Course Description MEDD8931 People-centric Design for Education Using Simulation Technology

Course description

This course offers an in-depth exploration of virtual reality (VR) beyond technical skills. It aims to provide students with a comprehensive understanding of how to utilise VR effectively and ensure a clear understanding of its purpose and intended audience. The course enables students to apply a people-centric approach in technology and content development, use systems thinking to ideate ecosystem-centric ways of applying technology, to promote scientific inquiry using game-based learning. It also emphasises a Hand-Head-Heart holistic approach that activates a sense of purpose through hands-on skills, critical thinking, and storytelling skills to engage stakeholders, facilitate collaboration, and advance their careers.

Course learning outcomes (CLOs)

- 1. Apply a people-centric approach in technology and content development for different communities, addressing imminent social needs.
- 2. Apply systems thinking to consider and ideate ecosystem-centric ways of applying technology to foster collaborations among key stakeholders, optimizing positive social impacts.
- 3. Utilize game-based learning to promote scientific inquiry in a simulated reality, offering opportunities for sensemaking, prediction, and experimentation.
- 4. Nurture a Hand-Head-Heart holistic approach that activates a sense of purpose through hands-on skills, critical thinking, and ensuring relevance to market needs for future undertakings and career advancement.
- 5. Develop essential storytelling skills for effective communication to engage stakeholders, educate others, and facilitate collaboration in the workplace and beyond.

Course assessment methods

- Class Participation
- Mid-term project
- Final project
- XRCC exercise

Course content and topics

- Empathy Map + Getting Started with XRCC
- System Thinking + Journey Map + Demo (Boardgame Simulating Climate Change) + XRCC Tutorial
- Stakeholder Mapping + Roblox Game Demo (Animal Protection) + Storytelling + XRCC Tutorial
- SEN Case + Human-Centric Design Research + XRCC Support
- Fast Prototyping + Feedback + XRCC Support Specific to the Feedback Received
- Consolidate + Storytelling + Redesign + XRCC Support Specific for Redesign

Required / recommended readings and online materials

To be advised during lectures

Other additional course information

Nil