

# 3D MODELING AND ANIMATION

## PROGRAM DESCRIPTION

Students completing the Game 3D Modeling and Animation program will possess advanced skills in digital modeling as well as applied skills in rigging and animation. Courses will include in depth knowledge of the 3D pipeline required to turn concept designs into fully realized and game ready assets. Students will work collaboratively in a creative environment working with teams to provide well crafted models and animations. Students will be prepared to enter the workforce as a character modeler, environment modeler, visual effects artist, technical artist or junior rigging artist.



## LEARNING OUTCOMES

- Demonstrate creative and technical proficiency in creating original 3D models of organic and hard surface art assets according to provided specifications as required for use in a digital game engine.
- Demonstrate creative and technical proficiency in rigging and animating 3D models according to provided specifications as required for use in a digital game engine.
- Demonstrate proficiency in collaborative interdisciplinary teamwork including but not limited to the ability to communicate ideas effectively, accept and give critiques, compromise, and the ability to critically discuss one's own work.

## COURSE MAP

Required Courses		Units
GAM-1	Business of Video Games	3
GAM-2	History of Video Games	3
GAM-3A	Game Design	3
GAM-4A	Game Scripting	3
GAM-5A	Concept Art	3
GAM-6A	3D Digital Modeling	3
GAM-6B	3D Animation	3
GAM-7	Game Studio	3
GAM-8	Current Topics In Game Development	3
		<b>27 Total</b>

DREAM DESIGN DEVELOP

# CONCEPT ART

## PROGRAM DESCRIPTION

Students completing the Concept Art program will be well versed in the process by which games and game assets are designed and created, with a special emphasis on how visual development influences game design and aesthetic. Students will be capable of designing and visually articulating a range of asset types, spanning props, environments, characters and more. Students will work collaboratively in a creative environment working with teams to provide visual direction. Students will be prepared to enter the field as entry level concept artists and visual designers, but with a versatile skillset that would afford them a wide range of career possibilities.



### LEARNING OUTCOMES

- *Articulate visual direction of various game-targeted assets through concept ideation and rendering.*
- *Apply the principles of modern game development through the creation of creative assets and supporting materials.*
- *Contribute to working games and prototypes which require team management, effective planning, communication, time management, and responsiveness.*
- *Develop and integrate content that contributes and adds value to games projects or portfolio.*
- *Create modern portfolio demonstrating viable capability utilizing games and class projects.*

### COURSE MAP

Required Courses		Units
GAM-1	Business of Video Games	3
GAM-2	History of Video Games	3
GAM-3A	Game Design	3
GAM-4A	Game Scripting	3
GAM-5A	Concept Art	3
GAM-5B	Advanced Concept Art	3
GAM-6	3D Digital Modeling	3
GAM-7	Game Studio	3
GAM-8	Current Topics In Game Development	3
		<b>27 Total</b>

DREAM DESIGN DEVELOP

# GAME DESIGN

## PROGRAM DESCRIPTION

Students completing the Game Design program will be well qualified in the game design process, including game design documentation, standard game design techniques and tools for rapid prototyping including both non-digital and digital methods. Students can expect to collaborate in an interdisciplinary team to provide direction and planning in the creation of an original video game project. Students will complete the program with a polished portfolio and be prepared to enter the workforce as entry level designers, assistant producers, or junior level designers.



### LEARNING OUTCOMES

- Apply the principles of theoretically sound game design including gameplay, core mechanics, game balancing, and rapid iterative prototyping to produce both non-digital and digital original games.
- Contribute to a comprehensive game design document which facilitates team management including communication, milestones/deadlines and responsiveness.
- Develop content that contributes to a milestone based studio pipeline.
- Demonstrate mastery of interdisciplinary communication and team skills while working with colleagues on an industry standard production project.
- Create an industry standard portfolio utilizing games and class projects.

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Required Courses	Units
GAM-1 Business of Video Games	3
GAM-2 History of Video Games	3
GAM-3A Game Design	3
GAM-3B Advanced Game Design	3
GAM-4A Game Scripting	3
GAM-5A Concept Art	3
GAM-6 3D Digital Modeling	3
GAM-7 Game Studio	3
GAM-8 Current Topics In Game Development	3
	<b>27 Total</b>

## DREAM DESIGN DEVELOP

# SCRIPTING

## PROGRAM DESCRIPTION

Students completing the game Scripting programming will be well qualified in the process of designing and coding programming logic for games including coding game rules, mechanics and simulations, to create complete modules and game experiences. Students will work in collaborative teams and provide solid computer engineering solutions pivotal in the development of complete, original games which are ready to publish. Students will be prepared to enter the workforce as junior level engineers specializing in game programming.



### LEARNING OUTCOMES

- Assemble multimedia assets into a single project and provide meaning and structure to those assets through programmatic solutions.
- Construct complex systems to facilitate game rules, mechanics, and simulations.
- Build games or applications driven by mathematics and physics concepts in an architecturally sound software design.
- Apply concepts and techniques in game programming to create complete modules and game experiences at an advanced level.
- Create an industry-standard portfolio containing code samples from class projects.
- Demonstrate professional communication skills effectively with colleagues on an industry production project.

### COURSE MAP

Required Courses	Units
GAM-1 Business of Video Games	3
GAM-2 History of Video Games	3
GAM-3A Game Design	3
GAM-4A Game Scripting	3
GAM-4B Advanced Game Scripting	3
GAM-5A Concept Art	3
GAM-6 3D Digital Modeling	3
GAM-7 Game Studio	3
GAM-8 Current Topics In Game Development	3
	27 Total

DREAM DESIGN DEVELOP