Tilak Maharashtra Vidyapeeth, Pune

BFA –Visual Effect Animation for Film TV

Program Outcome BFA –Visual Effect Animation for Film TV

- **Skill:** Be proficient in a range of visual effects skills and have the ability to analyze an appropriate technology use for the specific creative needs of a production pipeline;

- **Self Motivation:** Be motivated and engaged in on-going and self-directed learning in the technology, development and creative processes of visual effects and future technologies relevant to their industries;

- **Performance:** Demonstrate a comprehensive understanding of the visual effects industry, as well as its organizations, production companies and cultural communities;

- **Understanding:** To analyze and implement the technical, conceptual and artistic processes necessary to produce high quality work as independent filmmakers, or as part of the production pipeline for a production company or studio visual effects team.

Programme Educational Objectives

- To develop a specialized, highly marketable skill that translates directly to the workplace;

- To develop competencies and skills needed for an Animator as Creative personality;

- To explore different approaches in computer generated Digital Visual Effects;

Course Outcome

FIRST YEAR

Semester I – (Common Subjects for BFA –Animation, VFA, Game Design)

Semester II

Fundamentals of Graphics (PR)

- Students will understand how compositing is used for films and TV
- Students will understand image editing & image composition.

- Students will learn fundamentals of Images & Video.
- Students will learn to use Chroma screen for compositing.

Live Action for VFX (TH)

- Students will understand terminology & usage of camera & lights on Live set
- Students will understand pre planning on live shoot.
- Students will learn do's and don'ts before the live shoot.
- Students will learn Guideline for Shooting

VFX Production I (PR)

- Students will understand Pre-Production pipeline
- Students will understand Techniques for Creating Digital Film using VFX & Animation Techniques.
- Students will learn to create Miniatures and Biggatures

History of VFX (TH)

- Students will understand the beginning of VFX for films
- Students will understand how technology is evolved thus effects in films & Film industry.

Creative Design (PR)

- Students will understand how to elevate art and approach to design.
- Students will understand to create narrative from composition
- Students will learn ideation and finding useful references.

Photography Basic (PR)

- Students will understand how to build resource library for camera
- Students will learn usage of light and shadow
- Students will learn exposure triangle and IOS sensitivity.
- Students will learn Shutter speed and Aperture.

SECOND YEAR

Semester III

Pre-production for VFX (PR)

- Students will understand pre-planning before going on floor.
- Students will understand Understanding Usage of VFX
- Students will learn Production Documentation
- Students will learn Story boarding

3D for VFX I (TH)

- Students will understand the theory and use of 3D modeling& animation software.
- Students will understand will devise and create high quality 3D models.
- Student will learn about different modelling techniques.

Basic Compositing (PR)

- Students will understand single frame composting.
- Students will learn Adding life to video with effect
- Students will learn tools & Techniques used for video composting and 3D compositing
- In this subject student will learn about motion graphics used in videos.

Production Fundamentals (PR)

- Students will understand about how VFX production is done on live action shot.
- Student will be taught to understand shot and create a camera track, which will be used in other software to composite any CG object with live action shot.
- Students will learn Shot Analysis used to create VFX scene.
- In this subject student will learn camera tracking from simple to advance.

Concept Development I (PR)

- Students will understand about brief History of Concept development in Feature Film.
- Student will be taught Visual Development for Storyline.
- Students will learn Building up good photo reference library.
- In this subject student will learn to create concept environment for film.

Aesthetics - 2 (TH)

- Aesthetics is important because it helps us understand and judge the various qualities one will find in art.
- Aesthetics will help student to realise their current skill level, so that they don't have to depend on others and can improve on their own.
- Student will learn about art techniques used in VFX field.

Semester IV

Compositing (PR)

- Students will understand using live footage & adding effects to full fill story requirements.
- Students will understand Creating Dynamic Transitions
- Students will learn how to integrate 3D work into live film.
- Students will learn Lighting & its attribute

3D for VFX II (TH)

- Student will learn tools & techniques to create realistic looking Environment /Background and Animation (character/objects) for Digital films.
- Student will learn to create detail modeling and texturing in 3D Maya software.
- Student will learn detail modeling techniques to create realistic environment.
- Student will be introduce to 3D animation techniques.

Shading for VFX (PR)

- Students will understand 3D lighting techniques.
- Students will understand shading techniques create in Maya
- Students will learn rendering types and techniques.

Matte Painting I (PR)

- Students will Introduction to drawing tablet techniques
- Students will understand Thumbnail sketching and ideation
- This subject will help student to create high colour details compositions & Environment.

Film Studies (TH)

- Student will Demonstrate advanced critical understanding of the dominant theoretical and methodological traditions within film studies
- Student will demonstrate advanced awareness of differences and debates within these traditions, and be able to evaluate and develop critiques of them.
- Student will learn advanced understanding of critical structures and frameworks for the analysis and evaluation of film
- Student will learn critical approaches and methodologies through original, critical and systematic analysis of film

THIRD YEAR
Semester V

3D for VFX III (TH)

- Student will learn Character Setup for animation
- Student will learn the process skinning and binding character to rig character
- Student will understand different types of IK solvers rigging
- Student will learn Animation Principles for creating animation

Advance Dynamics and effects (PR)

- Students will learn how films & TV commercials are made using different types of dynamic effects
- Students are exposed to fundamental usage of dynamic effects to create realistic effects into their animation.
- This subject will help student to create high end particle effects

VFX Production II (PR)

- Students will learn to create VFX shot by understanding of camera
- Students will be familiar with production techniques while shooting on sets
- Students will learn light arrangement which is a key role while shooting on sets
- Students will learn working on lights with camera & Green Screen which will be the key objective

Matte Painting II (PR)

- Students will learn to create day for night painting effect
- Students will learn to create high colour detail compositions & environment
- Students will learn perspective and colour match photo
- Students will learn 3D Projection Map Matte Painting

Advance Tools (PR)

- Students will learn advance sculpting tool using Mud box
- Students will learn integration of Maya and Mud box
- Students will learn the ins and outs of sculpting by going through the process with a project based approach.
- Students will learn retopologizing meshes, the Pose tools, and working with multiple paint layers and channels.

Concept Development II (PR)

- Students will learn Ideation to create concept development
- Students will learn to create primary form using ideation
- Students will learn to develop their own character/creature
- Students will learn to present their own characters with dynamic pose
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Semester VI (elective I – 3D modelling for VFX)

3D props modelling for VFX (PR)

- Student will learn human anatomy study
- Student will learn realistic product modelling used in film and TV
- Student will learn to create realistic 3D character

3D Environment modelling for VFX (PR)

- Student will learn to create realistic interior and exterior scene
- Student will learn to create realistic and fantasy environment
- Student will learn to create realistic 3D environment with basic concepts

3D Texturing for VFX (PR)

- Student will learn the process of creating, designing and implementing texture for 3D models and world environments
- Student will learn how to manipulate texture and image using 2D digital art tools
- Student will learn toapply textures onto 3D object and scenes for VFX.

- Student will to Master Global Illumination, Final Gather, mental ray shades, HDRI, and normal mapping.

Realistic modelling for VFX (TH)

- Student will learn to create realistic looking Objects/Character for Digital films.
- Student will learn to create realistic looking organic/inorganic 3D objects with proper mesh flow
- Student will learn to create photo realistic 3D objects used in film and TV

Soft Skill II (PR)

- Student will learn to convey thoughts in a way to express ideas and influence change.
- Student will learn to adapt and be flexible to be able to allow for and accept change.
- By learning soft skills students will learn to take quick decisive action.
- Student will learn communication skills such as voice inflection and gestures and problem solving, creative thinking, conflict resolution, time management, self-motivation

Advance Photography (PR)

- Student will learn Retouching and image manipulation skills using Photoshop
- Student will learn different shooting modes to see how that effects your images
- Student will practice shooting portraits and try different lighting techniques
- Student will learn to experiment with night photography and low light shooting

Semester VI (elective II – 3D Lighting and Rendering for VFX)

Rendering (TH)

- Student will learn different 3D rendering techniques
- Student will learn to understand lighting, color and composition used for rendering
- Student will learn VFX production pipeline

Rendering Interior Scene (PR)

- Student will learn different types of lights used in Maya to create 3D interior scene
- Student will learn mental ray and V ray techniques
- Student will learn to create day and night scene
- Student will learn different types of rendering passes

Rendering Exterior Scene (PR)

- Student will learn utilities and it's usage for exterior scene.
- Student will learn mental ray and V ray techniques used for exterior scene
- Student will learn different types of mapping (HDRI mapping, image base mapping, etc.)
- Student will learn render settings attributes

Rendering Realistic Environments (PR)

- Student will learn realistic product rendering used in TV.
- Student will learn different types of rendering used in realistic and cartoon style.
- Student will learn advance rendering techniques used to create realistic environment

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Semester VI (elective III – Advance Compositing)

Compositing CG Assets (TH)

- Student will learn gain Specialized knowledge advance compositing
- Student will learn node based compositing tools and techniques.
- Student will learn Advance Camera Tracking
- Student will learn Advance Stereo Workflow

CG Dynamics for VFX (PR)

- Student will learn advance particle effects using 3D Maya
- Student will learn different types of particle effects.
- Student will learn Crowd manipulation tools & Techniques
- Student will learn to apply particles to 3D objects.

CG Compositing with live action (PR)

- Student will learn 3D system in Node based Environment
- Student will learn Advance Stereo Workflow
- Student will learn Delivery Optimization

VFX Production III (PR)

- Student will learn to create their own VFX shot, as per the individual students capability
- Student will learn to present and evaluate their own work

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