Syllabus: PSY 484: Virtual Reality in Human Systems Engineering Capstone

Course Title: PSY 484: Virtual Reality in Human Systems Engineering Capstone

Semester: Fall 2024

Instructor: Dr. Alex Rivera

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Office Hours: Wednesdays 10:00 AM-12:30 PM OR by appointment

Class Time & Place: Monday or Wednesday 2:30-3:45 PM in SANCA 165

Course Description:

This capstone course explores the applications of Virtual Reality (VR) in Human Systems Engineering. Students will work on projects that involve designing, implementing, and evaluating VR systems or applications, with a focus on enhancing human performance and safety. The course includes the development of a project proposal, conducting research or practical work, and presenting the project through a report, poster, and elevator pitch at the Innovation Showcase.

Course Objectives:

Develop a VR-based project that addresses a specific issue in human systems engineering.

Create a detailed project proposal, including objectives, methods, and a timeline.

Complete a comprehensive report that evaluates the success of the VR project.

Effectively present the project at the Innovation Showcase.

Learning Outcomes:

Gain expertise in the use of VR technologies in human systems engineering.

Develop practical skills in VR system design, implementation, and evaluation.

Improve communication skills through written reports and presentations.

Enhance the ability to manage complex projects from conception to completion.

Evaluation:

Class meetings (5): 20 points

Individual meetings (3): 12 points

Project Proposal: 10 points

Revised Proposal: 13 points

Final Report: 25 points

Presentation: 10 points

Poster: 10 points

Total: 100 points

Course Policies:

Attendance and Participation: Regular attendance and active participation are crucial for success in this course. Students are expected to attend all scheduled class meetings and individual sessions. If a student is unable to attend a class, they should inform the instructor in advance and arrange to complete any missed work.

Academic Integrity: All students must adhere to ASU's academic integrity policy. Any form of academic dishonesty, including plagiarism, will be reported and may result in severe penalties, including a failing grade for the course.

Accommodations: Students with disabilities or special needs should contact the ASU Disability Resource Center to arrange appropriate accommodations and notify the instructor as soon as possible.

Important Dates:

Class Week 1: Introductions & Project Brainstorming (Aug 26)

Individual Meeting #1: Discuss Ideas and Readings (Sep 4)

Class Week 2: Proposal Presentation & Group Feedback (Sep 18)

Individual Meeting #2: Proposal Feedback & Methods Discussion (Oct 2)

Class Week 3: Revised Proposal Presentation & CERTT Tour (Oct 23)

Individual Meeting #3: Data Analysis & Progress Review (Nov 13)

Class Week 4: Professional Development & Project Discussion (Nov 27)

Innovation Showcase: Final Presentations & Poster Display (Dec 6)