



Intro to Virtual Reality 5-6 Syllabus

Course Goals

1 VR Technology

Students use a virtual reality headset and peripheral controller to navigate an assortment of educational and entertaining experiences.

2 Exploration

Students explore different scientific fields, historical eras, and world landmarks in a variety of age-appropriate apps.

3 Creation

Students design and share artistic projects in virtual reality.

4 Collaboration

Students work together, both “in” and “out” of virtual reality, to accomplish shared goals.

Course Topics

1 Intro to VR

Students try out apps which familiarize them with the VR environment and several different control schemes.

2 Science

Students use immersive apps to explore outer space, the ocean floor, and inside the human body.

3 Geography

Students travel the globe, visiting landmarks worldwide.

4 History

Students learn about cultures and mythology of the past, brought to vibrant life in VR.

5 Art & Design

Students paint and sculpt in VR, and tour virtual art galleries.

6 Problem-Solving

Students tackle assorted puzzles, developing critical thinking and having fun along the way.

7 Teamwork

Students communicate with one another, on-headset and off, to complete puzzles and projects.

Course Schedule

Day 1

Course Rules and Introduction

Students are introduced to course rules, their classmates, and the instructor.

Oculus Go Tutorial

Students learn the basic controls to operate their VR headsets.

Welcome to Virtual Reality

Students view a short film introducing the many possibilities presented by VR tech.

A Night Sky

Students use their controllers to connect-the-stars and bring constellations to life

Coaster Combat

Students hone their hand-eye coordination in this fast paced target practice game.

Maze VR

Students twist and turn to navigate mazes in virtual reality.

Epic Roller Coasters

Students ride a roller coaster like no other in a variety of exotic settings.

Day 2

Droid Repair Bay

Students encounter BB-8 and other Star Wars droids aboard a repair craft.

Mission ISS

Students join the crew of the International Space Station, maneuvering inside and outside the craft in zero gravity.

Gala 360: Curiosity Rover

Students roam the surface of Mars with NASA's Curiosity rover.

Titans of Space

Students tour our Solar System and visit some of the most gargantuan star systems beyond.

Space Time

Students explore some of the oddities of space-time in these modules from PBS.

Day 3

Geoget

Students compete to locate countries on a globe.

Masterworks

Students tour historic cultural landmarks, including Mount Rushmore and the ancient capital of Thailand.

Gala 360: Oxford University Museum of Natural History

Students explore a recreation of the Oxford University Museum of Natural History

Gala 360: Rome in 3D

Students tour ancient Roman landmarks and learn about their place in history.

Smithsonian Journeys: Venice

Students tour the historic city of Venice, Italy accompanied by a guide.

Day 4

Looking Glass VR

Students use a stereopticon, perhaps the earliest “virtual reality” device, to explore world history.

Wonders of the World

Students interact with ancient communities to learn about their staggering architectural achievements.

Amassed from the Past

Students explore an assortment of other history-themed apps.

Wander

Students use Google’s Streetview map to place themselves instantly in locations around the globe.

Day 5

Paint VR

Students paint in three dimensions in this innovative app.

Sculptr VR

Students use different materials to sculpt in 3D.

Sketchfab

Students tour a virtual gallery filled with 3D models of all shapes, sizes, and subjects.

Städel Time Machine

Students explore an historic German art museum.

Meeting Rembrandt

Students encounter the renowned Dutch painter in his workshop and learn the origins of one of his most famous works.

Day 6

The Body VR

Students take a ride through the bloodstream to visit different bodily systems up close.

Unimersiv Body

Students explore other parts of the body, from the brain to the bones.

In the Eyes of the Animal

Students see from different perspectives as they assume the viewpoint of a mosquito, a dragonfly, a frog, and an owl.

Unimersiv Dinosaurs

Students get up close and personal with prehistoric species from the Triassic, Jurassic, and Cretaceous periods.

Jurassic World: Apatosaurus

Students encounter the iconic long-necked dinosaur through the special effects wizardry of Industrial Light and Magic.

Discovery VR

Students explore the animal kingdom in an assortment of immersive clips from the Discovery network.

Day 7

Ocean Rift

Students dive beneath the waves to encounter sea life of all kinds.

Unimersiv Titanic

Students tour the doomed ship as it looked before the disaster.

Sea of Memories

Students sail a tranquil sea solving dozens of perspective-based puzzles.

Day 8

They're Gonna Put Me in a Movie

Students are introduced to the 360 Camera and plan out scenes to record.

All the World's a Stage

Students film immersive scenes using the 360 camera.

What Happened to Then?

Students load the 360 videos they shot onto their VR headsets to experience them in a whole new way.

Day 9

A World of Mine Own

Students explore and build in Minecraft VR.

Day 10

Land's End

Students travel beaches, caverns, and tundra, solving puzzles to move from checkpoint to checkpoint.

Keep Talking and Nobody Explodes

Students work together, both on-headset and off, to disarm a bomb.

Back to Reality

Students put away their equipment and discuss future applications of VR technology.

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