

DIPLOMA IN VISUAL EFFECTS

SYLLABUS

Course Overview

The Visual Effects program is designed to develop the artistic temperament and technical skills that makes one a professional in the field of Visual Effects. This program combines the artistic as well as the technical aspect of integrating Computer Generated Imagery with Live action footage. Student develops a range of visual and tactile exploration skills by working on a range of creative process. Visual research forms an integral part of the program and students are taught and then encouraged to apply them throughout the program. Developing Visual observation through Drawing, exploring Volume, Perspective, Structure and Form, Colouring and shading methods, Storytelling, Storyboarding, Camera and Lighting techniques are key study elements. The Digital Media curriculum includes building 3D Models, Lighting and Rendering a, creating Miniatures and Matte paintings that serve as background plates. The students are then exposed to the concepts and practice of matchmoving and object tracking and learn to integrate live-action footage with computer generated imagery using compositing techniques such as Wire and rig removal, Rotoscoping, Masking, Keying, Colour correction, colour matching, and editing techniques

Duration

1 Year

Career Opportunities

- Digital Artists
- Composer
- Digital Effects Animator
- Digital Effects Painter
- Modeler
- Pre-Visualization Artist
- Technical Director
- Visual Effects Supervisor

Course I - Foundation Study

This module introduces the students to a range of creative process that will aid them in their visual enquiry and self expression. Using these processes and strategies student generate ideas and concepts to design briefs. Students also learn a series of Digital Media Techniques which are deployed to generate Digital Media output.

YOU WILL LEARN

- Ideation through Mind map, Mood board, Semiotics, Metaphor, Themes and Styles
- Researching, Referencing and applying the history and theory of design to design practice
- Elements and Principles of Design.
- Symbol and Icon Design and Construction
- Colour & Medium
- Digital Manipulation techniques such as enlargement, reduction, Transformation and reshaping
- Understanding Colour & Colour Correction
- Creating Digital Painting / Matte painting
- Inorganic & Props modelling using techniques of NURBS & Polygon
- Applying Materials and creating Textures
- Basic Animation using Key frame animation technique and editing in graph editor
- Basic lighting and Camera movements
- Interpreting & responding to a brief
- Apply the design process to 2-dimensional & 3-dimensional work in response to a brief
- Project planning and Implementation

Course II - Pre Visualization

This module begins by introducing the student to the broad concept of Visualization in terms of Shapes and Forms, Light & Shadow, Perspective and Composition. Later student learn to apply these skills for Visual exploration, Expression of moods, Create Concept Art, Character Design and 2D Animation (electives).

YOU WILL LEARN

- Developing Visual observation through Drawing
- Exploration of Volume, Perspective, Structure and Form
- Colour, colouring and shading methods
- Set Designing
- Study of Humans figures

- Drawing the human figure with emphasis on gesture, proportions and form development
- Sketching and Composing a scene
- Set & Miniature Design
- Storyboarding

Course III - Digital Media Technique I

This hybrid - theory and practical module will provide students with the opportunity to investigate and practice editing and compositing the three essential parts of Post Production. Students will get learn both the theoretical and well as practical aspects of editing, compositing and rendering in order to understand the cultural, social and cognitive effects of the editor's/compositor's art on the cinematic form.

YOU WILL LEARN

- Digital Manipulation techniques such as enlargement, reduction, Transformation and reshaping
- Using filters for effects
- Scanning, storing and transporting Digital images
- Colour systems (RGB, grey scale, CMYK)
- Understanding Colour & Colour Correction
- Palette, mode and image attributes, file formats
- Colour depth, image size and file size
- Creating Backgrounds
- Matte painting
- Digital painting
- Standards and Principles of Editing.
- Editing Techniques and Tools
- Audio Editing Techniques
- Compositing
- Rotoscopy
- Colour Correction
- Tracking and Stabilization
- Keying
- Chroma keying Studio Techniques

Course IV - Media Production

This module exposes students to a variety of non Digital approaches of film making so as to widen the scope of a visual research base. The Media Production module encourages students to analyse and explore forms of communication and media through a variety of Media disciplines. Through Film Theory and by learning film techniques such as Direction, Cinematography, Acting, Storytelling, screenplay

students are taught to explore the relationship between what is being communicated and target audience/viewer and apply them to their field of study.

YOU WILL LEARN

- Dramatic tension in the stories
- Characters and dialogues
- Introduction to Film Theory & Production
- Introduction to Cinematography
- Basic Composition
- Introduction to Direction

Course V - Digital Media Technique II

This module is linked to Design Fundamentals module and is designed to introduce students to the techniques of using computer software to produce digital content in response to design brief. This module also introduces students to 3D Computer Imagery and Animation process.

This module is also designed to encourage experimentation and exploration of a range of techniques for generating visual effects. The emphasis is on the practice and importance of visual effects in film making process by focusing on the vital skills of visual research, the methods and process used in generating ideas on formulating appropriate and effective design strategies and solutions to given briefs. The module develops student's awareness and technical understanding of their specialized skill in terms of advanced video special effects, expression, particle systems, dynamic Effects. These are the way of using physics to animate motion in order to create effects like explosions, smoke, fire, cloth, and liquid. The class focus is Maya's dynamic simulation engines and how to get the most out of them. Some of the dynamic engines that are covered are particles, N-cloth, fluids, and hair

YOU WILL LEARN

- Design of 3D artefact based on reference images in response to project briefs
- Inorganic & Props modelling using techniques of NURBS & Polygon
- Applying Materials and creating Textures
- Basic Animation using Key frame animation technique and editing in graph editor
- Basic lighting and Camera movements
- Interpreting & responding to a brief
- Apply the design process to 2-dimensional & 3-dimensional work in response to a brief
- Project planning and implementation
- Introduction to Expressions

- Fluids
- Effects Compositing
- Introduction to dynamics
- Introduction to particle systems & textures
- Rigid bodies
- Introduction to n-Cloth
- Introduction to hair

Course VI - Digital Media Technique III

This module further develops the students Computer assisted design and development knowledge, and extends the students awareness and technical understanding by introducing the student to techniques of Node based Compositing and Dynamics as applicable to the field of Visual Effects.

YOU WILL LEARN

- Introduction to Node based compositing tools and their compatibility to Production
- Rotoscopy, tracking, keying and Colour correction
- 3D Camera & Lights
- CG Compositing and Rendering
- Introduction to Match move Process
- 2D Tracking
- Automatic Tracking
- Working with Camera and on-set measurements
- Compositing and Rendering