



**2D & 3D ANIMATION PROGRAM**

The 2D/3D One Year Animation Diploma Program provides you with the skills, tools, techniques and computer applications to launch your career in the computer animation industry. The program focuses on drawing skills, character design and studio procedures in the production of animated series. You will learn to create storyboards, imaginary characters, reproduce objects and work on special effects. Plan, design and develop game environments applying various game technologies, animated graphics, sounds and multimedia functions. The program provides a hands-on approach to develop your strengths in art, classical and computer animation, model building, environment modeling, character building, object development and 2D/3D animation.

**PROGRAM OBJECTIVES**

- Plan, Produce, Analyze and Critique an Animated Live Production
- Create Storyboards and Screenplays for Animation.
- Design Game Environments and Characters
- Animate Characters, Objects and Environments in 3D
- Develop Skills and Techniques to Create Special Effects
- Create a Professional Digital Portfolio.

**PROGRAM OVERVIEW** (45 weeks)

3 semesters of 15 weeks  
20 hours per week, 900 hours for full program

**ADMISSION REQUIREMENTS**

19 years of age or High School graduate  
Working knowledge of the English language  
Interview with Admissions Representative

**EMPLOYMENT OPPORTUNITIES**

Positions include Production Designer, Technical Artist, Animator, 3D Character Builder, 3D Object Modeler, Storyboard Artist and Production Designer.

**SEMESTER 1**

Technology and 3D Modeling..... (60 hrs)  
Drawing and Design..... (60 hrs)  
Game Industry .....(45 hrs)  
3D Animation .....(60 hrs)  
2D and Classical Animation .... (60 hrs)

**SEMESTER 2**

Concept Art and Matte Painting ..... (45 hrs)  
Visual Effects ..... (60 hrs)  
Expression and 3D Animation ..... (45 hrs)  
Texture and Lighting ..... (45 hrs)  
2D and Classical Animation II... (60hrs)  
Direction and Screenplay ..... (45hrs)

**SEMESTER 3**

Environment and Scenes Creation..... (120 hrs)  
Zbrush - Character Creation ..... (60hrs)  
Digital Video Editing..... (45 hrs)  
Demo Reel Production..... (45 hrs)  
Professional Skills ..... (45 hrs)

## SEMESTER 1

### DRAWING AND DESIGN

This course introduces the concept of translating ideas, words and feelings into imagery. Students will develop observational skills and acquire foundational and advanced drawing skills to produce objects and elements integrating principles of composition and image organization.

### TECHNOLOGY AND 3D MODELING

This course focuses on 3D Modeling techniques, offering students an introduction to the world of 3D modeling using Maya. Explore mesh and NURBS modeling, designing and creating objects, locations, environments and characters.

### GAME INDUSTRY

This course provides an overview of game systems and introduces the student to game design and development. It will teach different genres and mechanics and expose the student to utilize different game mod tools, systems and technology. It will also show how to incorporate animated graphics and sounds without the necessity of programming skills. Lastly, it will explore career possibilities and game development resources.

### 3D ANIMATION

3D animation is a curious combination of technical skill and artistic observation and understanding. It is the discipline of creating “believable reality”. This course will review the theory behind the various principles of 3D Animation and provide practical exercises on the different forms of animating objects, characters and environments using Maya.

### 2D AND CLASSICAL ANIMATION

This course emphasizes on animating characters and the principles that govern classical animation: squash and stretch, anticipation and overlapping. This course will also explore the skills necessary to understand and communicate the emotions and intentions of a character.

Lastly, it will also explore the combination between classical animation and 2D computer animation features.

## SEMESTER 2

### CONCEPT ART AND MATTE PAINTING

Digital matte painting explores the techniques of the creation of 2D image to be used as backgrounds, environments and set extensions. Students are introduced to a set of digital tools and techniques for matte painting and concept art. Projects and skill building exercises will complement classes dealing with related fields, such as realistic and fantasy environments, matte painting animation and composing. In addition, this course explores all concepts and techniques needed for matte painting, including visual theory, fine art skills, perspective techniques, and composing. Finally, the course will help to create realistic concepts providing emotional connections with the audience.

### DIRECTION AND SCREENPLAY

Students will understand the functions of a Director, Cinematographer and Editor. They will also learn camera positioning and lighting in order to transpose live objects and real concepts onto computer 3D software. They will also understand how to shoot for different purposes; animatic, references for camera match or roto-scoping, image composites and masks. Lastly, they will how create an atmosphere with creative lighting and camera shots.

### VISUAL EFFECTS

Learn the techniques and understand the various methods and plug-ins used in creating visual effects. This course explores the most common types of visual effects such as (1) particle, (2) dynamic, (3) atmospheric, (4) compositing, and (5) rendering effects.

### 2D AND CLASSICAL ANIMATION II

This course provides advanced knowledge on conceptualization, planning and production of animated or live action media. It covers specific visual information, including traditional cell, stop motion and Flash. It also focuses on the critical aspect of any production – the story. This course will expand and complete topics addressed on AN105 - 2D and Classical Animation.

### EXPRESSION AND 3D ANIMATION

This course provides the analytical tools and skills to develop advanced 3D characters by applying animation principles and techniques. It will also guide students through the full production process, teaching them how to infuse their story and develop emotional connections with the audience. Lastly, it will provide a structure with checks and balances to improve the storytelling and making the overall experience smoother at all levels.

### DIGITAL VIDEO EDITING

This course takes students to advanced linear and non-linear digital video editing. It addresses topics in visualization, storyboard styles, continuity, staging dialog, camera techniques, framing and composition techniques, camera movement, blocking tracking shots and editing techniques. Students will learn useful skills that could be applied to video games, television as well as the internet.

### TEXTURE AND LIGHTING

The art of 3D computer graphics is a triad made up of one third (1/3) modeling and two thirds (2/3) texturing and lighting. This course covers a wide range of technical and artistic disciplines. From traditional art to “real world” and practical lighting, it applies principles and techniques that are widely used in various fields of digital arts. This course also emphasizes the importance of Texturing and Lighting as an essential aspect in the

creation of a scene, environment or character.

## SEMESTER 3

### ZBRUSH - CHARACTER CREATION

By using Zbrush together with the application of their choice (Maya or 3D Max), students will create and animate one or more characters that will be the protagonists of their story. This course will provide excellent experience in character modeling, texturing, shading, rigging, lip-sync, hair, etc.

### ENVIRONMENT AND SCENES CREATION

Students will create environments, scenes and props to form the “world” for their final project. This course will tie different skill sets together such as rendering, composing, format and post production. It will also give emphasis to post-production special effects and compositing. The course will end with a final show, where the student will display their final draft ready for public view.

### DEMO REEL PRODUCTION

Students will work in the production of their professional demo reel, which will serve as a visual demonstration of their skills acquired in the program. Now considered as a must have tool for CGI industry professionals, a demo reel must fulfill industry standards while showcasing individual technical and artistic qualifications. This course will also show students on how to display their specialization in order to improve their chances to succeed in the workplace.

### PROFESSIONAL SKILLS

This course covers multiple topics to prepare our students for the career market. It will include resume writing, interview preparation as well as online portfolio creation. This course will also address general topics such as preparing and leading a meeting, body language, effective communication, presentation skills and ethics.

