Your Dreams Our Goal

POORNIMA UNIVERSITY

Member of Association of Indian Universities & Approved by UGC (Govt. of India) under 2(f) & 12(B)

FACULTY OF DESIGN AND ARTS

PROGRAM: B.SC. ANIMATION & VFX

SCHEME & SYLLABUS BOOKLET

BATCH 2025-2028

INDEX

Disclaimer: The scheme, syllabus and other materials published in this booklet may be changed or modified as per the requirement after approval of competent authority. The decision taken by the management of Poornima University will be final and abiding to all.

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POORNIMA UNIVERSITY

Member of Association of Indian Universities & Approved by UGC (Govt. of India) under 2(f) & 12(B)

Vision

Our vision is to create knowledge based society with scientific temper, team spirit and dignity of labor to face global competitive challenges.

Mission

Our mission is to evolve and develop skill based systems for effective delivery of knowledge so as to equip young professionals with dedication and commitment to excellence in all spheres of life.

Quality Policy

To provide quality education through faculty development, updating of facilities and continual improvement for meeting norms laid down by the government, keeping the stakeholders satisfied. Poornima University has forged industrial alliances with Top MNC's worldwide which assures high educational standards, up to- date and forward-thinking curricula, and professional relevance. At Poornima University you will have a distinct advantage through exposure to the corporate standard environment through industry sponsored infrastructure and expert faculty. The University involves global industry leaders in many ways.

Knowledge Wheel

At Poornima, the academic atmosphere is a rare blend of modern technical as well as soft skills and traditional systems of learning processes.

About Program and Program Outcomes (PO):

Title of the Program: B.Sc. Animation & VFX

Nature of the Program: The B.Sc. in Animation & VFX program is a 3 year undergraduate course focused on teaching students the technical skills and creative processes involved in animation and visual effects. It covers foundational art and design, 3D modeling, animation, visual effects, storyboarding, and post-production. Students gain hands-on experience with industry-standard software and work on projects that help them build a professional portfolio, preparing them for careers in film, TV, gaming, and other media industries.

Program Outcomes (POs):

Graduates will be able to:

PO1 : Analyze, design & develop unique and creative ideas through various techniques including sketching, storyboards and animatics.

PO2 : Choose appropriate computing tools, skills and techniques necessary for developing creative concepts for Animation Technology.

PO3 : Solve formal, conceptual, and communication problems through the process of self-directed trial, error, and refinement.

PO4 : Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 : Build a strong foundation in all aspects of design and production for storytelling in motion.

PO6 : Develop a professional commitment to their field, their work, and themselves; preparing them to be members and leaders in their profession, as well as learning how to act both as individuals and as team members to support the whole.

PO7 : Demonstrate an attitude of openness so that they seek new and unusual opportunities to learn and create.

PO8: Express ideas in a coherent, logical and compelling way in writing and the spoken word.

PO9 : Demonstrate knowledge and understanding of the computing and management principles and communicate efficiently with team, to manage projects and in multidisciplinary environments.

PO10 : Recognize the need, and have the ability, to engage in independent learning for continual development as a creative professional.

PO11 : Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and
society at large.

PO12 : Develop effective communication and collaboration skills necessary for working in multidisciplinary teams on animation and VFX projects, often with artists, designers, and technical professionals.

Program Specific Outcomes (PSOs):

PSO1 - After Course Completion, the students will be equipped with imaginative and specialized aptitudes in different arena of 2D/3D animation & VFX. This will empower them to establish globally, work for societal cause, pursue research and be entrepreneur in their endeavours.

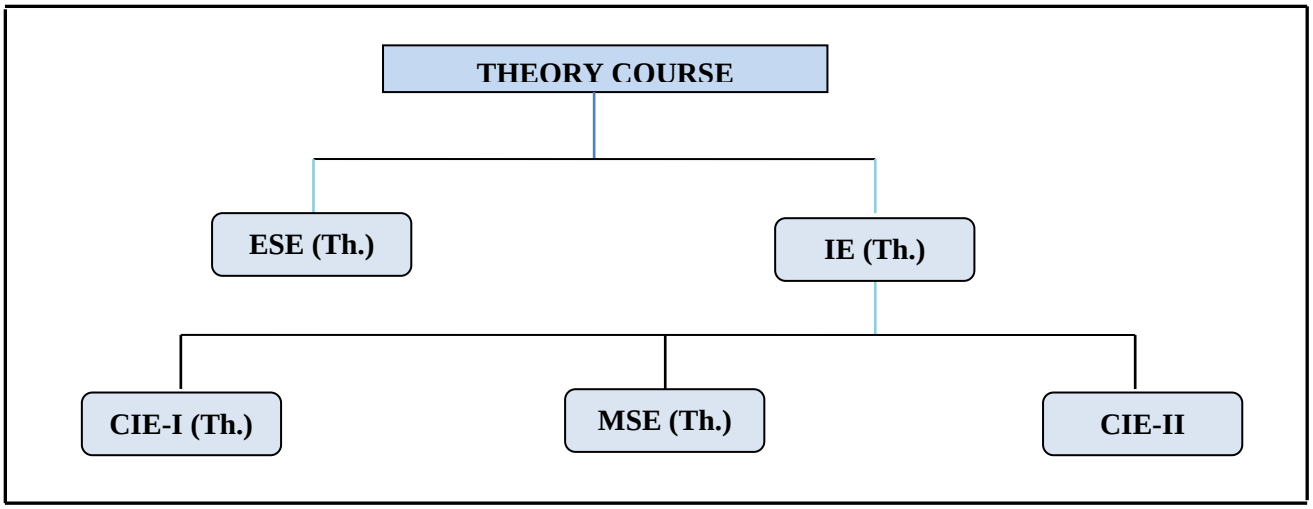
PSO2 - Achieve professionalism, expertise presentations, demonstrate proficiency in hand skills, practice digital technology, adorn global role play and follow standards of Animation & VFX.

PSO3 -Graduates will be prepared to acquire a range of general skills pertaining to animation, to solve problems, to evaluate information, to use tool and technology productively, to communicate with society effectively and learn independently.

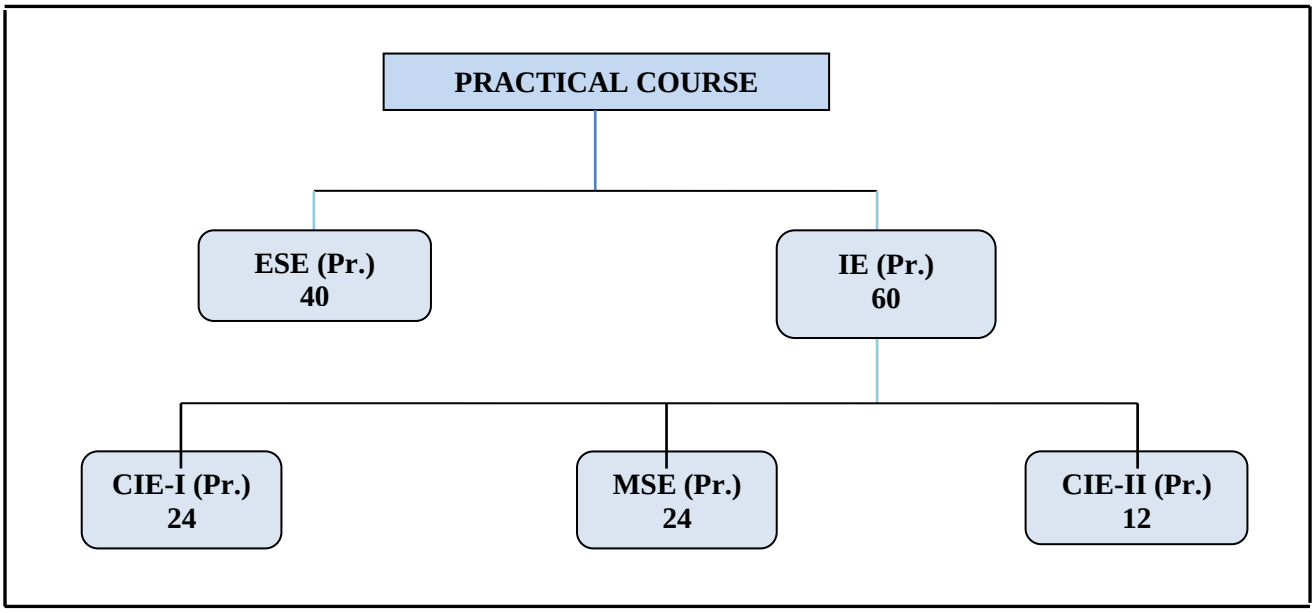
PSO4 - Graduates will procure work productively in various fields such as Art, Design, and Entertainment industry, Media, Medical at National and International platform.

Examination System :

Marks Distribution of Theory Course:



A. **Marks Distribution of Practical Course :**



Th.: Theory, Pr.: Practical, **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **CIE:** Continuous Internal Evaluation.

CO Wise Marks Distribution:

Exam Entity	Theory Subject		Practical/ Studio Subject	
	Maximum Marks	CO to be Covered	CO to be Covered	Maximum Marks
CIE-I	16 (8 + 8)	1 & 2	1 & 2	24 (12 + 12)
MSE	16 (8 + 8)	3 & 4	3 & 4	24 (12 + 12)
CIE-II (Activity/ Assignment)	8 (8)	5	5	12 (12)
ESE	60	-	-	40
TOTAL	100	-	-	100

Minimum Passing Percentage in All Exams:

S. No.	Program Name	Minimum Passing Percentage in		
		IE Component	ESE Component	Total Component
1	Course Work for PhD Registration	-	-	50%
2	B. Arch., FIRE Dept. (BBA, B. Com., MBA)	-	45%	50%
3	MBA, MCA, M.Des., M.Tech., M.Plan, MHA, MPH	-	40%	40%
4	B. Tech., B. Des., BVA, BCA, B.Sc., BBA, B.Com., B.A. & any other program	-	35%	35%

SGPA Calculation

$$SGPA = \frac{C_1G_1 + C_2G_2 + \ldots\ldots\ldots + C_nG_n}{C_1 + C_2 + \ldots\ldots + C_n}$$

$$SGPA = \frac{\sum_i C_i \times G_i}{\sum_i C_i}$$

where (as per teaching scheme & syllabus):

C_i is the number of credits of subject i,

G_i is the Grade Point for the subject I and i = 1 to n,

n = number of subjects in a course in the semester

CGPA Calculation

$$CGPA = \frac{C_1G_1 + C_2G_2 + \ldots\ldots\ldots + C_nG_n}{C_1 + C_2 + \ldots\ldots + C_n}$$

$$CGPA = \frac{\sum_i C_i \times G_i}{\sum_i C_i}$$

where (as per teaching scheme & syllabus):

C_i is the number of credits of subject i,

G_i is the Grade Point for the subject I and i = 1 to n,

n = number of subjects in a course of all the semesters up to which CGPA is computed

Grading Table:

Table-A
Applicable for B.Arch., FIRE Courses (BBA, B.Com, MBA), & PhD. Course Work

Table-B
Applicable for All Courses except Table-A

*** Not applicable for master programs**

CGPA to percentage conversion rule:

Academic Performance	Grade	Grade Point	Marks Range (in %)
Outstanding	O	10	90≤ x ≤100
Excellent	A+	9	80≤ x <90
Very Good	A	8	70≤ x <80
Good	B+	7	60≤ x <70
Above Average	B	6	50≤ x <60
Fail	F	0	x <50
Absent	Ab	0	Absent

Academic Performance	Grade	Grade Point	Marks Range (in %)
Outstanding	O	10	90≤ x ≤100
Excellent	A+	9	80≤ x <90
Very Good	A	8	70≤ x <80
Good	B+	7	60≤ x <70
Above Average	B	6	50≤ x <60
Average	C	5	40≤ x <50
Pass*	P	4	35≤ x <40
Fail	F	0	x <35
Absent	Ab	0	Absent

Equivalent % of Marks in the Program = *CGPA* *10

Award of Class

CGPA	Percentage	Equivalent Division
7.50 ≤ CGPA	75% or more	First Division with Distinction
6.00 ≤ CGPA < 7.50	60% ≤ x <75%	First Division
5.00 ≤ CGPA < 6.00	50% ≤ x <60%	Second Division
4.00 ≤ CGPA < 5.00	40% ≤ x < 50%	Pass Class

Guidelines for Massive Open Online Courses (MOOCs)

(Session 2024-25)

Poornima University, in its never ending endeavor to equip students with best-of-class learning and knowledge, has undertaken to include MOOC courses as part of its credit scheme from session 2023-24 onwards. The objective behind this is to enable students to study courses designed by the best teachers in the country and to scale their knowledge base with the rest of learners from the nation. The MOOCs which are included under this scheme is can be chosen from SWAYAM-NPTEL.

1. Introduction of MOOCs: SWAYAM-NPTEL

About SWAYAM-NPTEL

NPTEL (National Programme on Technology Enhanced Learning), is a joint venture of the IITs and IISc, funded by the Ministry of Education (MoE) Government of India, and was launched in 2003. Initially started as a project to take quality education to all corners of the country, NPTEL now offers close to 600+ courses for certification every semester in about 22 disciplines.

Some highlights:

- Largest online repository in the world of courses in engineering, basic sciences and selected humanities and management subjects
- YouTube channel for NPTEL – most subscribed educational channel, 1.3 billion views and 40+ lakhs subscribers
- More than 56000 hours of video content, transcribed and subtitled
- Most accessed library of peer-reviewed educational content in the world
- Translation of more than 12000 hrs. of English transcripts in regional Indian languages

NPTEL Online Certification:

The objective of enabling students obtain certificates for courses is to make students employable in the industry or pursue a suitable higher education programme. Through an online portal, 4, 8, or 12-week online courses, typically on topics relevant to students in all years of higher education along with basic core courses in sciences and humanities with exposure to relevant tools and technologies, are being offered. Enrolment to and learning from these courses is free. Following these online courses, an in-person, proctored certification exam is conducted and a certificate is provided through the participating institutions and industry, as applicable.
Some statistics regarding the open online courses since March 2014 till Dec 2021
Completed courses: 3496;
Enrollments across courses: 1.58 CRORE +
Number of exam registrations: 15.1 LAKH +
All the statistics pertaining to completed courses are available at https://beta.nptel.ac.in/courses. All courses are completely free to enroll and learn from. The certification exam is optional and comes at a fee of Rs 1000/course exam.

2. MOOCs at Poornima University:

MOOCs envelops best in class teaching - learning processes along with meeting the requirements of various courses in terms of quality of teaching and evaluation system. To promote the MOOCs among students of Poornima University, it is decided to consider the credits earned through MOOCs.

(a) MOOCs as Credit Courses

(For this document, only those MOOCs will be considered which are available only on NPTEL platforms)

- Credit and Non-credit SWAYAM-NPTEL MOOCs can be opted by anyone, anytime, anywhere and in any language. However, prior-permission of the University Authorities is mandatory if the credits are to be transferred to regular degree.
- As Open Elective (for batches entered till 2022) / Multidisciplinary Courses (for batches admitted from 2023-24 onwards): Open Elective (for batches entered till 2022) courses were available at University level in offline mode till 2022-23 for which relevant booklets were published. From session 2023-24, Multidisciplinary Courses are introduces in lieu of open elective courses as per NEP 2020. These courses carries 02 credits. These category/type of courses (similar/different) are available as MOOC courses on SWAYAM-NPTEL platform which are being introduced from session 2023-24 onwards for all the students. The respective Deans / HODs shall provide all the information to all the students pertaining to MOOCs as per details given below:
    1. Deans / HODs shall prepare a list of up to 10 appropriate MOOC courses (From NPTEL Only) of Minimum 02/03 credits each, well in advance (at-least 15 days prior to commencement of semester) and take approval from the Office of Dean, Academics / Pro-President, PU.
    2. After approval, the respective Deans / HODs shall circulate a notice to all their respective students so that they can select any one course from the list, the credits (only 02) of which will be counted against Open Elective/ Multidisciplinary courses pertaining to that particular semester.
    3. The tutor of the class shall monitor the progress (assignments, feedback, any problem etc.) on weekly basis and report to Head/Dean and provide the academic support to students as per requirement.

(b) Important points related to MOOCs at Poornima University

- Only one MOOC shall be allowed in a particular semester for the purpose of credit transfer in the beginning.
- No attendance will be taken for MOOC courses.
- The method of assessments of MOOC such as assignments and examination are completely associated with that particular MOOC and no internal exam (IE component) will be conducted by the department as well as by the Examination Cell.
- The respective Dean / HOD must submit the detail of course i.e., code, name and credit of MOOC opted against that particular course in particular semester attached with highlighting in the related examination scheme of syllabus of that semester signed by BOS Convener / HoD and Dean of Faculty to the office of Pro-President before commencement of the classes.
- The center of examination for MOOCs will be finalized by SWAYAM-NPTEL. All the responsibility related to registration for MOOCs, timely submission of assignments, examinations etc. will be borne by the students only.
- NPTEL will award a certificate to all the students passing the examination.
- The list of registered students in MOOC along with name of course will be submitted to the Examination Cell by the Deans / HoDs before commencement of the classes.

- An ESE Exam of each said MOOC course will also be conducted by the University as per University norms.
- The award of marks/grading will be computed as given below:

Award of marks/grading	Remarks
1. 20% weightage taken from MOOC Certificate +80% weightage taken from ESE Exam of Poornima University **OR** 2. 100% of weightage taken from MOOC Certificate Note: The Higher Marks/Grades of the above two will be considered	The Certificate of MOOC to be Submitted as per date notified by COE, Poornima University

- Any student who would not be able to clear/pass the said course, will be required to appear as a back exam candidate of the University as per PU norms. Students who have not passed the MOOC exam are required to register and participate in the next semester for either the same subject or a similar subject (Ensuring at least 60% of the syllabus matches with the back subject and also approved by respective Dean) offered through NPTEL.
- The scorecard and related certificate of MOOC along with a consolidated list of students with marks of assignment and final exam will be submitted to the examination cell by the concerned Dean / HOD for further process. It is also recommended that alteration/changes/scaling in marks obtained by the students in any MOOC will not be considered.
- The exam registration fee of MOOC up to Max. INR 1000/- will be reimbursed to the student only after successful completion of the course in first attempt and submission of the fee receipt, score-card and certificate of the MOOC to the concerned department within stipulated time after declaration of the results.
- There will be no provision of re-evaluation of MOOC.

NOTE: This is to be noted that the procedure for getting approval from BOS, Faculty Board, Academic Council and BoM is to be followed as per regular process.

Attached Items:

Ability Enhancement Courses	Annexure-1
Value Added Course Booklet	Annexure-2

POORNIMA UNIVERSITY, JAIPUR

Faculty of Design & Arts

Name of Program: B.Sc. Animation **Duration: 3 years** **Total Credits: 126**

Teaching Scheme for Batch 2025-28

Semester-I

Course Code	Name of Course	Teaching Scheme			Marks Distribution			Credits
		Lecture (L)	Tutorial (T)	Practical P)	IE	ESE	TOTAL	
A.	**Major (Core Courses)**							
A.1	**Theory**							
BSBCSB1101	Fundamentals of Design	**2**	**-**	**-**	**40**	**60**	**100**	**2**
BSBCSB1102	Story Design and development	**2**	**-**	**-**	**40**	**60**	**100**	**2**
A.2	**Practical**							
BSBCSB1201	2D Digital Animation I	**2**	**-**	**4**	**60**	**40**	**100**	**4**
BSBCSB1202	3D Lab I	**-**	**-**	**4**	**60**	**40**	**100**	**2**
BSBCSB1203	Exploratory I	**-**	-	**4**	**60**	**40**	**100**	**2**
B.	**Minor Stream Courses/Department Elective**							
B.1	**Theory**							
	Nil	**-**	**-**	**-**	**-**	**-**	**-**	**-**
B.2	**Practical**							
BSBESB1201	Digital Art	**2**	**-**	**2**	**60**	**40**	**100**	**3**
BSBESB1202	Matte Painting							
C	**Multidisciplinary Courses**							
	Nil	**-**	**-**	**-**	**-**	**-**	**-**	**-**
D	**Ability Enhancement Courses (AEC)**							
BUACHM1101	Language & Conversation	**2**	**-**	**-**	**40**	**60**	**100**	**2**
E	**Skill Enhancement Courses (SETC)**							
BSBESB1601	Foundation Art I	**-**	**-**	**4**	**60**	**40**	**100**	**2**
F	**Value Added Courses (VAC)**							
25BUVCVA1201 **/25BUVCVH1201**	Performing Arts/ Universal Human Values and Professional Ethics Lab		**-**	**2**	**60**	**40**	**100**	**1**
G	**Summer Internship / Research Project / Dissertation**							
Total		**10**	**-**	**20**				**20**
Total Teaching Hours		**30**						

POORNIMA UNIVERSITY, JAIPUR

Faculty of Design & Arts

Name of Program: B.Sc. Animation **Duration: 3 years** **Total Credits: 126**

Teaching Scheme for Batch 2025-28

Semester-II

Course Code	Name of Course	Teaching Scheme			Marks Distribution			Credits
		Lecture (L)	Tutorial (T)	Practical (P)	IE	ESE	Total	
A.	**Major (Core Courses)**							
A.1	**Theory**							
BSBCSB2101	History And Evolution Of Animation	**2**	**-**	**-**	**40**	**60**	**100**	**2**
BSBCSB2102	Graphic Design Concepts	**2**	**-**	**-**	**40**	**60**	**100**	**2**
A.2	**Practical**							
BSBCSB2201	Foundation Art II			**4**	**60**	**40**	**100**	**2**
BSBCSB2202	2D Digital Animation II	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBCSB2203	3D Lab II	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBCSB2204	Exploratory II	**2**	**-**	**2**	**60**	**40**	**100**	**3**
B.	**Minor Stream Courses/Department Elective**							
B.1	**Theory**							
	Nil	**-**	**-**	**-**	**-**	**-**	**-**	**-**
B.2	**Practical**							
BSBESB2201	Photography	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBESB2202	Game Design							
C	**Multidisciplinary Courses**							
BSBEMO2601	MOOC Course - I	**2**	**-**	**-**	**40**	**60**	**100**	**2**
D	**Ability Enhancement Courses (AEC)**							
BUACHM2206	English	**2**	**-**		**40**	**60**	**100**	**2**
E	**Skill Enhancement Courses (SETC)**							
BSBCSB2601	Vector Graphics	**1**	**-**	**2**	**60**	**40**	**100**	**2**
F	**Value Added Courses (VAC)**							
25BUVCVA2201/ 25BUVCVD2201	Performing Arts /Entrepreneurship		**-**	**2**	**40**	**60**	**100**	**1**
G	**Summer Internship / Research Project / Dissertation**							
Total		14	-	16				**22**
Total Teaching Hours				30				

POORNIMA UNIVERSITY, JAIPUR

Faculty of Design & Arts

Name of Program: B.Sc. Animation **Duration: 3 years** **Total Credits: 126**

Teaching Scheme for Batch 2025-28

Semester-III

Course Code	Name of Course	Teaching Scheme			Marks Distribution			Credits
		Lecture (L)	Tutorial (T)	Practical (P)	IE	ESE	Total	
A.	**Major (Core Courses)**							
A.1	**Theory**							
BSBCSB3101	Visual Communication	**2**	**-**	**-**	**40**	**60**	**100**	**2**
BSBCSB3102	Cinematography	**2**	**-**	**-**	**40**	**60**	**100**	**2**
A.2	**Practical**							
BSBCSB3201	Preproduction I	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBCSB3202	3D Animation I	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBCSB3203	Editing & Sound Design Lab	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBCSB3204	Exploratory III	**2**	-	**2**	**60**	**40**	**100**	**3**
B.	**Minor Stream Courses/Department Elective**							
B.1	**Theory**							
	Nil	**-**	**-**	**-**	**-**	**-**	**-**	**-**
B.2	**Practical**							
BSBESB3211	Motion Graphics	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBESB3212	3D Dynamics and Simulation							
C	**Multidisciplinary Courses**							
BSBEMC3121	MOOC Course - II	**2**	**-**	**-**	**40**	**60**	**100**	**2**
D	**Ability Enhancement Courses (AEC)**							
BUACHM3109	Professional Skills-I	**2**	**-**	**-**	**40**	**60**	**100**	**2**
E	**Skill Enhancement Courses (SEC)**							
BSBCSB3601	Character Design Concepts	**-**	**-**	**4**	**40**	**60**	**100**	**2**
F	**Value Added Courses (VAC)**							
25BUVCVA3104	Outreach of Indian Knowledge System	**2**	**-**	**-**	**40**	**60**	**100**	**2**
G	**Summer Internship / Research Project / Dissertation**							
Total		**16**	**-**	**14**				**23**
Total Teaching Hours				**30**				

POORNIMA UNIVERSITY, JAIPUR

Faculty of Design & Arts

Name of Program: B.Sc. Animation **Duration: 3 years** **Total Credits: 126**

Teaching Scheme for Batch 2025-28

Semester-IV

Course Code	Name of Course	Teaching Scheme			Marks Distribution			Credits
		Lecture (L)	Tutorial (T)	Practical (P)	IE	ESE	Total	
A.	**Major (Core Courses)**							
A.1	**Theory**							
BSBCSB4101	Lighting concepts	**2**	**-**	**-**	**40**	**60**	**100**	**2**
BSBCSB4102	Studio Design & Project Management	**2**	**-**	**-**	**40**	**60**	**100**	**2**
A.2	**Practical**							
BSBCSB4201	Pre-Production II	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBCSB4202	3D Animation II	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBCSB4203	Compositing Techniques	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBCSB4204	Exploratory IV	**2**		**2**	**40**	**60**	**100**	**3**
B.	**Minor Stream Courses/ Department Elective**							
B.1	**Theory**							
	Nil	**-**	**-**	**-**	**-**	**-**	**-**	**-**
B.2	**Practical**							
BSBESB4201	Lighting & Rendering	**1**	**-**	**2**	**60**	**40**	**100**	**2**
BSBESB4202	3D Game Lab							
C	**Multidisciplinary Courses**							
BSBEMC4121	MOOC Course - III	**2**	**-**	**-**	**40**	**60**	**100**	**2**
D	**Ability Enhancement Courses (AEC)**							
BUACHM4108	**NEGOTIATION SKILLS & PERSUASIVE COMMUNICATION**	**2**	**-**	**-**	**40**	**60**	**100**	**2**
E	**Skill Enhancement Courses (SEC)**							
BSBCSB4601	UI UX - I		**-**	**4**	**60**	**40**	**100**	**2**
F	**Value Added Courses (VAC)**							
25BUVCVA4105	Indian Ethics (As a part of IKS)	**2**	**-**	**-**	**-**	**-**	**-**	**2**
G	**Summer Internship / Research Project / Dissertation**							
Total		**16**	**-**	**14**				**23**
Total Teaching Hours				**30**				

POORNIMA UNIVERSITY, JAIPUR

Faculty of Design & Arts

Name of Program: B.Sc. Animation **Duration: 3 years** **Total Credits: 126**

Teaching Scheme for Batch 2025-28

Semester-V

Course Code	Name of Course	Teaching Scheme			Marks Distribution			Credits
		Lecture (L)	Tutorial (T)	Practical (P)	IE	ESE	total	
A.	**Major (Core Courses)**							
A.1	**Theory**							
BSBCSB5101	Augmented reality and Virtual reality	**2**	**-**	**-**	**40**	**60**	**100**	**2**
BSBCSB5102	Advanced Visual Design	**2**	**-**	**-**	**40**	**60**	**100**	**2**
A.2	**Practical**							
BSBCSB5201	Portfolio	**1**	**-**	**6**	**60**	**40**	**100**	**4**
B.	**Minor Stream Courses/Department Elective**							
B.1	**Theory**							
	Nil	**-**	**-**	**-**	**-**	**-**	**-**	**-**
B.2	**Practical(Any two)**							
BSBESB5211	Advanced 3D Animation & Rigging	**1**	**-**	**6**	**60**	**40**	**100**	**4**
BSBESB5212	Advanced Modeling and Texturing							
BSBESB5213	Advanced 2D Animation	**1**	**-**	**6**	**60**	**40**	**100**	**4**
BSBESB5214	Advanced VFX Compositing							
C	**Multidisciplinary Courses**							
BSBEMC5121	MOOC Course - III	**2**	**-**	**-**	**40**	**60**	**100**	**2**
D	**Ability Enhancement Courses (AEC)**							
	Nil	**-**	**-**	**-**	**-**	**-**	**-**	**-**
E	**Skill Enhancement Courses (SEC)**							
BSBCSB5601	UI UX - II	**1**	**-**	**2**	**60**	**40**	**100**	**2**
F	**Value Added Courses (VAC)**							
	Nil	**-**	**-**	**-**	**-**	**-**	**-**	**-**
G	**Summer Internship / Research Project / Dissertation**							
BSBCSB5501	Internship		**-**		**60**	**40**	**100**	**2**
Total		**10**	**-**	**20**				**22**
Total Teaching Hours				**30**				

POORNIMA UNIVERSITY, JAIPUR

Faculty of Design & Arts

Name of Program: B.Sc. Animation **Duration: 3 years** **Total Credits: 126**

Teaching Scheme for Batch 2025-28

Semester-VI

Course Code	Name of Course	Teaching Scheme			Marks Distribution			Credits
		Lecture (L)	Tutorial (T)	Practical (P)	IE	ESE	Total	
A.	**Major (Core Courses)**							
A.1	**Theory**							
	Nil							
A.2	**Practical**							
B.	**Minor Stream Courses/Department Elective**							
B.1	**Theory**							
	Nil	-	-	-	-	-	-	-
B.2	**Practical**							
BSBCSB6502	Final Project & Report		-		**60**	**40**	**100**	**8**
C	**Multidisciplinary Courses**							
	Nil	-	-	-	-	-	-	-
D	**Ability Enhancement Courses (AEC)**							
	Nil	-	-	-	-	-	-	-
E	**Skill Enhancement Courses (SEC)**							
	Nil	-	-	-	-	-	-	-
F	**Value Added Courses (VAC)**							
	Nil	-	-	-	-	-	-	-
G	**Summer Internship / Research Project / Dissertation**							
BSBCSB6501	Internship (In campus/ External)/		-		-	-	-	**8**
Total			-					16
Total Teaching Hours								

I SEMESTER

Code: BSBCSB1101	Fundamentals of Design	2 Credits [LTP: 2-0-0]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Explain** the principles behind fundamentals of Design	Remember
CO2	**Understand** the language of Visual Communication	Understand
CO3	**Apply** elements of design in the creation	Apply
CO4	**Analyze** the principles of design and implement in the works.	Analyze
CO5	**Evaluate** the importance and the role of Design in society	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
	CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	1	-	-	2	-	-	-	3	1	-
CO2	2	3	-	-	-	-	-	2	-	-	-	-	3	-	-
CO3	2	2	2	2	-	2	1	-	-	2	-	-	2	2	1
CO4	2	3	-	-	2	-	-	-	1	-	1	-	1	-	-
CO5	2	3	-	1	-	-	2	1	-	-	-	1	2	-	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	Introduction and History of Design	6
2.	Visual Communication	8
3.	Elements of design	8
4.	Principles of Design	8
5.	Role of Design in Society	6

DETAILED SYLLABUS

Unit	Unit Details
1.	**Introduction and History of Design**
	• Introduction of Unit • History • Forms of design • Art and design • Conclusion of Unit
2.	**Visual Communication**
	• Introduction of Unit • Semantics and Secondary research • Pragmatics and syntactic • Case study • Conclusion of Unit
3.	**Elements of design**
	• Introduction of Unit • Line, Shape, Volume, • Colour, value, Texture • Conclusion of Unit
4.	**Principles of Design**
	• Introduction of Unit • Gestalt Law's for art and design • The Design process • Conclusion of Unit
5.	**Role of Design in Society**
	• Introduction of Unit • Poster design as Social Commentary • Propaganda design: USA, German, Soviet. • Designing for society • Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Universal Principles of Design	William Lidwell Kritina -Holden Jill Butler	Latest	
2	Handbook of Visual Communication: Theory, Methods and Media	Ken Smith Sandra Moriarty Gretchen Barbatsis Keith Kenney	Latest	
Important Web Links				
1	https://nptel.ac.in/courses/107103002			
2	https://www.dsource.in/design-fundamentals			
3	https://www.skillshare.com/en/browse/design-fundamentals			

Code: BSBCSB1102	Story Design and Development	2 Credits [LTP: 2-0-0]

1. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** the design process and the development of Story narratives.	**Understand**
CO2	**Demonstrate** and **Application** of the principles and visual scripting of storytelling.	**Apply**
CO3	**Analyze** various styles and differentiate form and elements of Graphic narratives.	**Analyze**
CO4	**Evaluate** the role of the Graphic narrative expressions from simple to complex ones.	**Evaluate**
CO5	**Create** comic strips and script for use in different mediums of visual narratives.	**Create**

2. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	2	-	-	2	-	1	-	-	1	-	2	-	1
CO2	-	2	-	3	-	-	-	-	1	-	-	-	-	2	-
CO3	3	-	1	2	-	-	3	-	-	-	2	-	-	2	-
CO4	2	2	-	3	1	-	-	-	2	-	-	-	-	1	1
CO5	2	2	-	1	-	2	-	-	-	1	-	-	-	2	-
WT. AVG															

3. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	Understanding Story	08
2.	Story Narratives and its Development	08
3.	Story to Script	07
4.	Graphic Narratives	11
5.	Script Writing with AI	02

DETAILED SYLLABUS

Unit	Unit Details
1.	**Understanding Story**
	• Introduction of the Unit • Resources and ideas from life • Understanding Story from Literature and Films. • Examining indigenous narratives, both contemporary and traditional to gain an understanding of storytelling methods pertinent to our culture. • Linear & non-linear storytelling • Imagery building :Visual association to the narration - To know about the form in which the story is told • Conclusion of Unit.
2.	**Story Narratives and its Development**
	• Introduction of the Unit • Narrative: Introduction to narrative structures (Indian and Western) • Modes of Narrative • Plot & Character: Action Plots & Mind Plots. Analysis of different types of plots, Developing Characters, Storytelling and it relevance in society- character driven stories – Event driven stories. • Archetypes v/s Stereotypes - understanding of archetypes and a brief introduction to the monomyth (hero's journey). • Conclusion of Unit.
3.	**Story to Script**
	• Introduction of the Unit • Content, frameworks, and contexts, Script Styles, • Submission Scripts, and Shooting Scripts, • Specific Screenplays- Page Properties and Script Length • Script - interpretation and visualization for animated films. • Conclusion of Unit.
4.	**Graphic Narratives**
	• Introduction of the Unit • History of Graphic Narratives - Indian, Eastern and Western • Elements of Graphic Narrative Design – Framing, Composition, Color, visual allusion, style and meaning, cultural context, text and image, etc. • Expressing simple to complex visualization for different Genre stories like – social, personal, science fictions, action comics, History and Fantasy through the use of Graphic Narratives. • Conclusion of Unit.
5.	**Script Writing with AI**
	• Introduction to Script Writing • Overview of AI in Creative Writing • Using AI in the Scriptwriting Process • Human–AI Collaboration in Writing • Project Work: Script Development

RECOMMENDED STUDY MATERIAL

Sr.No	Reference Book	Author	Edition	Publication
1	Story: Substance, Structure, Style and The Principles of Screenwriting	Robert McKee	Latest	It Books
2	Animation from script to screen	Shamus Culhane	Latest	St Martins Pr
3	Animation Writing and Development	Jean Ann Wright	Latest	Routledge
4	Ideas for the Animated short- Finding and building stories	Karen Sullivan, Gary Schumer, Kate Alexander	Latest	Focal Press
5	Graphic Storytelling and Visual Narrative	Eisner Will	Latest	W. W. Norton & Company
6	Framed Ink - Drawing & Composition for Visual Storytellers	Marcos Mateu-Mestre		Design Studio Press
7	Understanding Comics	Scott McCloud	Latest	William Morrow Paperbacks
8	Otomo Katsuhiro, Tezuka Osamu, The Art of Osamu Tezuka: God of Manga	McCarthy Helen	Latest	Harry N. Abrams
Important Web Links				
1	https://onlinecourses.nptel.ac.in/noc23_hs61/preview			
2	https://www.vedantu.com/english/story-writing			
3	https://mugafi.com/blog/story-writing			

Code: BSBCSB1201	2D Digital Animation - I	3 Credits [LTP: 2-0-4]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** the historical background and the fundamentals of the animation techniques.	Understand
CO2	**Application** of the 12 principles in 2D animation.	Application
CO3	**Analyze** the use of the principles and the different experimental animation.	Analyse
CO4	**Evaluate** the quality of animation and judged.	Evaluate
CO5	**Create** simple animated clips based on a storyline or an idea.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	1	-	-	1	-	-	1	-	3	-	-
CO2	-	-	-	2	2	2	-	-	-	-	2	-	-	2	-
CO3	2	1	3	2	-	-	1	-	2	1	-	1	-	2	-
CO4	-	-	-	-	-	2	-	2	-	-	-	-	-	2	-
CO5	2	3	-	2	-	-	1	-	1	1	-	1	-	2	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	History of Animation Techniques	08
2.	Animation Fundamental I – Time and Space	12
3.	Animation Fundamental II – Principles	20
4.	Experiments in Animation	18
5.	Export Movie	02

DETAILED SYLLABUS

Unit	Unit Details
1.	**2D Animation Techniques**
	• Introduction to Unit • Early Animation and Optical illusion toys • Disney's Classical animation techniques • Flip Book • 2D digital animation styles • Conclusion of Unit
2.	**Animation Fundamental I – Time and Space**
	• Introduction to FPS, usage and importance of Frame by Frame. • Understanding different rhythms of animation • Executing straight ahead ,pose to pose and limited animation • Drawing key frames, breakdowns, in-betweens, animation cycles • Exercise on Timing and Spacing (Ball Bounce) • Double pendulum exercise • Morphing exercise • Conclusion of Unit
3.	**Animation Fundamental II – Principles**
	• Introduction to Unit • Timing • Squash and Stretch • Anticipation • Follow-Through • Overlapping Action • Arcs • Ease-In and Ease-Out • Exaggeration • Conclusion of Unit
4.	**Character set up for Animation**
	• Introduction to Unit • Staging of Character • Solid Drawing and its application in character design • Appeal • Model sheet- Turnaround of Character • Expression chart • Posing and Gestures • Conclusion of Unit
5.	**File Compilation and exporting movies**

	• Introduction of Unit • File Management • Library Management • Workspace customization • Compressions. • Compilation of all completed works for making a show reel • Exporting final movie • Conclusion of Unit

RECOMMENDED STUDY MATERIAL

Sr.No	Reference Book	Author	Edition	Publication
1	The Animator's Survival Kit	Williams, Richard	Latest	Faber & Faber
2	The Illusion of Life – Essays on Animation	Cholodenko, Alan	Latest	Power Institute of Fine Arts
3	Cartoon Animation by Preston Blair	Blair, Preston	Latest	Walter Foster Publishing
4	Action Analysis for Animators	Webster, Chris	Latest	Routledge
Important Web Links				
1	https://www.animatorisland.com/courses/2d-animation/			
2	https://www.angryanimator.com/word/			
3	https://www.animationmentor.com/workshops/2d-animation-for-beginners/			

Code: BSBCSB1202	3D Lab I	2 Credits [LTP: 0-0-4]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Impart** knowledge of History of Animation Techniques.	Remember
CO2	**Understand** the Animation Fundamental – Time and Space.	Understand
CO3	**Apply** the Animation Fundamental – Principles.	Apply
CO4	**Analysis** and Experiment in Animation.	Analyze
CO5	**Create** and export scene into Final Movie.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	2	-	-	-	-	1	-	-	-	-	2	-	-
CO2	-	2	-	3	-	2	-	-	-	2	-	-	-	2	-
CO3	3	-	-	2	1	-	3	-	1	-	-	2	-	2	1
CO4	2	2	2	3	-	2	-	1	-	-	1	-	-	1	-
CO5	2	2	-	1	-	1	-	-	2	1	-	-	-	2	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Interface Basics	8
2	Nurbs Modelling	18
3	Poly Modelling - Prop	10
4	Poly Modelling – BG (Exterior)	6
5	Poly Modelling - BG (Interior)	6

DETAILED SYLLABUS

Unit	Unit Details
1.	**Interface Basics**
	• Introduction of Unit • 2D v/s 3D • Basic 3D workspace introduction, Isometric views • Transformation tools, Basic Primitives • Project management • Duplicating and Instances. • Loading Image-planes • Conclusion of Unit
2.	**Nurbs Modelling**
	• Introduction To Nurbs Tools • Using EP, CV curves • Props with Nurbs. • Converting NURBS to Polygons • Conclusion of Unit
3.	**Poly Modelling - Prop**
	• Introduction To Poly tools • Create Basic Object • Using Poly Editing Tools. • Prop Blocking • Prop Detailing • Introduction To Sculpt Geometry Tool • Conclusion of Unit
4.	**Poly Modelling – BG (Exterior)**
	• Introduction of Unit • Exterior BG Blocking • Exterior BG Detailing • Conclusion of Unit
5.	**Poly Modelling - BG (Interior)**
	• Introduction of Unit • Interior BG Blocking • Interior BG Detailing • Using N cloth to simulate a simple table sheet. • Adjusting properties • Using constraints to create and modify a curtain • Using properties to simulate different types of cloths and simulate pillows etc • Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Maya 2008 Character Modelling and Animation: Principles and Practices	Tereza Flaxman	Latest	
2	Advanced Maya Texturing and Lighting	Lee Lanier	Latest	
Important Web Links				
1	https://onlinecourses.swayam2.ac.in/cec20_cs08/preview			
2	https://www.gnomon.edu/academics/individual-courses/course-list/introduction-to-3d-with-maya/			
3	https://www.cgspectrum.com/resources/free-maya-course-online			

Code: BSBCSB1203 Exploratory I 2 Credits [LTP: 0-0-4]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Create** an entire project from conceptualization, brainstorming and synthesis of ideas	Create
CO2	**Plan out** Scripting and Storyboarding to visual representation of the entire animation using 2d/stop motion techniques**.**	Understand
CO3	**Application** of the selected area that needs explanation in time	Apply
CO4	**Analyze** and select a topic that fulfils the requirements of the project.	Analyze
CO5	**Develop** and judge a technique to visualize, Animate the idea, Using effects, music, or voice will need discretion.	Evaluate

Group project on 2d / stop motion animation.

Stop motion is a powerful animation technique that makes static objects appear to be moving. Creating stop motion draws attention to placement, framing, direction and speed of movement.

Types of stop motion techniques, hand drawing, cell, cut-paper, sand, and Claymation.

OBJECTIVE OF THE COURSE:

To Conceptualize and to generate stronger ideas, critical viewings of animation, and brainstorming and synthesis of ideas, Scripting and Storyboarding to visually plan out the entire animation.

OUTCOME OF THE COURSE:

Create an entire project from conceptualization, brainstorming and synthesis of ideas, Scripting and Storyboarding to visually plan out the entire animation using 2d/stop motion techniques.

Project Guidelines:

Selection of an area that needs explanation in time, Select a topic that fulfils the requirements of the project, Study material on the subject done by other animation filmmakers/ students and ensure that it is not visualized in the same manner, Comprehend the context of application, Visualize the idea in the form of a storyboard, Develop a technique to visualise, Animate the idea, Using effects, music, or voice will need discretion.

Code: BSBESB1201	Digital Art	3 Credits [LTP: 2-0-2]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Impart** knowledge of theories of perception	Remember
CO2	**Understand** the Digital Tools, Hardware for Digital Painting	Understand
CO3	**Apply** raster and vector graphic tools in creating digital artworks.	Apply
CO4	**Analyze** and use appropriate tools in creating the digital arts	Analyze
CO5	**Evaluate** different styles of digital art and ability to create and criticize.	Evaluate and Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	2	2	2	-	-	-	-	-	-	-	1	-	2	-	-
CO2	-	2	-	3	-	-	-	1	-	-	-	2	-	2	1
CO3	3	-	-	2	-	1	3	-	1	1	-	-	-	2	-
CO4	2	2	-	3	2	-	-	2	-	-	1	1	-	1	-
CO5	2	2	-	1	-	-	-	-	1	-	-	-	-	2	1
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	**Theories of Perception**	8
2	**Digital Tools, Hardware for Digital Painting**	8
3	**Introduction to Raster Graphics Tools**	12
4	**Introduction to Vector Graphics Tools**	12
5	**Applications**	8

DETAILED SYLLABUS

Unit	Unit Details
1.	**Theories of Perception**
	• Introduction of Unit • Understanding light: Electromagnetic spectrum, CMYK and RGB • Analog vs Digital • Conclusion of Unit
2.	**Digital Tools, Hardware for Digital Painting**
	• Introduction of Unit • Image Format and Colour Representations • Image and File Formats • File Compressions. • Properties of Bitmap Image. • Resolutions for Print and Display, Digital colour Representation. • Conclusion of Unit
3.	**troduction to Raster Graphics Tools**
	• Introduction of Unit • Layers • Adjustment Tools • Painting • Creating raster artworks. • Image Manipulation. • Colour Manipulation. • Layer Blending, Masking, Export Parameters. • Conclusion of Unit
4.	**- Introduction to Vector Graphics Tools**
	• Introduction of Unit • Creating Vector Arts • Paths and Shapes • Vector brushes and colours • Layers, Transparency, Grouping, Blending Modes, Managing Artwork, Single and Multipage Illustrations. • Conclusion of Unit
5.	**pplications**
	• Introduction to Unit • Digital Painting • Images Restoration • Images manipulation and collages • Vector Art – Graphics and Illustrations • Print and Web graphics • Conclusion of Unit

RECOMMENDED STUDY MATERIAL

Sr.No	Reference Book	Author	Edition	Publication
1	Best Practices for Graphic Designers : Colour Works	Eddie Opara John Cantwell	Latest	Rockport Publishers (1 January 2014)
2	Design Elements, Typography Fundamentals: A Graphic Style Manual for Understanding How Typography Affects Design	Kristin Cullen	Latest	Rockport Publishers (1 June 2012)
3	Grid Systems in Graphic Design: "A Visual Communication Manual for Graphic Designers, Typographers and Three Dimensional Designers"	Josef Muller-Brockmann	Latest	Antique Collectors Club; Bilingual edition (1 January 1999)
Important Web Links				
1	https://onlinecourses.swayam2.ac.in/cec22_as04/preview			
2	https://www.skillshare.com/en/browse/digital-art			
3	https://www.domestika.org/en/courses/area/179-digital-drawing			

Code: BUACHM1101	LANGUAGE & CONVERSATION	2 Credits [LTP: 2-0-0]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Demonstrate** the grammar skills involved in writing sentences and short paragraphs.	Remember
CO2	**Understanding** Build up a good command over English grammar and vocabulary to be able trace error spotting.	Understand
CO3	**Applying** unknown words in sentence level context using a picture dictionary or by creating a memory link for support.	Apply
CO4	**Analyze** and effectively use the conventions of the English language.	Analyze
CO5	**Develop** and judge their interest in reading and enhance their oral and silent reading skills along will sharpen their critical and analytical thinking.	Evaluate

MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**2**	**2**	**2**	**-**	**2**	**1**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**	**-**
CO2	**-**	**2**	**-**	**3**	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**1**	**-**	**2**	**-**
CO3	**3**	**-**	**1**	**2**	**1**	**-**	**3**	**-**	**1**	**-**	**1**	**-**	**-**	**2**	**-**
CO4	**2**	**2**	**-**	**3**	**-**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**1**	**-**
CO5	**2**	**2**	**-**	**1**	**-**	**-**	**-**	**1**	**-**	**1**	**-**	**-**	**-**	**2**	**1**
WT. AVG															

B. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Basics of Grammar	**6**
2	Spotting the grammatical errors and rectification	**4**
3	Vocabulary Building	**4**
4	Basics of Writing Skills	**6**
5	Reading Comprehension	**5**

LIST OF ACTIVITIES

1. Parts of Speech: Theory & Practice through various Exercises
2. Sentence Structures: Theory & Practice through various Exercises
3. Tenses: Theory & Practice through various Exercises
4. Spotting the Errors: Applying the rules and Practice Questions
5. Vocabulary Building-I: Practice by sentence formation
6. Vocabulary Building-II: Practice by sentence formation
7. Paragraph Writing
8. Article Writing
9. Précis Writing
10. Formal & Informal Letter Writing
11. Reading Comprehension- I: Beginner’s level reading and answering the Questions (Competitive Exams)
12. Reading Comprehension- II: Intermediate’s level reading and answering the Questions (Competitive

Code: BSBESB1601	Foundation Art I	2 Credits [LTP: 0-0-4]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Remember** the basics of drawings and impart skill knowledge for drawing.	Remember
CO2	**Understand** observation and drawing from nature	Understand
CO3	**Apply** technical skill like perspective drawing in the 2d surface.	Apply
CO4	**Analyze** the lighting and shading effects on the forms.	Analyze
CO5	**Evaluate** proportions in figure drawing	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	2	-	-	-	2	-	-	1	-	-	2	-	-
CO2	-	2	-	3	-	2	-	-	-	-	-	-	-	2	-
CO3	3	-	-	2	2	-	3	-	1	-	2	-	-	2	1
CO4	2	2	2	3	-	-	-	-	-	2	-	-	-	1	-
CO5	2	2	-	1	-	1	-	1	-	-	1	-	-	2	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Introduction to drawing materials	10
2	Drawing from Nature	20
3	Perspective drawing	15
4	Lighting & Shading	15
5	Figure Drawing	12

DETAILED SYLLABUS

Unit	Unit Details
1	**Introduction to drawing materials**
	● Introduction of Unit ● Papers-Different pencils. ● Colours pencils-Crayons and poster colours. ● Introduction to drawing the objects, figures from surroundings. ● To learn, observation, analysing and drawing the mechanical objects, utensils, and objects from everyday life. ● Conclusion of Unit
2	**Drawing from Nature**
	● Introduction of Unit ● Location drawing and learning to represent trees, plants, bushes, shrubs, insects, birds, and animals with attention to structure and morphology, proportion, volume, and behavior. ● Dramatizing what has been recorded ● Conclusion of Unit
3	**Perspective drawing**
	● Introduction of Unit ● To learn the importance of Perspective ● Rules of perspectives – To learn one point – two point perspectives- Learn to draw from different eye levels and different angles. ● Conclusion of Unit
4	**Lighting & Shading**
	● Introduction of Unit ● To introduce to the concept of light in visualization. ● To study objects in Lighting and learn to draw them with proper shading ● Drawing figures/ sketching figures from live Drawing plants, trees, flowers, fruits ● Conclusion of Unit
5	**Figure Drawing**
	● Introduction of the Unit ● Introduction to Figure Drawing ● Learning Stick Figures ● Practice with Lines and Stick Figures ● Mannequin Drawings ● Drawing Figures in Blocks ● Drawings from different eye-levels. ● Basic Anatomical Study ● Creative Forms of Aliens with Balanced Anatomy; ● Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Perspective Drawing Handbook	Joseph D'Amelio	Latest	Perspective Drawing Handbook
2	Fun with the Pencil	Loomis	Latest	Fun with the Pencil
3	Dynamic Figure Drawing	Burne Hogarth	Latest	Dynamic Figure Drawing
4	Complete Book of Drawing Technique	Peter Stanyer	Latest	Complete Book of Drawing Technique
5	Basic Electrical & Electronics Engineering	Ravish Singh	Latest	TMH
Important Web Links				
1	https://onlinecourses.nptel.ac.in/noc22_hs130/preview			
2	https://nbccd.ca/programs/foundation-visual-arts-online/			
3	https://www.classcentral.com/course/canvas-network-psychology-of-art-and-creativity-11225			

II SEMESTER

Code: BSBCSB2101 **History and Evolution of Animation** **2 Credits [LTP: 2-0-0]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Impart** knowledge of History of Animation Techniques.	Remember
CO2	**Understand** the Animation Fundamental – Time and Space.	Understand
CO3	**Apply** the Animation Fundamental – Principles.	Apply
CO4	**Analyze** and explain about Experiments in Animation.	Analyze
CO5	**Create** and export scene into Final Movie.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**3**	**-**	**-**
CO2	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**1**	**3**	**-**	**-**
CO3	**2**	**2**	**-**	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**1**	**-**	**2**	**1**	**-**
CO4	**2**	**3**	**2**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**-**
CO5	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**1**	**1**	**2**	**-**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	**Early Animation – Prehistoric to Silent Era**	4
2	**American and Canadian Animation – The Beginning of Studios**	8
3	**European Animation**	8
4	**Animation in Asia**	8
5	**The Electronic age**	8

DETAILED SYLLABUS

Unit	Unit Details
1.	**Early Animation – Prehistoric to Silent Era**
	● Motion in Art – Palaeolithic Age ● Motion in Art – Sequential Art in Civilizations ● Development of Motions arts in the Middle Ages (17th – 19th cent) ● Early 20th cent Animations on Film. ● The Silent era
2.	**American Animation – The Beginning of Studios**
	● Beginnings - Traditional 2D Animation ● The Walt Disney Company – The Illusion of Life and The Nine Old Men of Disney ● Golden Age of American Animation ● The Television Era ● Canada – National Film Board of Canada ● South Americas – Brazilian, Argentinian and Cuban Animation
3.	**European Animation**
	● Pre and Post War Animation in Western Europe (Britain, France, Germany, Spain, Italy & Denmark) ● Pre and Post war Animation in Eastern Europe (Czech Republic, Zagreb School, Yugoslavia, Poland, Hungary and Romania) ● USSR – Socialist Realism in Animation ● Russian Folklores in Animation
4.	**Animation in Asia**
	● Iran – Animations of Noureddin Zarrinkelk, Ali Akbar Sadeghi, Farkhondeh Torabi, Marjane Satrapi ● Pre – Post Independence Animation of India ● Beginnings and reforms in Chinese Animation ● History of Anime- Japanese Animation
5.	**The Electronic age**
	● Early Motion Graphics for Film ● Computer Drawn Feature Films ● Experimental Animation ● The advent of 3D CGI ● The emergence of Games ● CGI from 1990 – present ● Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Cartoons : one hundred years of cinema animation	Bendazzi , Giannalberto	Latest	Bloomington, Ind. : Indiana University Press; 1994
2	They Drew as They Pleased: The Hidden Art of Disney's Golden Age	Ghez , Didier	Latest	Chronicle Book; 2015
3	The World History of Animation	Cavalier, Stephen	Latest	University of California Press; First edition; 2011
4	Dark Alchemy, The Films of Jan Svankmajer	Hames, Peter	Latest	Greenwood Press; 1995
5	Before Mickey: The Animated Film 1898-1928	Crafton , Donald	Latest	University of Chicago; 2015
Important Web Links				
1	https://www.gnomon.edu/academics/individual-courses/course-list/history-and-principles-of-animation/			
2	https://www.skillshare.com/en/browse/animation			
3	https://www.pratt.edu/courses/history-of-animation/			

Code: BSBCSB2102	**Graphic Design Concepts**	**2 Credits [LTP: 2-0-0]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Analyze, synthesize, and utilize** design processes and strategy from concept to delivery to creatively solve communication problems.	Remember
CO2	**Utilize** relevant applications of tools and technology in the creation, reproduction, and distribution of visual messages.	Understand
CO3	**Apply** graphic design principles in the ideation, development, and production of visual messages.	Apply
CO4	**Demonstrate** the professional readiness to thrive in the creative industries.	Analyze
CO5	**Conclude** the significance for innovative and creative Poster Design.	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**1**	**-**	**-**	**-**	**2**	**-**	**1**	**-**	**-**	**3**	**1**	**-**
O2	**2**	**3**	**-**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**-**	**3**	**-**	**-**
CO3	**2**	**2**	**2**	**2**	**-**	**-**	**1**	**-**	**-**	**2**	**1**	**-**	**2**	**1**	**-**
O4	**2**	**3**	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**-**	**-**
CO5	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**1**	**1**	**2**	**1**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	**Graphic Design principles**	6
2	**Elements of Design**	8
3	**Developing visual identities**	10
4	**Tools & techniques**	4
5	**Advanced Graphic design**	8

DETAILED SYLLABUS

Unit	Unit Details
1	**Graphic Design principles**
	• Introduction of Unit • Introduction to Graphic Design • Introduction to graphic design principles and concepts • Understanding the role of graphic design in various industries • Introduction to design software and tools • Ethical considerations in graphic design • Conclusion of Unit
2.	**Elements of Design**
	• Introduction of Unit • Elements of Graphic Design • Typography: Understanding typefaces, fonts, and their applications • Colour theory: Exploring colour schemes, harmonies, and psychology • Composition and layout: Principles of visual hierarchy and balance • Imagery and iconography: Effective use of images and icons in design • Conclusion of Unit
3.	**eveloping visual identities**
	• Introduction to the Unit • Design Principles and Techniques • Grid systems: Implementing grids for better organization and structure • Visual communication: Using design elements to convey messages effectively • Branding and identity: Developing visual identities and brand guidelines

	• Information design: Presenting complex information visually • Design thinking: Problem-solving and ideation techniques • Conclusion of Unit
4.	**Tools & techniques**
	• Introduction of Unit • Digital Design Tools and Techniques • Introduction to design software (e.g., Adobe Creative Suite) • Image editing and manipulation techniques • Vector graphics: Creating and editing scalable designs • Web design principles and techniques • Interactive design: Introduction to UX/UI design • Conclusion of Unit
5.	**Advanced Graphic design**
	• Introduction of Unit • Advanced Graphic Design Concepts • Print design: Understanding print production and preparing files for print • Packaging design: Principles and considerations for effective packaging • Environmental and experiential design: Designing for physical spaces • Portfolio development: Showcasing and presenting design work • Final output in the form of submission • Conclusion to the Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Special Effects: The History and Technique	Richard Rickitt	Latest	Billboard Books I 2nd edition, 2007
2	The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures –I	Jeffrey A. Okun& Susan Zwerman.	Latest	Focal Press 2010
3	Industrial Light & Magic: The Art of Innovation Publisher	Pamela Glintenkamp	Latest	Abrams (2011)
4				
5				
Important Web Links				
1	https://onlinecourses.swayam2.ac.in/ntr20_ed15/preview			
2	https://dribbble.com/resources/education/free-graphic-design-courses-online			
3	https://www.skillshare.com/en/classes/demystifying-graphic-design-how-posters-work/1938197477			

Code: BSBCSB2201	Foundation Art II	2 Credits [LTP: 0-0-4]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Develop** an ability of human forms in Sketching	Remember
CO2	**Understand** the Sketching Process of Proportion and Shapes of Human Anatomy	Understand
CO3	**Apply** the Sketching techniques of Life Size Human figure Study with Simple Basic Shapes	Apply
CO4	**Analyze** Figures Sketching and Observation of Figure	Analyze
CO5	**Explain** and differentiate the overall knowledge of Art History including Indian & western styles	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	POO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	2	-	-	-	2	-	-	-	3	-	-
CO2	2	3	-	-	-	2	-	1	-	2	-	1	3	1	-
CO3	2	2	-	2	-	-	1	-	-	-	1	-	2	-	-
CO4	2	3	2	-	1	-	-	-	3	-	-	-	1	1	-
CO5	2	3	-	2	-	-	2	-	-	1	-	1	2	-	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1.	Sketches from life- observational Drawings of human forms	10
2.	Human anatomy	12
3.	Life study and Simplifying form	12
4.	Miscellaneous figures and Composition	8
5.	Art Representation and Art History	6

DETAILED SYLLABUS

Unit	Unit Details
1.	**Sketches from life- observational Drawings of human forms**
	• Introduction of Unit • Line of action , understanding the landmarks in the human body • Free flow gestures in basic shapes- organic and inorganic shapes • Stick Drawings – in various pose actions • Capturing the movements- Twist, turn, bend, lean through Beans and robot beans drawing • Breaking down the human figure in Cubes to understand the proportions and perspective. • Mannequin Drawings – in different pose and actions, learn to draw from different angles and eye levels. • Conclusion of Unit
2.	**Human anatomy**
	• Introduction of Unit • Understanding the Skull- the divisions and planar structure of the Human Head • Skeletal system - understanding the base of the body, identifying the landmarks and overall anatomical proportions of Man, Woman and Child. • Muscular system - the Function and Form of Muscles - Head - Neck and Torso - Torso Back - Arms Forearms and Hand - Pelvis Leg and Foot. • Conclusion of Unit
3.	**Life study and Simplifying form**
	• Introduction of Unit • Realistic style drawings of Human figure • Life study in Class room using live models • Learn to simplify the human drawing in Cartoon style. • Learn to use simple shapes like circle, oval and curves to exaggerate the human figures. • Conclusion of Unit
4.	**iscellaneous figures and Composition**
	• Introduction of Unit • Gods and Super humans, Creative forms of aliens with balanced anatomy • Brief introduction to the anatomy of Animals and birds • Creating Pictorial compositions with background • Conclusion of Unit
5.	**Art Representation and Art History**
	• Introduction of Unit • Human or The History of Art • Relationship between Art and Society. • Western Art, Indian art, Oriental Art, Aesthetics Of Art, Analysis and Criticism. • Conclusion of Unit

D. RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Force : Animal drawing	Mike D. Mattesi	**Edition**	Focal Press, 2011
2	Figure Drawing for all its worth	Andrew Loomis	**Edition**	Titan books, 2011
3	Dynamic Figure Drawing	Burne Hogarth.	**Edition**	Watson-Guptill, 1996
4	Force: Dynamic Life Drawing for Animators	Mike D. Mattesi.	**Edition**	Focal press, 2006
Important Web Links				
1	https://onlinecourses.nptel.ac.in/noc22_hs36/preview			
2	https://onlinecourses.nptel.ac.in/noc19_hs61/preview			
3	https://www.classcentral.com/course/canvas-network-psychology-of-art-and-creativity-11225			

Code: BSBCSB2202	2D Digital Animation-II	3 Credits [LTP: 1-0-2]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** the mechanics of motion and the animation techniques of different characters.	Understand
CO2	**Application** of the 12 principles in Biped and Quadruped characters.	Application
CO3	**Analyse** the movements and breakdowns of simple and complex animation.	Analyze
CO4	**Evaluate** the various methods and properties of matter in animation.	Evaluate
CO5	**Create** simple animated clips based on a storyline or an idea with synchronized sound and backgrounds.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	2	-	1	-	-	1	-	-	1	-	3	-	-
CO2	-	-	-	2	1	1	-	-	2	-	-	-	-	2	-
CO3	2	3	2	2	-	-	2	-	-	1	1	1	-	2	-
CO4	-	-	-	2	1	-	-	2	1	-	2	-	-	2	-
CO5	2	2	1	-	2	1	-	1	-	2	-	1	-	2	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	Mechanics of Motion	08
2.	Biped Motion	12
3.	Quadruped and Bird Motion	10
4.	Animation and Properties of Matter	10
5.	Sound Sync and Background Design	08

DETAILED SYLLABUS

Unit	Unit Details
1.	**Mechanics of Motion**
	• Introduction to Unit • Mechanics of Motion • Newton's Laws of Motion • Properties of Matter • Conclusion of Unit
2.	**iped Motion**
	• Introduction to Unit • Head turns • Biped Walk Cycle • Biped Run Cycle • Conclusion of Unit
3.	**Quadruped and Bird Motion**
	• Introduction to Unit • Four legged Animal walk • Four Legged animal gallop • Bird Flight • Conclusion of Unit
4.	**nimating Expressions and Gesture**
	• Introduction to Unit • Acting and Movement • Character Gesture Animation • Short scene set up and animation • Conclusion of Unit
5.	**ound Sync and Background Design**
	• Introduction of Unit • Character Lip-sync • Sound Synchronization • Animated Background Scenes, Scene Management, Editing Scenes. • Conclusion of Unit

RECOMMENDED STUDY MATERIAL

Sr.No	Reference Book	Author	Edition	Publication
1	The Animator's Survival Kit	Williams, Richard	Latest	Faber & Faber
2	Animation: The Mechanics of Motion	Webster, Chris	Latest	Focal Press
3	Eadweard Muybridge - Horses and other animals in motion	Muybridge, Eadweard	Latest	Dover Publications Inc.
4	Eadweard Muybridge - The Human Figure in Motion	Muybridge, Eadweard	Latest	Facsimile Publisher

5	Cartoon Animation by Preston Blair	Blair, Preston	Latest	Walter Foster Publishing
6	Action Analysis for Animators	Webster, Chris	Latest	Routledge
Important Web Links				
1	https://www.animatorisland.com/courses/2d-animation/			
2	https://www.angryanimator.com/word/			
3	https://www.bloopanimation.com/toon-boom-animation/			

Code: BSBCSB2203	**3D Lab II**	**2 Credits [LTP: 1-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	Ability to Generate complex models of Products with correct proportions	Remember
CO2	Explore biped proportions and exaggerations to create basic animate able models.	Understand
CO3	Understanding muscle loops to edit models to be able to animate as per joint placements	Apply
CO4	Ability to map 3D models in 2D UV space and adjust to suit painting needs	Analyze
CO5	Able to create mechanics of Motion and applying principles of animation.	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**3**	**-**	**1**
CO2	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**2**	**-**	**-**	**-**	**-**	**3**	**1**	**-**
CO3	**2**	**2**	**-**	**2**	**-**	**2**	**1**	**-**	**2**	**-**	**1**	**-**	**2**	**-**	**-**
CO4	**2**	**3**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**-**
CO5	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**1**	**-**	**1**	**2**	**1**	**-**
WT. AVG	**2.2**	**2.6**	**1**	**2**	**2**	**2**	**1**	**2**	**2**	**1**	**1**	**1**	**2.2**	**1**	**1**

C. OUTLINE OF THE COURSE

Unit No.	**Title of the unit**	**Time required for the Unit (Hours)**
1	**Character Modeling - I**	**13**
2	**Character Modeling - II**	**12**

3	**Digital Sculpting**	**15**
4	**Texturing Basic**	**10**
5	**Texturing & lighting**	**10**

DETAILED SYLLABUS

Unit	Unit Details
1.	**Character Modeling - I**
	• Introduction of Unit. • Blocking whole body • Hand & Foot detailing • Torso detailing • Conclusion of Unit
2.	**Character Modeling - II**
	• Introduction of Unit. • Face detailing • Clothes and Props detailing • Conclusion of Unit
3.	**Digital Sculpting**
	• Introduction of Unit • Basic 3D workspace introduction • Basic Sculpting Techniques • Sculpting the Human Figure • Advanced Sculpting Techniques • Re-topology and Optimization • Compilation of Assets. • Conclusion of Unit
4.	**Texturing Basic**
	• Introduction of Unit • Understanding shading • Using different types of shaders • Controlling specular and reflection. • Using the Hyper shade Window • Procedural v/s non Procedural Textures • Texture Tiling & Normal Mapping using AI • Conclusion of Unit
5.	**Texturing & lighting**
	• Introduction of Unit. • 2D and 3D textures • UV Mapping (understanding the UV space, performing UV layout) • Texture Mapping (creating colour map, bump and specular). • Understanding Shading • Using Maya Lights

	• Render Setting • Conclusion of Unit.

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Understanding 3D Animation Using Maya	John Edgar Park	Latest	
2	Basics Animation: Digital Animation	Andrew Chong	Latest	
Important Web Links				
1	https://onlinecourses.swayam2.ac.in/cec20_cs08/preview			
2	https://www.cgspectrum.com/resources/free-maya-course-online			
3	https://www.skillshare.com/en/browse/maya			

Code: BSBCSB2204 Exploratory II 3 Credits [LTP: 2-0-2]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** teamwork and management skill in the project creation.	Understand
CO2	Apply skills and knowledge gain from the other relevant courses in the execution of the works	Apply
CO3	Analyze the strength and weakness of the project's team members and divides work accordingly	Analyze
CO4	Evaluate the overall process and criticize, judge the quality of the work.	Evaluate
CO5	Create an animated project.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**-**	**-**	**1**	**-**	**1**	**-**	**-**	**-**	**3**	**-**	**-**
CO2	**2**	**3**	**-**	**-**	**1**	**2**	**-**	**1**	**-**	**2**	**-**	**2**	**3**	**1**	**-**
CO3	**2**	**2**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**-**	**1**	**-**	**2**	**-**	**-**
CO4	**2**	**3**	**1**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**-**	**1**	**-**	**-**
CO5	**2**	**3**	**-**	**-**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**1**	**2**	**1**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Group project on 2D / stop motion animation

Course Outcome

To conceptualize and produce a complete 2D animation short film with strong storytelling and artistic direction. Students will explore character-driven narratives, visual design, and animation production using traditional and digital tools, with support from AI tools for ideation, layout, asset creation, and sound.

Project Guidelines

- **Concept & Story**: Develop an original short story suited for 2D animation (1–3 min).
- **Research**: Study styles, genres, and techniques in 2D animation; benchmark ideas.
- **Style Guide with AI**: Use AI tools (e.g., Midjourney, DALL·E) to develop a visual style for characters, backgrounds, and color schemes.
- **Storyboarding & Layout**: Create storyboards and animatics; use AI (ComfyUI) to ideate layouts, angles, and lighting.
- **Design & Animation**: Design characters, props, and backgrounds; animate using tools like Toon Boom, Animate, or Blender Grease Pencil. Use AI for in-betweening or lip-sync support.
- **Sound & Post**: Use AI-based tools for voiceovers, music, and sound effects. Finalize compositing and editing.
- **Submission**: Final animated short film with a short “making-of” and production portfolio.

Code: BSBESB2201	Photography	2 Credits [LTP: 1-0-2]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand and remember** the history & evolution of photography art & equipment.	Understand and Remember
CO2	**Apply** the right settings of exposure for given lighting conditions.	Apply
CO3	**Judge** the ability to compose the shot in the aesthetically pleasing composition setting.	Evaluate
CO4	**Develop** the understanding of studio & outdoor lighting techniques that govern the art of Photography.	Analyze
CO5	**Demonstrate** effective critical thinking skills (including analysis, critical evaluation, creative thinking, innovation, inquiry, and synthesis) in their study of the art of Photography as a technique of visual communication.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	1	-	-	2	2	-	1	-	3	1	-
CO2	2	3	-	-	-	-	-	-	-	2	-	-	3	-	-
CO3	2	2	2	2	-	2	1	-	2	-	-	1	2	1	-
CO4	2	3	-	-	1	-	-	-	-	-	-	-	1	-	-
CO5	2	3	-	-	-	-	-	1	-	1	-	1	2	-	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1.	History of Photography	4
2.	Exposure triangle	10
3.	Composition Techniques	12
4.	Lighting techniques	10
5.	Creative Photography	12

DETAILED SYLLABUS

Unit	Unit Details
1.	**History of Photography**
	• Introduction of Unit • Principle of the camera obscure • To study few photographers like Ansel Adams, Dorothea Lange, Robert Capa etc. • Aesthetics of Photography both in documentary and Creative photography. • Conclusion of Unit
2.	**Exposure triangle**
	• Introduction of Unit • Understanding exposure and controls • Aperture, f-stop , depth of field, • Shutter Speed, Exposure value, • ISO, Image Stabilization, sensor • Conclusion of Unit
3.	mposition Techniques
	• Introduction of Unit • Composition & techniques • Rule of Thirds • Elements of composition, cinematography • Shot Framing techniques • Conclusion of Unit
4.	**ghting techniques**
	• Introduction of Unit • Spectrum, Color Temperature • Practical Understating and practice of Lighting techniques, Kinds or lights indoor and outdoor. • Electronic flash and artificial lights, Light meters • Different kinds B & W and color photography. • Conclusion of Unit
5.	**Creative Photography**
	• Introduction of Unit • Macro Photography • Freeze Frame Photography • Light Painting • HDRI and Panoramas • Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	20th century photography	Taschen	Latest	**The Museum Ludwig's 1980**
2	The Art of Photography: An Approach to Personal Expression	Bruce barnbaum	Latest	Kendall/Hunt *Publishing* 1994

3	Complete_ Digital_ Photography	Ben long	Latest	Boston, Mass. : Charles River Media 2001
4	Camera Lucida	Roland Barthes	Latest	Hill & Wang 1980
Important Web Links				
1	https://onlinecourses.swayam2.ac.in/cec19_ge02/preview			
2	https://onlinecourses.nptel.ac.in/noc21_ce67/preview			
3	https://visualeducation.com/free-photography-course/			

Code: BUACHM2206	**Language Lab**	**1 Credits [LTP: 0-0-2]**

COURSE OUTCOMES:

The students would be able to

CO 1: Identify common errors in spoken and written communication.

CO 2: Get familiarized with English vocabulary and language proficiency.

CO 3: Improve nature and style of sensible writing, acquire employment and workplace communication skills.

CO 4: Improve their Technical Communication Skills through Technical Reading and Writing practices.

CO 5: Perform well in campus recruitment, engineering and all other general competitive examinations.

A. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time Required for the Unit (Hours)
1.	**Everyday Conversations**	**8**
2.	**Asking for**	**7**
3.	**Reporting/ Describing**	**7**
4.	**Meeting People**	**7**
5.	**Expressing & Talking about**	**7**

B. DETAILED SYLLABUS

	Contents
1.	**Everyday Conversations**
	• Introduction to the Unit • Introducing self / others • Weather • Classroom • Asking about facilities around • Describing a person / thing

	• Points to cover: Vocabulary, grammar, Construction of sentences, listening • Methodology: Role plays, Videos, Classroom conversation, worksheets • Conclusion & Real Life Application
2.	**Asking for**
	• Introduction to the Unit • Help/ Suggestion/ ideas • Clarification/ Directions • Time/ food • Advice • Uses • Points to cover: Vocabulary, grammar, Construction of sentences, listening • Methodology: Role plays, Videos, Classroom conversation, worksheets • Conclusion & Real-Life Application
3.	**Reporting/ Describing**
	• Introduction to the Unit • Incidences • Personalities • Experiences • Wants/Needs • Intentions • Points to cover: Vocabulary, grammar, Construction of sentences, listening • Methodology: Role plays, Videos, Classroom conversation, worksheets • Conclusion & Real-Life 1pplication
4.	**Meeting People**
	• Introduction to the Unit • Greetings • Starting the Conversation • Small talks • Closing the conversation • Points to cover: Vocabulary, Grammar, Construction of sentences, listening • Methodology: Role plays, Videos, Classroom conversation, worksheet • Conclusion & Real-Life Application
5.	**Expressing & Talking about**
	• Introduction to the Unit • Happiness/Displeasure • Preferences • Doubts • Views

	• Unawareness • Points to cover: Vocabulary, grammar, Construction of sentences, listening • Methodology: Role plays, Videos, Classroom conversation, worksheets Interests • Different Cultures, Clothes, cars, institutes, situations • Schedules, prices • Points to cover: Vocabulary, grammar, Construction of sentences, listening Methodology: Role plays, Videos, Classroom conversation, worksheets • Conclusion & Real-Life Application

C. RECOMMENDED STUDY MATERIAL

Sr.No	ReferenceBook	Author	Edition	Publication
1.	**Reference Book**	**Author**	**Publication**	**Reference Book**
2.	Speak Now Level I & II	Jack C Richards & David Bohlke	Oxford Press	Speak Now Level I & II
3.	Business Benchmark, Level –	Guy Brook-Hart	Upper Intermediate by Cambridge University Press	Business Benchmark, Level –
4.	Practical English Usage	Michel Swan	Oxford University Press	Practical English Usage

Code:BSBCSB2601 **Vector Graphics** **1 Credits [LTP: 1-0-2]**

A. COURSE OUTCOMES:

CO1: Create communication solutions in Digital format that addresses audiences and contexts, by recognizing the human factors that determine design decisions

CO2: Able to gain knowledge about the graphic quality

CO3: Application to Vector graphics to make the visuals more impactful

CO4: Analyze, synthesize and utilize the technology to capture moments and understanding of lighting

CO5: Able to understand the necessity and the techniques of post-production

B. OUTLINE OF THE COURSE:

Unit No.	Title of the unit	Time Required for the Unit (Hours)
1	Vector Graphics Design Application	10
2	Drawing and Painting in Illustrator	10
3	Working With Layers	10
4	Working with Shapes and Symbols	8
5	Using Effects & Filters	10

C. DETAILED SYLLABUS:

Unit	Contents
1.	**Introduction to In-Design**
	• Interface of Adobe Illustrator • Introduction of Toolbox • Working with Shapes and Symbols
2.	**Drawing and Painting in Illustrator**
	• Drawing and Painting • Drawing and Transforming Objects • Gradients, Pattern Fills, and Blends • Working With Paths
3.	**Working With Layers**
	• Layer, Groups and Guides • Creating a wallpaper • Working with Type tool • Illustrator Effects • Working with Brushes, Graphic Styles
4.	**Working with Text Type**
	• Working with Document • Formatting the Document • Working with Tables • Working with Drawing Tools
5.	**Using Effects & Filters**
	• Using Graphics, & objects • Applying Effects and Animations • Working with Colors and Strokes • Publishing the Document

D. RECOMMENDED STUDY MATERIAL

Sr. No.	Book	Author	Edition	Publication
1.	"Illustrator CS6 in Simple Steps",	Kogent Learning Solutions Inc	2020	Dreamtech Press 2020
2.	Adobe In-Design CS6 Classroom in a Book	Adobe Creative Team	2018	Adobe Press

Code: 25BUVCVA2201/25BUVCVD2201	Performing Arts /Entrepreneurship	1 Credits [LTP: 0-0-2]

III SEMESTER

Code: BSBCSB3101	Visual Communication	2 Credits [LTP: 2-0-0]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Recall and identify** key principles of visual communication.	Remembering
CO2	**Explain** the theoretical foundations underlying visual communication concepts.	Understanding
CO3	**Apply** visual communication theories to analyze and interpret visual messages.	Applying
CO4	**Critically evaluate** the effectiveness of visual communication strategies.	Analyzing
CO5	**Judge** the societal and cultural impact of visual communication.	Evaluating

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	3	2	1	-	2	-	-	1	-	1	-		3	-	-
CO2	2	3	-	-	-	-	-	-	-	-	-	-	3	1	-
CO3	2	2	-	2	-	2	1	-	-	2	2	2	2	-	-
CO4	2	3	1	-	1	-	-	1	-	-	-	-	1	-	-
CO5	2	3	-	-	-	1	-	-	1	-	-	1	2	1	-
WT. AVG	**2.2**	**2.6**	**1**	**2**	**1**	**2**	**1**	**1**	**1**	**2**	**2**	**1**		**1**	

C. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	Introduction to Visual Communication	**4**
2.	Elements and Principles of Visual Communication	**4**
3.	Visual Communication in Media and Advertising	**8**
4.	Visual Culture and Society	**8**
5.	Digital Visual Communication	**8**

DETAILED SYLLABUS

Unit	Unit Details
1	
	● Definition and scope of visual communication ● . Historical overview of visual communication ● Theories of perception and cognition in visual communication ● Role of visuals in contemporary society
2	
	● Elements of visual communication: line, shape, color, texture, etc. ● Principles of design: balance, contrast, rhythm, emphasis, etc. ● Gestalt principles and their application in visual communication ● Semiotics and symbolism in visual communication
3	
	● Visual rhetoric: persuasion and propaganda ● Role of visuals in advertising campaigns ● Visual storytelling techniques in media ● Ethics and responsibility in visual advertising
4	
	● Cultural aspects of visual communication ● Representation and identity in visual culture ● Globalization and visual communication ● Visual activism and social change
5	
	● Evolution of digital media and its impact on visual communication ● Visual literacy in the digital age ● Design principles for digital platforms ● Visual communication ethics in digital spaces

RECOMMENDED STUDY MATERIAL

Sr.No	Reference Book	Author	Edition	Publication
1	Understanding Comics	Scott McCloud	Revised	Harper Perennial
2	Visual Communication: Images with Messages	Paul Martin Lester	7th	Cengage Learning
3	The Design of Everyday Things	Don Norman	Revised	Basic Books
4	Visual Culture: The Reader	Jessica Evans, Stuart Hall	3rd	SAGE Publications
5				
Important Web Links				

1	https://onlinecourses.nptel.ac.in/noc20_ar15/preview
2	https://www.skillshare.com/en/browse/visual-communication
3	https://oli.cmu.edu/courses/visual-design-open-free/

Code: BSBCSB3102	**Cinematography**	**2 Credits [LTP: 2-0-0]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Explain** the of The Art of Cinematography	Remember
CO2	**Understand** The Art of Presentation	Understand
CO3	**Apply** visual narratives and techniques through the camera	Apply
CO4	**Evaluate** the Principles And Concepts Of Camera	Evaluate
CO5	**Create** scenes based on Cinematography principles	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	3	2	1	-	-	1	-	-	2	-	-	-	3	-	-
CO2	2	3	-	-	2	-	-	1	-	-	2	-	3	1	-
CO3	2	2	-	2	-	-	1	-	-	2	-	1	2	2	-
CO4	2	3	2	-	-	1	-	-	1	-	-	-	1	-	-
CO5	2	2	-	-	-	-	-	1	-	-	-	1	2	1	-
WT. AVG	**2.2**	**2.6**	**1**	**2**	**2**	**1**	**1**	**1**	**1**	**2**	**2**	**1**	**2.2**	**2**	

C. OUTLINE OF THE COURSE

Unit No.	**Title of the unit**	**Time required for the Unit (Hours)**
1	**The Art of Cinematography**	**6**
2	**The Art of Presentation**	**8**
3	**Introduction To Camera**	**6**
4	**Principles And Concepts Of Camera**	**8**
5	**Cinematography**	**8**

DETAILED SYLLABUS

Unit	Unit Details
1.	**The Art of Cinematography**
	• Introduction to the Unit • Understanding Cinema • Film Structure • The need for cinematography • Case study • Conclusion to the Unit
2.	**The Art of Presentation**
	• Introduction to the Unit • Editing Fundamentals • Editing Tools & Techniques • Conclusion to the Unit
3.	**Introduction To Camera**
	• Introduction to the Unit • Camera (definition), Physical camera, Film camera, Still camera. • Motion picture camera, Digital camera, CG /Virtual Camera. • Aspect ratio • Visual Composition, HUMAN EYE VS CAMERA • Working of a Film Camera, Working with Camera Exposure control Focus Image capture. • Conclusion to the Unit
4.	**Principles And Concepts Of Camera**
	• Introduction to the Unit • Angle of view, Aperture, Circle of confusion, Colour temperature • Depth of field, Depth of focus, Double exposure, Exposure, Exposure value • F-number, Film format, Pinhole camera Red-eye effect, Rule of thirds, Shutter speed. • Conclusion to the Unit.
5.	**Cinematography**
	• Introduction to the Unit • Aspects of cinematography, Lens, Zoom, Focal length, Lighting, Special effects, Frame rate selection, Role of the cinematographer. • Shooting for VFX shot: Green Screen studio design, capturing green screen shots, Lighting shots, Planning and techniques, Short and location notes • DIGITAL CINEMATOGRAPHY (Visual Effects) :Simulating real world camera in CG, Lens-based camera, Camera movement, CG camera/software camera, Camera effects, Angle of view and film back, Film gate, Problems face with CG Camera, Camera walk-through. • Conclusion of unit.

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Cinematography: Theory and Practice: Image Making for Cinematographers and Directors	Blain Brown	Latest	Focal Press, (2011)
2	The Filmmaker's Eye: Learning (and Breaking) the Rules of Cinematic Composition	Gustavo Mercad	Latest	Focal Press, 1 edition (2010)
3	Film Editing: Great Cuts Every Filmmaker and Movie Lover Must Know	Gael Chandler	Latest	Michael Wiese Productions (2009)
Important Web Links				
1	https://onlinecourses.nptel.ac.in/noc21_hs17/preview			
2	https://onlinecourses.nptel.ac.in/noc20_hs63/preview			
3	https://onlinecourses.swayam2.ac.in/cec23_ge08/preview			

Code: BSBCSB3201	**Preproduction I**	**2 Credits [LTP: 1-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	**Bloom Level**
CO1	**Explain** knowledge of Film Medium Terminologies and Formats	Remember
CO2	**Understanding** of the importance of Research for Pre-Production	Understand
CO3	**Apply** the Narrative Techniques	Apply
CO4	**Create** the Storyboards and Concepts	Create
CO5	**Judge** timings in the execution of Animatics	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**3**	**1**	**-**
CO2	**2**	**3**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**3**	**-**	**-**
CO3	**2**	**2**	**-**	**2**	**-**	**-**	**1**	**1**	**-**	**-**	**2**	**-**	**2**	**1**	**-**
CO4	**2**	**3**	**2**	**-**	**-**	**1**	**-**	**-**	**2**	**-**	**-**	**-**	**1**	**-**	**-**
CO5	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**	**1**	**2**	**-**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
	Film Medium Terminologies and Formats	**2**
	Research for Pre-Production	**6**
	Narrative Techniques	**10**
	Storyboards and Concepts	**18**
	Animatics	**4**

DETAILED SYLLABUS

Unit	Unit Details
1.	**Film Medium Terminologies and Formats**
	• Introduction of Unit. • Medium and Formats - Film, Frame Rate, Size and Gauge • Tele Cine and Reverse Tele Cine. • Demonstrate through videos 16 mm /35mm /70mm / Full Screen / Letter Boxing / Wide Screen • Conclusion of Unit
2.	**Research for Pre-Production**
	• Introduction of Unit • Story Research - Period - Historic / Scientific facts • Society & culture study • How to decide about the time and place: when, where and who. • To create Acts or scenes: To divide the story in to shots. Scene as the driver of plot. • Beats and how to keep the story moving. Relation between actions, characters and scenes. • Fast phasing and slow phasing scenes • Conclusion of Unit
3.	**Narrative Techniques**
	• Introduction of Unit • Experimenting with techniques for visual storytelling, structure, story building, • Examining indigenous narratives, both contemporary and traditional to gain an understanding of storytelling methods pertinent to different culture • Indian – Ajanta, Patta Chitra, Miniatures- Phad, Kavad,Mughal Paintings, Yam pat,Groda, Bhil, Chitrakathi, etc. • Use of Graphic Narrative for expressing a social or personal themes • Dialogue mechanics, attributions and tags • Conclusion of Unit
4.	**Storyboards and Concepts**
	• Introduction of Unit • Creating dramatic flow, planning, pacing, sequencing, organizing visual flow and continuity in storyboards • Thumb nailing • Techniques and styles, Inking, Framing and Composition and Perspective • Anatomy of a Storyboard, Advanced Storyboard Techniques. Various Camera Shots and Camera Moves and their meaning, Transitions, Aspects of the story board.

	• Conclusion of Unit
5.	**Animatics**
	• Introduction of Unit • Sound Effects Music and Foleys. • Recording of dialogue, • Shooting the Storyboard, Slugging the Storyboard, Animatics. • Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	The Art of storyboard	John Hart	Latest	Routledge, 2007
2	Exploring Storyboarding (Design Exploration) [Paperback]	Wendy Tumminello	Latest	Course Technology, 2004
3				
4				
5				
Important Web Links				
1	https://www.classcentral.com/course/youtube-pre-production-process-80172			
2	https://www.skillshare.com/en/browse/video-pre-production			
3	https://boords.com/blog/pre-production-guide			

Code: BSBCSB3202 **3D Animation I** **2 Credits [LTP: 1-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** the basic concepts of 3D animation and application of keys on the frames for animation.	Understand
CO2	**Applying** and editing Graph editor in order have a smooth and clean animation	Apply
CO3	**Editing** Dope Sheet for editing keys and adjusting timing of the animation	Apply
CO4	**Analyze** and Animating an object with the application of the 12 principles.	Analyze
CO5	**Judge** and animate male/female generic walk cycle.	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**1**	**-**	**2**	**-**	**-**	**-**	**1**	**1**	**-**	**3**	**-**	**-**
CO2	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**2**	**-**	**-**	**-**	**1**	**3**	**1**	**-**
CO3	**2**	**2**	**1**	**2**	**-**	**-**	**1**	**-**	**2**	**2**	**2**	**-**	**2**	**-**	**-**
CO4	**2**	**3**	**-**	**-**	**1**	**2**	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**-**	**-**
CO5	**2**	**3**	**-**	**1**	**-**	**-**	**2**	**-**	**1**	**1**	**-**	**1**	**2**	**1**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	**Title of the unit**	**Time required for the Unit (Hours)**
1	**Rigging - I**	**8**
2	**Rigging - II**	**8**
3	**Posing and gesture study**	**8**
4	**Graph editor, Dope sheet**	**12**
5	**Ball bounce (weight, slow in out, Pose to Pose, arc, Timing)**	**12**

DETAILED SYLLABUS

Unit	**Unit Details**
1.	**Rigging - I**
	• Introduction of Unit • Using Constraints for rigging • Introduction to joints setup • IK setup • Controllers setup • Skinning • Conclusion of Unit.
2.	**Rigging - II**
	• Introduction of Unit • Understanding joints and controllers • Adding attributes, set driven key • Blend shapes. • Setting up Facial controls. • Conclusion of Unit.
3.	**Posing and gesture study**
	• Studying body language • Introduction to acting for animation • Drawing thumbnails for animation

	• Using Rigs to create Main Poses, stepped keys • Posing - Normal and Extreme poses - Old people, Martial artist, Dancer, Skater • Adding in-between poses • Conclusion of Unit
4.	**Graph editor, Dope sheet**
	• Extending Graph editor • Change Rotation • Interpolation • Resample Curves Simplify curves. • Concept of Dope Sheet • Moving Keys in Dope Sheet • Creating a Path Animation • The Attach To Path Options Window • Conclusion of Unit
5.	**Ball bounce (weight, slow in out, stretch and squash, exaggeration, arc, Timing)**
	• Introduction of Unit • Understanding frames, concept of time, gravity • The Art of 3d animation • Importance of classical Animation principles • Ball Bounce, Pose to Pose ,timing and arc • Ball bounce, weight, slow in out • Cycles and holds • Setting up output file size and resolution, • Previewing Animation using Play blast. • Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	*Introducing Autodesk Maya 2016: Autodesk Official Press*	Dariush Derakhshani	Latest	
Important Web Links				
1	https://onlinecourses.swayam2.ac.in/ugc19_cs09/preview			
2	https://www.gnomon.edu/academics/individual-courses/course-list/introduction-to-3d-with-maya/			
3	https://www.skillshare.com/en/browse/maya			

Code: BSBCSB3203	Editing & Sound Design Lab	2 Credits [LTP: 1-0-2]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Explain** the Editing Interface and the tools	Remember
CO2	**Understand** the Project Management	Understand
CO3	**Apply** the Editing Techniques for Genre.	Apply
CO4	**Analyze** sound and execute Foley Editing	Analyze
CO5	**Judge** Multi Track Foley Editing and Effects	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	2	-	1	-	2	1	-	3	1	-
CO2	2	3	-	-	2	-	-	-	-	-	-	-	3	-	-
CO3	2	2	-	2	-	-	1	-	1	-	2	-	2	2	-
CO4	2	3	1	-	-	2	-	-	-	2	-	-	1	-	-
CO5	2	3	-	-	1	-	1	-	1	-	1	1	2	1	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Editing Interface	5
2	Project Management	5
3	Editing Techniques for Genre	14
4	Foley Editing	10
5	Multi Track Foley Editing and Effects	14

DETAILED SYLLABUS

Unit	Unit Details
1.	**Editing Interface**
	● Introduction of Unit ● Editing Tools and workflow management ● Importing and Transcoding ● Capturing Footage, Edit Decision List [EDL] ● Rough Edit, Working with multiple layers of video ● Mixing multiple sound clips for a video. ● Conclusion of Unit
2.	**Project Management**
	● Introduction of Unit ● Projects settings, Folder Management ● Editing clips, sound sync ● Adding Transitions and Effects, Title Design ● Importing and blending Motion graphics for video. ● Conclusion of Unit
3.	**Editing Techniques for Genre**
	● Introduction of Unit. ● Editing for Genre and Scenes ● Music Video, Documentary editing ● Conversation shot editing, Action sequence ● Editing for Animation, Retro style editing techniques. ● Conclusion of Unit
4.	**Foley Editing**
	● Introduction of Unit. ● Foley Recording and Editing ● Music Layer Recording and Mixing ● Adding Effects to sounds ● Altering pitch of the sound ● Conclusion of Unit
5.	**Multi Track Foley Editing and Effects**
	● Introduction of Unit. ● Removing audio artefacts ● Adding and Removing White and Pink Noise ● Filters and Effects for sound. ● Exporting completed media to various formats ● Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	In the Blink of an Eye	Walter Murch, Francis Ford Coppola	Latest	August 1st 2001 by Silman-James Press

2	The Technique of Film and Video Editing: History, Theory, and Practice	Ken Dancyger	Latest	Routledge; 5 edition (26 November 2010)
Important Web Links				
1	https://onlinecourses.swayam2.ac.in/cec21_ge17/preview			
2	https://www.skillshare.com/en/browse/film-editing			
3	https://www.mygreatlearning.com/academy/learn-for-free/courses/video-editing-basics			

Code: BSBCSB3204 **Exploratory III** **3 Credits [LTP: 2-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Explain** and use their skills in a practical environment where they work to create a live action/experimental or mixed media short film	Remember
CO2	**Understand** to find their place in a working environment and at the same time participate as a group.	Understand
CO3	**Apply** the subject knowledge and contributing in working in a group	Apply
CO4	**Analyze** with the opportunities to use their skills in a practical environment	Analyze
CO5	**Create** a live action/experimental or mixed media short film	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**-**	**1**	**-**	**-**	**2**	**-**	**-**	**-**	**3**	**-**	**-**
CO2	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**2**	**1**	**3**	**2**	**-**
CO3	**2**	**2**	**-**	**2**	**-**	**-**	**1**	**1**	**-**	**-**	**-**	**-**	**2**	**-**	**-**
CO4	**2**	**3**	**1**	**-**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**-**
CO5	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**2**	**1**	**1**	**-**	**1**	**2**	**2**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

To create a live action/experimental or mixed media short film

Course Outcome:

Students will conceptualize and produce a VFX-based short film, blending live-action footage with visual effects. Emphasis is on strong storytelling, original ideation, and the use of AI tools for enhanced production.

Project Guidelines:

- **Topic Selection:** Choose a VFX-driven concept with narrative relevance.
- **Research:** Analyze similar works and define a distinct visual approach.
- **Storyboarding & Previs:** Create detailed storyboards, shot breakdowns, and animatics.
- **Visual Style Guide with AI:** Use AI (Midjourney, DALL·E, etc.) to define look and feel.
- **Layout & Blocking (AI):** Use tools like ComfyUI for scene planning and lighting.
- **Asset Creation:** Generate 2D/3D assets using AI modeling tools.
- **Shooting:** Capture live-action with attention to tracking and lighting for VFX.
- **VFX Integration:** Apply compositing techniques using After Effects, Blender, etc.
- **Sound Design (AI):** Create soundtracks, effects, or voiceovers using AI platforms.
- **Final Output:** Deliver a polished short film with a brief making-of/documentation.

Group project on live Action / Experimental / Mixed media short film.

Code: BSBESB3211	Motion Graphics	2 Credits [LTP: 1-0-2

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (CO):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Explain** the History of Motion Graphics	Remember
CO2	**Understand** the Applications of Motion Graphics	Understand
CO3	**Apply** the Tools and Techniques.	Apply
CO4	**Analyze** the Motion Theory in the production	Analyze
CO5	**Create** animated Motion Graphics	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	1	-	-	-	-	1	1	3	-	-
CO2	2	3	-	-	2	-	-	2	-	-	-	-	3	1	-
CO3	2	2	-	2	-	-	1	-	2	1	1	2	2	-	-
CO4	2	3	2	-	1	-	-	2	-	-	-	-	1	-	-
CO5	2	3	-	-	-	1	-	-	1	-	1	1	2	2	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	History of Motion Graphics	10
2	Applications of Motion Graphics	10
3	Tools and Techniques	10
4	Motion Theory	8
5	Animation for Motion Graphics	10

DETAILED SYLLABUS

Unit	Unit Details
1.	**Evolution of Motion Graphics**
	• Introduction to the Unit • Early animation techniques • Experimental animation • Motion graphics in Film titles and television, Montages and Mobile applications • Conclusion to the Unit
2.	**Motion Theory**
	• Introduction to the Unit • The language of motion • Visual properties, Image considerations • Typography animation • Conclusion to the Unit.
3.	**Animation for Motion Graphics**
	• Introduction to the Unit • Animation process • Key frame animation • Expressions, animating using sound and scripting. • Editing, Cuts and transitions • Establishing pace and rhythm • Conclusion to the Unit
4.	**Tools and Techniques**
	• Introduction the Unit • Tools and Techniques • Effects, Expressions • Importing external animations • Blending 2D, 3D elements • Particle effects, light effect, flares, • Conclusion to the Unit
5.	**Applications of Motion Graphics**
	• Introduction to the Unit • Film Titles • Network Branding, Commercials • Music videos • Animation for user interaction • Digital signage • New Technology • Conclusion to the Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	Motion by Design	Drate, Spencer. Robbins, David. Salavetz, Judith.	Latest	Laurence King; Har/DVD edition (November 1, 2006)
2	The Complete Animation Course: The Principles, Practice and Techniques of Successful Animation	Patmore, Chris. Cowan, Finlay	Latest	Barron's Educational Series (August 1, 2003)
Important Web Links				
1	https://alison.com/tag/motion-graphics			
2	https://www.skillshare.com/en/browse/motion-design			
3	https://www.domestika.org/en/courses/area/5-motion-graphics			

Code: BUACHM3109	Professional Skills-**I**	**2 Credits [LTP: 2-0-0]**

COURSE OUTCOMES

Students would be able to:

CO1: Compare the professional and personal approach towards any task and demonstrate their understanding by displaying professional attitude in the assigned tasks.

CO2: Recognize, explain, and use the formal elements of specific genres of organizational communication: reports, proposals, memorandums, web pages, wikis, blogs, business letters, and promotional documents etc...

CO3: Prepare and deliver a clear and fluent demonstrative, informative, and persuasive presentation and enlarge their vocabulary by keeping a vocabulary journal.

CO4: Demonstrate preparedness for any type of interview from classic one-on-one interview to panel interviews, Phone/Skype interviews, Behavioral/Situational etc. along with sharping the ability to critically analyze a given piece of information and collectively work in a group to arrive at a solution or develop a perspective.

CO5: Understand negotiation and time management to identify steps for proper negotiation preparation & learn bargaining techniques and strategies of inventing options for mutual gain and move negotiations from bargaining to closing.

UNIT NO.	UNIT NAME	HOURS
1	**Professional Attitude & Approach**	**6**
2	**Professional Writing-I**	**8**
3	**Presentation Skills: Structure Study**	**2**
4	**Interview Skills & Group Discussion**	**4**
5	**Negotiation Skills & Time Management**	**4**

	LIST OF LABS
	Professional & Ethical Approaches: Degree of adherence, Business world & meeting deadlines
	Job Hunting and Networking: Skill Branding & Usage of Online Platforms
	Trust Building & Cultural Etiquettes
	Professional Writing-I: Direct-Indirect approaches to Business Writing-Five main stages of writing Business Messages.
	Professional Email Writing
	Resume Building-I: Difference between C.V. & Resume, formats, points to cover, practice sessions
	E-Learning & E-Content Development-I
	Presentation Skills: format & structure of presentations, using tools & techniques
	Job Interviews I: Preparation and Presentation
	Advanced Group Discussion – I
	Negotiation Skills & and Conflict Resolution-I
	Professional Code of Ethics & Effective Time Management

Code: BSBCSB3601	Character Design Concepts-I	2 Credits [LTP: 0-0-4]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** the fundamentals and the techniques of designing characters.	Remember
CO2	**Application** of research and background study for related character's design.	Understand
CO3	**Analyze** the creative process and draws imaginary character.	Apply

CO4	**Evaluate** the various methods and design anthropomorphic character design.	Analyze
CO5	**Create** contextual and symbolic representation of character design.	Evaluate

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**2**	**-**	**3**	**-**	**-**
CO2	**-**	**-**	**2**	**2**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**-**	**2**	**-**
CO3	**2**	**2**	**-**	**-**	**-**	**2**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**
CO4	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**
CO5	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**1**	**-**	**1**	**-**	**2**	
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	**Character Design Fundamentals**	**06**
2.	**Research for Character Design**	**10**
3.	**Imaginative Character Design**	**10**
4.	**Anthropomorphic Character Design**	**06**
5.	**Contextual Characters**	**04**

DETAILED SYLLABUS

Unit	Unit Details
1.	**Character Design Fundamentals**
	• Introduction of Unit • Introduction to Character Design • Elements of Character Design. • Conclusion of Unit
2.	**Research for Character Design**
	• Introduction of Unit. • Creating Trait sheets to map out Physical appearance, Background story, Psychological traits, Personality and attitude etc. • Creating traits of the existing characters in animated movies and short films • Conclusion of Unit
3.	**Imaginative Character Design**

	• Introduction of Unit • Developing characters from imagination • Conclusion of Unit
4.	**Anthropomorphic Character Design**
	• Introduction of Unit. • Anthropomorphic, Zoomorphic, • Conclusion of Unit
5.	**Contextual Characters**
	• Introduction of Unit • Characters in different animations • Conclusion of Unit

RECOMMENDED STUDY MATERIAL

Sr.No	Reference Book	Author	Edition	Publication
1	Force - Character Design from Life Drawing	Michael D Mattesi	Latest	Routledge
2	Ideas for the Animated Short	Karen Sullivan and Gary Schumer	Latest	Routledge
3	Disney/Pixar Art books	Miscellaneous	Latest	Chronicle Books
Important Web Links				
1	https://characterdesignreferences.com/			
2	https://www.artstation.com/channels/character_design?sort_by=trending&dimension=all			
3	https://www.pinterest.com/tootyne/character-design/			

Code: BUVCVA3104 **Outreach of Indian Knowledge System** **2 Credits [LTP: 2-0-0]**

COURSE OUTCOMES:

IV SEMESTER

Code: BSBCSB4101	Lighting concepts	2 Credits [LTP: 2-0-0]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** components of shading and texturing.	Understand
CO2	**Apply** artificial lights according to the mood / feel of the scene	Apply
CO3	**Analyze** and use product lighting setup effectively	Analyze
CO4	**Evaluate** and optimize render settings as to produce best renders at minimum time possible	Evaluate
CO5	**Create** renders in passes to pass to post production unit to optimize workflow and create artificial lighting	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	-	-	-	-	-	-	1	-	1	-	3	-	-
CO2	-	-	2	2	-	-	-		-	-	-	1	-	2	-
CO3	2	2	-	-	2	2	1	-	1	2	-	-	1	2	-
CO4	2	-	2	1	-		-	-	-	-	2	-	-	2	-
CO5	2	3	-	-	1	-	-	1	-	1	-	1	-	2	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	Introduction to Light	
2.	Natural Light Photography	
3.	Still Life and Product Photography	
4.	Environmental and Location Lighting	
5.	Advanced Lighting Techniques	

DETAILED SYLLABUS

Unit	Unit Details
1.	**Introduction to Light**
	• Overview of the electromagnetic spectrum • Properties of light: intensity, color temperature, quality • Understanding exposure: aperture, shutter speed, ISO
2.	**Natural Light Photography**
	• Characteristics of natural light throughout the day • Utilizing natural light for portraits, landscapes, and still life • Techniques for controlling natural light: reflectors, diffusers, shade
3.	**Still Life and Product Photography**
	• Lighting setups for still life compositions • Controlling reflections and highlights • Techniques for emphasizing textures and details
4.	**Environmental and Location Lighting**
	• Lighting considerations for outdoor and environmental portraits • Techniques for balancing ambient light with artificial light • Using natural elements as creative lighting tools
5.	**Advanced Lighting Techniques**
	• High-key and low-key lighting: achieving mood and contrast • Using gels and filters to modify light color and intensity • Creating drama with hard and soft light sources

RECOMMENDED STUDY MATERIAL

Sr.No	Reference Book	Author	Edition	Publication
1	Essential Cg Lighting Techniques	Darren Brooker	Latest	
2	Advanced Maya Texturing and Lighting	Autodesk	Latest	
3			Latest	
Important Web Links				
1				
2				
3				

Code: BSBCSB4102	Studio Design & Project Management	2 Credits [LTP: 2-0-0]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understanding** of the steps to pitch own concepts/ stories/ ideas to market successfully	Understand
CO2	**Apply** the working of a studio environment and work culture and attitude	Apply
CO3	**Analyse** and to manage pipeline to optimize delivery of projects	Analyze
CO4	**Evaluate** and judge with knowledge to manage a project and a team	Evaluate
CO5	**Design and create** a studio based of type of work and projects	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	-	-	1	-	-	2	-	2	-	-	3	-	-
CO2	-	-	2	2	-	-	2	-	-	-	-	-	-	2	-
CO3	2	2		-	-	2		1	-	1	-	-	-	2	
CO4	2	-	1	-	1	1	-	-	-	-	-	-	-	2	-
CO5	2	3	-	-	-	-	-	1	-	-		1	-	2	-
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Production pipeline	5
2	Requirement for a Production Pipeline	5
3	Pipeline Management	10
4	Project Management	10
5	Studio Design	6

DETAILED SYLLABUS

Unit	Unit Details
1.	**Production pipeline**
	• Introduction of Unit. • Types of production • Study of various mediums of production such as Film, T.V, Games, etc. • Conclusion of Unit.
2.	**Requirement for a Production Pipeline**
	• Introduction of Unit • The Process and the Pipeline • Teams in production • Conclusion of Unit.
3.	**Pipeline Management**
	• Introduction of Unit • A typical pipeline • Significance of Pipeline • Technical Direction • Conclusion of Unit.
4.	**Project Management**
	• Introduction of Unit • Types of Project and medium of production • Delivery of Project • Understanding typical project requirement • Scheduling and budgeting • Conclusion of Unit.
5.	**Studio Design**
	• Introduction of Unit • Infrastructure for different medium • The Work force • Recruitment • Indian Scenario • Conclusion of Unit.

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1	The Visual Effects Producer: Understanding the Art and Business of VFX	Charles Finance, Susan Zwerman	Latest	Focal Press; 1 edition (2009)
2	The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures	Jeffrey A. Okun,	Latest	Focal Press; 1 edition (2010)

Important Web Links	
1	https://learning.studiodesigner.com/collections/courses
2	https://www.learningtree.com/courses/project-management/
3	

Code: BSBCSB4201 **Preproduction-II** **2 Credits [LTP: 1-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** the development process of Character Traits as per Stories	Understand
CO2	**Apply** the development Process of Character Bible including Model sheet	Apply
CO3	**Analyze** and Lay out process of Design Concept using elements of Layout	Analyze
CO4	**Evaluate** the development Process of morphed character as per story concept	Evaluate
CO5	**Create** Characters and layouts design	Create

B. MAPPING MATRIX OF CO, PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**-**	**-**
CO2	**1**	**1**	**2**	**2**	**-**	**-**	**-**	**1**	**-**	**1**	**1**	**-**	**-**	**2**	**-**
CO3	**2**	**2**	**-**	**-**	**1**	**2**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**2**	**1**
CO4	**2**	**-**	**1**	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**-**		**-**	**2**	**-**
CO5	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**1**	**-**	**2**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	**Character Traits and development**	**6**
2.	**Character Bible**	**8**
3.	**Layout Design**	**8**
4.	**Morphed Characters and Layout**	**8**
5.	**Character and Layout Style development**	**6**

DETAILED SYLLABUS

Unit	Unit Details
1.	**Character Traits and development**
	• Introduction of Unit. • Designing Characters based on Stories • Creating Character traits for individual characters • Using traits to develop Designs • Visualization of the characters through Drawing. • Conclusion of Unit.
2.	**Character Bible**
	• Introduction of Unit. • Creating Turnaround sheets, creating model Sheets. • Creating Expression Chart. • Creating character design for protagonist, antagonist, round, dynamic, static characters • Creating Scale Chart of all characters • Creating Hand-outs for all of the above. • Coloring the Hand-outs. • Conclusion of Unit.
3.	**Layout Design**
	• Introduction of Unit. • Practicing Layout from existing Concepts • Understanding the use of elements in Layout • Creating layouts for proposed concepts • Research for concepts • Conclusion of Unit.
4.	**Morphed Characters and Layout**
	• Introduction of Unit. • Creating Anthropomorphs, Theomorphs, Zoomorphs and Mesomorphs based on research • Creating Character Bible • Layout Designs based on proposed concept story • Conclusion of Unit.
5.	**Character and Layout Style development**
	• Introduction of Unit. • Rendering – styles and techniques • Developing personal style using different mediums, • Conclusion of Unit. •

RECOMMENDED STUDY MATERIAL

Sr.No	Reference Book	Author	Edition	Publication
1	Setting the Scene: The Art & Evolution of Animation Layout	Fraser MacLean	Latest	Chronicle Books,2011
2	Layout and Composition for Animation	Ed Ghertner	Latest	Focal press, 2010

3	The Noble Approach	Maurice Noble & Ted Polson	Latest	Chronicle Books, 2013
Important Web Links				
1	https://characterdesignreferences.com/			
2	https://www.artstation.com/channels/character_design?sort_by=trending&dimension=all			
3	https://www.pinterest.com/tootyne/character-design/			

Code: BSBCSB4202	**3D Animation II**	**3 Credits [LTP: 1-0-4]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	**At the end of this course, learners will be able to:**	**Bloom Level**
CO1	**Understand** and learn the tools in creating 3D animation.	Understand
CO2	**Apply** principles of animation in 3D Animation.	Apply
CO3	**Analyse** and handle the 3D workflow.	Analyze
CO4	**Evaluate** and Implement Motion and body dynamics in Animation	Evaluate
CO5	**Create** believable animation acting and 3d scene.	Create

. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**3**	**-**	**-**
CO2	**-**	**-**	**2**	**2**	**2**	**-**	**-**	**-**	**-**	**2**	**-**	**1**	**-**	**2**	**-**
CO3	**2**	**2**	**-**	**-**	**-**	**2**	**-**	**-**	**2**	**-**	**1**	**-**	**-**	**2**	**-**
CO4	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**
CO5	**2**	**3**	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**1**	**-**	**1**	**-**	**2**	**-**
WT. AVG															

A. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Ball Character(Anticipation, Straight ahead, staging, stretch and squash, exaggeration, Secondary action, Appeal)	8
2	Walk cycle	8
3	Run cycle, Jump Cycle, progressive Walk Cycle	8
4	Weight Lifting, Pushing (Character Animation)	12
5	Animating Scene	12

DETAILED SYLLABUS

Unit	Unit Details
1.	**Ball Character(Anticipation, Straight ahead, staging, stretch and squash, exaggeration, Secondary action, Appeal)**
	• Viewing the ball as a Character, adding anticipation and straight ahead • Ball- stretch and squash, exaggeration • Ball –appeal, tail(secondary action) • Camera - Posing • Working with keys and Tangents • Creating and Editing keys in graph editor • Creating a Path Animation • The Attach To Path Options Window • Conclusion of Unit
2.	**Walk cycle**
	• Introduction of Unit • Understanding body movement. • Generic walk cycle • Female Walk cycle • Double bounce, Characterized, Limping. • Walk Cycle with Personality • Conclusion of Unit
3.	**Run cycle, Jump Cycle, Progressive Walk Cycle**
	• Animating a Run cycle • Animation a Jump cycle • Progressive Walk cycle • Run cycles, Jog, Sprint, Full Run, Jumping • Conclusion of Unit
4.	**Weight Lifting, Pushing (Character Animation)**
	• Introduction of Unit • Animating Weight lifts • Animating Pushing • Animating Pulling • Conclusion of Unit

5.	**Animating Scene**
	• Rotoscopy Animation – Frame by frame • Deciding on concept • Acting for Animation • Thumb nailing – gestures study • Breaking shot wise • Camera, scene setup • Main Pose, Anticipation, Follow Through • Arcs, Graph editor • Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	**Author**	**Edition**	**Publication**
1	The ILLUSION OF LIFE: DISNEY ANIMATION	Frank Thomas	Latest	(Disney Editions Deluxe) Latest
2	Animators Survival kit	Richard Williams	Latest	Faber, Latest
Important Web Links				
1	https://www.classcentral.com/course/swayam-animations-13880			
2	https://www.animationmentor.com/courses/3d/animation/			
3	https://www.skillshare.com/en/browse/3d-animation			

Code: BSBCSB4203 **Compositing Techniques** **3 Credits [LTP: 2-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	**At the end of this course, learners will be able to:**	**Bloom Level**
CO1	**Understand** and learn the History of compositing and its various elements.	Understand
CO2	**Apply** compositing techniques and familiarize the students in Advanced In-Depth Compositing	Apply
CO3	**Analyse** and complete Hands of Layer management and it efficient usage	Analyze
CO4	**Evaluate** and apply Lighting, render passes and various elements involved in compositing.	Evaluate and apply
CO5	**Create** video art for various application's like music, dance, media, automation and interactive film.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**-**	**-**	**1**	**-**	**-**	**-**	**1**	**-**	**1**	**-**	**2**	**-**	**1**
CO2	**-**	**-**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**
CO3	**2**	**2**	**-**	**-**	**-**	**2**	**-**	**1**	**-**	**-**	**2**	**-**	**-**	**2**	**-**
CO4	**2**	**-**	**2**	**-**	**1**	**1**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**1**
CO5	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**1**	**-**	**1**	**-**	**2**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	**History of Compositing**	**10**
2	**Digital Image**	**8**
3	**Layers**	**8**
4	**Lighting and Composition**	**10**
5	**Theory and Practice of Video Art**	**12**

DETAILED SYLLABUS

Unit	Unit Details
1.	**History of Compositing**
	• Introduction to Unit. • History of Compositing, Terminologies, Physical Compositing, • Multiple exposure, Background Projection, Matting, • Digital Compositing, Node based and Layer Based Compositing. • Visual information and the camera, The Camera and Parameters, • Resolution Limits, Focus, Depth of field, Motion blurs Lens correction • Conclusion of Unit.
2.	**Digital Image**
	• Introduction of Unit. • Digital Image Generation, Pixels, Components and Channels, Bit Depth, • Floating point and High Dynamic Range Imagery, HSV Colour, YUV colour, • Digital Image file formats, Channels, Compression. • Colour Manipulation, Levels, Variations, Multiply, Add, Gamma Correction, • Exposure Correction, Invert, Contrast, HSV manipulations • Conclusion of Unit.
3.	**Layers**
	• Introduction of Unit.

	● Layer and Node based compositing, Blending layers, Matte Image, Masking, Morphing - Chroma Keying, Garbage Mattes, Edge Mattes, Luminance Keying, Chrominance Keying, Difference Matting, Plug-ins and tools for keying. ● Tracking and Stabilization, Tracking an element, 2D tracking, Perspective tracking, ● Stabilizing footage, Limitations of tracking and stabilizing tools, ● Tools for advanced tracking and match moving. ● Digital Imagery, Colour Correction ● AI-assisted matte extraction and basic rotoscoping (e.g., RotoBrush, RunwayML) ● Frame upscaling and limited motion blur correction using AI enhancement tools ● AI-assisted basic color correction and exposure balancing ● Automated cleanup using AI for small background fixes (e.g., patch removal, minor plate cleaning) ● AI-based chroma keying for improved edge detail and speed ● Conclusion of Unit.
4.	**Lighting and Composition**
	● Introduction of Unit. ● Creating elements, Lighting in compositing tool, ● Matching live and virtual cameras. 3D Compositing, ● Vanishing point conversion, creating 3D compositing using 2D images, ● Working with camera and lighting, effects, ● Working with Multi pass Rendering, Alpha and Luma mattes, ● Z depth maps, Blending passes and effects . ● Animation, 2D and 3D transformation, ● Temporal and spartial interpolation, speed graph, optimizing key frames, expressions for animation, Time Remapping ● Conclusion of Unit.
5.	**Theory and Practice of Video Art**
	● Introduction of Unit. ● History of Video Art, ● Contemporary video style, ● Culture and emotion reference - Video synthesizer, ● Real time video art, tools and techniques, ● Applications - music visualization and media art, automation to music, ● Applications and tools - Video art as art form, Interactive film, ● Display and projection, case studies ● AI-assisted look matching across shots for maintaining visual continuity ● Minor AI tools for scene retiming or blending transitions in edit ● Conclusion of Unit.

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1	Compositing Digital Images	T. Porter and T. Duff I Proceedings of SIGGRAPH '84, 18 (1984) I	Latest	
2	The Art and Science of Digital Compositing	Ron Brinkmann	Latest	
3	The VES Handbook of Visual Effects	Okun J, Zwerman S.	Latest	
Important Web Links				

1.	https://www.rebelway.net/advanced-compositing-vfx-course
2.	https://www.cgspectrum.com/courses/vfx-compositing
3.	https://www.compositingacademy.com/free-resources

Code: BSBCSB4204	**Exploratory IV**	**3 Credits [LTP: 2-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	**At the end of this course, learners will be able to:**	**Bloom Level**
CO1	**Understand** the relevance of data and the nature of visualization and context for the communication, Identifying charts, maps graphs and other such visual explanations.	Understand
CO2	**Apply** appropraite skills to efficiency, and ability to convey multiple layers of information and meaning.	Apply
CO3	**Analyse** and developing methods to convey data for – readability, aesthetics in the presentation of works.	Analyze
CO4	**Evaluate** and developing flexibility with skills to ensure that any data to be visualized is executed with a technique most appropriate for the content.	Evaluate and apply
CO5	**Create** a 3D/VFX short film to understand and develop methods to communicate data using graphical techniques and working with precision,	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**2**	**-**	**-**	**3**	**-**	**1**
CO2	**-**	**-**	**2**	**2**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**2**	**-**
CO3	**2**	**2**	**-**	**-**	**2**	**2**	**-**	**1**	**-**	**-**	**1**	**-**	**-**	**2**	**1**
CO4	**2**	**-**	**1**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**
CO5	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Project Guidelines:
Selection of an area that needs explanation in time, Select a topic that fulfils the requirements of the project, Study material on the subject done by other animation filmmakers/ students and ensure that it is not visualized in the same manner, Comprehend the context of application, Visualize the idea in the form of a storyboard, Develop a technique to visualise, Animate the idea, Using effects, music, or voice will need discretion.

OUTCOME OF THE COURSE
To conceptualize and produce a complete 3D animation short film, covering the full production pipeline—from ideation to final output—while integrating AI tools for design, animation, and sound. Students will gain hands-on experience using industry-standard software and AI technologies to enhance creativity and workflow efficiency.

PROJECT GUIDELINES

- **Topic Selection**: Choose a compelling and manageable 3D-animated story or theme.
- **Research**: Study existing 3D shorts for visual language, storytelling, and design inspiration.
- **Context**: Understand the emotional and cultural context; define your audience.
- **Script & Storyboard**: Write a structured script and create cinematic storyboards.
- **Visual Style (AI-Assisted)**: Use AI tools (e.g., Midjourney, Firefly) to develop a style guide for visuals.
- **Layout & Blocking (AI Tools)**: Utilize tools like ComfyUI for scene composition, layout, and previs.
- **Modeling (AI-Assisted)**: Create characters, props, and environments with tools like Meshy, Kaedim, or Blender add-ons.
- **Rigging & Animation**: Rig and animate characters; enhance with tools like Cascadeur or Rokoko AI.
- **Texturing & Lighting**: Apply materials, textures, and cinematic lighting using standard 3D tools.
- **Rendering & Compositing**: Render and composite scenes with attention to visual quality and narrative clarity.
- **Sound Design (AI Tools)**: Use AI for music, voice, and sound FX (e.g., Soundraw, ElevenLabs).
- **Post-Production**: Final edit, color grading, and output including a making-of reel showcasing AI integration.

Code: BSBESB4201	**Lighting & Rendering**	**2 Credits [LTP: 1-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	**At the end of this course, learners will be able to:**	**Bloom Level**
CO1	**Understanding** of components of shading and texturing.	Understand

CO2	**Application** of lights according to the mood / feel of the scene	Apply
CO3	**Analyze** and use product lighting setup effectively	Analyze
CO4	**Evaluate** and optimize render settings as to produce best renders at minimum time possible	Evaluate
CO5	**Create** artificial light by breaking up renders in passes to pass to post production unit to optimize workflow	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**1**	**-**	**2**	**-**	**-**	**-**	**1**	**-**	**2**	**-**	**-**
CO2	**-**	**3**	**2**	**-**	**1**	**-**	**-**	**1**	**-**	**1**	**-**	**-**	**2**	**-**	**-**
CO3	**2**	**2**	**-**	**1**	**-**	**1**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**1**
CO4	**2**	**3**	**1**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**1**	**-**	**-**	**2**	**-**
CO5	**2**	**3**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**2**	**-**
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C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	**Light Types**	**16**
2	**Art of Lighting**	**16**
3	**Arnold Rendering**	**14**
4	**Arnold Render Settings**	**6**
5	**Render Pass and Techniques**	**8**

DETAILED SYLLABUS

Unit	Unit Details
1.	**Light Types**
	• Introduction of Unit. • Light types, Attributes of Light Shadows and their functions. • Shadow types**,** Depth mapped shadows, • Ray traced shadows. • Conclusion of Unit.
2.	**Art of Lighting**

	• Introduction of Unit. • Understanding the Art of Lighting – 1, 2, 3point lighting. • Outdoor lighting, • indoor lighting, • product lighting. • Optical FX . • Conclusion of Unit.
3.	**Arnold Rendering**

	• Introduction of Unit.
	• Fundamentals of Physically Based Rendering (PBR)
	  ◦ Creating Realistic Materials
	  ◦ Arnold Standard Surface Shader
	  ◦ Subsurface Scattering and Translucency
	  ◦ Displacement and Bump Mapping
	  ◦ Lighting Basics
	  ◦ Natural and Artificial Lighting
	  ◦ Outdoor lighting
	  ◦ indoor lighting
	  ◦ AI-Based Lighting Mood Exploration using ComfyUI
	  ◦ Conclusion of Unit.

4.	**Arnold Render Settings**
	• Introduction of Unit. • Concepts of Rendering • Render settings. • Rendering optimization. • Conclusion of Unit.
5.	**Render Pass and Techniques**
	• Introduction of Unit. • Types of renderer. • Introduction to Indirect lighting techniques. • Introduction to render passes. • Conclusion of Unit.

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1	Digital Lighting & Rendering, Second Edition	Jeremy Birn	Latest	New Riders , Latest

2	Arnold 5: First Lessons in Autodesk Maya 2018 (Maya Absolute Beginner Series)	Donna Betancourt	Latest	Sybex, Latest

Important Web Links	
1	https://www.gnomon.edu/academics/individual-courses/course-list/lighting-rendering-online/
2	https://www.cgimasterclass.com/
3	https://www.skillshare.com/en/browse/3d-lighting

Code: BSBCSB4601 **UI UX-I** **2 Credits [LTP: 1-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	**At the end of this course, learners will be able to:**	**Bloom Level**
CO1	The subject aims to impart knowledge of principles behind Human Computer interaction (HCI)	Understand
CO2	To understand User Interface requirements	Apply
CO3	To recognize the importance of User Experience Design (UXD or UED)	Analyze
CO4	To understand various methods of User Centered Design	Evaluate
CO5	To demonstrate effective UI / UX designs with case studies	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**1**	**-**	**2**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**
CO2	**-**	**1**	**2**	**-**	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**-**	**2**	**-**	**-**
CO3	**2**	**2**	**-**	**1**	**-**	**1**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**2**	**1**
CO4	**1**	**1**	**1**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**1**	**-**	**-**	**2**	**-**
CO5	**2**	**3**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**2**	**-**
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C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Introduction to HCI	6
2	User Interface Design (UI)	8
3	User Experience Design (UXD or UED)	8
4	User Cantered Design	8
5	Case Studies	6

DETAILED SYLLABUS

Unit	Unit Details
1.	**Introduction to HCI**
	• Introduction of Unit • Human-Computer Interaction Foundations • Models & Theories • Programming interactive systems • Conclusion of the Unit
2.	**User Interface Design (UI)**
	• Overview of UI – Importance of UI – • Characteristics Design Process • Visual Design • Concepts Graphical • User interface • Design Tools • Navigation and structure • Composition and Layout Design • Design Icons – Graphic symbols – typography – color theory • Design Patterns and Style guides • Interaction Styles • Naming & Abbreviation
3.	**User Experience Design (UXD or UED)**
	• Overview of UX • Elements of UX • UX Design Process – Research – Design – Prototyping – Testing – Measurements ● UX Analysis, Design Thinking – Thinking out of box – Empathy – Design Thinking Process • User research, Planning.
4.	**User Cantered Design**

	• Introduction, Principles • Elements of UCD • User Centered design Process – Analysis – Design – Implementation – Deployment • Benefits of user centered process.
5.	**Case Studies**
	• Introduction of Unit • Effective UI Design examples • UX Design examples • Common Errors • Conclusion.

RECOMMENDED STUDY MATERIAL

SR.NO	REFERENCE BOOK	AUTHOR	PUBLICATION
1.	UX AND UI Design	Mackenzie - Elsevier; First edition (11 January 2013)	Human Computer Interaction
2.	UX AND UI Design	Elizabeth Goodman Ph.D. School of Information University of California Berkeley Dr., Mike Kuniavsky , Andrea Moed - Morgan Kaufmann - 2 edition (24 September 2012)	Observing the User Experience: A Practitioner's Guide to User Research

V SEMESTER

Code: BSBCSB5101	Augmented reality and Virtual reality	2 Credits [LTP: 2-0-0]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** and identify AR eco system	Understand
CO2	**Application** and examination of process set up in AR	Apply
CO3	**Analyze** and discuss assets development in AR /VR	Analyze
CO4	**Evaluate** the process of a build in an AR app	Evaluate
CO5	**Create** a simple AR app	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	2	-	1	2	-	1	-	2	-	-
CO2	-	3	2	-	1	-	1	-	-	2	-	-	2	-	1
CO3	2	2	-	2	-	-	1	-	1	-	1	2	-	2	-
CO4	2	3	-	-	2	-	-	2	-	-	-	-	-	2	-
CO5	2	3	-	1	1	-	2	-	-	1	-	1	-	2	1
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Introduction of AR	6
2	Setting Up Project	6
3	Assets Development	6
4	Building App	10
5	Augmented Business Card	8

DETAILED SYLLABUS

Unit	Unit Details
1	**Introduction of AR**
	• Introduction of Unit • Overview of AR, AR vs VR, how AR works, Different types of AR , AR targets, types of AR for Marketers – Marker Based – Marker less – Layer / Goggles , Applications of AR, technical issues • Conclusion of Unit
2	**Setting Up Project**
	• Introduction of Unit • Install unity, Vuforia package, Android SDK, Vuforia developer portal account, using Camera in AR, placing a object, inspector setup – create a button. – Develop – Vuforia - License manager – get development key –target manager – add database setup. • Conclusion of Unit
3	**Assets Development**
	• Introduction of Unit • **UI,** Videos, **3D** Model - Character – Vehicles – Alien – Environment - props, Texturing, Rigging, and Animation - Walk – jump – dance – run, file formats. • Conclusion of Unit
4	**Building App**
	• Introduction, Identifying platform and toolkits, Vuforia – dataset setup, integration in unity, UI interactions, unity setup, image target, touch controls, player settings, Switch platform and build app. • Conclusion of Unit
5	**Augmented Business Card**
	• Introduction to Unit • Planning AR development, setting up the project (Vuforia), Adding the image target, Adding objects, Animate the object, object setup in unity, Build the APK. • Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1.	Augmented Reality for Developers: Build practical augmented reality applications with Unity, ARCore, ARKit, and Vuforia	Jonathan Linowes (Author), Krystian Babilinski (Author)	Latest	Packt Publishing
2.	Unity 2018 Augmented Reality Projects: Build four immersive and fun AR applications using ARkit, ARCore, and Vuforia	Jesse Glover (Author)	Latest	Packt Publishing
3.	Practical Augmented Reality: A Guide to the Technologies, Applications, and Human Factors for AR and VR (Usability)	1st Edition - by Steve Aukstakalnis (Author) - Addison-Wesley Professional	Latest	Wesley Professional

Important Web Links	
1	https://onlinecourses.swayam2.ac.in/nou23_ge34/preview
2	NPTEL Online Certification Course on VR by Prof. Steven LaValle
3	https://onlinecourses.swayam2.ac.in/aic22_ge24/preview

Code: BSBCSB5102 **Advanced Visual design** **2 Credits [LTP: 2-0-0]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** and identify design issues and the problems in the visual designs.	Understand
CO2	**Application** of the design principles in brand identity and preserving identity throughout the system.	Apply
CO3	**Analyze** the roles of visual design in an organization.	Analyze
CO4	**Evaluate** the various methods and design testing.	Evaluate
CO5	**Create** visual design with background study and proper tools.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	2	-	-	1	-	1	-	2	-	-
CO2	-	3	2	-	2	-	-	-	2	-	1	-	2	-	-
CO3	2	2	-	-	1	-	1	2	-	-	-	-	-	2	1
CO4	2	3	-	1	-	2	-	-	-	1	-	-	-	2	-
CO5	2	3	-	-	-	-	-	1	-	1	-	1	-	2	1
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the Unit	Time required for the Unit (Hours)
1.	Branding	10
2.	Experience Design	10
3.	Design For Web and Mobile Application	10

4.	**Design Testing and Evaluation**	**10**
5.	**Tools for design**	**08**

DETAILED SYLLABUS

Unit	Unit Details
1.	**Branding**
	• Introduction of Unit • Brand, Identity and logo • Design Ethnography • Conclusion of Unit
2.	**Experience Design**
	• Introduction of Unit • User Persona • Workflow storyboarding • Identifying Design Issues • Conclusion of Unit
3.	**Design for Web and Mobile application**
	• Introduction of Unit • Information Architecture • Iconography • Grid system for responsive design • Maintaining brand identity • Prototyping • Conclusion of Unit
4.	**Design Testing and Evaluation**
	• Introduction of Unit • Usability testing • Heuristic evaluation • Conclusion of Unit
5.	**Tools for Design**
	• Introduction to Unit • File formats and exports for web • Design workflow • Conclusion of Unit

RECOMMENDED STUDY MATERIAL:

Sr.No	Reference Book	Author	Edition	Publication
1	The Elements of User Experience: User-Centered Design for the Web and Beyond	Jesse James Garrett	Latest	New Riders
2	Designing Brand Identity: An Essential Guide for the Whole Branding Team	Alina Wheeler	Latest	Wiley

3	Storytelling for User Experience: Crafting Stories for Better Design	Whitney Quesenbery	Latest	Rosenfeld Media

Important Web Links	
1	https://onlinecourses.nptel.ac.in/noc21_ar17/preview
2	https://www.skillshare.com/en/browse/visual-design
3	https://www.interaction-design.org/courses/visual-design-the-ultimate-guide

Code: BSBCSB5201	**Portfolio**	**4 Credits [LTP:0-0-8]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	**At the end of this course, learners will be able to:**	**Bloom Level**
CO1	**Understand** the rigorous process and dedicated time to create a portfolio worth professional industry	Understand
CO2	**Application** of industry standard quality inputs in the making	Apply
CO3	**Analyze** and discuss the overall compilation and composition	Analyze
CO4	**Evaluate** the output through feedbacks and revisions and testing	Evaluate
CO5	**Create** a quality worthwhile portfolio	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**2**	**1**	**-**	**-**	**1**	**-**	**1**	**-**	**2**	**-**	**-**
CO2	**-**	**3**	**2**	**-**	**1**	**-**	**-**	**2**	**-**	**-**	**-**	**-**	**2**	**-**	**1**
CO3	**2**	**2**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**2**	**1**	**-**	**-**	**2**	**-**
CO4	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**
CO5	**2**	**3**	**1**	**1**	**-**	**2**	**-**	**1**	**-**	**-**	**-**	**2**	**-**	**2**	**1**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	**Title of the unit**	**Time required for the Unit (Hours)**
1	**Basic Portfolio**	**20**
2	**Advanced Portfolio**	**20**
3	**Showcasing of Online portfolio**	**12**

4	**Compilation of best work into video show reel**	**10**
5	**Final show reel**	**10**

DETAILED SYLLABUS

Students will prepared a portfolio and compilation of good quality works as a show reel.

Code: BSBESB5211	**Advanced 3D Animation & Rigging**	**3 Credits [LTP: 1-0-4]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	**At the end of this course, learners will be able to:**	**Bloom Level**
CO1	**Understand** and able to execute advanced character rig including facial expression and extra attributes depending on the character to be rigged	Understand and Apply
CO2	**Application** of facial expression and lip sync animation with an audio clip	Apply
CO3	**Analyze** a character with personality and lip sync as one complete animation scene	Analyze and Apply
CO4	**Evaluate** the rigging of a complete Quadruped including skinning and facial expressions	Evaluate
CO5	**Create** a quadruped character, walk cycle , jump cycle and run cycle	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**-**	**-**	**2**	**-**	**-**	**2**	**-**	**-**	**2**	**-**	**1**
CO2	**-**	**3**	**2**	**-**	**1**	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**2**	**-**	**-**
CO3	**2**	**2**	**-**	**1**	**-**	**-**	**1**	**-**	**2**	**-**	**1**	**-**	**-**	**2**	**1**
CO4	**2**	**3**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**-**	**2**	**-**
CO5	**2**	**3**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**1**	**-**	**2**	**-**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	**Title of the unit**	**Time required for the Unit (Hours)**
1	**Character Rigging**	**34**
2	**Facial Animation and Lip Sync**	**34**

3	**Advanced Animation – Character**	**38**
4	**Quadruped Character Rigging**	**38**
5	**Animating Quadruped Character**	**36**

DETAILED SYLLABUS

Unit	Unit Details
1.	**Character Rigging**
	• Introduction of Unit. • Advanced Rigging Process for a Biped Character. • Spline IK • Using Set-Driven – Stretchiness – Organizing Rigging Nodes. • Muscle system • Dynamic Rig • **LAB** – Complete Biped Rig
2.	**Facial Animation and Lip Sync**
	• Understanding Phonetics • Loading and editing sound files • Matching dialogs • Expressions • Eye blinks • Character interaction. • **LAB** – An Animation shot with expressions, dialog and action
3.	**Advanced Animation – Character**
	• Introduction of Unit. • Animating a scene with Dialog, expressions and action • Conclusion of Unit. **LAB** – Complete animation shot (acting shot)
4.	**Quadruped Character Rigging**
	• Introduction of Unit. • Rigging Process for a Quadruped Character. • Creation of Skeleton, Adding Kinematics, Bind Skin. • Adding Constraints for Rigging Controls. • Creating Global Control . • Using Set-Driven , Stretchiness, Organizing Rigging Nodes. **LAB** – Quadruped Rig
5.	**Animating Quadruped Character**
	• Introduction of Unit. • Quadruped Animation Approaches. • Observations of Motion. • The Four Gaits.

	• Study of Walks and Runs. • Animating a Walk. **LAB** – Quadruped Animation scene

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1	Mastering Autodesk Maya 2013	Todd Palamar	Latest	Sybex,
2	Maya 2008 Character Modeling and Animation: Principles and Practices	Tereza Flaxman	Latest	Charles River Media , Latest

Important Web Links	
1	https://onlinecourses.swayam2.ac.in/cec20_cs08/preview
2	https://nptel.ac.in/courses/106102065
3	https://www.skillshare.com/en/browse/3d-animation

Code: BSBESB5212 Advanced Modeling and Texturing 3 Credits [LTP: 1-0-4]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** and and breakdown complex designs to simple forms and model them	Understand and Apply
CO2	**Application** of sculpting solutions to add modelling and texturing details to the models	Apply
CO3	**Analyze** a character and complete a model with needed details	Analyze and Apply
CO4	**Evaluate** the quadruped models with correct mesh flow to get better deformations	Evaluate
CO5	**Create** anatomically / technically correct models	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**-**	**2**	**-**	**1**	**-**	**-**	**1**	**-**	**2**	**-**	**-**
CO2	**-**	**3**	**2**	**-**	**1**	**-**	**-**	**-**	**2**	**-**	**-**	**1**	**2**	**-**	**-**
CO3	**2**	**2**	**-**	**-**	**2**	**-**	**1**	**-**		**1**	**2**	**-**	**-**	**2**	**1**
CO4	**2**	**3**	**-**	**1**	**-**	**1**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**2**	**-**
CO5	**2**	**3**	**1**	**-**	**-**	**2**	**-**	**2**	**-**	**1**	**-**	**1**	**-**	**2**	**1**
WT. AVG															

C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	**BG and Prop Modelling**	34
2	**Product Modelling**	34
3	**Character Modelling**	38
4	**Shading and Texturing**	38
5	**Sculpting models**	36

DETAILED SYLLABUS

Unit	Unit Details
1.	**BG and Prop Modelling**
	• Introduction of Unit. • Working with Nurbs. • Modelling Props Using Nurbs. • Subdivision Proxy Modelling. • Inorganic Modelling (modelling Backgrounds & Assets). • Modelling Optimization Techniques. **LAB** – Complete interior/exterior with Texture
2.	**Product Modelling**
	• Introduction of Unit. • Product Modelling. • Blocking, Volume, Extracting and Detailing • Modelling clean and realistic set with optimized and controlled mesh. • UV unwrapping and setting up textures. • Final Render **LAB** – Final Output of a product model
3.	**Character Modelling**
	• Introduction of Unit. • Organic Modelling. • Building a Biped Character, Refining Character Geometry, Model Clean Up. • Adding Geometry for Good Deformations. • Positioning for Rigging. • Blend Shapes for Facial Expression. • Modelling & Building a Quadruped Character. • **LAB** – Complete Modelled, unwrapped and textured character
4.	**Shading and Texturing**
	• Introduction of Unit. • Surface Materials – 2D & 3D Texture Placements. • UV Layout Texturing. • Using Photoshop for Texture Creation. • Applying Texture Maps.

	• Texture Painting. • Conclusion of Unit.
5.	**Sculpting models**
	• Introduction to Sculpting. • Pipeline Integration with Maya & Sculpting tools. • Inorganic & Organic Modelling. • Adding Details. • Normal Mapping Techniques. • Conclusion of Unit.

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1	Mastering Autodesk Maya 2013	Todd Palamar	Latest	Sybex, Latest
2	Maya 2008 Character Modelling and Animation: Principles and Practices	Tereza Flaxman.	Latest	Charles River Media , Latest
	Important Web Links			
1	https://www.classcentral.com/course/introduction-to-3d-modeling-120880			
2	https://www.animationmentor.com/courses/3d/modeling/			
3	https://onlinecourses.swayam2.ac.in/ntr24_ed17/preview			

Code: BSBESB5213 **Advanced 2D Animation** **3 Credits [LTP: 1-0-4]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** the significance of advanced 2D Character Animation**.**	Understand
CO2	**Application** of Effects Animation.	Apply
CO3	**Analyze** and appraise the strategies for advanced techniques for Digital Animation	Analyze
CO4	**Evaluate** the the significance of external plugins and their implementations	Evaluate
CO5	**Create** Game design and Assets development & 2d Motion Graphics Short.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**1**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**	**1**
CO2	**-**	**3**	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**2**	**-**	**-**	**2**	**-**	**-**
CO3	**2**	**2**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**
CO4	**2**	**3**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**2**	**1**
CO5	**2**	**3**	**-**	**-**		**-**	**2**	**1**	**-**	**-**	**-**	**1**	**-**	**2**	**-**

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C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	**Character Expressions and Acting**	**34**
2	**Effects Animation**	**34**
3	**Advertisement in Digital Animation**	**38**
4	**Game Design and Assets Development**	**38**
5	**2d Motion Graphics Short**	**36**

DETAILED SYLLABUS

Unit	Unit Details
1.	**Character Expressions and Acting**
	• Introduction to Advanced Acting for Animation • Mapping Facial Expressions • Animate/ Inanimate Character Movement and Gesture Animation • Short Clip on 2D Character Animation
2.	**Effects Animation**
	• Material Analysis • Concept for 20sec Effects Animation • Effects Motion and Design
3.	**Digital Animation Advertisement**
	• Brand Research • Iterations and Concept Development for 20sec Animation Ad • Preproduction • Production • Post Production
4.	**Game Design Sand Assets Development**
	• Game Research • 2D Game Art • Asset Development – Character, Props, Background • Game Development
5.	**l Motion Graphics Short**
	• Introduction to the Unit • 20sec clip using Motion Graphics for Infotainment • Conclusion to the Unit

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1.	How to Make Animated Films -Tony White's Complete Master class on the Traditional Principles of Animation	White ,Tony	Latest	Focal Press, 2009
2.	The Complete Animation Course: The Principles, Practice and Techniques of Successful Animation	Patmore, Chris. Cowan, Finlay	Latest	Barron's Educational Series (August 1, 2003)
3.	Dream worlds: Production design for animation.	Bacher, Hans	Latest	Oxford: Focal Press 2008, 208 S.
4.	Game Design Workshop	Fullerton ,Tracy	Latest	A K Peters/ CRC Press, 2014
5.	The Game Narrative Toolbox, a Focal Press book	Tobias Heussner	Latest	Routledge, 2015

Important Web Links	
1	https://www.skillshare.com/en/classes/the-beginners-guide-to-adobe-after-effects/1758053045?via=browse
2	https://www.skillshare.com/en/browse/2d-animation
3	https://www.domestika.org/en/courses/area/87-2d-animation

Code: BSBESB5214 Advanced VFX Compositing 3 Credits [LTP: 1-0-4]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** the significance of Render passes and channel management	Understand
CO2	**Application** of LUT and elements for color correction	Apply
CO3	**Analyze** and appraise the strategies for advanced techniques for in-depth compositing	Analyze
CO4	**Evaluate** the significance of external plugins and their implementations	Evaluate
CO5	**Create** composing with 3d layers and application of tracking & projection mapping	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**1**	**-**	**2**	**-**	**1**
CO2	**-**	**3**	**2**	**-**	**1**	**-**	**1**	**-**	**-**	**1**	**-**	**-**	**2**	**-**	**-**
CO3	**2**	**2**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**2**	**-**	**2**	**-**
CO4	**2**	**3**	**1**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**2**	**1**
CO5	**2**	**3**	**-**	**-**	**-**	**1**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**
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C. OUTLINE OF THE COURSE

Unit No.	**Title of the unit**	**Time required for the Unit (Hours)**
1	**Passes for Compositing**	**34**
2	**Rotoscopy, Painting and LUT**	**34**
3	**Advanced Compositing**	**38**
4	**Working in 3D**	**38**
5	**Tracking and Match moving**	**36**

DETAILED SYLLABUS

Unit	**Unit Details**
1.	**Passes for Compositing**
	• Introduction to the Unit • Pass Management, Bit Depth Allocation, Finding The Best Depth Channels, Color Channels for the Project • Conclusion to the Unit
2.	**Rotoscopy, Painting and LUT**
	• Introduction to the Unit • The LUT use and Specifications, Finding the Black's and White's, Node reusing to Maintain Color Correction, Use of Plugin's in 3D Channels • Short film project using Rotoscopy, Painting and compositing [Group or Individual] • Conclusion to the Unit
3.	**Advanced Compositing**
	• Introduction to the Unit • Advanced In-Depth Compositing, Concepts and Techniques to Compositing Foliage, Learn to Composite Hair and Fur, Creating and Merging Horizon Lines, Using Vector Blur For Quicker Results • Short film project using Match moving and CG Compositing [Group or Individual] • Conclusion to the Unit.
4.	**Working in 3D**
	• Introduction to the Unit • Creating Macro's and Dummies, 3D Layers / Nodes in Brief, 3D Camera Projection and Tracking, 3D Channels and Depth Creation, RGB Mattes and Rotoscopy Solutions. • Conclusion to the Unit

5.	Tracking and Match moving
	• Introduction to the Unit • Short film project using Tracking and Match moving [Group or Individual] • Conclusion to the Unit

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1	[digital] Visual Effects and Compositing	Jon Gress	Latest	New Riders, 2014
2	The Art and Science of Digital Compositing	Ron Brinkmann	Latest	Morgan Kaufmann; 2 edition (24 May 2008)
Important Web Links				
1	https://www.classcentral.com/course/swayam-animations-13880			
2	https://www.skillshare.com/en/browse/visual-effects			
3	https://toonzacademy.com/pro-edge-animation-vfx-course			

Code: BSBCSB5601 UI-UX II 2 Credits [LTP: 1-0-2]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Identify the problem by** Brainstorming and able to create an effective solution	Understand
CO2	**Understanding** the Elements of User Interface of UI/UX Software tool	Apply
CO3	**Create** the Functionality and Usability of Design	Analyze
CO4	**Create** a UI/UX Project based on Various Learnt Technologies	Evaluate
CO5	**Create** a UI/UX Project **of Website or mobile App**	Create

B. MAPPING MATRIX OF CO, PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**2**	**-**	**1**
CO2	**-**	**3**	**2**	**-**	**1**	**-**	**2**	**-**	**-**	**-**	**2**	**-**	**2**	**-**	
CO3	**2**	**2**	**-**	**2**	**-**	**1**	**1**	**-**	**-**	**1**	**-**	**1**	**-**	**2**	**-**

CO4	2	3	-	-	1	-	-	-	2	-	1	-	-	2	-
CO5	2	3	-	-	-	1	-	1	-	-	-	1	-	2	-
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C. OUTLINE OF THE COURSE

Unit No.	Title of the unit	Time required for the Unit (Hours)
1	Introduction to UI and UX Designing	8
2	Elements of User Interface	8
3	Functionality and Usability of Design	8
4	Prioritizing the User Goals	8
5	Multimedia Tools for Designing UI & UX	8

Unit	Unit Details

1.	**Introduction to UI and UX Designing**
	• Introduction to UI and UX Designing • Introduction to UI and UX Designing • Task Centered Designing, Brainstorming • Design Research and Testing • Choosing the Users • Critique of the Design
2.	**Elements of User Interface**

	• User Experience Design • Goals of User Interface • Customer Profile Design • 8350 Structure of UI • Elements of User Interface
3.	**Functionality and Usability of Design**
	• Information Architecture Brand Goals • Auditing Designs of Competitors • Review User Needs • Functionality and Usability of Design • Typography • Studying Contemporary Designs • Wire framing techniques: Low-fidelity and high-fidelity • Create wireframes and interactive prototypes for a mobile app.
4.	**Introduction to Multimedia Tools**
	• Design tools: Introduction to Figma • Version control, file management, and design handoffs. • User Experience Overview • Brand Attributes • Site Taxonomy (Desktop and Mobile)

5.	**Multimedia Tools for Designing UI & UX**
	• Shape Creation Tools • Color Correction Tools • Interface Designing • Design systems and prototyping • Professional Practices and Portfolio

RECOMMENDED STUDY MATERIAL:

Sr. No	Reference Book	Author	Edition	Publication
1	UX AND UI Design	Mackenzie - Elsevier; First edition (11 January 2013)	2013	Human Computer Interaction
2	UX AND UI Design	Elizabeth Goodman Ph.D. School of Information University of California Berkeley Dr., Mike Kuniavsky , Andrea Moed - Morgan Kaufmann - 2 edition (24 September 2012)	2012	Observing the User Experience: A Practitioner's Guide to User Research
Important Web Links				
1				
2				
3				

Code: BSBCSB5601	**Internship**	**2 Credits [LTP: 1-0-2]**

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand**	Understand
CO2	**Application**	Apply

CO3	**Analyze**	Analyze
CO4	**Evaluate**	Evaluate
CO5	**Create**	Create

B. MAPPING MATRIX OF CO, PO, & PSO

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**	**2**	**1**	**-**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**-**	**2**	**-**	**-**
CO2	**-**	**3**	**2**	**-**	**2**	**-**	**-**	**2**	**-**	**-**	**1**	**-**	**2**	**-**	**1**
CO3	**2**	**2**	**-**	**-**	**-**	**-**	**1**	**-**	**2**	**-**	**-**	**-**	**-**	**2**	**-**
CO4	**2**	**3**	**-**	**2**	**-**	**1**	**-**	**1**	**-**	**-**	**1**	**-**	**-**	**2**	**-**
CO5	**2**	**3**	**-**	**-**	**1**	**-**	**-**	**-**	**1**	**-**	**-**	**1**	**-**	**2**	**1**
WT. AVG															

C. OUTLINE OF THE COURSE

Student will do internship in studio during the summer break of the in-between sessions after exam.

VI SEMESTER

Code: BSBCSB6501	Internship (In campus/ External)	4 Credits [LTP: 0-0-8]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understand** and identify necessary industry standard environment to grow and develop, creating meaningful works of art, conceptually as well as technically	Understand
CO2	**Application** of the understand the research based outcome of the Preproduction, Production & Post Production	Apply
CO3	**Analyze** the roles of visual design in an organization.	Analyze
CO4	**Evaluate** the various methods and design testing.	Evaluate
CO5	**Create** visual design with background study and proper tools.	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	2	-	-	1	-	-	-	2	-	-
CO2	-	3	2	1	-	-	1	-	-	1	-	-	2	-	1
CO3	2	2	-	-	1	-	1	-	1	-	1	-	-	2	-
CO4	2	3	-	2	-	-	-	2	-	1	-	1	-	2	1
CO5	2	3	-	1	-	1	-	-	-		-	1	-	2	-
WT. AVG															

C. OUTLINE OF THE COURSE

OVERVIEW AND OBJECTIVES:

To provide an opportunity to the student to explore the ideas for Animation short. To impart skills in developing a story and script. To provide opportunity in designing the characters, Layouts. To impart skills in Animatics
To provide opportunity to visualize the concepts in any media chosen such as 2D / 3D To provide knowledge in production of the assets in 2D / 3D like Characters, Layouts etc. To provide knowledge in Rigging, Animation
To provide knowledge in designing the sounds for the Animation
To provide knowledge in Lighting the scenes, and Rendering the scenes

PART I

Part one will consist of all **Pre-production** for the short animated degree film.
Students are expected to take up an independent study and production of a Short Animated Film. The film may be 2 – 5 minutes in duration. The project may be done independently or in a group not larger than 4-5 members. The project must be well researched with adequate time spent on information collection, a thorough documentation of all the sources with appropriate credits provided for the information from books, websites, people, organizations etc.

The project must be a culmination of all learning through the semesters and must be seen as opportunity to converge and cohesively bring both conceptual and craft skills together in the film.
The student/s is expected to demonstrate sensitivity to content, cultures, and people and take the responsibility for the content being conveyed through the film.

The film must be a clear indication of the maturity, responsibility and concern the student is capable of demonstrating.

1. This must be conveyed through the content in the film
2. Concept and craft skills
3. Imagination and innovation
4. Execution of the product with professionalism
5. Time frames and deadlines
6. Contact with teachers during the project
7. Ability to be a team player and leader
8. Integrity of the product in terms of credits and following copyright laws
9. Documentation of the process and presentation of the final film
10. Ability to articulate, communicate and present the project

PART II

Part two will consist of all **Production** and **Post-production** for the short animated degree film. Students are expected to take up an independent study and production of a Short Animated Film. The film may be 2 – 5 minutes in duration. The project may be done independently or in a group not larger than 6 members. The project must be well researched with adequate time spent on information collection, a thorough documentation of all the sources with appropriate credits provided for the information from books, websites, people, organizations etc…
The project must be a culmination of all learning through the semesters and must be seen as opportunity to converge and cohesively bring both conceptual and craft skills together in the film.
The student/s is expected to demonstrate sensitivity to content, cultures, and people and take the responsibility for the content being conveyed through the film.
The film must be a clear indication of the maturity, responsibility and concern the student is capable of demonstrating

- This must be conveyed through the content in the film
- Concept and craft skills
- Imagination and innovation
- Execution of the product with professionalism
- Time frames and deadlines
- Contact with teachers during the project
- Ability to be a team player and leader
- Integrity of the product in terms of credits and following copyright laws
- Documentation of the process and presentation of the final film
- Ability to articulate, communicate and present the project

ALL students must submit a show reel. It is a mandatory part of the final degree submission. If any student fails to submit her/his show reel, the final submission will be considered incomplete and will have to follow the rules as applicable. The final degree project will be considered incomplete and a decision of the jury will be final under such circumstances.

PROJECT GUIDELINES

A film (short) shall be done using animation as medium, Animation medium includes the following :

1. Traditional
2. Digital
3. Contemporary
4. Mixed media

Each story has to be guided by faculty from the respective centre.
Duration of the films (short) should not be less than 2 minutes and more than minutes in length
The above mentioned length of film is not inclusive of title and end credits
The length of credits should not exceed 10 % of the total length of the film.
The film will be considered as complete only if it contains title cards – film itself (fully lit and rendered)-end credit titles, all with music.
The film can have a three act structure or it can be a single act or just a visual gag.
The content of the film should not have any material in it which is socially in sensitive.
The suggestion is that only a maximum of 3 characters be used in the story due time constraints and that would be irrespective of the length of the film.
If you are using CG as the medium for creating your film; the film should not have more than 1, 00,000 polycount in any shot composition and the per character poly count should not exceed 10,000.
Avoid scenes like these in 3D animation - dense forests, populated areas, (high end dynamics, water, cloth, fur and hair based simulations).
The final must be at happen at 25 FPS.
Follow the video safe area.
The Final output resolution must only be of 720x576 PAL (use letterboxing for widescreen presentation)
The final output should be an MPEG2/MOV.
The File size of the finished film should not exceed 200MB/ minute.

Group:

- For the execution of the project, the class shall be divided into groups/teams of students.
- Each Group should not have more than 6 individuals and not less than 4 individuals.
- Make sure all skill sets are available within the team.
- If any member of the group is not observed participating and fulfilling his assigned areas, with due commitment, the rest of the group can decide against having his/her name in the credits.

Group In charge/Team Mentor

- One Faculty for each group can be a Team Mentor and responsible for final output.
- Team Mentor should assign the jobs to the students, fix deadlines and do quality check at various intervals
- Team Mentor should also manage the pipeline, for which he/she can appoint one student for his assistance.

Team Mentor should also manage the pipeline, for which he/she can appoint one student for his assistance

Code: BSBCSB6502	Final Project & Report	8 Credits [LTP: 0-0-16]

A. COURSE OUTCOMES AND THEIR RESPECTIVE MAPPING

Course Outcomes (COs):	At the end of this course, learners will be able to:	Bloom Level
CO1	**Understanding** and able to Present work documentation of the project	Understand
CO2	**Application** and **understanding** the Report of research based outcome of the Preproduction, Production & Post Production	Apply
CO3	**Analyze** and to make a report of thework output in 3D & VFX	Analyze
CO4	**Evaluate** the process and structure of Project writing	Evaluate
CO5	**Create** a Project report of the Practical base Project Outcome as per industry standard	Create

B. MAPPING MATRIX OF CO,PO, & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	-	-	1	-	-	1	-	-	-	2	-	-
CO2	-	3	2	-	-	-	2	-	-	-	2	-	2	-	1
CO3	2	2	-	-	2	-	1	-	1	1	2	-	-	2	-
CO4	2	3	-	1	-	-	-	-	-	-	-	-	-	2	1
CO5	2	3	-	-	2	-	-	1	-	1	-	1	-	2	-
WT. AVG															

. OUTLINE OF THE COURSE

OVERVIEW AND OBJECTIVES:

To impart knowledge in recording and documenting the preproduction, Production and Post production of the Project
To impart skills in the presentation of the concept of the project, Lay out for the visuals and various stages of the project in professional manner.

PROJECT REPORT:

Cover page

Neatly designed, colored, Lay out with suitable font design and size on Art paper Page 1: Title of the Project and study centre details
Page 2: Contents / index Page 3:
Certificate

Page 4: Guide declaration Page 5: Candidate declaration Page 6: The team:

Every group member shall add or pitch his / her role in a separate section within the project report. Number of sheets is flexible need not to be fixed to a single sheet. Paper should be Bond only, not thick Art Paper. Fonts design and size should be good and readable, Preferably 12 for normal text and 14 Bold for Heading.

Page XX: pre-production: Synopsis of the Story - script- Story Map
Character designs: Character Bible - Character History - Character Traits - Character flaws - Psychological profile
Page XX: Concept pre visualization: B/W &Colored sketches of the story environment and other elements
Page XX: Story Board – Complete story board of the script
Story Map is must, Designs should be both concept sketches &colored ones. For each character use separate page.
Page XX: production: Blue Book
Production stills of Live Shooting for CG shot BG sets and props
Dynamic simulation snaps Shots Texturing & Lighting Snap shots
Page XX: post- production Compositing – Shot Breakdown Editing
Last Page: About Team & Photographs with mentor

Every group should submit properly designed (A4 Size) and well bound project report in three copies. No provision for the Photocopies.