

# VIST405 Visual Studies Studio III

## Project 1. Augmented Reality Design: 3D Projection Mapping for Wellness/Health care

For project one we will explore the concept of augmented reality. Create a 3D animation or motion graphics to be projected onto a real environment to achieve the augmentation. Concentrate on the quality of aesthetic experience that can help audience's wellness or health care in a broader sense. Consider image, motion, sound, narrative, and environment of the project. Interactivity is optional. We will use real world "found" objects, architecture, people (think augmented fashion) etc. as the spatial setting for the work. You can also create your own environment or object as a form of art installation or sculpture. The primary objective of this project is to find an experiential bridge between the physical and virtual worlds in terms of immersive experience for wellness and health care.

**Task:** Design an AR (Augmented Reality) environment using 3D projection mapping techniques

- Theme: Immersion for wellness/health care
- Project type: Projection on an existing environment or fabricated environment

### Part 1 – Concept

- Develop a concept for an AR environment that allows a user(s) to get immersed and feel relaxed/contemplative/meditative.
- You can Explore personal interests in general mental or physical problems (ex. stress, depression, autism, hydrophobia, sleep disorder, chronic pain, rehab)
- You will conduct a user study with your project. Consider inviting actual patients to try it.
- Each team needs to find a space or fabricate a physical environment for projection and study your space.
- You will need to create some relationship (through immersion) between physical and augmented environments. This relationship should be considered according to the context you define.
- Consider an audience's point of view (first person view) as well as viewer's (third person view).
- An environmental input (sound, light, temperature, etc.) or audience interaction is recommended to create more engaging project.

### Part 2 – Research

You should conduct two types of research:

- Research on the problem you choose to explore regarding existing interventions and/or alternative methods
- Research other projects that are related to yours. Make sure the projects relate

- to your concept and not just the technology.
- Research / experiments on your own experience in the system and invite other people (patients) to conduct a user study

This research needs to be part of your final presentation as well as your blog documentation.

### **Part 3 – Implementation**

The focus of this project is a quality of augmentation that can enhance wellness.

- Find a space and experiment with a projector
- You use 1 projector
- Consider physical, technical constraints (power source, light, time, placement of hardware)
- Focus on creating qualitative relationships between a physical space and media content.
- Consider the ambient interaction between your system and environment
- The aesthetics of the image and sound of your project is important

### **Part 4 – Presentation (10 mins)**

- Slides (5-6 pages)
- Present your concept, title, experience, research and a demonstration of the project.
- Use supporting images, drawings schematics, and screen shots to illustrate the project, the interaction and the environment.
- Technical description
  - 2D, 3D techniques
  - Sensing/responding (if interactive)
  - Programming logic (pseudocode, flow chart)
- Progress
- Your own experience + User study

### **Part 5 – Documentation**

- Keep updating your blog at least once a week
- Use multimedia sources (images, videos, texts, etc.)
- Create a documentation video (3mins)

### **Evaluation Criteria**

- Aesthetics
- Functionality
- Experience
- Presentation
- Documentation
- Interaction (optional)

**Time Table**

- September 12 Brainstorming of problems, Environment Research, Storyboard
- September 17 Design Proposal, Tutorial of Madmapper plug-ins
- September 19 Research Presentation, Tutorial of Madmapper plug-ins
- September 24 Interaction Design (biofeedback sensors)
- September 26 Working Session
- October 1, 3 Working Session, Physical System Implementation
- October 8 Technical Rehearsal
- October 10 Exhibition / User Study
- October 15 Documentation Video, Blog Due

**Good Luck.**