Advanced 3D Design Visualization and Animation with 3DS Max & V-Ray

Overview

The 3D Architectural/Design Visualization and Animation with 3DS Max & V-Ray program is geared towards Design/Architectural Visualization and Game Asset Development, including Animation principles that apply to both the visualization and motion graphics industry.

The aim of this course is to provide students with a functional working knowledge of Autodesk 3ds Max & Mudbox, V-Ray, Adobe Photoshop and After Effects. Special focus is placed on V-Ray as it is the physical lighting and rendering engine adopted by most of the industry. Students will be equipped with the knowledge of current solid industry workflows, focusing on both the technical and creative approaches, with the goal of confidently applying these tools in production.

You will also work with Virtual Reality technology using your Goggles VR headset, and other VR Technologies such as Unity (Review the VR Lab block below)

Features and Benefits

1. Learn industry critical software and technology platforms such as Unity, VRay, Autodesk 3DS Max, Adobe Photoshop and After Effects and more to the value of thousands of Rands, a critically advantageous consideration for any employer when considering.

2. Learn how to sell your skills with our “Freelancing for Creatives, Designers and Digital Artists, Making Money in the Gig Economy” module

3. Students will receive no cost student licenses of all software programs used during the programme.

4. During the program, students will prepare and write the Autodesk 3DMax Professional certification.

5. Students will work towards compiling a Portfolio of Evidence and student showreel to allow for early and continuous job application.

6. Industry exposure through our industry contacts and online recruitment portal.

7. Showcase of student work at our annual internal Job Fair for exposure to potential employers as well as the popular Rage Expo or Comicon.

Admission Requirements

- National Senior Certificate (Grade 12) with Foundational Mathematics and English as your home/first language.
- Computer literacy (hardware functions; operating systems; file management)

Articulation Options

On successful completion of this qualification, you can articulate into the following:
- Games Design and Development with C# & Unity
- National Certificate: Multi Disciplinary Draughting (MDDOP N4/5)
- National Certificate: Architectural Technology NQF5

Mode of Delivery

Full Time / Part Time / Online

Regulatory Information

AIE (Academic Institute of Excellence) has been granted provisional registration as a private college in terms of Section 31(3) of the CET Act and Regulation 12(4), with registration number 2018/FE07/003 for a period of three years.

Learn3D is accredited by the Canadian company Toonboom, accredited by the American company Autodesk to teach 3D animation for design/visualization, character animation and visual effects, accredited by the Bulgarian company Chaos Group to teach V-Ray, the 3ds Max and Maya lighting plug-in.
By the end of this course you will be able to create realistic visualizations from small interiors to complex exterior scenes as well as create a purely artistic image or animation, making you ready to enter the workplace at the end of your studies. You will master the art of low-poly modelling with an emphasis on game environment and asset creation.

You will also get:

- Internationally recognized Autodesk Certificates for all software modules.
- Internationally recognized V-Ray Certificate
- Autodesk Maya Certified Professional Certification (upon successful completion of the certification)
- Portfolio of Evidence, Show-reel stills and Animation

**What you get**

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**Curriculum**

**Modeling and Sculpting**
This module will introduce the student to the process of creating content in Autodesk 3DsMax.
- Understanding the software interface
- Setting up a project
- Basic modelling Techniques and Principles using 3DsMax
- Working with CAD data
- Advanced modelling and sculpting techniques
- Project and Asset management

**3D MAX**

**Cinematic Light and Colour Theory**
The student will be introduced to creating lighting in 3DsMax, the theory of light and how to use it with cinematic principles.
- Basic properties of Light (Reflection, Refraction, Diffusion),
- Attenuation,
- Colour balancing,
- Cinematic lighting setups,
- Colour as focal point and contrast,
- Telling story with light.
- Cinematic colour theory: cool/warm colours, emotion of colour, colour as focal point, colour for depth.
- Creating lights in Unity for game environments.

**Textures, Maps and UVW Mapping**
Students will be exposed to the basic principles and workflows of texturing for games using Autodesk 3DsMax.
- Properties of Materials in Autodesk 3DsMax
- Creating textures with Adobe Photoshop

**Rigging and Animation**
Students will be exposed to the principles and workflows of creating rigging and animation for games using Autodesk 3DsMax as well as creating cinematic camera movement in a game engine.
- Rigging and Animation in Autodesk 3DsMax.
- Theory and Principles of animation and motion.
- Camera movement and setup.

**Virtual Reality**
With Virtual Reality becoming one of the fastest growing fields in the game industry we believe no gaming course would be complete without introducing the student to the specific requirements and nuances of designing for this interface. Our VR module is a standalone course that will not only introduce the basic concepts of VR but also expose the student to some of the fields beyond gaming where this is being applied and the specific needs of working in those industries.

**Introduction to Virtual and Augmented Reality**
This topic will cover the basics of Virtual Reality, the concepts and ready to use VR environments. Learners will use their Goggles VR Headset and experience various VR environments both static and interactive.

**Introduction to the 3D Environment using Virtual Reality**
A topic to introduce students to the concept of 3D using virtual reality. By using VR, learners will conceptualize the 3D environment much quicker.