Bemidji State University

TADD 4810: Advanced Extended Reality

A. COURSE DESCRIPTION
   Credits: 2
   Lecture Hours/Week: 0
   Lab Hours/Week: 0
   OJT Hours/Week: *.*
   Prerequisites: None
   Corequisites: None
   MnTC Goals: None

   This course turns students' understanding of Virtual Reality (VR), Augmented reality (AR), and Mixed Reality (MR) into advanced knowledge of Extended Reality (XR). This course goes beyond the latest developments in hardware, software, equipment, and computing and their impact on creating meaningful human-centered experiences. Students will learn how knowledge in XR can be maximized and applied in the real world, ultimately making students more employable after graduation. Prerequisite(s): TADD 3553.

B. COURSE EFFECTIVE DATES: 08/20/2022 - Present

C. OUTLINE OF MAJOR CONTENT AREAS
   1. Augmented Reality
   2. Virtual Reality
   3. Holograms
   4. Advanced Interactivity
   5. 3D Scanning and 3D Photography
   6. What is advanced extended reality
   7. Types of extended reality
   8. Using extended reality as a designer
   9. Developing extended reality content

D. LEARNING OUTCOMES (General)
   1. examine design industry standards and formats related to extended reality.
   2. summarize VR, AR, MR related software and techniques used to produce meaning XR experiences.
   3. examine extended reality.
   4. examine how to design augmented reality experiences.
   5. examine how to design virtual reality experiences.
   6. compare and contrast technology and software related to extended reality content production.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus
G. SPECIAL INFORMATION

None noted