervise the projects.	**15**
TOTAL		**60**

Text Book:

Birn, Jeremy. (2000). *Digital Lighting and Rendering*.

References:

1. **https://www.youtube.com/watch?v=_UC0F3ZiuEU**
2. **https://www.youtube.com/watch?v=YMzKgFed7vA**

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**

Minor Course:

Title of the Paper: Introduction to Editing **Course Level: 100**

Subject Code: AVE092N311

L-T-P-D : 0-1-4-3 **Total credits: 3**

Course Objectives:

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Understanding** the basics of camera, it's working, and its functions.	**BT 2**
CLO 2	**Understanding** the fundamentals of lighting that affects the visual mood and atmosphere of a scene.	**BT 2**
CLO 3	**Understanding** to construct story boarding.	**BT 2**
CLO 4	**Apply** the knowledge of camera, lighting, and story boarding to explore the new dimensions of audio video editing and to generate a final product.	**BT 3**

COURSE OUTLINE:

Modules	**Course Contents**	**Periods**
I	**Fundamentals of Camera** Basics of Camera, its functions, 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	**Introduction to Storyboarding** Introduction to Storyboarding and its uses to set characters	**15**
IV	**Editing** Understanding interface and editing concept, uses of transition, effects and tools, audio integration, Exporting final output.	**15**
	TOTAL	**60**

Text Book:

1. Brown, Blain; Cinematography: Theory and Practice, Second Edition: Image Making for Cinematographers and Directors; Focal Press, 2011.

References:

1. https://www.youtube.com/watch?v=KRC-6fMbw7k
2. https://www.youtube.com/watch?v=bVlTlTRhRDc

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 industryexpert	NA	1	1
		Total Hours	**30**

Skill Enhancement Courses: 3

Title of the Paper: Introduction to Visual Effects **Course Level: 100**

Subject Code: AVE092D313

L-T-P-D : 1-0-4-3 **Total credits: 3**

Course Objectives:

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Understand** and holographic *sequence* and overall flow the story and whether the images effectively convey the intended narrative.	**BT 1**
CLO 2	**Convert** live action world *Into Imaginary world* using VFX software	**BT 2**
CLO 3	**Apply** the knowledge of. VFX for creating FX in shorts	**BT 3**
CLO 4	**Construct** 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 project of each sub contents in a storage device. Teacher will supervise the projects	**15**
	TOTAL	**60**

Text Book:

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

References:

3. https://www.youtube.com/watch?v=KRC-6fMbw7k
4. https://www.youtube.com/watch?v=bVlTlTRhRDc

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 industryexpert	NA	1	1
		Total Hours	**30**

Semester IV

Major Course: 1

Title of the Paper: 2D Animation FX and Compositing **Course Level: 100**

Subject Code: AVE092M411

L-T-P-E : 1-0-4-3 **Total credits: 3**

Course Objectives:

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

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Review** 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**
CLO 2	**Picture graphically** 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**
CLO 3	**Illustrate** with of 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**
CLO 4	**Break Down** 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, animation and Lip-syncing with sound	**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, Colour grade, Lighting and FX	**15**
IV	**Projects** Students will have to individually submit project of each sub content in a storage device. Teacher will supervise the projects.	**15**
TOTAL		**60**

Text Book:

1. Williams, Richard. (2001). *The Animator's Survival Kit*

References:

1. https://www.youtube.com/watch?v=fJvcllrOrr4
2. https://www.youtube.com/watch?v=XHprIlkY8Q4.

	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/visualization technique	NA	6	6
Project and Portfolio	NA	15	15
Conceptual Sketching	NA	6	6
Case studies	NA	3	3
		Total Hours	**30**

Major Course: 2

Title of the Paper: 3D Animation Techniques and Dynamics **Course Level: 100**

Subject Code: AVE092M412

L-T-P-E : 1-0-4-3 **Total credits: 3**

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI. No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Study** Rigging of physical bodies that govern the movement and behavior of objects in a 3D environment	**BT 1**
CLO 2	**Demonstrate** simulating the physical properties of objects in a 3D environment, such as gravity, collisions, and friction.	**BT 2**
CLO 3	**Experiment** with particles to create realistic effects like fire, smoke, and water.	**BT 3**
CLO 4	**Breakdown** the various elements and FX	**BT 4**

COURSE OUTLINE:

Modules	**Course Contents**	**Periods**
I	**Character Setup- Rigging, Character Blend shapes Animation Fundamentals** Introduction to Rigging, Inorganic rig setup; Rigging Tools: Essential; Rigging In-organics: Attribute Editor; Character Rigging, Facial Expression; Animation Fundamentals, Join setup, Camera angle and light.	**15**
II	**3D animation** Introduction to 3D Animation. Basic - Graph editor, spacing, timing and distance, Animating Bouncing Ball with concept; Box with antenna, Animation Principle,	**15**

	Animating more complicated objects, creating poses, Lip Syncing, ; Graph editor, Animation Walk Cycle Project, Animation Characters and Animals..	
III	**Dynamics in Maya** Cloth simulation, smoke simulation, liquid simulation and various elements and FX in 3D; understanding physics in 3D environment.	**15**
IV	**Project Submission** Students will have to individually submit project of each sub content in a storage device. Teacher will supervise the projects.	
	TOTAL	**60**

Text Book:

Birn, Jeremy. (2000). *Digital Lighting and Rendering*.

References:

1. **https://www.youtube.com/watch?v=_UC0F3ZiuEU**
2. **https://www.youtube.com/watch?v=YMzKgFed7vA**

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**

Major Course: 3

Title of the Paper: Advance Visual Effects and Techniques **Course Level: 100**

Subject Code: AVE092M413

L-T-P-E : 1-0-4-3 **Total credits: 3**

Course Objectives:

Course Learning Outcomes:

On successful completion of the course the students will be able to:		
SI No	**Course Outcome**	**Blooms Taxonomy Level**
CLO 1	**Record** real footage to creating new worlds and exciting experiences	**BT 1**
CLO 2	**Interconvert** real footage to something that would be impossible or difficult to achieve through practical means.	**BT 2**
CLO 3	**Modify** footage using advance VFX technique to produce sophisticated and realistic special effects	**BT 3**
CLO 4	**Analysis** and apply the Trapcode Paricular in the project	**BT 4**

COURSE OUTLINE:

Modules	**Course Contents**	**Periods**
I	**Visual effects in After effects** Creating smoke, lighting and different effects, and techniques to create visual effects	**15**
II	**Advanced Animation and Effects** Motion Paths, Designing Motion Graphics Elements and Graph Editor, Introduction to 3D Space (Element 3D), Day to night, Sky replacement	**15**
III	**Particle world and System in After Effects** Introduction to particle world in after effects, Creating particles like dust, fire, snowfall, rain, and various elements in VFX; Using different 3rd party plugins (Trapcode Paricular and Red Giants library) to create advance visual effects.	**15**
IV	**Project** Students will have to individually submit project of each sub contents in a storage device. Teacher will supervise the projects	**15**
	TOTAL	**60**

Text Book:

- Robert russet and Cecile star, experimental Animation, origins of a New Art A da Capo Paperback, Ny, 1998.

References:

5. https://www.youtube.com/watch?v=KRC-6fMbw7k
6. https://www.youtube.com/watch?v=bVlTlTRhRDc

NOTIONAL CREDIT HOURS (NCH)DISTRIBUTION (1C = 30 hrs, 3x30=90		
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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 industryexpert	NA	1	1
		Total Hours	**30**