

Course Title: The Reality of Being Virtual

Course Code: Tech 13

Instructor Name and Bio: Thomas Merrick

Thomas Merrick is a virtual reality enthusiast who has taught VR in the Virtual Human Interactive Lab at Stanford, he has worked with VR Startup Companies like Inspirit, and he currently serves as the Project Manager for the Virtual Reality Learning Experience at the University of Miami. He was an associate partner at PricewaterhouseCoopers and IBM and also spent 20 years in education as an administrator and teacher focused on math, science, statistics, and computer science. He received an MA from Columbia in private school leadership, and he is a 2020 Stanford Distinguished Careers Institute Fellow.

Class Sessions and Recording

Meeting days and times: Mondays, April 3 - May 22, 7:00–8:50 pm (PT)

Meeting location: Oculus 2 Headsets & Zoom (details will be shared with registered students prior to first class meeting)

The class sessions will be recorded in zoom, but live attendance is required, as much of the class will take place while being immersed inside of a virtual space.

Course Features:

- Live session
 - Lecture, demonstration, practice time for students
 - Requires interaction and active participation
 - Guest speakers
 - An informal drop-in time for student Q&A
- Assignments & Coursework
 - Assignments and course materials posted in Canvas
 - Students will submit one large workshop piece
 - Instructor will provide feedback on assignments
 - Students will give presentations (recorded or live)
 - Students will work on a group assignment
- Instructor will offer Zoom office hours
- Individual conferences available by request

Course Summary

Each week will follow roughly the same structure.

- During Monday's lecture time, a student panel will synchronously discuss the readings with Thomas Merrick in a VR space in Engage while the rest of the class observes. We will also alternate between guest lecturers (i.e. [Jeremy](#))

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[Bailenson](#), [Aditya Vishwanath](#), [Rebecca Van Dyck](#), etc.) and VR experiences (e.g., watch 360-degree videos, sit in on a meditation class in Altspace VR, etc.).

- At the end of each discussion section, students will receive a short quiz covering all of the prior activities from the week (e.g., readings, VR activities, student panels).

Student Panels

All students will be required to join one of the student panels during the quarter to discuss the reading with Thomas Merrick. Students will choose one date for which they will be a panelist and prepare questions, ideas and topics for the panel. These sessions will be observed by the rest of the class, and will also be recorded. Content from the panels, including new content, will be testable and on quizzes.

Quizzes

Each week there will be a quiz at the end of the discussion section. The quizzes will be short, and can be taken over a 24-hour period directly following the discussion section. Once a student begins the quiz, they will have 20 minutes to complete the quiz. Quizzes will be made up of approximately 10 multiple-choice items and one short answer question. If a student encounters technical difficulties while taking the quiz, they can request a second attempt.

Discussion Section Participation

Students must attend a section, using their headsets via the Engage platform, and be prepared to participate actively. This means having read and thought about course content that will appear on quizzes, and being prepared to describe key points, arguments, and questions. You will be called on to do so, and evaluated on the quality of the contributions.

VR Journeys

We will be doing many different activities in VR, and it is critical that everyone participate in these journeys. These journeys will typically take about 30 minutes. Students will turn in a screenshot documenting their participation in the journeys by 10am PST on Wednesday for asynchronous VR journeys, and by 2pm PST on Wednesday for synchronous journeys during lecture time.

Built VR Scene in Engage

Each student will focus on building their own VR scene using the “Snapshot” capture tool in Engage. Those who are familiar with programming can build interactive demos using the scripting language in Engage. Those not familiar with programming can use the menu-driven IFX commands to create a scene. We will talk about the goals of the VR demos for each student in the discussion section of the sixth week. The final scenes will be presented to the class during the last Wednesday lecture time.

**Please see course page for full description and additional details.*

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Grade Options and Requirements

- No Grade Requested (NGR)
 - This is the default option. No work will be required; no credit shall be received; no proof of attendance can be provided.
- Credit/No Credit (CR/NC)
 - Students must attend at least 6 class sessions
- Letter Grade (A, B, C, D, No Pass)
 - Students must attend 6 class sessions, take 6 of 8 short quizzes and build a VR scene in Engage

**Please Note: If you require proof that you completed a Continuing Studies course for any reason (for example, employer reimbursement), you must choose either the Letter Grade or Credit/No Credit option. Courses taken for NGR will not appear on official transcripts or grade reports.*

Textbooks/Required Materials

Each class's reading assignment will consist of selected chapters from two books that were written specifically as textbooks for this course—*Experience on Demand*, and *Infinite Reality*. Some weeks will also include additional readings and videos. All readings, including PDFs of both books, will be available on-line. See the reading schedule in the weekly outline for more details.

First Assignment

Make sure to purchase the Oculus 2 headset, load the application Engage, onto your headset, and create an Engage Account (free) by going to this link - <https://app.engagevr.io/register>

Tentative Weekly Outline

Week 1: How does VR work?

Reading: EoD, Chapter 10; IR, Chapter 3; TechQuickie Tracking Video
Monday Lecture: In-person - Learn how to use the Quest 2

Week 2: Presence.

Reading: EoD, Chapter 2; Lee, 2004.

Week 3) Education.

Reading: EoD, Chapter 9; Markansky & Peterson, 2021

Week 4) Sports Training & Avatars.

Reading: EoD, Chapter 1, EoD, Chapter 7;

Week 5) Empathy.

Reading: EoD Chapter 3, IR, Chapters 5 and 6, Cogburn et al. 2020, Watch 2D video capture of 1000 Cut Journey.

Week 6) Medical.

Reading: EoD, Chapters 5 & 6; Weiss et al. 2021.

Week 7) Climate Change.

Reading: Markowitz & Bailenson, 2021; EoD Chapter 4

Week 8) Future of VR.

Reading: IR, Chapter 9, 11, and 14, Slater et al. 2020.