



Department Of Mass Communication

School of Creative Art, Design and Media Studies

Programme Code: SDM0202

B.SC. (Animation & VFX)

Academic Year - 2020-2023

General Guidelines
and
Terminology of Various Academic Programmes
under
Department of Mass Communication

General Guidelines:

These guidelines are framed to enable the various departments in SCADMS of Sharda University to run academic programmes in a structured manner. The main aim of these guidelines is to bring about a certain degree of uniformity in the programs running in various departments of the school. This would ultimately help in improving the quality of academic structure and delivery within the school. The guidelines would help all those who teach courses under various programmes to meet the basic requirements to teach the course. The guidelines also list the various templates required for this purpose.

Definition of Terms:

The following terminology would be used for the purpose of academic delivery within SCADMS. All departments have to follow these terminologies:

Department: Department in SCADMS refers to the unit that confers the professional qualification e.g. Department of Mass Communication. It may have various departments under its umbrella. As of 2019, SCADMS has 02 operational departments. These two departments in SCADMS are units that refer to specific areas of knowledge that do not end up as a professional qualification.

Programme: An educational programme is an integrated, organized experience that culminates in the awarding of a degree. The programme will have programme educational objectives, student outcomes, a curriculum, faculty and facilities. For instance, Department of Mass Communication is offering 05 programmes, i.e., BA (Journalism & Mass Communication), B.Sc. (Animation & VFX), B.Sc. (Gaming), MA (J&MC), MA (Advertising & Public Relations), MA (Digital Media and Multimedia Communication) and PhD (J&MC).

Programme Educational Objectives (PEOs): Every programme stipulates educational objectives along with the curriculum. This is extremely essential for any running programme because a systematic process needs to be followed for stating PEOs which should also align with the mission of the school. It is based on the need analysis of the programme. It is also

periodically reviewed to keep with changing trends. Objectives are focused on performances that all students are expected to demonstrate at the end of instruction. Objectives define the key elements that must be taught every time the course is delivered.

Programme Outcomes (POs): Programme outcomes of SCADMS provide general information about the focus of student learning and are broadly stated. Student Learning Outcomes are statements that specify what students will know, be able to do or be able to demonstrate when they have completed or participated in a programme. PO's specify an action by the student that is observable, measurable and able to be demonstrated. These are also synonymous with student learning outcomes.

Courses: Courses in SCADMS is a subject run for the purpose of conducting of any programme.

Course Code: SCADMS course code provided to subjects as entered in PeopleSoft for the purpose of identification of the subject as well as for the purpose of examinations. It is a unique identifying code. It generally represented as a “XYZ123” wherein XYZ is related to the programme and 123 is the serial no based on the year. In case there is a change of 20% or more in the syllabus, a new code has to be assigned to the course through proper approvals.

Course Title: It is the expanded full form of a subject against a given course code. No short forms are permitted in the course title. E.g., in the Department of Mass Communication, the course tile, Convergent Media in 2nd Semester of MA (J&MC) programme.

Contact Hour: It is equivalent to 55min-60mins for one lecture/studio hour.

Credit: It is the weightage offered against a course. The student will obtain the credit against the course when he successfully obtains the minimum passing marks. Further description may be obtained from Examinations cell, SHARDA UNIVERSITY.

Course Objectives: Course objectives are clear and concise statements that describe what SCADMS intend our students to learn by the end of the course. It describes an intended state on what we hope our students will learn.

Course Outcomes: It expresses a present and observed state (what our students will actually learn) through the course. These are synonymous with programme specific outcomes (PSOs), course outcomes and any other similar terms as desired for respective accreditation processes.

The purpose of Course Objectives and Learning Outcomes is to:

- Align objectives with course content and evaluation methods
- Clearly communicate our expectations of students
- Establish a logical sequence of learning milestones
- Provide an opportunity for students to make connections across courses and institutional goals

Unit: The syllabus is to be divided into five units 1,2,3,4 and 5 with each unit having 3 sub units-a, b and c. This is the method for recording attendance as well in v-Attendance app.

Structure:

There are three elements essential for running SCADMS programme:

1. Programme Structure (Required for the programme)
2. Course syllabus required for each course in one of the following formats:
 Template A1– for Theory subjects
 Template A2 – for Practical subjects
 Template A3 – for Jury subjects/studios/projects/dissertations
3. Instructional Plan-
 Template B1 -- for Theory subjects
 Template B2 -- for Practical subjects
 Template B3 -- for Jury subjects/studios/projects/dissertations

Template D provides additional in the case of Jury subjects/studios/projects/dissertations with a list of Project with description, studio work, and dissertation topic with scope of work and precise deliverables.

Accordingly, the following are formulated for each course:

| S.No | Course | Syllabus Template | Instructional Plan template | Additional |
|------|---|-------------------|-----------------------------|--|
| 1 | Theory | B1 | C1 | PPTs, GDs, Seminars & Lecture series |
| 2 | Practical | B2 | C2 | Media Labs, Computer Labs & Assignments |
| 3 | Jury subjects/Studios/ Projects/Dissertations | B3 | C3 | D: List of Project with description, studio work, dissertation topic with scope of work and precise deliverables (to be uploaded on LMS) |

Vision, Mission and Core Values of the University

Vision of the University

To serve the society by being a global University of higher learning in pursuit of academic excellence, innovation and nurturing entrepreneurship.

Mission of the University

- 1.Transformative educational experience**
- 2.Enrichment by educational initiatives that encourage global outlook**
- 3.Develop research, support disruptive innovations and accelerate entrepreneurship**
- 4.Seeking beyond boundaries**

Core Values

Integrity

Leadership

Diversity

Community

1.2 Vision and Mission of the School of Creative Art, Design and Media Studies

Vision of the School

To build the school as a hub of teaching, research and innovation in the field of art, design and media studies. Thus making it a truly world class centre for producing industry ready professionals at par with the best universities of the world.

Mission of the School

Creating a stimulating, flexible and application based learning environment for students as well as faculty.

To provide the necessary platform to impart skills and knowledge related to journalism and mass communication.

Creating brilliant professionals by imparting a blend of theory and more practical lessons through state-of-the-art infrastructure.

Leveraging research to form strong industry-academia linkages.

Core Values

Innovation

Awareness

Information

Ethics

1.2.1 Vision and Mission of the Department of Mass Communication

Vision of the Department of Mass Communication

To build a department that goes beyond regional & cultural barriers with educational model that is sustainable, replicable & scalable, and empowers students with a future that is driven by knowledge, practice, entrepreneurial skills, socially responsible principles and moral values.

To provide intensive and integrated education in the field of communication, that is at par with best global communication schools and that nurtures individual aspirations to lead, innovate and collaborate to effectively apply conceptual understandings vis-a-vis practical and complex communication phenomenon and technologies.

Mission of the Department of Mass Communication

Provide journalism, communication and media-education platform to impart skills and knowledge with strong industry-academic linkages, consultancies and strong research base.

Create global media professionals & leaders by imparting a blend of theory and practical lessons through state-of-art infrastructure.

Create stimulating, flexible and application based learning environment for students & for the faculty.

Core Values

Innovation

Awareness

Information

Ethics

Programme Educational Objectives (PEO) B.Sc. Animation & VFX

PEO1: The curriculum shall provide the students the required skill sets & Idea development ability to create new narratives for society and nation.

PEO 2:-Enables a student to capable enough to establish his or her Production Studio, independent Digital Film Maker or an entrepreneur

PEO3: The curriculum shall provide them learning acquired by explorations in the field of 2D & 3D Animation, VFX, Broadcast Animation, Info-Graphics and Gaming to create New visuals , ease of interactive communication with the help of new age technology.

PEO4: The programme shall include more hands on experience with regular workshops and updated trends, new technology of Animation, VFX & Gaming Industries. It shall provide the insight of changing scenario of industry and parallel updating of skill sets.

Program Outcomes (PO's)

PO1: Discuss, explore, demonstrate and apply to create new narratives for entertainment, education & Nation Building

PO2: Exploring & Developing new Visual forms and techniques of storytelling.

PO3: Understand and implement new technologies relative to Animation, VFX and Gaming.

PO4: Demonstrate the skill of concept development in visual forms.

PO5: Developed as Independent Film Maker.

School of Creative Art, Design & Media Studies

B. Sc. Animation & VFX

Term I

| S. No. | Subject Code | Subjects | Teaching Load | | | Credits | Core/Elective, Pre- Requisite, Co-Requisite | CC AECC SEC DSE |
|-----------------|--------------|---------------------------|---------------|---|---|---------|---|-----------------|
| | | | L | T | P | | | |
| JURY SUBJECTS_ | | | | | | | | |
| 1 | BSA101 | Foundation Art | 2 | 0 | 2 | 3 | Co-Requisite | CC |
| 2 | BSA104 | Principles of Animation | 2 | 0 | 2 | 3 | Core | CC |
| 3 | BDZ132 | Fundamental of Design | 0 | 1 | 4 | 3 | Co-Requisite | CC |
| 4 | BDZ120 | Fundamental of drawing -I | 0 | 0 | 4 | 2 | Co-Requisite | CC |
| 5 | BSA106 | 2D Digital Animation I | 2 | 0 | 4 | 4 | Core | CC |
| 6 | BDZ108 | Representation Skill I | 0 | 2 | 0 | 2 | Co-Requisite | AECC |
| THEORY SUBJECTS | | | | | | | | |
| 1 | ARP101 | Communicative English I | 1 | 0 | 2 | 2 | Co-Requisite | AECC |
| | | Total Credits | | | | 19 | | |

Term II

| S. No. | Subject Code | Subjects | Teaching Load | | | Credits | Core/Elective, Pre- Requisite, Co-Requisite | CC AECC SEC DSE |
|-----------------|--------------|--------------------------|---------------|---|---|---------|---|--------------------------|
| | | | L | T | P | | | |
| JURY SUBJECTS_ | | | | | | | | |
| 1 | BSA109 | Digital Art | 2 | 0 | 4 | 4 | Core | CC |
| 2 | BSA107 | Storytelling | 1 | 0 | 2 | 2 | Core | CC |
| 3 | BDZ114 | Representation Skill II | 0 | 2 | 0 | 2 | Co-Requisite | AECC |
| 4 | BSA115 | 2D Digital Animation II | 1 | 0 | 4 | 3 | Core | CC |
| 5 | BSA114 | 3D Lab I | 2 | 0 | 4 | 4 | Core | CC |
| 6 | BSA113 | Portfolio I | 0 | 0 | 4 | 2 | Core | CC |
| 7 | | Open Elective | 0 | 2 | 0 | 2 | Elective | SEC |
| THEORY SUBJECTS | | | | | | | | |
| 1 | ARP102 | Communicative English II | 1 | 0 | 2 | 2 | Co-Requisite | AECC |
| | | Total Credits | | | | 21 | | |

Term III

| S. No. | Subject Code | Subjects | Teaching Load | | | Credits | Core/Elective, Pre- Requisite, Co-Requisite | CC AECC SEC DSE |
|-----------------|--------------|------------------------------|---------------|---|---|---------|---|-----------------|
| | | | L | T | P | | | |
| JURY SUBJECTS | | | | | | | | |
| 1 | BSA216 | 3D Animation I | 2 | 0 | 4 | 4 | Core | CC |
| 2 | BSA204 | Photography | 1 | 0 | 4 | 3 | Co-Requisite | CC |
| 3 | BSA218 | Study of Anatomy | 1 | 0 | 2 | 2 | Co-Requisite | CC |
| 4 | BSA219 | Drawing for Animation | 1 | 0 | 2 | 2 | Core | CC |
| 5 | BSA220 | 3D Lab II | 2 | 0 | 6 | 5 | Core | CC |
| THEORY SUBJECTS | | | | | | | | |
| 1 | BSA201 | History of VFX | 2 | 0 | 0 | 2 | Co-Requisite | AECC |
| 2 | BSA217 | Film Appreciation & Analysis | 2 | 0 | 0 | 2 | Co-Requisite | AECC |
| 3 | BDC216 | Environmental Science | 3 | 0 | 0 | 3 | Co-Requisite | AECC |
| | | Total Credits | | | | 23 | | |

Term IV

| S. No. | Subject Code | Subjects | Teaching Load | | | Credits | Core/Elective, Pre- Requisite, Co-Requisite | CC AECC SEC DSE |
|----------------|--------------|---------------------------|---------------|---|---|---------|---|--------------------------|
| | | | L | T | P | | | |
| JURY SUBJECTS_ | | | | | | | | |
| 1 | BSA224 | 3D Animation II | 1 | 0 | 6 | 4 | Core | CC |
| 2 | BSA209 | Storyboarding | 1 | 0 | 2 | 2 | Core | CC |
| 3 | BSA221 | Character &BG Design | 1 | 0 | 2 | 2 | Core | CC |
| 4 | BSA211 | Lighting & Rendering | 2 | 0 | 2 | 3 | Core | CC |
| 5 | BSA212 | CG Compositing Techniques | 1 | 0 | 4 | 3 | Core | CC |
| 6 | BSA222 | Cinematography | 1 | 0 | 2 | 2 | Co-Requisite | CC |
| 7 | BSA223 | Material Animation | 1 | 0 | 2 | 2 | Co-Requisite | CC |
| 8 | BSA215 | Portfolio II | 0 | 0 | 4 | 2 | Core | CC |
| 9 | | Open Elective | 0 | 2 | 0 | 2 | Elective | SEC |
| | | Total Credits | | | | 22 | | |

Term V

| S. No. | Subject Code | Subjects | Teaching Load | | | Credits | Core/Elective, Pre-Requisite, Co-Requisite | CC AECC SEC DSE |
|---------------|--------------|---------------------------------------|---------------|---|---|---------|--|-----------------|
| | | | L | T | P | | | |
| JURY SUBJECTS | | | | | | | | |
| 1 | BSA301 | Sound Design | 1 | 0 | 4 | 3 | Co-Requisite | CC |
| 2 | BSA302 | Motion Graphics | 1 | 0 | 6 | 4 | Core | CC |
| 3 | BSA307 | Project Management | 1 | 0 | 2 | 2 | Co-Requisite | AECC |
| 4 | BSA304 | Match Moving | 2 | 0 | 4 | 4 | Core | CC |
| 5 | BSA310 | Matte Painting | 2 | 0 | 2 | 3 | Co-Requisite | CC |
| 6 | BSA306 | Visual Effects Compositing Techniques | 2 | 0 | 4 | 4 | Core | CC |
| | | Total Credits | | | | 20 | | |

Term VI

| S. No. | Subject Code | Subjects | Teaching Load | | | Credits | Core/Elective, Pre-Requisite, Co-Requisite | CC AECC SEC DSE |
|--------|--------------|--------------------------------|---------------|---|----|---------|--|-----------------|
| | | | L | T | P | | | |
| 1 | BSA309 | Final Project & Project report | 10 | 0 | 20 | 20 | Core | AECC |

Semester I

| | | |
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| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: I |
| 1 | Course Code | ARP102 |
| 2 | Course Title | Communicative English-I |
| 3 | Credits | 3 |
| 4 | Contact Hours (L-T-P) | 1-0-2 |
| | Course Type | Co-Requisite |
| 5 | Course Objective | To minimize the linguistic barriers that emerge in varied socio-linguistic environments through the use of English. Help students to understand different accents and standardize their existing English. Guide the students to hone the basic communication skills - listening, speaking, reading and writing while also uplifting their perception of themselves, giving them self-confidence and building positive attitude. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Acquire Vision, Goals and Strategies through Audio-visual Language Texts CO2: Synthesize complex concepts and present them in creative writing CO3: Develop MTI Reduction/Neutral Accent through Classroom Sessions & Practice CO4: Determine their role in achieving team success through defining strategies for effective communication with different people CO5: Realize their potentials as human beings and conduct themselves properly in the ways of world. CO6: Acquire satisfactory competency in use of Quantitative aptitude and Logical Reasoning |
| 7 | Course Description | The course is designed to equip students, who are at a very basic level of language comprehension, to communicate and work with ease in varied workplace environment. The course begins with basic grammar structure and pronunciation patterns, leading up to apprehension of oneself through written and verbal expression as a first step towards greater employability. |
| 8 | Outline syllabus | |
| | Unit 1 | Sentence Structure |
| | | Topic A-Subject Verb Agreement Topic B-Parts of speech Topic C-Writing well-formed sentences |
| | Unit 2 | Vocabulary Building & Punctuation |
| | | Topic A:-Homonyms/ homophones, Synonyms/Antonyms Topic B:-Punctuation/ Spellings (Prefixes-suffixes/Unjumbled Words) Topic C:-Conjunctions/Compound Sentences |
| | Unit 3 | Writing Skills |
| | | Topic A:-Picture Description – Student Group Activity Topic B:-Positive Thinking - Dead Poets Society-Full-length feature film Topic :- Paragraph Writing inculcating the positive attitude of a learner through |

| | | |
|------------------|--|---|
| | | the movie SWOT Analysis – Know yourself |
| Unit 4 | | Speaking Skill |
| 1 | | Topic A:-Self-introduction/Greeting/Meeting people – Self branding Topic B:-Describing people and situations - To Sir With Love (Watching a Full length Feature Film) Topic C:-Dialogues/conversations (Situation based Role Plays) |
| Unit 5 | | Exercises |
| | | Topic A Exercises Topic B Exercises Topic C Exercises |
| Evaluations | | Class Assignments/Free Speech Exercises / JAM Group Presentations/Problem Solving Scenarios/GD/Simulations (60% CA and 40% ETE) |
| Text book/s* | | <ul style="list-style-type: none"> Blum, M. Rosen. How to Build Better Vocabulary. London: Bloomsbury Publication |
| Other References | | <ul style="list-style-type: none"> Comfort, Jeremy(et.al). Speaking Effectively. Cambridge University Press |

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| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: I |
| 1 | Course Code | BSA101 |
| 2 | Course Title | Foundation Art |
| 3 | Credits | 3 |
| 4 | Contact Hours (L-T-P) | 2-0-2 |
| | Course Status | Compulsory |
| 5 | Course Objective | It enables the students to learn the medium of Drawing and its importance in visualization. Allows students to learn, observe, analyze and visualize. Guides the student to strengthen the drawing skills to support later part of Animation design. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Discover the role of different medium and materials. CO2: Analyze importance of Perspective. CO3: Utilizing perspective in Drawing from real life. CO4: Application of Light and shade in Art. CO5: Learn the Application of Anatomy in figure drawing. |
| 7 | Course Description | Students will learn basic fundamentals of drawing, materials to be used and visualization. They will understand the significance of basic drawing in Animation. At the end of the module they will acquainted with 1,2 & 3 points Perspective, Light & Shade and figurative art. |
| 8 | Outline syllabus:- | |
| | Unit 1 | Materials and Medium |
| | | TopicA:-Application of art on Different mediums. TopicB:-To learn, observe, analyzing, and drawing everyday life. TopicC:-Practice of different object from surrounding. |
| | Unit 2 | Perspective Drawing |
| | | TopicA:-Significance of Perspective in drawing. TopicB:-One, Two and three point Perspective with different Eye levels and angles. Topic C:-Horizon Line & Perception. |
| | Unit 3 | Nature Drawing |
| | | Topic A: -Location drawing with flora. Topic BLocation drawing with fauna. Topic CUnderstanding proportion, volume, morphology in Drawing. |
| | Unit 4 | Lighting and Shading |
| | | TopicA:-Learning the concept of Lighting and shading on objects TopicB:-Discovering the tonal variations in various photographs. TopicC:-Perspective, Lighting and shading in Outdoor and Indoor study. |
| | Unit 5 | Figure Drawing |
| | | TopicA:-Drawing Lines, Stick and figures in Figure Drawing TopicB:-Significance of anatomy in Drawing and its techniques. TopicC:-Drawing of human figure for Different Background and Eye-levels. |
| | Mode of examination | Jury |

| | Weightage Distribution | CA | MTE | ETE |
|--|---------------------------|--|-----|-----|
| | | 60% | 0% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> Perspective Drawing Handbook, Joseph D'Amelio Fun with the Pencil, Loomis | | |
| | Other References | <ul style="list-style-type: none"> Dynamic Figure Drawing, Burne Hogarth Complete Book of Drawing Technique, Peter Stanyer | | |

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| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: I |
| 1 | Course Code | BDZ 132 |
| 2 | Course Title | Fundamental of Design |
| 3 | Credits | 3 |
| 4 | Contact Hours (L-T-P) | 0-1-4 |
| | Course Type | Compulsory |
| 5 | Course Objective | <p>1.The main objective of this course is to make students aware of the basics of design and their usage in everyday life objects and things 2.This is to enable students to understand the basic terminologies used in the design field and their applications in the design industry</p> <p>The course objective is to make students understand spaces and their relating factors like form, scale, proportion etc.</p> <p>The objective is to understand the basics elements of design and their application in their design journey further</p> |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1: Identify the relation between spaces and their relating factors like proportion, scale, form etc.</p> <p>CO2: Compare different elements of design which contributes to design of everyday objects or projects.</p> <p>CO3: Apply the subtraction and addition of forms contributing to the complete design.</p> <p>CO4: Analyze the combination of colors and use of different materials with respect to textures and other principles of design.</p> <p>CO5: Design through Color Theory.</p> |
| 7 | Course Description | The course has been designed to make students understand the basic principles of design observed in everyday life objectives. The students would also be able to apply those principles of design in projects like installations, art works and other products designed during the curriculum. The students would be able to play with the forms and the massing, proportion and the scale relevant to the projects being covered. |
| 8 | Outline syllabus | |
| | Unit 1 | Discuss about design and design thinking. |
| | | Topic A As per instructional plan Topic B As per instructional plan Topic C As per instructional plan |
| | Unit 2 | Principle & Elements of design along with demonstration and class exercises e.g. point, Line, plane, shape, color, form & space) |
| | | Topic A As per instructional plan Topic B As per instructional plan Topic C As per instructional plan |
| | Unit 3 | Principle of design –Balance, Harmony, Symmetry, Rhythm, Emphasis, Variety, Proportion. |
| | | Topic A As per instructional plan Topic B As per instructional plan Topic C As per instructional plan |
| | Unit 4 | Color theory |

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|--|------------------------|---|---------------------------|
| | | Topic A | As per instructional plan |
| | | Topic B | As per instructional plan |
| | | Topic C | As per instructional plan |
| | Unit 5 | Color psychology | |
| | | Topic A | As per instructional plan |
| | | Topic B | As per instructional plan |
| | | Topic C | As per instructional plan |
| | Mode of examination | Jury | |
| | Weightage Distribution | CA | ETE |
| | | 60% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> • Design Drawing 2nd Edition • by Francis D. K. Ching (Author), Steven P.Juroszek(Author) | |
| | Other References | <ul style="list-style-type: none"> • Universal Principles of Design • by William Lidwell (Author), KritinaHolden (Author), Jill Butler (Author) | |

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| School: SMFE | | Batch : 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 | |
| Branch: NA | | Semester: I | |
| 1 | Course Code | BDZ 108 | |
| 2 | Course Title | Representation skill-I | |
| 3 | Credits | 1 | |
| 4 | Contact Hours (L-T-P) | 0-2-0 | |
| | Course Status | Core | |
| 5 | Course Objective | This subject is designed to explore and learn the fundamental of Visual and Communication skills to develop communicating ideas effectively, which is an Integral part of any designing and professional domain. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: To equip the students to present themselves and their work in a professional manner. CO2: It will help identify the weak area presentations and communication of concepts and drawings. CO3: Professional speaking. CO4: Structuring a presentation. CO5: Professional presentation techniques-portfolio, models, power point presentations. | |
| 7 | Course Description | Syllabus is based on two main of criteria Visual and Communication Skills. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Introduction | |
| | | Topic A Self introduction, Topic B Any interesting topic Topic C About other topics | |
| | Unit 2 | Curriculum Vitae | |
| | | Topic A Importance of CV. Topic B Developing and preparing CV. Topic C Presentation and discussion. | |
| | Unit 3 | Group Discussion | |
| | | Group discussion on various themes or current affair. Group discussion on given themes and topics. | |
| | Unit 4 | Visual communication | |
| | | Topic A Individual representation of Theme on paper using different mediums. Topic B Individual representation after critics. Topic C Final presentation | |
| | Unit 5 | Presentation for project | |
| | | Topic A Creating a presentation to pitch for a project – basically learn to present an idea through ppt or audio visual aids. Topic B Talk about body language and dressing. Topic C Final presentation any specific project. | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE ETE |

| Distribution | 60% | 0% | 40% |
|------------------|---|----|-----|
| Text book/s* | <ul style="list-style-type: none"> Robin Williams - The Non-Designer's Design Book | | |
| Other References | <ul style="list-style-type: none"> Robin Williams - The Non-Designer's Design Book | | |

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|--|-------------------------------|--|--------------------------|
| School: SMFE | | Batch : 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 | |
| Branch: NA | | Semester: I | |
| 1 | Course Code | BDZ 108 | |
| 2 | Course Title | Representation skill-I | |
| 3 | Credits | 1 | |
| 4 | Contact Hours (L-T-P) | 0-2-0 | |
| | Course Status | Core | |
| 5 | Course Objective | This subject is designed to explore and learn the fundamental of Visual and Communication skills to develop communicating ideas effectively, which is an Integral part of any designing and professional domain. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: To equip the students to present themselves and their work in a professional manner. CO2: It will help identify the weak area presentations and communication of concepts and drawings. CO3: Professional speaking. CO4: Structuring a presentation. CO5: Professional presentation techniques-portfolio, models, power point presentations. | |
| 7 | Course Description | Syllabus is based on two main of criteria Visual and Communication Skills. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Introduction | |
| | | Topic A Self introduction, Topic B Any interesting topic Topic C About other topics | |
| | Unit 2 | Curriculum Vitae | |
| | | Topic A Importance of CV. Topic B Developing and preparing CV. Topic C Presentation and discussion. | |
| | Unit 3 | Group Discussion | |
| | | Group discussion on various themes or current affair. Group discussion on given themes and topics. | |
| | Unit 4 | Visual communication | |
| | | Topic A Individual representation of Theme on paper using different mediums. Topic B Individual representation after critics. Topic C Final presentation | |
| | Unit 5 | Presentation for project | |
| | | Topic A Creating a presentation to pitch for a project – basically learn to present an idea through ppt or audio visual aids. Topic B Talk about body language and dressing. Topic C Final presentation any specific project. | |
| | Mode of examination | Jury | |
| | Weightage Distribution | CA 60% | MTE 0% |
| | | | ETE 40% |

| | |
|-------------------------|---|
| Text book/s* | <ul style="list-style-type: none">• Robin Williams - The Non-Designer's Design Book |
| Other References | |

| | | |
|--|-----------------------|---|
| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: I |
| 1 | Course Code | BDZ120 |
| 2 | Course Title | Fundamental of Drawing-I |
| 3 | Credits | 2 |
| 4 | Contact Hours (L-T-P) | 0-0-4 |
| | Course Type | Compulsory |
| 5 | Course Objective | The objective of this course is to enable the student to learn the proper tools and techniques of producing the various types of presentation and working drawing which they will make use of in their professional career. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Use the specific tools for making technical/construction drawings. CO2: Make orthographic projections i.e. Plans Elevation Sections etc. CO3: Make isometric and axonometric projections. CO4: Understand the use of scales and measurements. CO5: Typography Basics. |
| 7 | Course Description | The course enables students to develop the co-ordination between tools and drawings. It gives a very clear method of communicating ideas and objects. 2D images of a 3D object obtained by viewing it from different orthogonal directions. Six principal views are possible and are named top, bottom, front, rear, left, and right views. However, three of the six views are Regarded as standard views. |
| 8 | Outline syllabus | |
| | Unit 1 | Introduction |
| | | Topic A Introductory class with an overview of the syllabus Topic B Explaining the significance of orthographic Projections. Topic C Projections. |
| | Unit 2 | Plan, Elevations |
| | A | Topic A Plans of cube & Cuboid Topic B Plans & Elevations of Cylinder, Cone pyramid etc. Topic C Plan Elevations of complex models need to convert from 3d to 2d. |
| | Unit 3 | Isometric projections |
| | A | Topic A Simple isometric projections of cube and cuboid Topic B Developing isometric from cylinder, cone pyramid etc. Topic C Developing isometric views from complex models |
| | Unit 4 | Scale and measurement |
| | A | Topic A:-Scale and measurement of small objects. Topic B:-Measurement of interior spaces along with heights. Topic C:-One project with overall dimensioning. |
| | Unit 5 | Axometric and Oblique |
| | A | Topic A Simple exercise for Axonometric ie Cube cuboid Topic B Converting complex forms i.e. steps,cylinder ,cone into Axonometric views Topic C Oblique projections |

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| | Mode of examination | Jury | |
| | Weightage | CA | ETE |
| | Distribution | 60% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> Architectural Drawing Book by David Dernie | |
| | Other References | <ul style="list-style-type: none"> Design Drawing Book by Frank Ching | |

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| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: I |
| 1 | Course Code | BSA104 |
| 2 | Course Title | Principles of Animation |
| 3 | Credits | 3 |
| 4 | Contact Hours (L-T-P) | 2-0-2 |
| | Course Status | Compulsory |
| 5 | Course Objective | Understand the theoretical premise of the physical laws of motion Cognitive illusion an optical Illusions Understand acting as the most crucial aspect in animation Timing is an integral part of acting and knowing its importance and relevance in animation as the most effective means to communicate Understand how shapes and objects behave and learn how to execute this behavior as a series of drawings with the right nuance and timing Ability to communicate a movement effectively in terms of form, mood, context, and timing. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1:- Discover the Law of Physics & understand the Animation Principles CO2:- Studying Shapes & Forms and Model Sheet. CO3:- Mastering the Animation 12 Principles. CO4:- Understand the Real world Behavior and Exaggeration in Animation. CO5:- Use of Tools & Principles |
| 7 | Course Description | Students will learn the core basic of Animation known as 12 Animation Principles, laid by animators of Disney studio. Students explore & learn the basic law of physics as animation principles and further apply in different kinds of animation. |
| 8 | Outline syllabus:- | |
| | Unit 1 | Materials and Forces |
| | | Topic A Laws of Motion Topic B Basic Principles of Animation Topic C Timing and Easing |
| | Unit 2 | Special Effects |
| | | Topic A Building Character from shapes Topic B Key Drawings and In-Betweening. Topic C Effects & Animation |
| | Unit 3 | Looping and Secondary Animation |
| | | Topic A Simple shapes to Complex form looping Topic B Progressive Movements Topic C Follow Through Animation |
| | Unit 4 | Complex Animation |
| | | Topic A:-Exaggeration in Animation Topic B:-Animating complex forms using lines Topic C:- Smear Frames |
| | Unit 5 | Staging Animation |
| | | Topic A:-Animating Multiple forms Topic B:-Choreography |

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| | | Topic C:-Staging of a sequence and timing | | |
| | Mode of examination | Jury | | |
| | Weightage Distribution | CA | MTE | ETE |
| | | 60% | 0% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> The Animator's Survival Kit, A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion and Internet Animators, Richard Williams, Publisher: Faber & Faber; | | |
| | Other References | <ul style="list-style-type: none"> Animation Book, Kit Laybourne, Three Rivers Press, The Animation Book: A Complete Guide to Animated Filmmaking-- From Flip-Books to Sound Cartoons to 3- D Animation, Three Rivers Press; Animals in Motion, Edward Muybridge, Publisher: Dover Publications, The Human Figure in Motion, Edward Muybridge, Publisher: Dover Publications; | | |

Semester II

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| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: II |
| 1 | Course Code | ARP102 |
| 2 | Course Title | Communicative English-II |
| 3 | Credits | 2 |
| 4 | Contact Hours (L-T-P) | 1-0-2 |
| | Course Type | Co-Requisite |
| 5 | Course Objective | To Develop LSRW skills through audio-visual language acquirement, creative writing, advanced speech et al and MTI Reduction with the aid of certain tools like texts, movies, long and short essays. |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1: Move from primary self-assessment to larger goal and vision statement realization with the help of feature length films as enablers and multimedia as language facilitators.</p> <p>CO2: To develop a positive attitude through written expression of positive thought process and outlook with the help of writing activities like story completion et al.</p> <p>CO3: Learn advanced writing skills in English like full length essays et al.</p> <p>CO4: Master the science of speech and correct pronunciation through the accent-neutralization program followed by reading sessions applying the lessons learnt.</p> <p>CO5: At this stage students will learn about Innovative Leadership and Design Thinking skills and practices along with Ethics and Integrity</p> |
| 7 | Course Description | The course takes the learning from the previous semester to an advanced level of language learning and self-comprehension through the introduction of audio-visual aids as language enablers. It also leads learners to an advanced level of writing, reading, listening and speaking abilities, while also reducing the usage of L1 to minimal in order to increase the employability chances. |
| 8 | Outline syllabus | |
| | Unit 1 | Acquiring Vision, Goals and Strategies through Audio- visual Language Texts |
| | | <p>Topic A:- Pursuit of Happiness / Goal Setting & Value Proposition in life</p> <p>Topic B:- 12 Angry Men / Ethics & Principles</p> <p>Topic C:- The King's Speech / Mission statement in life strategies & Action Plans in Life</p> |
| | Unit 2 | Creative Writing |
| | 1 | <p>Topic A:- Story Reconstruction - Positive Thinking</p> <p>Topic B:- Theme based Story Writing - Positive attitude</p> <p>Topic C:- Learning Diary Learning Log – Self-introspection</p> |
| | Unit 3 | Writing Skills 1 |
| | 1 | <p>Topic A:- Precis</p> <p>Topic B:- Paraphrasing</p> <p>Topic C:- Essays (Simple essays)</p> |
| | Unit 4 | MTI Reduction/Neutral Accent through Classroom Sessions & Practice |

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| 1 | Topic A:- Vowel, Consonant, sound correction, speech sounds, Mono-thongs, Dip-thongs and Trip thongs Topic B:- Vowel Sound drills , Consonant Sound drills, Affricates and Fricative Sounds Topic C:- Speech Sounds Speech Music Tone Volume Diction Syntax Intonation Syllable Stress |
| Unit 5 | Gauging MTI Reduction Effectiveness through Free Speech |
| 1 | Topic A:- Jam sessions Topic B:- Extempore Topic C:- Situation-based Role Play |
| Evaluations | Class Assignments/Free Speech Exercises / JAM Group Presentations/Problem Solving Scenarios/GD/Simulations (60% CA and 40% ETE |
| Text book/s* | <ul style="list-style-type: none"> • Wren, P.C. & Martin H. High English Grammar and Composition, S.Chand & Company Ltd, New Delhi. • Blum, M. Rosen. How to Build Better Vocabulary. London: Bloomsbury Publication • Comfort, Jeremy(et.al). Speaking Effectively. Cambridge University Press. • The Luncheon by W. Somerset Maugham • http://mistera.co.nf/files/sm_luncheon.pdf |
| Other References | <ul style="list-style-type: none"> • http://mistera.co.nf/files/sm_luncheon.pdf |

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| School: SMFE | | Batch : 2020-23 | | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 | | |
| Branch: NA | | Semester: II | | |
| 1 | Course Code | BSA107 | | |
| 2 | Course Title | Storytelling | | |
| 3 | Credits | 2 | | |
| 4 | Contact Hours (L-T-P) | 1-0-2 | | |
| | Course Status | Compulsory | | |
| 5 | Course Objective | Understand the Process of Ideation for Storytelling Ability to create Narrative and Non-Narrative Stories. Create Story Panels for effective storytelling. Creating Character Concepts | | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: List the effective technique of storytelling. CO2: Describe story based on genre and narrative point of view. CO3: Design a character driven stories. CO4: Create Storyboard Panels for Visual narration of story. CO5: Apply the 3 Act Structure Treatments. | | |
| 7 | Course Description | Students will learn the significance of a storytelling in animation film making. They will learn various Approaches of story writing, character development and visual presentation of the story. | | |
| 8 | Outline syllabus | | | |
| | Unit 1 | Introduction to Story Telling. | | |
| | | Topic A:- Ideation and Imagination of Storytelling Topic B:- Various mediums of Storytelling [Text, Oral, Performance, Film] Topic C:- Story Genres and audience study | | |
| | Unit 2 | Story Plot and Sub –Plots | | |
| | | Topic A:- Plot Devices Topic B:-Narrative Point of View Topic C:-Sub-Plots | | |
| | Unit 3 | Characters | | |
| | | Topic A:- Character Driven Stories Topic B:- Different Character from the Story Topic C:- Character Bible | | |
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| | Unit 4 | Environment of the Story | | |
| | | Topic A: - Character and the relation to the environment. Topic B Constructing Different events for the story Topic C:-Environment & Narratives. | | |
| | Unit 5 | Visual Narration | | |
| | | Topic A:- Single panel and multiple panel Topic B:- Dialogue Writing Topic C:- Visualization of Comics | | |
| | Mode of examination | Jury/Practical/Viva | | |
| | Weightage | CA | MTE | ETE |

| Distribution | 60% | 0% | 40% |
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| Text book/s* | <ul style="list-style-type: none"> • Story: Substance, Structure, Style and the Principles of Screenwriting Robert McKee | | |
| Other References | <ul style="list-style-type: none"> • 1-The Way of the Storyteller by Ruth Sawyer • 2-Facial Expressions: A Visual Reference for Artists Mark Simon • 3-The Animation Book: A Complete Guide to Animated Filmmaking-- From Flip-Books to Sound Cartoons to 3-D Animation, Three Rivers Press • 4-Making Comics: Storytelling Secrets of Comics Scott McCloud | | |

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| School: SMFE | | Batch : 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 | |
| Branch: NA | | Semester: II | |
| 1 | Course Code | BSA115 | |
| 2 | Course Title | 2D Digital Animation - II | |
| 3 | Credits | 3 | |
| 4 | Contact Hours (L-T-P) | 1-0-4 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Creating Symbols for animation. Creating Key frame and Staging animation. Understand rigging & Character animation Understand Layout, BG design & Pre production | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Identify the techniques in creating 2D animation CO2: Analyze timing and sequencing of Animation CO3: Apply principles of animation in scene. CO4: Analyze the Coloring in a Animation CO5: Construct a Sound & Synchronization. | |
| 7 | Course Description | Students will learn the Higher animation techniques in 2D Digital Animation-II. Students will learn Fully Rigging, staging & layer management with walking & running. This course enables a student to create his or her Animated Movies. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Flash Symbols | |
| | | Topic A:- Symbol Construction and Animation Topic B:- Rigging Symbols Topic C:- Layout Composition cycles and Holds | |
| | Unit 2 | Character Animation using Symbols | |
| | | Topic A Walk and run cycles Topic B Lip Sync Animation Topic C Creating Special Effects for Scenes | |
| | Unit 3 | Animate Background Layout | |
| | | Topic A:- Digital Ink and Paint Topic B:- Painting Techniques Topic C:- Layering Artwork for Animation | |
| | Unit 4 | Color Styles and Techniques | |
| | | Topic A Artwork Cleanup Topic B Colorization techniques | |
| | Unit 5 | Story and Gag Creation | |
| | | Topic 1 Pre-Production Topic 2 Scene Management Topic 3 Adding Sound and Exporting | |
| | Mode of examination | Jury | |
| | Weightage Distribution | CA 60% | MTE 0% ETE 40% |
| | Text book/s* | • - Adobe Flash Professional CS6 Classroom in a Book 1st Edition from Adobe Creative Team | |

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| | Other References | <ul style="list-style-type: none">• How to Cheat in Adobe Flash CS5: The Art of Design and• Animation Publications from Chris Georgenes |
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| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: II |
| 1 | Course Code | BDZ114 |
| 2 | Course Title | RESPRESENTATION SKILLS II |
| 3 | Credits | 2 |
| 4 | Contact Hours (L-T-P) | 0-2-0 |
| | Course Type | Compulsory |
| 5 | Course Objective | <p>In conjunction with design and application, the studio aims at harnessing the presentation skills of students.</p> <p>It takes the students on a journey where they explore their communication ability and comprehend its significance in practicing design.</p> <p>It brings the students a step closer to understanding the initial struggles in establishing their own practice in the recognized field of study.</p> <p>Sensitizing the students with the significance of expression and observation.</p> |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1: Describe the nature of the products and the environment as a whole.</p> <p>CO2: Compare the clients' needs and desires.</p> <p>CO3: Apply sensory awareness into the design process for clients, engineers, marketers and other stake holders.</p> <p>CO4: Compare how the product is perceived with respect to external environment as a whole.</p> <p>CO5: Construct analysis report to understand how a product is perceived by a client using his sensory inputs</p> <p>CO6: Create small experiments within cohered groups to understand human sensory perception and cognitive abilities.</p> |
| 7 | Course Description | <p>In conjunction with design and application, the studio aims at harnessing the presentation skills of students. It takes the students on a journey where they explore their communication ability and comprehend its significance in practicing design. It brings the students a step closer to understanding the initial struggles in establishing their own practice in the recognized field of study .</p> <p>Sensitizing the students with the significance of expression and observation .The students will be expected to study the reference material provided as well as finish the assignments given in the class.</p> |
| 8 | Outline syllabus | |
| | Unit 1 | Introduction |
| | A | <p>Topic A:-Introductory class with an overview of the syllabus</p> <p>Topic B:-Explaining the significance of communication and design</p> <p>Topic C:-Presenting a product they wish to sell and exhibit</p> |
| | Unit 2 | Presentation |
| | A | <p>Topic A:-Explaining students the ways of presenting a product using aPower point presentation.</p> <p>Topic B:-Making a power point presentation on a chosen brand andPresenting it in the class.</p> <p>Topic C:-Providing the students with feedback on their presentation</p> |
| | Unit 3 | Business Communication |

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| A | Topic A:-Introducing the students with the vocabulary specific to their field of study and the required skills they need to be able to talk to clients and buyers of their design. Topic B: - Exposure to the real market scenario~ Introducing the students with clients from their specific field of design and making them aware about the needs of the clients. Topic C:-Using the briefs given by the clients and prepare a prototype of the design to be presented in the class. | |
| Unit 4 | Client & PR | |
| A | Topic A:-Presentation to the client Topic B: -Client feedback as well as faculty (Facilitator) feedback. Topic C:-Introducing the students to the digital space of design which include their social media ,websites, blogs, etc. | |
| Unit 5 | | |
| A | Topic A:-Introducing the students with the significance of building aPortfolio on a digital portal. Topic B:-Create your portfolio on a digital portal Topic C:-Presentation and feedback, | |
| Mode of examination | Theory/Jury/Practical/Viva | |
| Weightage | CA | ETE |
| Distribution | 60% | 40% |
| Text book/s* | | |
| Other References | | |

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| School: SMFE | | Batch : 2020-23 | | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 | | |
| Branch: NA | | Semester: II | | |
| 1 | Course Code | BSA109 | | |
| 2 | Course Title | Digital Art | | |
| 3 | Credits | 4 | | |
| 4 | Contact Hours (L-T-P) | 2-0-4 | | |
| | Course Status | Compulsory | | |
| 5 | Course Objective | Understand the design principles used in creation of digital art. Familiarize with the terminologies and concepts for creating and manipulating digital images. To introduce the art of design in digital media. To introduce the concept and workflow to create effective design. To provide tools and techniques to create collages and photo manipulation using photographs and text. | | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Demonstrate the tools and workflow to create 2D graphics. CO2: Compare the workflow standards and different formats for graphic creation. CO3: Explore the technique to paint in digital medium. CO4: Apply digital collages and photo editing techniques in art work. CO5: Explain Photo bashing Techniques. | | |
| 7 | Course Description | Students Will Learn The Core Basic Of Digital Image Editing & Manipulation, Creating Digital Art work & Textures for future use in 3d Look development. They will also learn Design Principles and how to create info-graphics . | | |
| 8 | Outline syllabus | | | |
| | Unit 1 | Adobe Photoshop Workspace | | |
| | | Topic 1 Exploring Adobe Photoshop Environment Topic 2 Creating Vector and Bitmap Art Topic 3 Basic Photo Corrections | | |
| | Unit 2 | Digital Painting | | |
| | | Topic 1 Color Perception and Brushes Topic 2 Speed Painting Topic 3 Matte Painting | | |
| | Unit 3 | Typography Fundamentals | | |
| | | Topic 1 Fonts and Type Basics Topic 2 Typography Design and Art Topic 3 Special Effects for Typography | | |
| | Unit 4 | Ink and Painting | | |
| | | Topic 1 Colorizing and Artistic Filters Topic 2 Texture Painting Topic 3 Painting for 3D, Creating Passes | | |
| | Unit 5 | Vector Graphics Tool | | |
| | | Topic 1 Creating Vector Arts Topic 2 Vector Paths and Shapes Topic 3 Vector Brushes and Tools | | |
| | Mode of examination | Jury | | |
| | Weightage Distribution | CA | MTE | ETE |
| | | 60% | 0% | 40% |

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| | Text book/s* | <ul style="list-style-type: none">• -Adobe Photoshop CC Classroom in a Book with Access Code by ADOBE CREATIVE TEAM |
| | Other References | <ul style="list-style-type: none">• Adobe Photoshop Cs6 Bible: The Comprehensive, Tutorial Resource by Lisa Danae Dayley, Brad Dayley• The Digital Matte Painting Handbook By David B. Mattingly• Mastering Type: The Essential Guide to Typography for Print and Web Design By DeniseBosler |

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| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: II |
| 1 | Course Code | BSA113 |
| 2 | Course Title | Portfolio I |
| 3 | Credits | 2 |
| 4 | Contact Hours (L-T-P) | 0- 0 -4 |
| | Course Status | Compulsory/Elective |
| 5 | Course Objective | <p>To equip the students with the skills to present/ project their ideas, designs, audio-visual assignments with clarity.</p> <p>Introduce the basic Elements and Principles of design.</p> <p>Train students in creative, design thinking, and help them incorporate design process in their works.</p> <p>To utilize image editing, 2D Animation tools for successfully representing their ideas.</p> <p>Aim at making the portfolio in tune with the industry standards and market/client requirements.</p> |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1: To develop an understanding of storytelling techniques in traditional animation and create a show reel formats in tune with 2D animation.</p> <p>CO2: Create 2D characters and environments that reflect the integration of graphic clarity, design principles, performance principles and theoretical constructs.</p> <p>CO3: Create an animated storyboard incorporating a range of artistic styles and techniques, reflecting the principle that form follows function.</p> <p>CO4: Create animation that incorporates the basic principles of constructive anatomy and drawing using economy of expression</p> <p>CO5: Coordinate and manage the production of a student film, including the aspects of cinematography, art direction and editing.</p> |
| 7 | Course Description | <p>A portfolio for a 2D filmmaker is the basis of clients whether to hire you for their designing needs or not. Students' portfolio demonstrates their skills, expertise and talent.</p> <p>A 2D film portfolio is compulsory for 2D filmmakers as well as those running animation companies.</p> |
| 8 | Outline syllabus | |
| | Unit 1 | Pre-production: |
| | | Topic A:-Synopsis of the Story Topic B:-Script Topic C:-Story Map. |
| | Unit 2 | Character designs: |
| | | Topic A:-Character Bible, Character History, Character Traits Topic B:-Character flaws - Psychological profile. Topic C:-B/W & Coloured sketches of the story environment and other elements |
| | Unit 3 | Storyboard: |
| | | Topic A:-Complete storyboard of the script. Topic B:-Story Map & Character Designs, |

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| | | Topic C:-Concept Sketches &Coloring | | |
| | Unit 4 | Production: | | |
| | | Topic A:-Creating 2D animation Topic B:-Dialogue Topic C:-Exporting the videos. | | |
| | Unit 5 | Execution: | | |
| | | Topic A: -Editing the videos. Topic B:-Adding background, Sound & SFX. Topic C:-Taking video output. | | |
| | Mode of examination | Jury/Practical/Viva | | |
| | Weightage | CA | MTE | ETE |
| | Distribution | 60% | 0% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> • Adobe Animate CC Classroom in a Book 2018, Russell Chun • Storyboards: Motion in Art by Mark A.Simon • Pixar Storytelling: Rules for Effective Storytelling Based on Pixar's Greatest Films by Dean Movshovitz | | |
| | Other References | <ul style="list-style-type: none"> • From script to screen Book by Linda Seger | | |

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2020-21 |
| Branch: NA | | Semester: II |
| 1 | Course Code | BSA114 |
| 2 | Course Title | 3D Lab I |
| 3 | Credits | 4 |
| 4 | Contact Hours (L-T-P) | 2-0-4 |
| | Course Status | Compulsory/Elective |
| 5 | Course Objective | <p>To provide a detailed introduction to Autodesk Maya Software and helps the student understand the concepts of object in 3D space, Object creation (modeling and texturing), its observation, timing, and motion in the real art of animation and helps in creating strong and believable animation.</p> <p>The students will also understand the importance and application of Basic Rigging and Skinning.</p> <p>This course also emphasizes artistic and aesthetic creativity, intending to push the boundaries of the imagination and to familiarize students with acting, developing different kind of personality of characters and to explore character rigging for animation.</p> <p>The Course ensures that the students will be familiarized with the Maya interface and tools.</p> |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1: Study Polygon, Nurbs and Sub division modeling tools & techniques</p> <p>CO2: Describe the tools & way of Working with unwrapping complex model.</p> <p>CO3: Explain the Rigging of props, using deformer, and basic understanding of joints and control types.</p> <p>CO4: Analyze the Significance of Skinning and its techniques for various objects (prop, character, vehicles etc.)</p> <p>CO5: Create an Animation by applying its techniques, Graph editors, Spreadsheet</p> |
| 7 | Course Description | <p>This subject will provide a detailed introduction to Autodesk Maya Software, Different techniques to create 3D model, about UV process and how does it help in texturing, the importance and application of Basic Rigging and helps the student understand the concepts of observation, timing, and motion in the real art of animation and helps in creating strong and believable animation pieces.</p> <p>This subject will provide the basic understanding of 3D dynamics and particle effects.</p> |
| 8 | Outline syllabus | |
| | Unit 1 | Interface and Concept of 3D Modeling. |
| | | Topic A- Understanding 3D space, Difference between 2D and 3D. Topic B - Discover the user interface of Maya software and various elements. Topic C:-Concept of Topology |
| | Unit 2 | Introduction to Modeling Tools |
| | | Topic A -Tools and technique in modeling Topic B -Different types of geometry, nature of different meshes, Topic C: - advantage and disadvantage of different geometry. |
| | Unit 3 | Concepts of UV un-wrapping |

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| | Topic A Concepts of UV Topic B Creation of UV Topic C:-Texture for different objects |
| Unit 4 | Working with UV tools and Techniques |
| | Topic A Understanding of UV Editor and techniques in it Topic B UV unwrapping techniques for Objects Topic C Creation of textures for Objects |
| Unit 5 | Animation |
| | Topic A Applying principles of animation in 3D Topic B Using of Graph Editor and Dope sheet and techniques in it Topic C Expressions, Constraints and parenting in animation, object character interactions. Topic D Character Interaction and story telling Topic E Walk cycles, Personality and Appeal, Acting and staging. |
| Unit 6 | Rigging |
| | Topic A:- Introduction to Deformers, Nonlinear Deformers Topic B:- Types of deformers, Editing, Painting, membership and its significance Topic C:- Rigging Basics- Joints, Skin, IK and FK, Model and UV requirement |
| Unit 7 | Skinning |
| | Topic A Introduction to Smooth Binding and its concepts Topic B Introduction to Rigid Binding and its concepts Topic C Editing skin weights, pruning, normalizing. Topic D Creation and editing of joints for props and simple character |
| Mode of examination | Jury/Practical/Viva |
| Text book/s* | <ul style="list-style-type: none"> • Story: Substance, Structure, Style and the Principles of Screenwriting Robert McKee |
| Other References | <ul style="list-style-type: none"> • The Way of the Storyteller by Ruth Sawyer • Facial Expressions: A Visual Reference for Artists Mark Simon • The Animation Book: A Complete Guide to Animated • Filmmaking--From Flip-Books to Sound Cartoons to 3-D |

Semester III

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: III |
| 1 | Course Code | BSA216 |
| 2 | Course Title | 3D Animation I |
| 3 | Credits | 4 |
| 4 | Contact Hours (L-T-P) | 2-0-4 |
| | Course Status | |
| 5 | Course Objective | Learn the tools to create 3danimation. Applying principles of animation for 3DAnimation. Discover the significance of Rig and its effective use in Animation. Understand the workflow in 3D, to create animation. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1:- Learn the workspace and tools to create 3D object and character animation. CO2:- Application of techniques to creating 3D animation CO3:- Analyze timing and sequencing of Animation. CO4:- Rig Testing for Animation & workflow. CO5:- Working with Graphs. |
| 7 | Course Description | Students will learn how to use Maya software for animation. They will learn Maya Interface for animation, how to set key poses, breakdowns and In-betweens to create an animation. They will apply classical animation principles to computer animation to get quality animation as per requirement. They will learn the exploration of Graph Editor, Dope Sheet and it's editing tools. |
| 8 | | |
| | Unit 1 | Unit 1 Art of Animation |
| | | Topic A:- Importance of Classical Animation Principles Topic B:- Evolution and development of 3D Animation Topic C:- Evolution of Technology in 3DAnimation |
| | Unit 2 | Unit 2 3D Animation Workspace |
| | | Topic A:- User Interface and Navigation Topic B:- Creating Basic asset and animation Topic C:- Saving and exporting |
| | Unit 3 | Unit 3 Graph Editor |
| | | Topic A:- Key Frame manipulation Topic B:- Animation Curves Topic C:- Dope Sheets |
| | Unit 4 | Unit 4 Applying Animation Principle Stretch and Squash |
| | | Topic A:- Bouncing Ball Experiment Topic B:- Different Weight ball bounce experiment Topic C:- Application of Principles. |
| | Unit 5 | Unit 5 Applying Animation Principle Arcs and Exaggeration |
| | | Topic A:- Collision detection and animation of bouncing ball Topic B:- Pendulum animation study |

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| | Topic C:- Follow through, overlap and wave motion animation | | |
| Mode of examination | Jury | | |
| Weightage Distribution | CA | MTE | ETE |
| | 60% | 0% | 40% |
| Text book/s* | <ul style="list-style-type: none"> Introducing Autodesk Maya 2016: Autodesk Official Press | | |
| Other References | <ul style="list-style-type: none"> Maya Character Creation: Modeling and Animation Controls By Chris Maraffi | | |

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: III |
| 1 | Course Code | BSA220 |
| 2 | Course Title | 3D Lab II |
| 3 | Credits | 5 |
| 4 | Contact Hours (L-T-P) | 2-0-6 |
| | Course Status | Compulsory |
| 5 | Course Objective | <p>This Course is extension of 3D Lab I and dives into artistic and aesthetic creativity, intending to push the boundaries of the imagination, Advance tools and techniques to familiarize students with acting, developing different kind of personality of the characters and to explore character rigging for animation, expressions and particle manipulation.</p> <p>The Course ensures that the students will be familiarized with the Maya interface and tools.</p> |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1: Mastery over Polygon, Nurbs and Sub division modeling tools & techniques</p> <p>CO2: Working with unwrapping complex mo.</p> <p>CO3: Character Animation including motion of mechanics, Principles of animation.</p> <p>CO4: Rigging of Character, complex props and Vehicles</p> <p>CO5: Effects using particles like dust, fire, crowd, water spray and many more.</p> |
| 7 | Course Description | <p>This subject will provide a detailed introduction to Autodesk Maya Software, Different techniques to create 3D model, about UV process and how does it help in texturing, the importance and application of Basic Rigging and helps the student understand the concepts of observation, timing, and motion in the real art of animation and helps in creating strong and believable animation pieces. This subject will provide the basic understanding of 3D dynamics and particle effects.</p> |
| 8 | Outline syllabus | |
| | Unit 1 | Polygon, Nurbs and Sub D modeling of complex model |
| | | Topic A:- Techniques in Polygon Modeling Topic B:- Techniques in Nurbs Modeling Topic C:- Techniques in Sub division Modeling |
| | Unit 2 | UV Unwrapping |
| | | Topic A Techniques for Unwrapping a complex model. Topic B Creation of Complex materials for different surface. Topic C:- PSD Network. |
| | Unit 3 | Animation |
| | | Topic A Advanced Mechanics of Motion. Topic B Object – Character Interaction. Topic C Character – Character Interaction. |
| | Unit 4 | Rigging for Animation |
| | | Topic A:- Application of Tools and components of Rigging Topic B:- Constraints and its Application InRigging Topic C:- Tools for creating Simple to Complex Rigs |

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| Unit 5 | Dynamics and Special Effects | | |
| | Topic A:- Introduction to Deformers, Nonlinear Deformers Topic B:- Types of deformers, Editing, Painting, membership and its significance Topic C:- Rigging Basics- Joints, Skin, IK and FK, Model and UV requirement | | |
| Mode of examination | Jury | | |
| Weightage Distribution | CA | MTE | ETE |
| | 60% | 0% | 40% |
| Text book/s* | <ul style="list-style-type: none"> Story: Substance, Structure, Style and the Principles of Screenwriting Robert McKee | | |
| Other References | <ul style="list-style-type: none"> The Way of the Storyteller by Ruth Sawyer | | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 | |
| Branch: NA | | Semester: III | |
| 1 | Course Code | BSA201 | |
| 2 | Course Title | History of VFX | |
| 3 | Credits | 2 | |
| 4 | Contact Hours (L-T-P) | 2-0-0 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Analyzing early films, evolution and men who lead the way. Analyzing interesting facts about the history of VFX in cinema, how it all began and evolved. Model Hollywood – how Hollywood pioneered the change & created a new breed of profession. How the development of visual effects has changed popular cinema's vision. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1 Learn the History and Pioneers responsible for development of VFX CO2: Understand techniques used in pre-computer generation CO3: Learn the advancement and tools in computer VFX production. CO4: Camera techniques and Effects CO5: Modern Technology & VFX. | |
| 7 | Course Description | Students will learn about History of Hollywood and Indian cinema and Revolution and developments through the ages. Students will learn Different camera and visual effects and their techniques. They will get to know about legends of VFX Cinema. We look into early films, evolution and men who lead the way. Throw light on interesting facts about the history of VFX in cinema, how it all began and evolved. Model Hollywood – how Hollywood pioneered the change & created a new breed of profession. How the development of visual effects has changed popular cinema's vision. | |
| 8 | Outline syllabus | | |
| | Unit 1 | History. | |
| | | Topic a- The Evolution of Art and Theoretical Analysis Topic b- History of Hollywood and Indian Cinema using Practical Effects. Topic c- Pioneers of VFX | |
| | Unit 2 | Techniques | |
| | | Topic a- Camera Techniques Topic b- Practical Effects | |
| | Unit 3 | VFX Development | |
| | | Topic A- Rise of Computer Technology. Topic B -Software creation to cater to individual effects creation | |
| | Unit 4 | VFX in 21st Century | |
| | | Topic A- Tools and Techniques used Topic - Future of VFX in film Industry. | |
| | Mode of examination | Jury/Practical/Viva | |
| | Weightage | CA | MTE |
| | Distribution | 30% | 20% |
| | | | ETE |
| | | | 50% |
| | Text book/s* | • Digital Lighting & Rendering, Second Edition by Jeremy Birn | |

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| | | <ul style="list-style-type: none">• <u>Lighting and Rendering in Maya: Lights and Shadows</u> by Jeremy Birn |
| | Other References | <ul style="list-style-type: none">• <u>ShaderX7: Advanced Rendering Techniques</u> by Wolfgang Engel (Mar 12, 2009)• <u>Advanced Lighting and Materials with Shaders</u> by Kelly Dempski and Emmanuel Viale (Oct 31, 2004) |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 | |
| Branch: NA | | Semester: III | |
| 1 | Course Code | BSA217 | |
| 2 | Course Title | Film Appreciation & Analysis | |
| 3 | Credits | 2 | |
| 4 | Contact Hours (L-T-P) | 2-0-0 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Understand the process involved in analyzing films through language and grammar. Understand history of cinema and its various genres and their evolution. Analyze films based on study and create documentation of feedback. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Analyze films based on content and provide feedback and critique. CO2:- Learn to appreciate films based on film making and process. CO3:- Learn the art of cinematography CO4: Editing and the techniques involved in film making. CO5: Contemporary Film Making- | |
| 7 | Course Description | Students will learn Evolution of Cinema, Film Grammar & Language, and Elements of Film Making and apply these into Animation Film Making. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Unit 1 History of Cinema | |
| | | Topic A Silent and sound films Topic B Techniques invented during early stage of cinema. Topic C Early Hollywood directors and Studios | |
| | Unit 2 | Study of Film Genres | |
| | | Topic A Genre types and their styles Topic B Film Noir Topic C New Age Genres of films | |
| | Unit 3 | Unit 3 Film Grammar and Language | |
| | | Topic A Mise-En-scene Topic B Color Design and Symbolism in Sets Topic C Acting and types of Acting | |
| | Unit 4 | Unit 4 The Art of Cinematography | |
| | | Topic A Color – contrast and light Topic B Framing and Different types of Camera shots Topic C Different types of Camera Movements | |
| | Unit 5 | Unit 5 The Art of Presentation – Editing | |
| | A | Topic A:-Editing Devices, Cut types and Transitions ,Shot framing Topic B:-Sound – Diegetic and Nondiegetic Sound Topic C:-Case Studies | |
| | Mode of examination | Theory/Jury/Practical/Viva | |
| | Weightage | CA | MTE |
| | Distribution | 30% | 20% |
| | Text book/s* | | |
| | Other References | | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 | |
| Branch: NA | | Semester: III | |
| 1 | Course Code | BSA204 | |
| 2 | Course Title | Photography | |
| 3 | Credits | 3 | |
| 4 | Contact Hours (L-T-P) | 1-0-4 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Impart knowledge in Photography as an artistic medium. Understand the tools and techniques of Photography Create effective storytelling through photography. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1:- Use the camera to capture artistic imagery. CO2:- Apply techniques to create unique photography style. CO3:- Analyze the photography through technical information CO4:- Understanding Photography for VFX. CO5:- Modern Accessories for VFX Photography- | |
| 7 | Course Description | Students Will Learn The Core Basic of Digital Photography, effects of lights and its artistic arrangement. It will helpful for them in creating VFX environment, Matte painting etc, | |
| 8 | Outline syllabus | | |
| | Unit 1 | History of Photography | |
| | | Topic A:-Principle of Camera Obscure Topic B:-Photography artist study Topic C:-Aesthetics study of photography in documentary and creative photography. | |
| | Unit 2 | Characteristics of Light | |
| | | Topic A:- Light Spectrum and color Temperature Topic B:-Camera structure and their functions Topic C:-Camera Lenses and their types | |
| | Unit 3 | Lighting Techniques | |
| | | Topic A:-Indoor and Outdoor light study Topic B:-Light Kits and Reflectors Topic C:-Light study through Black and White Photography. | |
| | Unit 4 | Accessories used in Photography | |
| | | Topic A:- Exposure and Controls TopicB:-Flash and Lighting Topic C:-Other Accessories. | |
| | Unit 5 | Creative Photography | |
| | | Topic A:- Macro Photography Topic B:- Light Painting and Freeze Frame Photography Topic C:- HDRI and Panoramas | |
| | Mode of examination | Jury/Practical/Viva | |
| | Weightage | CA | MTE |
| | Distribution | 60% | 0% |
| | Text book/s* | <ul style="list-style-type: none"> Digital Photography Step by Step - Tom, Ang | |
| | Other References | <ul style="list-style-type: none"> The Complete Digital SLR Handbook: Master Your Camera to Take Pictures Like aPro | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 | |
| Branch: NA | | Semester: III | |
| 1 | Course Code | BSA218 | |
| 2 | Course Title | Study of Anatomy | |
| 3 | Credits | 2 | |
| 4 | Contact Hours (L-T-P) | 1-0-2 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Impart knowledge on Human body and its structural function. Apply the knowledge in creating characters in 3D and 2D Understanding Rigging in Anatomy Study. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Describe the Anatomy knowledge in creating animation. CO2: Understand stylized characters using the anatomy study. CO3: Apply anatomy to create unique creatures for animation CO4: Connect Anatomy and Rigging in Animation CO5: Create Anatomy for Facial Rigging. | |
| 7 | Course Description | This subject will provide a overview of Artistic Human Anatomy , Deformation of human form during various activity. it helps in 3D modeling in more realistic way and rigging as well, | |
| 8 | Outline syllabus | | |
| | Unit 1 | Anatomy Study | |
| | | Topic A:- Size and Proportions of Body and Face Topic B:- Bone Structure – Body and Head Topic C:- Bone Structure – Hands and Legs | |
| | Unit 2 | Muscle Study | |
| | | Topic A Types of Muscles Topic B:- Muscle Names Topic C:-Muscle Movements | |
| | Unit 3 | Life Study | |
| | | Topic A:- Gesture Drawings – Still Topic B:- Gesture Drawings –Moving Topic C:- Gesture Drawings –Action Poses | |
| | Unit 4 | Portrait Study | |
| | | Topic A Single Tone Drawing Topic B Two Shade Drawing Topic B 5/9 Shade Drawing | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE |
| | Distribution | 60% | 0% |
| | Text book/s* | <ul style="list-style-type: none"> Anatomy and Drawing By Victor Perard | |
| | Other References | <ul style="list-style-type: none"> Figure Study Made Easy Paperback – by Aditya Chari (Author) Portrait Techniques Made Easy Paperback by Aditya Chari (Author) | |

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: III |
| 1 | Course Code | BSA219 |
| 2 | Course Title | Drawing for Animation |
| 3 | Credits | 2 |
| 4 | Contact Hours (L-T-P) | 1-0-2 |
| | Course Status | Compulsory |
| 5 | Course Objective | <p>To develop a keen sense of observation of the world – how to see Meaning and interpretation</p> <p>Develop an understanding of the methods and processes involved in drawing for animation; and develop craft skills to communicate through drawing for any context. This is important as drawing remains central to the art of animation</p> <p>Develop an ability to understand materials, behavior, and movement of objects. Understand kinetics and learn to recreate structure, force, and body language of any subject/object on a two-dimensional surface. Know how to interpret from the real world for representation</p> <p>Develop methods to record the motion of objects with their inherent qualities as a series of static positions</p> <p>The most critically the course encourages the student to pursue the skill that each individual has and apply these skills to execute the assignments in the course. For example, some students may be technically inclined and should be encouraged to work with precision, others might have an inclination towards an expressionistic style, and yet others that may be extremely spontaneous and find comfort in doodling. This too should be encouraged as long as their work communicates effectively.</p> |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1: Describe Drawing knowledge in graphical representation of scene and character.</p> <p>CO2: Summarize unique style of drawing to represent art.</p> <p>CO3: Apply and Blend different techniques to create style.</p> <p>CO4: Categorize the Blending Animation Elements in Drawing.</p> <p>CO5: Create Golden Poses with Line of Action.</p> |
| 7 | Course Description | This subject will provide a correct approach of drawing to be utilized in animation industry. It teaches Line of Action, Weight, Balance and exact drawing approach for animation. |
| 8 | Outline syllabus | |
| | Unit 1 | Drawing Basics |
| | | Topic A:-Line and Shape Study Topic B:-Representing 2D geometry Topic C:-Texture and Surface study |
| | Unit 2 | Light and Shadow |
| | | Unit 2 Topic A Impact of light on subject Unit 2 Topic B Representing Light and Shadow in Drawing Unit 2 Topic C Surface quality and drawing |
| | Unit 3 | Human figure Drawing |
| | | Unit 3 Topic A Proportion and volume study Unit 3TopicB Body Language and |

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| | | Movement | | |
| | Unit 4 | Drawing from Nature | | |
| | | Unit 4 Topic A Location Drawing and representing nature [Trees, Plants, Birds and Animals] | | |
| | | Unit 4 Topic B Exaggeration and drawing from Imagination | | |
| | Mode of examination | Jury | | |
| | Weightage | CA | MTE | ETE |
| | Distribution | 60% | 0% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> Anatomy and Drawing By Victor Perard | | |
| | Other References | <ul style="list-style-type: none"> Figure Study Made Easy Paperback – by Aditya Chari (Author) Portrait Techniques Made Easy Paperback by Aditya Chari (Author) | | |

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: III |
| 1 | Course Code | BDC 216 |
| 2 | Course Title | Environmental Science |
| 3 | Credits | 3 |
| 4 | Contact Hours (L-T-P) | (3-0-0) |
| | Course Type | Compulsory |
| 5 | Course Objective | Identify and understand basic aspects, practices and terminology related to environment. The aim of the course is to develop an understanding among students about environmental studies and its implications in design. Developing an attitude of concern for the environment. Emphasize the importance of sustainable development. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1. Students will be able to identify the human activities and manufacturing processes affecting environment and design. CO2 Students will develop awareness about environmental problems among people. CO3 Demonstrate competency in developing environment friendly designs in their specific fields. CO4. Students will start demonstrating an ability to integrate the many design disciplines intersect with environmental concerns. CO5:- Eco Friendly material & Design. |
| 7 | Course Description | Environmental studies are the scientific study of the environmental system and the status of its inherent or induced changes on organisms. It includes not only the study of physical and biological characters of the environment but also the social and cultural factors and the impact of man on environment. |
| 8 | Outline syllabus | |
| | Unit 1 | Introduction to Environment & Ecology |
| | A | Environmental pollution and its types. Effect of human population and natural resources over design. Introduction –Manufacturing processes and its effects over environment |
| | Unit 2 | Introduction to ecological design |
| | A | Ecological design process |
| | B | Make nature visible through design |
| | C | Natural products |
| | Unit 3 | 3Rs – Reduce, Reuse, Recycle |
| | A | Renewable energy sources |
| | B | Recycled products |
| | C | Recycled products |
| | Unit 4 | Code of Conduct and role of Agencies |
| | A | Introduction to Code of conduct |
| | B | Governing and regulatory bodies for Environment |
| | C | Governing and regulatory bodies for Environment |

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| | Unit 5 | Sustainable Classroom Project | | |
| | A | Case study and its new proposal. | | |
| | B | Research – Market and Virtual | | |
| | C | Modeling and documentation | | |
| | Mode of examination | Jury | | |
| | Weightage | CA | MTE | ETE |
| | Distribution | 30% | 20% | 50% |
| | Text book/s* | | | |
| | Other References | | | |

Semester: IV

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| School: SMFE | | Batch : 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: IV |
| 1 | Course Code | BSA224 |
| 2 | Course Title | 3D Animation II |
| 3 | Credits | 4 |
| 4 | Contact Hours (L-T-P) | 1-0-6 |
| | Course Status | Compulsory |
| 5 | Course Objective | Learn the tools to create 3d animation. Applying principles of animation for 3D Animation. Discover the significance of Rig and its effective use in Animation. Understand the workflow in 3D, to create animation. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1:- Application of techniques to creating 3D animation CO2:- Analyze timing and sequencing of Animation. CO3:- Learn the workspace and tools to create 3D object and character animation. CO4:- Body Mechanics CO5:- Creating life like animation. |
| 7 | Course Description | Students will learn how to use Maya software for animation. They will learn Maya character animation, how to set key poses, breakdowns and In-betweens to create an animation. They will learn about Acting Skill, Graph Editor, Dope Sheet and it's editing tools. |
| 8 | | |
| | Unit 1 | Unit 1 Animation Principle in 3D |
| | | Topic A Posing and Blocking Topic B Key frame and Easing Topic C Facial Animation Basics |
| | Unit 2 | Unit 2 Graph Editor |
| | | Topic A:- Controlling Animation using Graph Editor Topic B:- Interpolation and Looping Topic C:- Key frame Graph Management |
| | Unit 3 | Unit 3 Path Animation |
| | | Topic A: - Visualizing the movement of camera and creating paths. Topic B:- Camera Parameters Topic C:- Manipulating Path Animation |
| | Unit 4 | Unit 4 Character Animation |
| | | Topic A:- Character Poses [Normal and Extreme] Topic B:- Character age and skills study [Martial Artist, Dancer etc] Topic C:- Weight & balance |
| | Unit 5 | Unit 5 Basic Body Mechanics and Motion |
| | | Topic 1 Walk cycles with personality Topic 2 Study of character weight and balance Topic 3 Character hip Movement study [Dance, Climbing a wall. Etc] |
| | Mode of | Jury |

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| | examination | | | |
| | Weightage | CA | MTE | ETE |
| | Distribution | 60% | 0% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> Introducing Autodesk Maya 2016: Autodesk Official Press | | |
| | Other References | <ul style="list-style-type: none"> Maya Character Creation: Modeling and Animation Controls By Chris Maraffi | | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 | |
| Branch: NA | | Semester: IV | |
| 1 | Course Code | BSA209 | |
| 2 | Course Title | Storyboarding | |
| 3 | Credits | 2 | |
| 4 | Contact Hours (L-T-P) | 1-0-2 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | To impart skills on script, story writing and visualization for Animation Films and the ability to plan for animation film. Visualization of story through storyboards. To provide technical information in Camera and framing and continuity in storytelling. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Visual story telling techniques. CO2: Development of Story boarding and its techniques. CO3: Storyboarding for different medium. CO4: Animatic Pre-Visualization CO5:- Technical Aspects of Storyboarding. | |
| 7 | Course Description | Students will learn the significance of a storyboarding in animation film making. They will learn from Story Ideation, Pre-Visualization to Final Storyboards during the course. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Story telling in Visual form | |
| | | Topic A:- History of Storytelling Topic B:- Development of story ideas in a visual form Topic C:- Formats of Storyboards | |
| | Unit 2 | Storyboard | |
| | | Topic A:-Function of Storyboard. Topic B:- Storyboards for Animation Topic C:- | |
| | Unit 3 | Cinematography and Storyboarding | |
| | | Topic A Aspects of Story Board Topic B Advanced Story boarding Techniques Topic C | |
| | Mode of examination | Jury/Practical/Viva | |
| | Weightage Distribution | CA 60% | MTE 0% |
| | | | ETE 40% |
| | Text book/s* | <ul style="list-style-type: none"> Storyboards: Motion in Art, Third Edition [Paperback] by Mark A. Simon(Author) Framed Ink: Drawing and Composition for Visual Storytellers [Paperback] Marcos Mateu-Mestre(Author, Artist), Jeffrey Katzenberg | |
| | Other References | <ul style="list-style-type: none"> The Art of the Story Board by JohnHart Writing and Illustrating the Graphic Novel: Everything You Need to Know to Create Great Work and Get It Published [Paperback] Daniel Cooney(Author) | |

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: IV |
| 1 | Course Code | BSA212 |
| 2 | Course Title | CG Compositing Techniques |
| 3 | Credits | 3 |
| 4 | Contact Hours (L-T-P) | 1-0-4 |
| | Course Status | Compulsory |
| 5 | Course Objective | <p>The course introduces to the History of compositing and its various elements.</p> <p>To familiarize the students in Advanced In-Depth Compositing Complete Hands of Layer management and it efficient usage.</p> <p>Application of Lighting in Compositing and various elements involved in it.</p> <p>Creating video art for various application's like music, dance, media, automation and interactive film.</p> |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1:- Discover the significance of fundamentals of Compositing.</p> <p>CO2:- Application of Layers, Lighting, Keying, Tracking and stabilization for Various visual elements.</p> <p>CO3:- Appraise the strategies for techniques in compositing.</p> <p>CO4:- Analyze the significance of various elements in compositing.</p> <p>CO5:- Composing for Video Art namely music, automation, and media.</p> |
| 7 | Course Description | Students Will Learn The Core Basic Of Digital Image Editing & Manipulation, Creating Digital Art work & Textures for future use in 3d Look development. They will also learn Design Principles and how to create info- graphics. |
| 8 | Outline syllabus | |
| | Unit 1 | History of Compositing Topic A-Introduction to Compositing and its application. Topic B -To learn different types and process in Compositing. Topic C-Significance of camera in capturing visual information. |
| | Unit 2 | Digital Image Topic A:- Introduction to various Elements in Digital Imagery. Topic B:-Application of various features in Digital Imagery. Topic C:-Digital Imagery & Effects |
| | Unit 3 | Layers Topic A Working principle of Compositing. Topic B Significance of Keying and its application Topic C Significance of Tracking and its application |
| | Unit 4 | Lighting and Composition Topic A Lighting in composition Topic B Layers and Image control in compositing Topic C Animation in Composition |
| | Unit 5 | Video Art Topic A Discovery of Video Art Topic B Techniques in Video Art |

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| | | Topic C Application of Video Art | | |
| | Mode of examination | Jury/Practical/Viva | | |
| | Weightage Distribution | CA | MTE | ETE |
| | | 60% | 0% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> Compositing Visual Effects – Essentials for aspiring artists - Steve Wright | | |
| | Other References | <ul style="list-style-type: none"> Compositing Digital Images - T. Porter and T. Duff I Proceedings of SIGGRAPH '84, 18 (1984) I The Art and Science of Digital Compositing - Ron Brinkmann Wright's Compositing Visual Effects: Essentials for the Aspiring Artist [Paperback] 2007) - Paperback (2007)- S.Wright | | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 | |
| Branch: NA | | Semester: IV | |
| 1 | Course Code | BSA221 | |
| 2 | Course Title | Character & BG Design | |
| 3 | Credits | 2 | |
| 4 | Contact Hours (L-T-P) | 1-0-2 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Understanding the symbiotic relationship in order to be able to conceptualize and visualize personalities and locations for animated films. Sensitizing students to the world we live in and develop a keen sense of observation of human behavior and their worlds. Body language and how we communicate – between persons and individually, between persons and the animal world, between the human and the object world, between real and the imagined – behavior. Visualizing the geography of the environment in which the characters perform. To explore the development of characters and personalities and their environments for imaginary worlds and establish relationships between the imagined characters and the worlds that they inhabit. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: This module enables the learner to Design the Character and its development process, CO2: different character types, its importance in storytelling. CO3: This module enables the learner to Design the Environment, its development and the final result of the content with the camera aspect in the film. CO4: Analyzing the Character and Environment integration, the dynamics between them, and its influence on each other. CO5: Creating & Developing New "Avatars" for various fields like Film, Game, TV, E-Learning etc. | |
| 7 | Course Description | This subject will provide a detailed introduction about approach and techniques to design a character, prop or an environment, process of development as per story requirement. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Character Development | |
| | | Topic 1 Character Bible and Design Topic 2 Anthropomorphic Character Topic 3 Costume, Props and Handouts | |
| | Unit 2 | Environment Development | |
| | | Topic 1 Need for Building Environment for Characters Topic 2 Geography, Environment, Situation of the story | |
| | Unit 3 | Pre-Visualization | |
| | | Topic 1 Character and Environment Integration Topic 2 Rendering Topic 3 Camera Movement | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE |
| | Distribution | 60% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> Force - Character Design from Life Drawing- Michael D Mattesi | |

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| | | <ul style="list-style-type: none">• Ideas for the Animated Short - Karen Sullivan and Gary Schumer |
| | Other References | <ul style="list-style-type: none">• Animation Techniques - Roger Noake, Publisher: Booksales,• Cartooning: The Ultimate Character Design Book- |

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: IV |
| 1 | Course Code | BSA211 |
| 2 | Course Title | Lighting and Rendering |
| 3 | Credits | 3 |
| 4 | Contact Hours (L-T-P) | 2-0-2 |
| | Course Status | Compulsory |
| 5 | Course Objective | The Objective of this module is to help students understand, the implementation process of lighting in the virtual world with reference to the real world. The Learner will be able to use Different lights, shader and shape node data. Using the entire render engine that is native to Maya. Will be able to implement Lighting techniques employed in studio. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Discover the significance of light and surface properties in real life and CG. CO2: Evaluate the role of different elements in CG lighting and shading. CO3: Appraise the strategies for tools and techniques for Lighting in CGI for production CO4: Lighting a Scene for outdoor, indoor, and character mimicking realism from nature. Compose a visual expression for artwork for real world and CGI Integration. CO5- Compose a visual expression for artwork for real world and CGI Integration. |
| 7 | Course Description | Discover the significance of light and surface properties in real life and CG. Evaluate the role of different elements in CG lighting and shading. Appraise the strategies for tools and techniques for Lighting in CGI for production. Lighting a Scene for outdoor, indoor, and character mimicking realism from nature. Compose a visual expression for artwork for real world and CGI Integration. |
| 8 | Outline syllabus | |
| | Unit 1 | Materials and Surface properties. Topic A- Light and Surface properties Topic B- Material development with shaders. Topic C- Advanced shader and development in mental ray. |
| | Unit 2 | Light Theory Topic A- Understanding Light Topic B- Light & Color Topic C-Composition and Aesthetics |
| | Unit 3 | Lighting in CGI Topic A-Lighting tools and technique in Maya. Topic B-Render engine's in Maya. Topic C- Types of Lighting in Maya. |
| | Unit 4 | Mental Ray Rendering Topic A- Indirect Lighting Techniques Topic B-Advanced Lighting Techniques. |

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| | Topic C- CGI v/s Real World. | | |
| Mode of examination | Jury/Practical/Viva | | |
| Weightage | CA | MTE | ETE |
| Distribution | 60% | 0% | 40% |
| Text book/s* | <ul style="list-style-type: none"> Digital Lighting & Rendering, Second Edition by Jeremy Birn Lighting and Rendering in Maya: Lights and Shadows by Jeremy Birn | | |
| Other References | <ul style="list-style-type: none"> ShaderX7: Advanced Rendering Techniques by Wolfgang Engel (Mar 12, 2009) Advanced Lighting and Materials with Shaders by Kelly Dempski and Emmanuel Viale (Oct 31, 2004) | | |

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: IV |
| 1 | Course Code | BSA222 |
| 2 | Course Title | Cinematography |
| 3 | Credits | 2 |
| 4 | Contact Hours (L-T-P) | 1-0-2 |
| | Course Status | Compulsory |
| 5 | Course Objective | Discover the concept of Art of Cinema Allows students to learn, observe, analyze and visualize editing Tools and Techniques. Analyze the Use, types, working and application of camera and its accessories. Appraise the various elements of cinematography and camera Layout. |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1:- Discover the significance of Cinematography. CO2:- Analyze the role of Editing and its techniques in cinematography. CO3:- Discover the role of Camera and its techniques in cinematography. CO4:- Analyze the Concepts of camera in Cinematography. CO5:- Evaluate camera in Action: Camera Movement, Angles and Composition for Cinematography. CO6:- Distinguish the significance of 3D and Live action camera for shoot. |
| 7 | Course Description | This subject gives discover the role of Camera and its techniques in cinematography and introduces cinematography students to the language and craft of directing. From screenplay analysis to shot composition, students learn how Directors and Cinematographers collaborate to achieve a complete vision. |
| 8 | Outline syllabus | |
| | Unit 1 | The Art of Cinema |
| | | Topic A-Discover the basic elements of Cinematography. Topic B-To learn, observe, analyzing, and Case study Alfred Hitchcock. Topic C-Discover significance of visual narration and various Visual Devices in narration. |
| | Unit 2 | The Art of Presentation |
| | | Topic A:-Concept of Editing and its Application Topic B:-Discovering Editing Tools and Techniques. Topic C:-Art of Aesthetic of Editing |
| | Unit 3 | Introduction of Camera |
| | | Topic A Introduction of Camera, types, and its properties. Topic B Human eye vs. Camera Topic C Working of a Camera |
| | Unit 4 | Principles and Concepts of Camera |
| | | Topic A:- Discover the Principles of Camera Topic B: - Significance of Concepts of Camera. Topic C:-Perspective, Lighting and shading in Outdoor and Indoor study. |
| | Unit 5 | Cinematography |
| | | Topic A Principles and Concepts of Cinematography Topic B Significance of Camera Shots and its types Topic C Concept of Digital Cinematography |

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| Unit 6 | Camera Movement | | |
| | Topic A Working of Camera Angles Topic B Working of Camera motion. Topic C Working of Camera Accessories | | |
| Mode of examination | Jury | | |
| Weightage | CA | MTE | ETE |
| Distribution | 60% | 0% | 40% |
| Text book/s* | <ul style="list-style-type: none"> Kris Malkiewicz, M. David Mullen, Cinematography: Third Edition-2005 | | |
| Other References | <ul style="list-style-type: none"> Joseph V. Mascelli, The Five C's of Cinematography: Motion picture filming techniques. Blain Brown, Cinematography: Theory and Practice: Image making for Cinematographers, Directors & Videographers, Focal Press, 2002 | | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 | |
| Branch: NA | | Semester: IV | |
| 1 | Course Code | BSA223 | |
| 2 | Course Title | Material Animation | |
| 3 | Credits | 2 | |
| 4 | Contact Hours (L-T-P) | 1-0-2 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | To introduce various techniques and styles of Animation. To provide the students hands on experience of simple ideas for Animation using the materials available in the immediate surroundings | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1:- Discover the significance of Material Animation. CO2:- Analyze different techniques available in Material Animation. CO3:- Working of different process and methods of Material Animation. CO4:- Creation of Material Animation film from preferred medium. CO5:- Digital Tools & material Animation. | |
| 7 | Course Description | This subject gives opportunity to explore various possible material to create animated storytelling. From exploring the material, it's potential use in animation, students learn how tell a story through a non- traditional medium. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Introduction to Material Animation | |
| | | Topic 1 Introduction to Material Animation. Topic 2 Different Style and techniques in material animation. Topic 3 Popular material animation and other techniques. | |
| | Unit 2 | Different Techniques | |
| | | Topic 1 Different Techniques Available for Material Animation. | |
| | Unit 3 | Process and methods of Material Animation | |
| | | Topic 1 Visualization of Material Animation. Topic 2 Production process for Method. | |
| | Unit 4 | Material Animation in Action | |
| | | Topic A Story and Preproduction for Material Animation Film Topic B Identification and Execution of Material Animation Film Topic C Post Production of Material Animation Film | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE |
| | Distribution | 60% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> The Advanced Art of Stop-Motion Animation by Ken A. Priebe - I Publisher: Course Technology, June 17, 2010 I Basics Animation 04: Stop-motion by Barry Purves -I Publisher: AVR Publishing, April 26, 2010 I | |
| | Other References | <ul style="list-style-type: none"> Cracking Animation: The Aardman Book of 3-D Animation (Third Edition) by Peter Lord - Publisher Thames &Hudson, November 30, 2010I | |

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| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2021-22 |
| Branch: NA | | Semester: IV |
| 1 | Course Code | BSA215 |
| 2 | Course Title | Portfolio II |
| 3 | Credits | 2 |
| 4 | Contact Hours (L-T-P) | 0- 0 -4 |
| | Course Status | Compulsory/Elective |
| 5 | Course Objective | <p>To equip the students with the skills to present/ project their ideas, designs, audio visual assignments with clarity.</p> <p>Introduce the basic Elements and Principles of design</p> <p>Train students in creative and design thinking and help them incorporate design process in their works.</p> <p>To utilize image editing, Animation and VFX tools for successfully representing their ideas.</p> <p>Aim at making the portfolio in tune with the market/ client requirements.</p> |
| 6 | Course Outcomes | <p>After the completion of this course, the student will be able to</p> <p>CO1: To develop an understanding of storytelling in CG medium, and compile a show reel this is in tune with the Animation and VFX industry requirements.</p> <p>CO2: To sensitize and develop an understanding of visual metaphors which would enable the student to use various emotive qualities and symbolism in their works.</p> <p>CO3: To develop an insight into vocabulary of visual language and design.</p> <p>CO4: To be able to design assets using image editing, animation and VFX tools.</p> <p>CO5: Effective presentation of student's show reel.</p> |
| 7 | Course Description | <p>Portfolio will give the student the ability to understand and effectively apply Storytelling, design and technology to one's assignments, learn to publish their work and create something exclusively for their portfolios.</p> <p>This would not only provide an opportunity for students to stand out in the ever competitive burgeoning CG industry but would also give them through understanding of full 3D Animation.</p> |
| 8 | Outline syllabus | |
| | Unit 1 | <p>Pre-production:</p> <p>Topic A-Synopsis of the Story –</p> <p>Topic B Script</p> <p>Topic C Story Map</p> |
| | Unit 2 | <p>Character designs:</p> <p>Topic A-Character Bible - Character History</p> <p>Topic B- Character Traits - Character flaws Psychological profile.</p> <p>Topic C-B/W & Colored sketches of the story environment and other elements.</p> |
| | Unit 3 | <p>Story Board –</p> <p>Topic A Complete storyboard of the script.</p> <p>Topic B Story Map is must. Character Designs Topic C- Concept Sketches & Colored</p> |

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| Unit 4 | Production : Topic A:-3D animation shot BG sets and props Topic B Dynamic simulation snaps Shots Topic C Texturing & Lighting Snap shots | | |
| Unit 5 | Post- production : Compositing & Editing | | |
| Mode of examination | Jury/Practical/Viva | | |
| Weightage Distribution | CA | MTE | ETE |
| | 60% | 0% | 40% |
| Text book/s* | <ul style="list-style-type: none"> • Storyboards: Motion in Art by Mark A.Simon • Pixar Storytelling: Rules for Effective Storytelling Based on Pixar's Greatest Films by DeanMoyshovitz • The Ultimate Concept Art Career Guide by 3dtotalPublishing | | |
| Other References | <ul style="list-style-type: none"> • Creating Stylized Characters Paperbackby 3dtotalPublishing | | |

Semester: V

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2022-23 | |
| Branch: NA | | Semester: V | |
| 1 | Course Code | BSA301 | |
| 2 | Course Title | Sound Design | |
| 3 | Credits | 3 | |
| 4 | Contact Hours (L-T-P) | 1-0-4 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Understand the technical aspects of producing and recording sounds. Create Foleys and effects sounds using analog and digital techniques. Understand the workflow used to producing and mastering sounds. Export sound output to various Medias. Establishing an environment Helping to tell a story, Defining mood, Rhythm and style Aiding flow of action. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1 -Discover the significance of Sound and its Application. CO2 -Analyze different techniques in Sound editing. CO3 -Utilizing equipment in recording, Music Production. CO4 -Recording of sound for different application. CO5 - Learn the Application techniques for Edit, Effects, mixing and managing. CO6 - Designing sound for Region specific sounds. | |
| 7 | Course Description | Students will learn about "Sound" the one of the important element of animation film making. They will Understand the technical aspects of producing and recording sounds, Create Foleys and effects sounds using analog and digital techniques. | |
| 8 | Outline syllabus | | |
| | Unit 1 | History. | |
| | | Unit 1 Topic A-Fundamental of sound and sound Design. Unit 1 Topic B-Art and Techniques of sound editing. Unit 1 Topic C-Sound equipment and their significance. | |
| | Unit 2 | Recording Techniques | |
| | | Unit 2 Topic A-Recording and Music Production Techniques Unit 2 Topic B-Fundamentals of Digital Audio | |
| | Unit 3 | Sound Editing Application | |
| | | Unit 3 Topic A-Customizing workspace Unit 3 Topic B-Extracting audio clips Unit 3 Topic C-Foley sound recording | |
| | Unit 4 | Sound Editing Techniques | |
| | | Unit 4 Topic A-Editing properties of sound Unit 4 Topic B-Mixing and Effects for sound. Unit 4 Topic C-Managing of sound files. | |
| | Unit 5 | Designing of Sound | |
| | | Unit 5 Topic A-The psychology of sound Unit 5 Topic B-Crating Memorable Sounds Unit 5 Topic C-Region specific sounds | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE ETE |

| Distribution | 60% | 0% | 40 |
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| Text book/s* | <ul style="list-style-type: none"> • Sound Design: The Expressive Power of Music, Voice and Sound Effects in Cinema by David Sonnenschein - 2002 • The Sound Effects Bible: How to Create and Record Hollywood Style Sound Effects by RicViers(Oct 1, 2008) | | |
| Other References | <ul style="list-style-type: none"> • The Animator's Eye: Adding Life to Animation with Timing, Layout, Design, Color and Sound by Francis Glebas(Sep 24,2012) • Designing Sound by Andy Farnell(Aug 20,2010) | | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2022-23 | |
| Branch: NA | | Semester: V | |
| 1 | Course Code | BSA302 | |
| 2 | Course Title | Motion Graphics | |
| 3 | Credits | 4 | |
| 4 | Contact Hours (L-T-P) | 1-0-6 | |
| | Course Status | | |
| 5 | Course Objective | Familiarize the tools and techniques to create Motion graphics and effects Learn Problem solving techniques to rectify the errors during the process Create content for broadcast, feature film and animation. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1 -The Scope of Motion Graphics for different media. CO2 -Analyze different tools and techniques in Motion Graphics. CO3 -Utilizing tools to create effects in Motion Graphics. CO4 -Discover the significance of motion theory in Motion Graphics. CO5 -Learn the Application techniques for Animation, Editing, and Effects. | |
| 7 | Course Description | The Purpose of the course is to provide the knowledge of creating Info-Graphics, Broadcast Animation or Motion Graphics by applying the acquired knowledge of Animation & Effects Creation. | |
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| | Unit 1 | Introduction to Motion graphics | |
| | | Topic 1 History of Motion Graphics. Topic 2 Evolution of Motion Graphics. Topic 3 Ideation of Motion graphics in Film titles and television | |
| | Unit 2 | Scope | |
| | | Topic 1 Possible areas for implementation of Motion graphics Topic 2 Possible areas for implementation of Motion graphics | |
| | | Topic 1 Possible areas for implementation of Motion graphics Topic 2 Possible areas for implementation of Motion graphics | |
| | Unit 3 | Tools and Techniques | |
| | | Topic 1 Tools and Techniques in software Topic 2 Integration of different software for motion graphics. | |
| | Unit 4 | Effects in Motion Graphics | |
| | | Topic 1-Variety Effects in Motion Graphics like particle, light, flare and typography | |
| | Unit 5 | Motion Theory | |
| | | Topic 1- Different types of Motion theory | |
| | Unit 6 | Animation in Motion Graphics | |
| | | Topic 1 Significance of Visual Properties Topic 2 Types of Animation in Motion Graphics | |
| | Unit 7 | Editing | |
| | | TOPIC 1- Techniques in Editing | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE |
| | Distribution | 60% | 40% |

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| | Text book/s* | <ul style="list-style-type: none"> • Creating Motion Graphics with After Effects: Essential and Advanced Techniques, 5th Edition, Version CS5 - Chris Meyer, Publisher: focal Press, June 18, 2010 • Nuke 101: Professional Compositing and Visual Effects- • Ron Ganba, Publisher: Peachpit Press; 1 edition(April 23,2011) |
| | Other References | <ul style="list-style-type: none"> • The Art and Science of Digital Compositing, Second Edition: • Techniques for Visual Effects, Animation and Motion Graphics (The Morgan Kaufmann Series in Computer Graphics) - Ron Brinkmann(Author) |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2022-23 | |
| Branch: NA | | Semester: V | |
| 1 | Course Code | BSA307 | |
| 2 | Course Title | Project Management | |
| 3 | Credits | 2 | |
| 4 | Contact Hours (L-T-P) | 1-0-2 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | To provide practical knowledge in setting up production studio. To prepare and plan for pitching of a project To manage the project of the production | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Describe production for different Medias. CO2: Compare pipeline for Different Production House. CO3: Use Management of Project for Creative and Production team. CO4: Devise a studio blue print for Infrastructure and work force. CO5: Develop PR & Marketing Collaterals. | |
| 7 | Course Description | The Purpose of the course is to provide practical knowledge in setting up production studio, prepare and plan for pitching of a project , manage the project of the production, Finance management, Manpower management and successful completion of the project. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Production Overview | |
| | | Topic 1 Working of Production House Topic 2 Production houses for Film, TV Games | |
| | Unit 2 | Pipeline | |
| | | Topic 1 Requirement for a Production Pipeline Topic 2 Pipeline designing for various Production house Topic 3 A Typical Pipeline and Infrastructure | |
| | Unit 3 | Project Management | |
| | | Topic 1 Pipeline Management Topic 2 Project Management Topic 3 Work force and Recruitment Topic 4 Studio Design | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE |
| | Distribution | 60% | 40% |
| | Text book/s* | <ul style="list-style-type: none"> The VES Handbook of Visual Effects: Industry Standard VFX Practices and Procedures - Jeffrey A. Okun, Publisher: Focal Press; 1 edition (July 8, 2010) | |
| | Other References | <ul style="list-style-type: none"> The Visual Effects Producer: Understanding the Art and Business of VFX - Charles Finance, Susan Zwerman, Publisher: Focal Press; 1 edition (August 28, 2009) | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2022-23 | |
| Branch: NA | | Semester: V | |
| 1 | Course Code | BSA304 | |
| 2 | Course Title | Match Moving | |
| 3 | Credits | 4 | |
| 4 | Contact Hours (L-T-P) | 2-0-4 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Familiarize the tools and techniques to create Match moving and effects Learn Problem solving techniques to rectify the errors during the process Create content for broadcast, feature film and animation. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Discuss of Match moving on footage in a package CO2: Apply various elements in scene in a 3D package CO3: Create light, render the object and composite the result. CO4: Analyze Color Grading & Final composition CO5: Correspond the Exporting in Maya and Rendering | |
| 7 | Course Description | Students will learn the core knowledge & techniques of Camera Tracking & match moving so that they can be able to add or merge 3d Elements into Live Action Footage. | |
| 8 | Outline syllabus | | |
| | Unit 1 | Introduction to Match Moving | |
| | | Topic 1 Need for Match Moving in a scene. Topic 2 Understanding Camera and its types. | |
| | Unit 2 | Tracking | |
| | | Topic 1 Tracking Fundamentals for Match moving Topic 2 Tools and Techniques in Tracking | |
| | Unit 3 | Match Moving Process | |
| | | Topic 1 Tools and Techniques in Match Moving | |
| | Unit 4 | Tracking | |
| | | Topic 1 -Different types of Tracking Topic 2-Calibrating Camera Topic 3-Tracking and noise reduction | |
| | Unit 5 | 3D Integration | |
| | | Topic 1 Set and Coordinate system Fitting Topic 2 Advanced tools and Techniques | |
| | Mode of examination | Jury | |
| | Weightage Distribution | CA 60% | MTE 0% |
| | | | ETE 40% |
| | Text book/s* | <ul style="list-style-type: none"> The Art and Technique of Match moving: Solutions for the VFX Artist -Erica Hornung | |
| | Other References | <ul style="list-style-type: none"> Compositing Visual Effects–Essentials for the Aspiring Artist - SteveWright The VES Handbook of Visual Effects - Okun J, Zwerman S | |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2022-23 | |
| Branch: NA | | Semester: V | |
| 1 | Course Code | BSA310 | |
| 2 | Course Title | Matte Painting | |
| 3 | Credits | 3 | |
| 4 | Contact Hours (L-T-P) | 2-0-2 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | To impart Knowledge and Technical skills in creating BG. Matte Paintings for Animation, games, and live action films. Analyzing the significance of colour and tone in integrating elements. Building different layers of objects to integrate with Live and CGI. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: Analyze the Evolution of Matte Painting with CG, Live Action and VFX movie. CO2: Familiarize students with software its interface, tools and techniques. CO3: Evaluate the significance of Layers, Light, shadow and composition in matte painting. CO4: Application of Advanced techniques in creating matte painting. CO5:- Matching Real Environment. | |
| 7 | Course Description | To impart Knowledge and Technical skills in creating BG or a Matte Paintings for Animation, games, and live action films. It is to Analyzing the significance of color and tone in integrating elements and Building different layers of objects to integrate with Live and CGI. | |
| 8 | Outline syllabus | | |
| | Unit 1 | History of Matte Painting | |
| | | Unit 1 Topic A Camera and Projection Technique Paint and Pixel methods Unit 1 Topic B Digital Matte Painting Unit 1 Topic C | |
| | Unit 2 | Basic 2D Matte Painting | |
| | | Unit 2 Topic A Unit 2 Photoshop panels for matte painting Layer and Brush management Topic B | |
| | Unit 3 | Composition of Matte Paint | |
| | | Unit 3 Topic A Unit 3 Perspective in Matte Painting Projection in Space Topic B | |
| | Unit 4 | Light and Shadow | |
| | | Unit 4 Topic A Creating seamless effects of realistic and semi realistic matte painting | |
| | Unit 5 | Techniques of Matte Painting | |
| | | Unit 5 Topic A 2.5D Matte Painting Unit 5 Topic B 3D Matte Painting Unit 5 Topic C Using Video elements in Matte Painting | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE |
| | Distribution | 60% | 40% |

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| | Text book/s* | <ul style="list-style-type: none"> • The Invisible Art: The Legends of Movie MattePainting • Bargain Price, Publisher: Chronicle Books (November 2002). • Beginner's Guide to Digital Painting in Photoshop - NykolaiAleksander , Richard Tilbury, 3DTotalTeam, Publisher: 3DTotal Publishing (January 31,2012) |
| | Other References | <ul style="list-style-type: none"> • The Invisible Art: The Legends of Movie Matte Painting - Mark Cotta Vaz(Author), Craig Barron (Author) • The Digital Matte Painting Handbook- David B. Mattingly |

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| School: SMFE | | Batch: 2020-23 | |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2022-23 | |
| Branch: NA | | Semester: V | |
| 1 | Course Code | BSA306 | |
| 2 | Course Title | Visual Effects Compositing Techniques | |
| 3 | Credits | 4 | |
| 4 | Contact Hours (L-T-P) | 2-0-4 | |
| | Course Status | Compulsory | |
| 5 | Course Objective | Familiarize the tools and techniques to create standard VFX shots Learn Problem solving techniques to rectify the errors during compositing. Create content for broadcast, games, feature film. | |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1- The Evolution of Visual Effects and its influence on compositing. CO2- Analyze different tools and techniques in compositing. CO3- Managing of Different layers form different departments and integrating it. CO4- Significance Lighting and composition in Compositing. CO5- Bridging the Live Action and CGI elements and effects CO6- Learn the Application of Video Art for various Medias. | |
| 7 | Course Description | It enables a student to understand the Evolution of Visual Effects and its influence on compositing techniques. It explores the various tools available to create desirable visual effects, Analyze different tools and techniques in compositing and how to Bridge the Live Action and CGI elements and effects | |
| 8 | Outline syllabus | | |
| | Unit 1 | History of Compositing | |
| | | Unit 1Topic1 History of Compositing. Unit 1Topic2 Terminologies and Concept of Compositing. Unit 1Topic3 Camera and its influence on Compositing | |
| | Unit 2 | Digital Image | |
| | | Unit 2 Topic 1 Digital Image, concepts and Parameters Unit 2 Topic 2 Properties and attributes in Image | |
| | Unit 3 | Layers | |
| | | Unit 3Topic1 Distinguish Layer and Node based compositing Unit 3Topic2 Matte and Keying Techniques Unit 3Topic3 Effects in Motion Graphics Unit 3Topic4 Tracking and Stabilizing Techniques | |
| | Unit 4 | Lighting and Composition | |
| | | Unit 4Topic1 Lighting in Compositing Unit 4Topic2 Live and Virtual Cameras Unit 4Topic3 Lighting passes and its integration | |
| | Unit 5 | Theory and Practice of Video Art | |
| | | Unit 5Topic1 History of Video Art and its Evolution Unit 5Topic2 Application of Video Art in different media | |
| | Mode of examination | Jury | |
| | Weightage | CA | MTE |
| | Distribution | 60% | 40% |

| | | |
|--|------------------|---|
| | Text book/s* | <ul style="list-style-type: none">• Compositing Digital Images - T. Porter and T. Duff I Proceedings of SIGGRAPH '84, 18 (1984)I• The Art and Science of Digital Compositing - Ron Brinkmann |
| | Other References | <ul style="list-style-type: none">• Wright's Compositing Visual Effects: Essentials for the Aspiring Artist [Paperback]2007) - Paperback (2007) - S.Wright• Compositing Visual Effects – Essentials for aspiring artists - SteveWright |

Semester VI

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|--|-----------------------|--|
| School: SMFE | | Batch: 2020-23 |
| Program: B. Sc. Animation & VFX | | Current Academic Year: 2022-23 |
| Branch: NA | | Semester: VI |
| 1 | Course Code | BSA309 |
| 2 | Course Title | Final Project & Project report |
| 3 | Credits | 20 |
| 4 | Contact Hours (L-T-P) | 0-10-20 |
| | Course Status | Compulsory/Elective |
| 5 | Course Objective | The students should implement all concepts learned in the previous semester Students should be able to execute Projects in Animation & VFX platforms Students should learn about documentation methods Students should be ready to handle industrial live projects scenarios and pitch requirements |
| 6 | Course Outcomes | After the completion of this course, the student will be able to CO1: To develop an understanding of 2D, 3D and VFX through storytelling and compile a show reel with the industry requirements. CO2: Create 2D and 3D characters and environments that reflect the integration of graphic clarity, design principles, performance principles and theoretical constructs. Design layouts and backgrounds that incorporate principles of composition, perspective and color, with speed, accuracy and dexterity, using a variety of media. CO3: To develop an insight into vocabulary of visual language and design using 3D and VFX storyboard. CO4: Manage the production of a film, including the aspects of cinematography and art direction. CO5: Effective presentation of student's VFX show reel Portfolio. |
| 7 | Course Description | Students must do this project individually or in group. In this project, students should complete an Animation or VFX short film of minimum 90 seconds duration, which displays their creativity, aesthetic sense, and technical skills that they acquired During their academic period. |
| 8 | Outline syllabus | |
| | Unit 1 | Pre-production: Synopsis of the Story - script- Story Map |
| | Unit 2 | 2D /3D Character designs: Character Bible - Character History-Character Traits - Character flaws – Psychological profile. 2D /3D Concept pre visualization with environments. |
| | Unit 3 | 3D Story Board – Complete story board of the script. Story Map is must. Character Designs should be both concept sketches & coloured ones. For each character use separate page. |
| | Unit 4 | Production: Production stills of Live Shooting for CG shot BG sets, VFX; props Dynamic simulation snaps Shots Texturing & Lighting Snap shots. |

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|------------------------|---|-----|-----|
| Unit 5 | Post- production: Compositing & Editing | | |
| Mode of examination | Jury/Practical/Viva | | |
| Weightage Distribution | CA | MTE | ETE |
| | 60% | 0% | 40% |
| Text book/s* | <ul style="list-style-type: none"> • Adobe Animate CC Classroom in a Book 2018, Russell Chun • Storyboards: Motion in Art by Mark A.Simon • Pixar Storytelling: Rules for Effective • Storytelling Based on Pixar's Greatest Films by Dean Movshovitz • The Ultimate Concept Art Career Guide by 3dtotalPublishing | | |
| Other References | <ul style="list-style-type: none"> • Creating Stylized Characters Paper back by 3dtotalPublishing | | |