

# ANIMATION (ANI)

---

## **ANI 145 Concept Development for Animation (2 Credits)**

30 lecture, 2 total contact hours

In this course, students will develop, refine, and communicate concepts for animations. Students will learn the full process and job positions from initial idea through final animation. Students will also explore animation history, cinematography, and discover how stories are structured.

Students will also learn how to craft storyboards to visually communicate their own original story concepts. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **ANI 150 3D Modeling & Production Pipeline (4 Credits)**

60 lecture, 30 clinical/other, 4 total contact hours

In this course, students will create custom digital 3D models and explore the 3D production pipeline from modeling to finished rendered imagery. A variety of modeling techniques and tools for both polygonal and NURBS modeling will be covered. Additionally, students will be introduced to texturing, lighting, animation, and rendering. Using professional industry-standard software, students will learn industry-specific vocabulary.

The title of this course was previously Animation I: Modeling. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **ANI 155 Textures and Studio Lighting for Animation (4 Credits)**

60 lecture, 30 clinical/other, 4 total contact hours

In this course, students will use industry standard software to texture 3D models. Students will learn to create virtual lighting setups and cameras. Common and advanced software rendering engines will also be explored. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **ANI 160 Fundamentals of Movement and Animation (4 Credits)**

60 lecture, 30 clinical/other, 4 total contact hours

In this course, students will move and animate 3D models. Students will learn and apply the theories of motion and movement to 3D artwork as well as demonstrate the established principles of animation. Using existing models, they will develop motion and animation skills. Students will animate rigid objects, organic objects and simple characters. Students will be exposed to keyframe animation and direct animation. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **ANI 180 Introduction to Game Level Design (4 Credits)**

60 lecture, 30 clinical/other, 4 total contact hours

In this course, students will learn to use industry standard game design software to create basic gameplay levels using premade assets. This will involve placing and editing assets and interactive triggers within a level and packaging levels properly for successful export. Throughout this course, students will develop a modular design approach that is critical for intelligent and efficient game design. Level I Prerequisite: Academic Reading and Writing Levels of 6; ANI 150 minimum grade "C"

## **ANI 190 History of Game Design (3 Credits)**

45 lecture, 3 total contact hours

In this course, students will learn about the theory of game design and its history. Using historical examples, students will study the evolution of game design, different genres of video games, and the evolution of video game-related technology. The role of key figures in gaming history will also be explored. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **ANI 230 Motion and Sound (2 Credits)**

30 lecture, 2 total contact hours

In this course, students focus on the knowledge and skills needed to produce motion and sound for animations. Characteristics of space and movement, as well as concepts and techniques related to the generation and use of sound, will be studied. This course is an integral part of assembling animations, as well as bringing them to life with editing, and Foley arts. Level I Prerequisite: Academic Reading and Writing Levels of 6; ANI 145 and ANI 150; GDT 108 minimum grade "C"

## **ANI 235 Introduction to Compositing and Visual Effects (4 Credits)**

30 lecture, 60 clinical/other, 4 total contact hours

In this course, students will be introduced to the basics of compositing as used in animation. Students will use various software to combine different elements into a single image or series of images. These elements may include 2-dimensional images, 3-dimensional images, backgrounds, lighting as well as special effects such as fire, smoke, and fog. Students will also animate basic visual effects using various dynamic systems. Level I Prerequisite: Academic Reading and Writing Levels of 6; ANI 150 minimum grade "C"

## **ANI 240 Advanced Game Level Design (4 Credits)**

60 lecture, 30 clinical/other, 4 total contact hours

In this course, students will build on game level construction skills. Students will import original, custom-made assets to build effective levels. They will learn to add atmospheric, foliage, and dynamic forces. Students will also learn to create in-game cinematics. Level I Prerequisite: Academic Reading and Writing Levels of 6; ANI 180 minimum grade "C"

## **ANI 250 Organic Modeling and Rigging (4 Credits)**

60 lecture, 30 clinical/other, 4 total contact hours

In this course, students will use advanced modeling and setup tools to create advanced organic models. Students will rig, texture, bind, and animate characters using a variety of industry-standard techniques. Advanced Non-Uniform Rational B-Spline (NURBS) modeling and dynamic rigid body animation will also be explored. Level I Prerequisite: Academic Reading and Writing Levels of 6; ANI 145 and ANI 150, minimum grade "C"

## **ANI 260 3D Animation III (4 Credits)**

60 lecture, 30 clinical/other, 4 total contact hours

This course builds skills from previous 3D animation courses at a more advanced level. Students will develop proficiency and efficiency in model construction, texture building, and furthering concepts in modeling for animation. The class will explore animation and rigging, photorealistic rendering, special effects, and scene construction. Level I Prerequisite: Academic Reading and Writing Levels of 6; ANI 155, ANI 160 and ANI 250, minimum grade "C"