Miami Dade College

Course Description

DIG2776C | Virtual Reality Platform Development |4.00 credits
Students will learn the fundamentals of Virtual Reality (VR) gaining practical experience using state of the art technology. This course mixes together knowledge from a variety of correlated topics, including computer graphics, tracking systems, and perceptual psychology. Prerequisite: DIG1729C, DIG1772C

Course Competencies

Competency 1: The student will demonstrate proficiency in virtual reality terminology by:
1. Listing practical applications of Virtual Reality
2. Identifying industries using Virtual Reality and how they are benefiting from it
3. Recognizing how Virtual Reality has borrowed concepts from other technologies
4. Recognizing devices used to display VR experiences

Competency 2: The student will demonstrate how 360 stereoscopic images can be displayed on teetered VR devices by:
1. Identifying distribution channels for Virtual reality content
2. Listing compatible video formats and resolutions used to display VR videos
3. Identifying causes of frame drops when displaying high resolution 360 video
4. Identifying how image resolution affects immersion in VR applications

Competency 3: The student will demonstrate cognitive skills and knowledge necessary to develop basic VR applications by:
1. Identifying best practices for the creation of immersive environments
2. Analyzing how immersion and interaction play a role in the generation of presence
3. Recognizing how physical interaction with objects can be imitated inside Virtual Reality experiences
4. Recognizing software and hardware used to create Virtual Reality Applications

Learning Outcomes:
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Use computer and emerging technologies effectively