

**NORCO COLLEGE**  
**SLO to PLO MATRIX**  
**PLOs**

- Create accurate, scaled, well -constructed character and environment drawings for use in traditional 2D animation, Flash animation, and storyboards.
- Demonstrate competent skill in 3D character animation including thoughtful application of the 12 principles of animation.
- Utilize character animation cycles effectively within a game engine including the use of forward and inverse kinematics.
- Demonstrate effective professional communication skills while working with colleagues in an industry standard production project.
- Create an industry standard portfolio and demo reel containing 3D animations developed in class projects.

<b>CERTIFICATE/ PROGRAM:</b>	<b>Game Art: 3D Animation NAS686/NCE686</b>	PLOs	Create accurate, scaled, well -constructed character and environment drawings for use in traditional 2D animation, Flash animation, and storyboards.	Demonstrate competent skill in 3D character animation including thoughtful application of the 12 principles of animation.	Utilize character animation cycles effectively within a game engine including the use of forward and inverse kinematics.	Demonstrate effective professional communication skills while working with colleagues in an industry standard production project.	Create an industry standard portfolio and demo reel containing 3D animations developed in class projects.	
<b>COURSE:</b>	<b>ART-17: Beginning Drawing</b>							
SLO 1	Identify and employ proper use of a variety of drawing materials.							
SLO 2	Identify, define, and properly use art terminology.							
SLO 3	List, define, and illustrate the elements of art.		I				I	
SLO 4	List, define, and illustrate the principles of composition.		I				I	
SLO 5	Illustrate visually and verbally a basic understanding of linear and atmospheric perspective and related problem solving.		I				I	
SLO 6	Demonstrate accurate visual perception working in an observational context.		I,D					
SLO 7	Articulate and demonstrate a variety of technical and creative skills in a variety of art materials.							
SLO 8	Participate in critical discussions and reviews, assessing artworks using appropriate terminology.		I				I,D	
<b>COURSE:</b>	<b>ART-44: Animation Principles</b>							
SLO 1	Demonstrate the ability to apply the principles of animation to the creation of motion pictures.		D	I				I
SLO 2	Identify, define and categorize fundamental approaches to the art of traditional animation.		I	I				

**NORCO COLLEGE**  
**SLO to PLO MATRIX**  
**PLOs**

- Create accurate, scaled, well-constructed character and environment drawings for use in traditional 2D animation, Flash animation, and storyboards.
- Demonstrate competent skill in 3D character animation including thoughtful application of the 12 principles of animation.
- Utilize character animation cycles effectively within a game engine including the use of forward and inverse kinematics.
- Demonstrate effective professional communication skills while working with colleagues in an industry standard production project.
- Create an industry standard portfolio and demo reel containing 3D animations developed in class projects.

SLO 3	Review and discuss the history of animation and identify examples by artists and/or studios.				I	
SLO 4	Recognize and distinguish the differences between traditional and contemporary digital animation methods.		I,D,M	I,D,M	I,D,M	
<b>COURSE:</b>	<b>CIS/CAT-54A: Introduction to Flash</b>					
SLO 1	Demonstrate a mastery of authoring tools used for web page and training mediums.					
SLO 2	Create drawing, animation basics, movie clips, action script basics.	I,D		I,D		
SLO 3	Create symbols and instances, shape tweening, motion tweening, and bitmaps, to develop powerful and interactive web sites and training CD's.					
<b>COURSE:</b>	<b>GAM-31: Introduction to 3D Modeling</b>					
SLO 1	Apply the fundamental concepts of Poly Modeling for Game Simulation to create 3D models.		I,D	I,D		I,D
SLO 2	Apply industry standard modeling techniques as a result of comparative analysis of box modeling and extrusion techniques used in Game and Animation Models	I,D	I,D	I,D		
SLO 3	Apply methods for UV unwrapping 3D props, vehicles, environments, and characters for use in Game Simulation and Animation.			I		I
<b>COURSE:</b>	<b>CIS/GAM-35: Introduction to Simulation and Game</b>					

**NORCO COLLEGE**  
**SLO to PLO MATRIX**  
**PLOs**

- Create accurate, scaled, well-constructed character and environment drawings for use in traditional 2D animation, Flash animation, and storyboards.
- Demonstrate competent skill in 3D character animation including thoughtful application of the 12 principles of animation.
- Utilize character animation cycles effectively within a game engine including the use of forward and inverse kinematics.
- Demonstrate effective professional communication skills while working with colleagues in an industry standard production project.
- Create an industry standard portfolio and demo reel containing 3D animations developed in class projects.

<b>E:</b>	<b>Development</b>					
SLO 1	Examine and critically discuss the various industries which use simulation and computer gaming and the methods of which gaming is used.				I,D	
SLO 2	Examine and differentiate the business aspects of game development from concept to commercialization such as concept pitch, planning and scheduling, and promotional tools.					
SLO 3	Analyze, discuss, and apply the principles of theoretically sound game design.					
SLO 4	Identify and differentiate the game development project lifecycle and associated documents such as the Pitch Document, Game Design Document, Technical Design Document, Art Production Plan, Project Plan and Game Prototype.					
SLO 5	Demonstrate an appreciation of the interactions between business, industry and the creative process of game design.				I,D	
SLO 6	Identify career paths and understand the job market outlook and education requirements for computer gaming professionals.					I,D
<b>COURS E:</b>	<b>GAM-42: Photoshop for Game Art and Animation</b>					
SLO 1	Complete projects in Adobe Photoshop using selections, layers and channels to create textures used in game art.	I,D				I,D
SLO 2	Apply college-level methods of critical analysis and synthesis in creating a game art project using Photoshop's digital painting methods and image manipulation.					
SLO 3	Use Layers, Layer Styles, Adjustment Layers and Blending Modes.					
SLO 4	Create custom texture maps for video games and animation software.					I
<b>COURS E:</b>	<b>GAM-44: Portfolio Production</b>					
SLO 1	Consider and assess student portfolio work based on content,				D	D,M

**NORCO COLLEGE**  
**SLO to PLO MATRIX**  
**PLOs**

- Create accurate, scaled, well-constructed character and environment drawings for use in traditional 2D animation, Flash animation, and storyboards.
- Demonstrate competent skill in 3D character animation including thoughtful application of the 12 principles of animation.
- Utilize character animation cycles effectively within a game engine including the use of forward and inverse kinematics.
- Demonstrate effective professional communication skills while working with colleagues in an industry standard production project.
- Create an industry standard portfolio and demo reel containing 3D animations developed in class projects.

	creativity, presentation, craftsmanship, originality, and achievement of goals					
SLO 2	Choose and creatively organize original pieces into a cohesive body of work culminating in a presentation quality portfolio which emphasizes the student's strengths or area of specialization					I,D,M
SLO 3	Organize student information and experience and prepare a creative, professional resume, cover letter, and follow-up letter					I,D,M
SLO 4	Employ professional interview skills in a mock interview setting including presentation of individual portfolio				I,D,M	
<b>COURSE:</b>	<b>GAM-47: Introduction to 3D Animation</b>					
SLO 1	Apply the Twelve Principles of Animation to assets in a 3D simulation environment.		I,D	I,D		
SLO 2	Evaluate the merits of various 3D modeling control schemes, and choose the most appropriate tools for a specified animation task.			I,D,M		
SLO 3	Demonstrate competency using all of the commonly used tools for animation in a 3D simulation environment.		I,D	I,D		
SLO 4	Successfully navigate and apply the graph editor to object and character animations.		I,D	I,D		I,D
<b>COURSE:</b>	<b>GAM-48: 3D Character Animation</b>					
SLO 1	Distinguish and define various methods of animation as applied to real-time interactive simulations.			D,M		
SLO 2	Distinguish and define forward and inverse kinematics.		M	M		
SLO 3	Construct linear, non-linear, path constrained, forward kinematic, and inverse kinematic animation.		M	M		M

**NORCO COLLEGE**  
**SLO to PLO MATRIX**  
**PLOs**

- Create accurate, scaled, well-constructed character and environment drawings for use in traditional 2D animation, Flash animation, and storyboards.
- Demonstrate competent skill in 3D character animation including thoughtful application of the 12 principles of animation.
- Utilize character animation cycles effectively within a game engine including the use of forward and inverse kinematics.
- Demonstrate effective professional communication skills while working with colleagues in an industry standard production project.
- Create an industry standard portfolio and demo reel containing 3D animations developed in class projects.

SLO 4	Assemble animated sequences within a simulation environment or game engine.		I,D,M	I,D,M		I,D,M
SLO 5	Calibrate animated articulated rigid bodies to interact with a user or simulation environment.			I,D		
<b>COURSE:</b>	<b>GAM-70: Computer Skills for Game Art</b>					
SLO 1	Identify the fundamental concepts and terminology for computer operation and use.				I,D	
SLO 2	Identify the key features of a variety of software such as Operating Systems, Digital 2D and 3D software programs					
SLO 3	Demonstrate how to import data from peripheral devices such as external drives, network drives and flatbed scanners.					
SLO 4	Explain the differences and the common use of various graphic file formats.					
SLO 5	Demonstrate proper file naming conventions of major computer platforms.					
<b>COURSE:</b>	<b>GAM-71: Perspective for Game and Animation</b>					
SLO 1	Construct environments and backgrounds with correct visual perspective for use in Game Simulation and Animation.	I,D,				
SLO 2	Create accurate illustrations for background paintings and film mattes with correct cast shadows and reflection.	I,D,				
SLO 3	Apply industry standard tools, techniques, formats, and technology used in the creation of backgrounds and matte painting	I,D,			I, D, M	

**NORCO COLLEGE**  
**SLO to PLO MATRIX**  
**PLOs**

- Create accurate, scaled, well-constructed character and environment drawings for use in traditional 2D animation, Flash animation, and storyboards.
- Demonstrate competent skill in 3D character animation including thoughtful application of the 12 principles of animation.
- Utilize character animation cycles effectively within a game engine including the use of forward and inverse kinematics.
- Demonstrate effective professional communication skills while working with colleagues in an industry standard production project.
- Create an industry standard portfolio and demo reel containing 3D animations developed in class projects.

	for use in Game, Simulation and Animation.					
<b>COURSE:</b>	<b>GAM-72: Anatomy for Game Art</b>					
SLO 1	Demonstrate knowledge of the construction of the primary muscular and skeletal structures of the body.	I,D,M				
SLO 2	Apply geometric primitive structures to the human form in perspective in preparation for creating an accurate model within a 3D software package.	I,D,M				
SLO 3	Utilize line of action and design principles to accurately and attractively design fantasy creatures and humans for use in a game setting.	I,D,M				
SLO 4	Design carefully measured character turn-arounds for use by modelers in the creation of accurate 3D models.	I,D,M				
<b>COURSE:</b>	<b>GAM-73: Storyboarding for Games</b>					
SLO 1	Utilize the language of storyboarding to tell an intelligible, engaging story in a 3D simulation environment.		I,D			
SLO 2	Demonstrate adequate drawing and writing ability to communicate staging and attitude in the context of a story.				I,D,M	
SLO 3	Construct a story diagram of cut-scene events which can be implemented in an interactive environment.					
<b>COURSE:</b>	<b>GAM-79: Game Studio Production</b>					

**NORCO COLLEGE**  
**SLO to PLO MATRIX**  
**PLOs**

Create accurate, scaled, well

-constructed character and environment drawings for use in traditional 2D animation, Flash animation, and storyboards.

Demonstrate competent skill in 3D character animation including thoughtful application of the 12 principles of animation.

Utilize character animation cycles effectively within a game engine including the use of forward and inverse kinematics.

Demonstrate effective professional communication skills while working with colleagues in an industry standard production project.

Create an industry standard portfolio and demo reel containing 3D animations developed in class projects.

SLO 1	Produce an original, complete simulation, digital game or mobile application.			D,M	D,M		D,M
SLO 2	Develop content in the area of game art, game audio, game design or game programming that contributes to a milestone based studio pipeline			D,M	D,M		
SLO 3	Demonstrate mastery of interdisciplinary communication and team skills necessary for success in the games industry.					D,M	