

# Virtual Worlds

## ***Description***

The world is a work of carefully assembled, organized and presented pieces of fiction, which intersect more or less intimately with our beliefs and experiences. This course will propose a suspension of disbelief in order to architect and construct virtual cosmogonies in the Unity game engine. How can we pick, lay out and program texts, images, films, objects, spaces and procedures to persuade a virtual visitor of the coherence of our world? Drawing on environmental storytelling, procedural rhetoric, literary studies and museography, this class will explore how we can build cosmogonies of untold stories, alternate realities and possible worlds.

## ***Learning Outcomes***

- Gain proficiency in designing and developing interactive environments in Unity
- Understand the implications of dynamic information design on worldmaking and placemaking
- Develop critical thinking of the role of media overload in today's fictions
- Understand and apply processes for social imagination
- Implement various procedural techniques for communicating abstract concepts in digital space

# ***Teaching Methodologies***

## **Readings**

Students will complete short daily readings of fiction and non-fiction, around the topic of worldbuilding, social imagination, and literary theory. These readings will serve as the basis for class discussions, and will be complemented by prompts provided by the instructor.

## **Unity Exercises**

During the first week, students will be assigned exercises related to Unity development and world design. These will lay the ground work for their final project, and will involve both the *how* and *why* of content creation.

## **Final Project**

The final project will consist in a virtual world developed over the course of a week in Unity. The final project can be done individually or in pairs, and will result in a digital, dynamic exhibiting space for a world which could or could not exist. Some of the evaluation criteria will include consistency of the worldview, relevance of communication methods and expressivity of the spatial layout.

## ***Schedule***

### **Day 1 - 05.01 - Introduction**

This session will introduce the themes, tools and structure of the class. The lecture will initiate discussions about the role of fiction, imagination and society.

### **Technical**

- Recap of Unity
- Getting to walk around in a first-person view.

## **Day 2 - 06.01 - Ways of Worldmaking**

This session will introduce the concepts of worldmaking, fiction and diction. By exploring the difference between poetics and aesthetics, we will develop a better grasp of how form and content can give birth to meaning in spoken, written and visual media.

### **Technical**

- Importing external assets in Unity.
- Working with images, sounds and models.

## **Day 3 - 09.01 - Idea Presentation**

This session will allow students to present their ideas for their final project, from the concept to the proposed implementation. Students will be encouraged to provide feedback to each other during and after the presentations.

### **Technical**

Working with UI

## **Day 4 - 10.01 - Environmental Storytelling**

This session will focus on how spatial design can act as a communicative tools, building from techniques of level design, environmental storytelling and emergent narratives. We will examine how physical structures, objects, negative space, scale and lighting can express both emotions and histories.

### **Technical**

- Working with triggers and colliders
- Lighting in Unity

- Animations

## **Day 5 - 11.01 - Responsive Spaces**

Building on the previous day, this session will survey how spaces communicate concepts in the traditions of installation art, exhibition design and architecture. This will provide us with a more theoretical and historical overview of attempts at manifesting ideas through constructions. A special emphasis will be on the interactive components of these works.

### **Technical**

- Advanced scripting
- Prefabs, transforms and instantiation

## **Day 6 - 12.01 - Procedural rhetoric - I**

Beyond strict written and visual media as conveyors of arguments, this session will explore how algorithms can be designed and implemented in order to suggest possibilities, courses of actions, and worldviews upon their audiences.

### **Technical**

- EventSystem
- Raycasting

## **Day 7 - 13.01 - Procedural rhetoric - II**

Continuing on the previous day, this session will have students implement a meaningful interaction which tells a story about their world. We will start by thinking of the design of the interaction, its elements and outcomes, and then work together to implement it.

### **Technical**

- Coroutines

- Messages and Events

## **Day 8 - 16.01 - Network Embrace**

This session will focus on the inclusion of networked media within spaces (both virtual and physical). From network art to the smart city, we will explore how connections, flows, distance and proximity can influence certain approaches of our world.

### **Guest Lecture - Lucas Gutierrez**

#### **Technical**

- HTTP connections
- Multiplayer networking

## **Day 9 - 17.01 - Framing and presenting**

This session will focus on building, publishing and presenting the students projects. An artwork doesn't exist in a void; we will see how it is possible, and desirable, to display this artwork within a given context to facilitate the audience's engagement with the artwork.

#### **Technical**

- Build process
- itch.io and webdesign

## **Day 10 - 18.01 - Testing and Feedback**

This session will be dedicated to presenting and testing your projects to your classmates, incorporating feedback and perspectives into your virtual space, including open office hours.

## **Final Day - 19.01 - Show & Tell**

Project presentation to the whole program