MAJOR UNITS	MAJOR GOALS	TIME ESTIMAT E	EVALUATION STRATEGIES	STANDARDS
Week 1: Unit 0 - Employability IT-CSP-1	 Communication Critical Thinking Teamwork and Problem Solving Meeting Etiquette Interviewing Resume' Job Application Time Management Expected Work Traits Professional Image (Appearance, behavior, and language) 	1-2 Days	Soft Skills/ Employability	IT-GDAS-1: Demonstrate employability skills required by business and industry. *** The following elements should be integrated throughout the content of this course
Unit 0 – Skills USA IT-CSP-9	 POW (Program of Work) Goals, mission and objectives of Skills USA Framework (Personal Skills, Technical Skills, and Workplace Skills) Competitions Scholarships 	1-3 Days	Skilled Based Assessment	IT-GDAS-13: Explore how related student organizations are integral parts of career and technology education courses through leadership development, school and community service projects, entrepreneurship development, and competitive events. *** The following elements should be integrated throughout the content of this course
Week 2: Unit 1 Get Started in Unity	UNIT 1 - Get started in Unity Welcome to the course Install the Unity Hub and Editor Get started with the Unity Editor Create a balanced primitive structure Post Assessment: Unit 1 - Unity fundamentals Time 2:10:00 0:15:00 1:00:00 0:30:00 0:30:00 0:05:00	5 days	Pre-Assessment Skilled Based Assessment Project: Create a balanced primitive structure Post Assessment Unit 1- Unity fundamentals	IT-GDAS-2: Demonstrate conceptual understanding of the game design process. IT-GDAS-5 Construct two-dimensional models using concepts of physics. EOPA Objective(s): Assessment Management Editor Interface Physics Project Management
Week 3: Unit 2:	UNIT 2 - Make a basic game 3:50:00 Introduction to Unit 2 0:05:00 Setting up the game 0:20:00 Moving the player 0:30:00 Moving the camera 0:10:00	5 - days	Pre- Assessment Skilled Based Assessment Project: Build a Game	IT-GDAS-2 Demonstrate conceptual understanding of the game design process. IT-GDAS-3 Apply complex and abstract thinking to programming and scripting. IT-GDAS-4 Analyze and synthesize the relationship of mathematics to game
Make a basic game	Setting up the play area0:10:00Creating collectibles0:15:00Detecting Collisions with Collectibles0:15:00		Game Design Document	design. IT-GDAS-5 Construct two-dimensional models using concepts of physics.

	Displaying Score and Text Adding Al Navigation Building the Game Fill out a Game Design Document Unit 2 - Program a basic game 0:20:00 1:00:00 0:00:00 0:05:00 0:05:00		Post Assessment Unit 2 - Program a basic game	IT-GDAS-8 Explain how to create an Augmented Reality experience. EOPA Objective(s): Assessment Management Game Art Principles Game Design Principles Navigation and Pathfinding Programming Project Management
Week 4: Unit 3: Audio	UNIT 3 - Audio Time 3:00:00 Introduction to Unit 3 0:05:00 Get started with Audio 0:25:00 Create 3D sound effects 0:50:00 Add special effects to existing audio 0:20:00 Challenge: your own soundscape 0:45:00 Add audio to your game 0:30:00 Unit 3 - Audio 0:05:00	5 days	Pre- Assessment Skilled Based Assessment Project: Challenge: your own Project: Add audio to your game Post Assessment: Unit 3 - Audio	IT-GDAS-8 Explain how to create an Augmented Reality experience. IT-GDAS-11 Deploy a student-team created game for beta testing. EOPA Objective(s): Assessment Management Audio
Week 5: Unit 4 - VFX	UNIT 4 - VFX Introduction to Unit 4 Get started with VFX Play around with a Particle System Create an environmental Particle System Create a burst particle Challenge: Add some magic to your scene Add VFX to your game Unit 4 - VFX 2:20:00 0:05:00	5 days	Pre- Assessment Skilled Based Assessment Project: Challenge: Add some magic to your scene Project: Add VFX to your game Post Assessment: Unit 4 - VFX MIDTERM	IT-GDAS-7 Analyze 2D/3D character animation and character controls. IT-GDAS-8 Explain how to create an Augmented Reality experience. EOPA Objective(s): • Materials and Effects
Week 6: Unit 5 UI	UNIT 5 - UI 4:05:00 Introduction to Unit 5 0:05:00 Get started with user interfaces 0:30:00 Add a title to your scene 0:30:00 Manage screen size and anchors 0:30:00	5 – 7 days	Pre- Assessment Skilled Based Assessment Project: Challenge: Make a WorldSpace UI	IT-GDAS-8 Explain how to create an Augmented Reality experience. EOPA Objective(s): Materials and Effects

	Charles a married	0.05.00			
	Create a menu background with	0:25:00			
	images			Project: Add UI	
	Add basic button	0:30:00		to your game	
	<u>functionality</u>			D4	
	Add toggles and	0:30:00		Post Assessment:	
	Sliders Challenge Make	0:30:00		Assessinent.	
	Challenge: Make a worldspace UI	0:30:00		Unit 5 - UI	
	Add UI to your	0:30:00			
	game				
	Unit 5 - UI	0:05:00			
Week 7:					IT-GDAS-6 Develop three-dimensional
Unit C. Aminotion	UNIT 6 - Ti	ime		Pre-	models, backgrounds, and scenes.
Unit 6 - Amination		0:00	5-10	Assessment	IT CDAS 7 Analyza 2D/2D character
	Introduction to	0:05:00	days	71330331110110	IT-GDAS-7 Analyze 2D/3D character animation and character controls.
	Unit 6 Get started with	0:20:00		Skilled Based	animation and character controls.
	animation	0.20.00		Assessment	
	Create your first	0:40:00		Desit 1	
	3D animations	0.10.55		Project: Challenge: Bring	
	Refine your animation	0:40:00		the scene to life	
	<u>animation</u> <u>Control animation</u>	0:50:00			
	with an Animator	0.00.00		Drois st. Add	
	Import animation	0:30:00		Project: Add animation to	EOPA Objective(s):Animation
	Challenge: Bring	1:30:00		your game	
	the scene to life	1.00.00		your game	
	Add animation to	0:30:00		Post	
	your game	0.05.00		Assessment:	
	Unit 6 - Animation	0:05:00		Unit 6 -	
				Animation	
Week 8:			5-10	Pre-	EOPA Objective(s):
Week 8:	IINIT 7 Shadare and	Timo:	5-10 days	Pre- Assessment	
	UNIT 7 - Shaders and Materials	Time: 4:50:00			EOPA Objective(s): • Materials and Effects
Unit 7 Shaders	UNIT 7 - Shaders and Materials Introduction to Unit 7	Time: 4:50:00 0:05:00			
	Materials Introduction to Unit 7	4:50:00 0:05:00		Assessment	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders	4:50:00		Assessment Skilled Based Assessment	
Unit 7 Shaders	Materials Introduction to Unit 7	4:50:00 0:05:00		Assessment Skilled Based Assessment Project:	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering	4:50:00 0:05:00 0:15:00 0:20:00		Assessment Skilled Based Assessment Project: Challenge: Create your still	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders	0:15:00 0:15:00 0:15:00		Assessment Skilled Based Assessment Project: Challenge:	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering	4:50:00 0:05:00 0:15:00 0:20:00		Assessment Skilled Based Assessment Project: Challenge: Create your still	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders	0:15:00 0:15:00 0:15:00		Assessment Skilled Based Assessment Project: Challenge: Create your still	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures	4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and	4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures	4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping	0:15:00 0:15:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still	0:20:00 0:15:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment:	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition	0:4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 -	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game	0:4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:30:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment:	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition	0:4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 -	
Unit 7 Shaders	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game	0:4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:30:00		Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 -	
Unit 7 Shaders and Materials Week 9:	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game Unit 7 - Materials	0:4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:30:00	days	Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 - Materials Pre-	Materials and Effects
Unit 7 Shaders and Materials	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game	4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:30:00 0:30:00 0:05:00	days	Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 - Materials	Materials and Effects IT-GDAS-8 Explain how to create an Augmented Reality experience
Unit 7 Shaders and Materials Week 9:	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game Unit 7 - Materials	4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:20:00 Time: 5:20:00	days	Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 - Materials Pre-	• Materials and Effects IT-GDAS-8 Explain how to create an Augmented Reality experience IT-GDAS-11 Deploy a student-team
Unit 7 Shaders and Materials Week 9:	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game Unit 7 - Materials UNIT 8 - Lighting Introduction to Unit 8	4:50:00 0:05:00 0:15:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:20:00 0:15:00 7:00:00 0:30:00 0:05:00	days	Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 - Materials Pre- Assessment	Materials and Effects IT-GDAS-8 Explain how to create an Augmented Reality experience
Unit 7 Shaders and Materials Week 9:	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game Unit 7 - Materials	4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:20:00 7:me: 5:20:00 0:20:00 0:20:00	days	Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 - Materials Pre- Assessment Skilled Based Assessment	• Materials and Effects IT-GDAS-8 Explain how to create an Augmented Reality experience IT-GDAS-11 Deploy a student-team created game for beta testing.
Unit 7 Shaders and Materials Week 9:	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game Unit 7 - Materials UNIT 8 - Lighting Introduction to Unit 8 Get started with lighting in	4:50:00 0:05:00 0:15:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:20:00 0:15:00 7:00:00 0:30:00 0:05:00	days	Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 - Materials Pre- Assessment Skilled Based Assessment Project:	• Materials and Effects IT-GDAS-8 Explain how to create an Augmented Reality experience IT-GDAS-11 Deploy a student-team
Unit 7 Shaders and Materials Week 9:	Materials Introduction to Unit 7 Get started with shaders and materials Explore meshes and rendering Explore shaders Simulate solid surfaces Map materials with textures Create translucent and transparent effects Add physical texture with bump mapping Challenge: Create your still life composition Add materials to your game Unit 7 - Materials UNIT 8 - Lighting Introduction to Unit 8 Get started with lighting in Unity	4:50:00 0:05:00 0:15:00 0:20:00 0:15:00 0:30:00 0:15:00 0:20:00 0:15:00 0:20:00 0:05:00 Time: 5:20:00 0:20:00 0:20:00	days	Assessment Skilled Based Assessment Project: Challenge: Create your still life composition Project: Add materials to your game Post Assessment: Unit 7 - Materials Pre- Assessment Skilled Based Assessment Project: Challenge: Add	• Materials and Effects IT-GDAS-8 Explain how to create an Augmented Reality experience IT-GDAS-11 Deploy a student-team created game for beta testing.
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		0 0 1	T	Т	
	Add light sources to your scene	0:25:00			
	Configure shadows in your	0:20:00		Unit 8 - Lighting	
	scene				
	Bake a lightmap for your scene	0:35:00			
	Improve your lighting with Light Probes	0:35:00			
	Examine and complete the indoor scene	0:35:00			
	Refine and troubleshoot the indoor scene	0:30:00			
	Showcase your work with lighting	0:35:00			
	Add lighting to your game	0:30:00			
	Unit 8 - Lighting	0:05:00			
Week 10:		<u> </u>	5-10	Pre-	IT-GDAS-2 Demonstrate conceptual
Unit 9 Iterate on	UNIT 9 - Iterate on your	Time:	days	Assessment	understanding of the game design process.
your game	game	3:35:00		Skilled Based	·
	Introduction to Unit 9	0:05:00		Assessment	IT-GDAS-3 Apply complex and abstract
	Explore the production cycle	0:30:00		Project: Finalize	thinking to programming and scripting.
	Reimagine your game on multiple platforms	0:30:00		your project	IT-GDAS-4 Analyze and synthesize the relationship of mathematics to game
	Iterate on the player	1:00:00			design
	controller Source new assets	0:30:00		Unit 9 - Iterate	IT CDAC 10 Design and develop a game
				on your game	IT-GDAS-10 Design and develop a game in software development teams.
	<u>Unity pro tips</u>	0:30:00			an solution actions princing teams.
	<u>Unit 9 - Iterate on your</u> game	0:30:00			EOPA Objective(s):
					Asset Management
					Editor Interface
					Employment Preparedness Art Principles
					Game Art Principles Game Basins Bringins
					Game Design Principles Industry Awareness
					Industry AwarenessPhysics
					Programming
					Project Management
					Services
					2 00171000
Week 10:	UNIT 10 - Prepare for	3:30:00			
	Certification and			Project: Finalize	
Prepare for	Publishing			your project	
Certification and Publish	Prepare for the UCA 1	1:30:00			
i ubiləti	Game Dev exam	2.00.00			
	Finalize your project 2	2:00:00			