

Four Thursdays: June 6, 13, 20, and 27, 2019
10:00 – 11:30 a.m. in Room V1125

Instructor: Eric Zocher — zocherclass@gmail.com

Try Virtual Reality!

This class is a hands-on introduction to Virtual Reality and Augmented Reality. You will be using about 25 different apps on three different VR devices and one AR device. The devices and apps chosen for the class will give you a broad exposure to the current state of VR and AR.

The only way to really understand what VR is about is to experience it yourself, so we will spend about 2/3 of the class time using Virtual Reality. There will be four short lectures, one to get you started and the rest to put the experiences in context and talk about the future of VR.

Every student will be paired with a buddy for safety and assistance. The pairs of buddies will be designated Team A, Team B, and so on. You will be on the same team each week.

Class Schedule and Topics

There will be four lectures and four Try It sessions as follows:

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|---------|--|
| June 6 | ➤ Lecture: Class format and schedule; Introduction to VR and AR; Using the devices |
| | ➤ Try It session #1 |
| June 13 | ➤ Lecture: Reminders about using the devices; VR terminology; Intro to MR |
| | ➤ Try It session #2 |
| June 20 | ➤ Lecture: VR current landscape, near future, and potential issues |
| | ➤ Try It session #3 |
| June 27 | ➤ Lecture: Location-based VR; Exploring further / Next steps for you |
| | ➤ Try It session #4 |

Try It Sessions

The teams of buddies will take turns trying a different device during each of the four Try It sessions. Eric will list the teams and which devices they will be using on the whiteboard.

Please consult the provided cards which show:

- The important buttons on the controller(s) and their functions
- How to put on and adjust the headset
- Instructions and tips on how to start and use the apps

Devices

	Device	Type
	Oculus Go	Basic stand-alone VR
	PlayStation VR	Mid-range game console VR
	HTC Vive	High-end PC VR
	Apple iPad	Mid-range tablet running AR apps

Apps

Device	Apps
Oculus Go	Pixvana SPINPLAY – 360° video player Art Plunge – Animated VR paintings Wander – Virtually explore the real world

Apps (continued)

Device	Apps
PlayStation VR	PlayStation VR Worlds – Underwater experience Beat Saber – Rhythm slicing game Other games as time allows (ask Eric)
HTC Vive	Google Earth VR – Explore earth from above Tilt Brush – Paint in 3D The Lab (Valve) – VR experiments and demos
Apple iPad	IKEA Place – AR interior design Google Translate – Live language translation Blippar – People and object recognition Engolve – Animated AR coloring books Metaverse – Augmented Reality Art HoloGLOBE – AR Globe with Merge Cube Hair Color – AR Hair color swapper Pokémon GO – AR Real-world multiplayer game Washington Post – AR News stories and graphics Seeing AI – AR talking camera for the blind Sky Guide – AR Astronomy Just a Line – Simple AR drawing Car Finder – AR Car locator (parking) WWF Free Rivers – AR education about rivers Yelp – AR overlay of nearby restaurants Maps (Apple) – AR Map flyover Measure (Apple) – AR Measuring tape iScape – AR Landscape design Art – AR Preview of prints and photographs Notable Women – AR bios of notable women

VR Vendors

Oculus (Go, Quest, and Rift) — <https://www.oculus.com/>

HTC (Vive) — <https://www.vive.com/us/>

Valve (Steam Store and Steam VR) — <https://store.steampowered.com/vr/>

Microsoft — <https://www.microsoft.com/en-us/mixed-reality>

Magic Leap — <https://www.magicleap.com/>

Apple — <https://www.apple.com/ios/augmented-reality/>

Google — <https://vr.google.com/> (PC VR)
<https://developers.google.com/ar/> (Android AR)

Sony (PlayStation) — <https://www.playstation.com/en-us/explore/playstation-vr/>

VR News Sites

Upload VR — <https://uploadvr.com/>

Next Reality — <https://next.reality.news/>

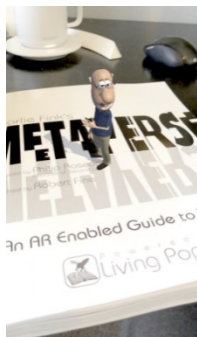
Road to VR — <https://www.roadtovr.com/>

VR Voice — <https://vrvoice.co/>

The Verge — <https://www.theverge.com/vr-virtual-reality>

TechCrunch — <https://techcrunch.com/tag/virtual-reality/>

VR Books



Fink, Charlie. *Charlie Fink's Metaverse – An AR Enabled Guide to VR & AR*. Cool Blue Media (2018)

A broad and deep overview of the current state of VR and AR and where they are headed. Covers the history, business, and social impacts. The book is accompanied by an AR app that works on phones and tablets.

Updates: <http://finkmetaverse.com/#updates>

Bailenson, Jeremy. *Experience on Demand: What Virtual Reality Is, How It Works, and What It Can Do*. W. W. Norton & Company (2018)

Lanier, Jaron. *Dawn of the New Everything: Encounters with Reality and Virtual Reality*. Henry Holt and Co. (2017)