



801 N Orange Ave
Sarasota, FL 34236
(941) 926-1700

Virtual & Augmented Reality Technologies

Advanced Career Preparation Pathway

Learn the potential of Virtual Reality and Augmented Reality Technologies

Program Content:

The content includes but is not limited to stereoscopic image acquisition, game engines and their uses, basic techniques for creating interactive applications and how these techniques can be used for Virtual Reality (VR) and Augmented Reality (AR) projects. It mixes together knowledge from a variety of correlated topics, including computer graphics, tracking systems, and perceptual psychology. It targets the key areas of augmented reality (AR) and how to enhance real life objects and environments with digitally generated image overlays. Practical experiences in simulation conceptualization, design, development methodologies, essential programming techniques, Science, Computer Programming, Math, 2D and 3D Art are embedded throughout the program to emphasize the relationship between these areas and the field of immersive technologies.



Industry Certifications:

- Adobe Illustrator
- Adobe Photoshop
- Adobe Animate
- Unity
- Blender
- 3DS Max

Recommended Prerequisites:

- Emerging Technology in Business (8207010)
- Computer Science or IT Equivalent

Course Sequence:

	Course #	Course Title	Prerequisite	FLDOE Title	Credit
A	8208110	Introduction to VR & AR	None	Game & Simulation Foundations	1
	An introduction to the tools and methods used in Virtual Reality Development. Explores principles of the creation of virtual spaces. Introduction to basic processes for creating synthetic objects using 3D software and placing them into a virtual space using game engine technology.				
B	8208120	VR & AR Development	None	Game & Simulation Design	1
	This course is an introduction to game and simulation concepts and careers, the impact game and simulation has on society and industry, and basic game/simulation design concepts such as rule design, play mechanics, and media integration. This course compares and contrasts games and simulations, key development methodologies and tools, careers, and industry-related information. This course also covers strategies, processes, and methods for conceptualizing a game or simulation application; storyboarding techniques; and development tools.				
C	8208130	VR & AR Graphic Artist	None	Game & Simulation Graphic Artist	1

	This course is focused on students acquiring skills to create, refine, and integrate realistic 2D graphics into a game or simulation product. Students will essentially learn how to use a graphic software package, file maintenance strategies, and migration techniques and issues.				
D	8208140	3D Design and Modeling for VR & AR	None	Game & Simulation 3D Animator	1
	This course is focused on students acquiring skills to create, refine, and integrate realistic 3D graphics into a game or simulation product. Students will essentially learn how to use a 3D animation software package, file maintenance conventions, and migration techniques and issues.				
E	8208400	VR & AR Development Advanced Applications	A, B, C, D	Game, Simulation, & Animation Advanced Applications	1

Occupations Outlook:

- Worldwide, VR market volume is expected to reach 98.4 million sales by 2023 (Forbes)
- VR retail and marketing applications will generate \$1.8 billion in revenue by 2022 (Forbes)
- Possible jobs include content producer, software engineer, AR and VR content writers, UI and UX design, and many more.