ROYAL GLOBAL UNIVERSITY
———— GUWAHATI ————

ROYAL SCHOOL OF COMMUNICATIONS AND MEDIA (RSCOM)

DEPARTMENT OF ANIMATION AND VISUAL EFFECTS

Learning Outcomes-based Curriculum Framework (LOCF) for Undergraduate Programme in B.Sc. Animation and Visual Effects

W.E.F 2022 - 23

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1. **Preamble**

The Assam Royal Global University is upgrading its undergraduate programmes in the line of LOCF, 2022. Media and Entertainment are the most emerging and fast-growing industries in India and the whole world is taking notice of the efficiency, skill, and talent available in the country in these fields.

LOCF aims at making higher education, holistic and multidisciplinary education would aim to develop all capacities of human beings -intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner. Such an education will help develop well-rounded individuals that possess. In other words, the curriculum will allow flexibility to students to take up creative subject-combinations.

The new curriculum of B.Sc. Animation and Visual Effects under The Assam Royal Global

University is in the line with LOCF, 2022 – flexible, multi-disciplinary and holistic.

1.2 Introduction:

LOCF, 2020 aims at a new and forward-looking Vision for India's Higher Education System. At the societal level, higher education must enable the development of an enlightened, socially conscious, knowledgeable, and skilled nation that can find and implement robust solutions to its own problems. Higher education must form the basis for knowledge creation and innovation thereby contributing to a growing national economy. The purpose of quality higher education is, therefore, more than the creation of greater opportunities for individual employment. It represents the key to more vibrant, socially engaged, cooperative communities and a happier, cohesive, cultured, productive, innovative, progressive, and prosperous nation.

This policy envisions a complete overhaul and re-energising of the higher education system to overcome these challenges and thereby deliver high-quality higher education, with equity and inclusion—moving towards a more multidisciplinary undergraduate education, revamping curriculum, pedagogy, assessment, and student support for enhanced student experiences etc. A university will mean a multidisciplinary institution of higher learning that offers undergraduate and graduate programmes, with high quality teaching, research, and community engagement.With new concepts and progress, the detailed syllabus of B.Sc. Animation and Visual Effects has been designed based on LOCF 2022-2023.

1.2 Approach to Curriculum Planning

The fundamental premise underlying the learning outcomes-based approach to curriculum planning and development is that higher education qualifications such as a bachelor's degree (Specialization) programmes are earned and awarded based on (a) demonstrated achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitudes, and values) and (b) academic standards expected of graduates of a programme of study.

The expected learning outcomes are used as reference points that would help Formulate graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes which in turn will help in curriculum planning and development, and in the design, delivery, and review of academic programmes.

Learning outcomes-based frameworks in any subject must specify what graduates completing a particular programme of study are (a) expected to know, (b) understand and (c) be able to implement the knowledge at the end of their programme. To this extent, LOCF in Animation and Visual Effects is committed to allowing for flexibility and innovation in (i) programme design and syllabi development by higher education institutions (HEIs), (ii) teaching-learning process, (iii) assessment of student learning levels, and (iv) periodic programme review within institutional parameters as well as LOCF guidelines, (v) generating framework(s) of agreed expected graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes.

The key outcomes that underpin curriculum planning and development at the undergraduate level include Graduate Attributes, Qualification Descriptors, Programme Learning Outcomes, and Course Learning Outcomes.

The LOCF for undergraduate education is based on specific learning outcomes and academic standards expected to be attained by graduates of a programme of study. However, an outcome-based approach identifies moves way from the emphasis on what is to be taught to focus on what is learnt by way of demonstrable outcomes. This approach provides greater flexibility to the teachers to develop—and the students to accept and adopt—different learning and teaching pedagogy in an interactive and participatory ecosystem. The idea is to integrate social needs and teaching practices in a manner that is responsive to the need of the community. HEIs, on their turn, shall address to the situations of their students by identifying relevant and common outcomes and by developing such outcomes that match the specific needs of the students and also expand their outlook and values.

1.2.1 Nature and Extent of bachelor's degree Programme in Animation and Visual Effects

A bachelor's degree in Animation and Visual Effects is a 3 years degree course which is divided into 6 semesters as under.

Sl. No.	Year	Mandatory Credits to be Secured for the Award
1	1st	48
2	2nd	48
3	3rd	48
Total Credits		**144**

A student pursuing 3 years undergraduate programme with research in a specific discipline shall be awarded an appropriate Degree in that discipline on completion of 6th Semester if he/she secures 144 Credits. Similarly, for certificate, diploma and degree, a student needs to fulfil the associated credits. An illustration of credits requirements in relation to the type of award is illustrated below:

Bachelor's Degree is a well-recognized, structured, and specialized graduate level qualification in tertiary, collegiate education. The contents of this degree are determined in terms of knowledge, understanding, qualification, skills, and values that a student intends to acquire to look for professional avenues or move to higher education at the postgraduate level.

Bachelor's Degree programmes attract entrants from the secondary level or equivalent, often with subject knowledge that may or may not be directly relevant to the field of study/profession. Thus, B.Sc. Course in Animation and Visual Effects aims to equip students to qualify for joining a profession or to provide development opportunities in particular employment settings. Graduates are enabled to enter a variety of jobs or to continue academic study at a higher level.

1.2.2 Aims of bachelor's degree Programme in Animation and Visual Effects:

The B.Sc. Animation and Visual Effects programme is inclusive and broad-based even as it carries imprints of specialized areas of study. In this programme, student research is given importance to, particularly in the third year of the B.Sc. Animation and Visual Effects programme. The objectives of the LOCF syllabus revisit traditional expectations of teaching and learning Animation by centre-staging outcomes that are demonstrable through the following key attributes: understanding, use, communication,

expansion, and application of subject knowledge with a clear awareness and understanding of one's location in the regional, national, and global environment.

The LOCF syllabus of B.Sc. Animation and Visual Effects programme highlights the following: (i) To impart the basic knowledge of Animation and Visual Effect theories, principles of Animation, (ii) To develop the learners providing skill-based and research-based knowledge and competent and efficient in the field of Animation and Visual Effects (iii) To provide and adapt curricula that prepare our graduates for employment and further study as Animator or Visual Effect Artist (iv) To provide programmers that allow the students to choose from a wide range of Animation and Visual Effects (v) demonstration of professional awareness and problem solving skills, (vi) demonstration knowledge of digital software; (vi) develop the ability to recognize the professional and social utility of the subject, and (vi) in the process understand, appreciate and imbibe values of life.

The overall objectives of the Learning Outcomes-based Curriculum Framework (LOCF)for B.Sc. Animation and Visual Effects are—

- **Prospects of the Curriculum:** Formulating graduate attributes, qualification descriptors, programme learning outcomes, and course learning outcomes that are expected to be demonstrated by the holder of the degree of B.Sc. Animation and Visual Effects.

- **Core Values**: Enabling prospective students, parents, employers, etc. to understand the nature and level of learning outcomes (knowledge, skills, attitudes, and human and literary values) or attributes suitable to the B.Sc. Animation and Visual Effects programme.

- **Bridge to the World**: Providing a framework to see the subject as a bridge to the world in a way that while recognizing the different conditions in pluralistic society, the students also are aware of a core of shared values such as (i) commitment to the subject to understand the world at large, (ii) development of each person's unique potential, (iii) respect for others and their rights, (iv) social and civic responsibility, participation in democratic processes; social justice and cultural diversity, and (v) concern for the natural and cultural environment

- **Assimilation of Ability, Balance, Harmony and Inclusiveness:** Identify and define such aspects or attributes of Animation that a B.Sc. Animation and Visual Effects graduate should be able to demonstrate on successful completion of the programme.

- **Frame for National Standards:** Providing a frame of reference for maintaining national standards with international compatibility of learning outcomes of Animation and academic standards to ensure global competitiveness, and to facilitate graduate mobility

- **Pliability:** Formulating outcomes that are responsive to social and technological changes in a way that the pedagogy will meet the student's needs arising from the changes. The LOCF approach encourages effective use of new technologies as tools for learning and provide a balance

between what is common to the education of all students and the kind of flexibility and openness required for education

- **Pedagogy:** Provide higher education institutions an important point of reference for designing teaching-learning strategies, assessing student learning levels, and periodic review of programmes and academic standards for B.Sc. Animation and Visual Effects with a shift from domain knowledge to processes of realising the outcomes

- **Development:** The specific objectives of the B.Sc. Animation and Visual Effects programme are to develop the student's ability to demonstrate the following outcomes:

  1. Disciplinary Knowledge and understanding
  2. Communication Skills
  3. Creative Thinking
  4. Analytical Reasoning
  5. Problem Solving
  6. Information/digital literacy
  7. Project-Related Skills
  8. Cooperation/Teamwork
  9. Moral and Ethical Value
  10. Life-long learning (Self-Directing Learning)

  The details are explained below:

Graduate Attributes

GA 1: Disciplinary Knowledge and Understanding:

Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part. It will provide basic knowledge of Animation and Visual Effects use of creativity in CGI environment.

GA 2: Communication Skills:

Ability to demonstrate ideas express thoughts effectively both orally and in writing.

GA 3: Creative thinking:

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.

GA 4: Analytical Reasoning

They should be able to examine and solve problems effectively. A Systematic and methodical step-by- step approach to recognize the hurdle arising in the process of task execution.

GA 5: 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.

GA 6: Information/digital literacy

Demonstrate ability to use computers for learning, design, evaluate, and utilise relevant information using appropriate software for analysis of data and creation of end product.

GA 7: Project-Related Skills

The students are engaged with their faculty on various projects of current relevance and critical outcome. They work on live projects and collect data and conceptualize application ideas.

GA 8: Cooperation/Teamwork

Capable of participating in project to working effectively and develop innovative end product in diverse teams both classroom and animation industry.

GA 9: Moral and Ethical Value

Capable of conducting work with ethics and precision such as fabrication, falsification or misrepresentation of data or committing plagiarism, and appreciating environmental and sustainability issues.

GA 10: Life-long learning

Capable of self-paced and self-directed learning aimed at personal development, cultural objectives, adapting to changing trends and demands of workplace through knowledge/skill development/re-skilling.

1.4 Qualification Descriptors for a Bachelor's Degree programme in Animation and Visual Effects

The qualification descriptors for the Bachelor's Degree programme in animation will focus on the following five learning attributes: understanding, use, communication, expansion, and application of subject knowledge with a clear understanding of one's location. This also involves awareness on the differences that exist among students based on class, caste, gender, community, region, etc. in order that they can transcend these differences with transparency of purpose and thought. The key qualification descriptors for a Bachelor's Degree programme in Animation and visual effects may include the following:

Demonstrate

i. A systematic or coherent understanding of the academic field of Multimedia and identify connection between awareness gained and its relation Animation and Visual Effects

ii. The ability to understand the role of Animation in a changing world from the disciplinary perspective as well as in relation to the professional and everyday use of the Visual communication such as symbol, icon and index etc. The aspect of disciplinary attribute is covered by the ability of students to creative ideas with attention to themes.

iii. The ability to brainstorm/mind mapping ideas and produce themes with clarity.

iv. The ability to share results of academic and disciplinary learning through tutorial, dissertations, projects and portfolio, etc. on different platforms like the classroom, Library, the media and the internet

- *Communicate* ideas, opinions, and perception—both creatively and related to life—in order to expand the knowledge of the subject as it moves from the classroom environment to life and life-worlds in which the students of multimedia exist.
- *Recognize* the scope of Animation studies in terms of career and employment opportunities, engagement in Animation Industry, production house, animation studios, media, and other allied fields
- *Apply* subject-specific skills in Multimedia to foster a larger sense of ethical and moral responsibility among fellow humans in order to see, respect, and transcend differences among various life-forms. The programme will strengthen the student's creativity and imaginary concepts to enable them to identify, analyse and evaluate and find sustainable solutions and/or answers to keys issues in the various project and around in the world—thematic, conceptual, professional, procedural.

PO-1: Disciplinary knowledge of Animation and visual Effect:

Capable to attain knowledge and understanding of the concept of animation, graphic clarity, design principles, performance principles, and theories involved in the physics of animation in all aspects of drawing.

PO-2: Communication skills

Ability to convey messages through verbal, non-verbal communication and in writing

PO-3: Creative thinking:

The students will demonstrate the creative task based on the observation and sketch it into reality.

PO-5: Analytical Reasoning:

The students will examine and illustrate the selective area where the problems need to be sorted in the project with research & knowledge.

PO-6: Problem Solving:

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.

PO-7: Project development Techniques:

The student will outline and examine ascertain relevant source to find out substantive explanation and work on conceptualised Media related projects.

PO-8: Team work:

Ability to participate, contribute and provide constructive ideas and successfully complete projects within stipulated time.

PO-9: Moral and Ethical Value

Capable of conducting work with ethics and precision such as fabrication, falsification or misrepresentation of data or committing plagiarism, and appreciating environmental and sustainability issues.

PO-10: Life-long learning

Ability to retain and build on creative skills related to English transfer such skills to other domains of one's life and work and pave way for life-long learning.

1.6 B.Sc. Animation and Visual Effects Programme Specific Outcomes:

PSO 1: Integration of the concepts, principles, and theories involved in the physics of animation in all aspects of drawing.

PSO 2: Creating 2D and 3D characters and environments that reflect the integration of graphic clarity, design principles, performance principles, and theoretical constructs.

PSO 3: Applying critical thinking skills and problem-solving strategies in all dimensions of development and production.

PSO 4: Ability to demonstrate communicative competence, interpersonal skills and creative acumen through effective classroom practices like group discussions, project and Assignment.

1.7 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).

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-based learning
- Group discussions
- Home assignments
- Class tests, quizzes, debates organised in the department
- Seminars and conferences
- Extra-curricular activities like cultural activities, community outreach programmes etc.
- Field trip, excursions, study tour, interacting with eminent authors, etc.

1.8   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	
ii	Home Assignment		1-3	H	
iii	Project		1	P	
iv	Seminar		1-2	S	25%
v	Viva-Voce/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%**

Internal assessment is based on – Mid-semester Examination, Class test, Assignment, Project, Viva-voce, attendance of the student, seminar, group discussion, field work etc.

PROGRAME STRUCTURE							
RSCOM **(B. Sc.in Animation and Visual Effects)**							
1st Semester							
Sl. No.	Subject Code	Names of subjects	L	T	P	C	TCP
Core Papers (C)							
1	AVE092C101	History of Animation and Multimedia	4	0	0	4	4
2	AVE092C112	Fundamentals of Drawing for Animation	1	0	6	4	7
3	AVE092C113	Acting for Animation	1	0	6	4	7
Skill Enhancement Course (SEC)							
4	AVE092S111	Characters & Illustration	0	0	4	2	4

			L	T	P	C	TCP
		Value Added Course (VAC)					
5	AVE092V111	Yoga / Time management	0	0	4	2	4
		Ability Enhancement Compulsory Course (AECC)					
6	CEN982A101	Communicative English – I	1	0	0	1	1
7	BHS982A102	Behavioural Science-I	1	0	0	1	1
		Generic Elective (GE)					
8	AVE092G111	Design Stylization (compulsory)	0	0	3	3	3
9	AVE092G112	Bio-Mechanics of Animation (open)	0	0	3	3	3
		Total -				**24**	

2ⁿᵈ Semester							
Sl. No.	**Subject Code**	**Names of subjects**	**L**	**T**	**P**	**C**	**TCP**
		Core Papers (C)					
1	AVE092C211	Introduction to Cinematography	1	0	6	4	7
2	AVE092C212	Concept Art and Computer Graphics	1	0	6	4	7
3	AVE092C213	3D Modelling and Texturing	0	1	6	4	7
		Skill Enhancement Course (SEC)					
	AVE092S211	Graphic Design	0	0	4	2	4
		Value Added Course (VAC)					
	AVE092V211	Personal Branding and self-management	0	0	4	2	4
		Ability Enhancement Compulsory Course (AECC)					
4	CEN982A201	Communicative English – II	1	0	0	1	1
5	BHS982A202	Behavioural Science-II	1	0	0	1	1
		Elective: Generic (GE)					
6	AVE092G211	Art of Storyboarding (compulsory)	0	0	6	3	3
7	AVE092G212	Special effects (elemental magic animation) (open)	0	0	6	3	3
		Total -				**24**	

3ʳᵈ Semester							
Sl. No.	**Subject Code**	**Names of subjects**	**L**	**T**	**P**	**C**	**TCP**
		Core Papers (C)					
1	AVE092C311	2D Animation	0	1	6	4	7
2	AVE092C312	3D Lighting and Rendering	0	1	6	4	7
		Discipline Specific Elective(DSE)					
3	AVE092D313	Introduction to Visual Effects					
		Skill Enhancement Course (SEC)					
	AVE092S311	Animatic	0	0	4	2	4
		Value Added Course (VAC)					
	AVE092V311	Will select one course from a basket of courses	0	0	4	2	4

		Ability Enhancement Compulsory Course (AECC)					
4	CEN982A301	Communicative English – III	1	0	0	1	1
5	BHS982A302	Behavioural Science- III	1	0	0	1	1
		Elective: Generic (GE)					
6	AVE092G311	Nuke (compulsory)	0	0	6	3	3
7	AVE092G312	Live Action (open)	0	0	6	3	3
		Internship					
8	AVE092I312	4 weeks internship after 2nd sem exam.	0	0	0	4	4
		Total-				**24**	

4th Semester							
Sl. No.	Subject Code	Names of subjects	L	T	P	C	TCP
		Core Papers:					
1	AVE092C411	2D Animation FX and Compositing	0	0	8	4	8
2	AVE092C412	3D Animation Techniques and Dynamics	0	1	7	4	8
		Skill Enhancement Course (SEC)					
	AVE092S411	Claymation	0	0	4	2	4
		Value Added Course (VAC)					
	AVE092V411	Theatre	0	0	4	2	4
		Discipline Specific Elective (DSE)					
	AVE092D411	DSE-2 Advanced Visual Effects Techniques	0	0	8	4	8
		Ability Enhancement Compulsory Course (AECC)					
4	CEN982A401	Comm. Eng– IV	1	0	0	1	1
		Elective: Generic (GE)					
6	AVE092G411	Motion Graphics (compulsory)	3	0	0	3	3
7	AVE092G412	Info-graphics(open)	3	0	0	3	3
		Total -				**24**	