



Course title and number	VIZT 405 Visual Studies Studio III
Term	Fall 2012
Meeting times and location	MW 3:00-5:30pm, ARCC 304A

Course Description and Prerequisites

Credit: 4. (2-2) Theory and practice in the art and science of the visual image; scientific and mathematical principles as process; information theory and sensorial design; interactivity and user integration; integration of real and virtual environments including lighting design and material definition.

Prerequisites: VIST 305, CARC 301, or VIST 494

Course Introduction

VIST 405 will expand on previous studio experiences exploring the interplay of physical and virtual experiences in the context of interactive art, design and technology practice. Students will learn advanced visualization techniques in the Mixed Reality (VR and AR) environments focusing on applications for advancing health care and well-being. It will focus on the emergence of interdisciplinary inquiry and practice. The aim of the course is to develop an understanding of the field of innovative visualization for health with an emphasis on Immersive experience to create better educational and research environments. This studio provides students with the opportunity to develop skills, knowledge and aesthetic experience in interactive media art and design.

Students will be involved in two design situations that will challenge them to integrate advanced visualization techniques and health related problems. These will range in scale from group research projects to small design exercises. Collaboration in this course is critical even though projects may be tailored to the specific design interests of the individuals in the class. VIZ students will collaborate with graduate students from the Architecture department for smart care spaces.

Learning Outcomes or Course Objectives

Upon successful completion of this course students will be able to:

- Explore and utilize experimental concepts and techniques for health and well-being
- Explore embodied interaction in mixed media environments
- Include completed design/research projects from the class in their portfolio
- Submit/publish creative works and research papers in national, international events/conferences
- Exhibit their work in various venues with greater impact and coherence

Instructor Information

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TA: Morgan Jenks

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TA: Stephen Alderidge

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Office hours: W 2-3 pm (By appointment)

Textbook and/or Resource Material

The Art of Immersion (<http://artofimmersion.com/>)

Virtual Art From Illusion to Immersion by Oliver Grau (<http://mitpress.mit.edu/catalog/item/default.asp?ttype=2&tid=10335>)

Lowering the threshold of immersion in embodied interactive art (<http://vaqueterrain.net/journal16/pierre-proske/01>)

Immersion vs. Interactivity: Virtual Reality and Literary Theory
(<http://www.humanities.uci.edu/mposter/syllabi/readings/ryan.html>)

The Immersive Artistic Experience and the Exploitation of Space (<http://www.bcs.org/content/ConMediaFile/14591>)

Interactive Augmented Reality (http://www.arlab.nl/old/docs/interactive_AR.pdf)

Madmapper Software (<http://www.madmapper.com/>)

Art for Health Care (<http://www.nyfa.org/level3.asp?id=377&fid=6&sid=17>)

Health Games Research (<http://www.healthgamesresearch.org/>)

Health Point (http://www.healthpoint.pt/ambiente_imersivo_en.html)

Will Augmented Reality change the face of health care?

(<http://healthcareandthesocialweb.ning.com/profiles/blogs/will-augmented-reality-change-the-face-of-health-care>)

Versatile, Immersive, Creative and Dynamic Virtual 3-D Healthcare Learning Environments: A Review of the Literature (<http://www.jmir.org/2008/3/e26/>)

Health care in the era of augmented and virtual reality

(<http://blog.withings.com/en/2011/09/20/health-care-in-the-era-of-augmented-and-virtual-reality/>)

Augmented reality for healthcare devices

(<http://blogs.freescale.com/2012/05/17/augmented-reality-for-healthcare-devices/>)

Course Topics, Calendar of Activities, Major Assignment Dates

IMPORTANT - All projects must be turned in on the due date with high quality digital documentation (blog).

Phase 1: The Introduction of Virtuality Continuum + Healthcare/Well Being

Week 1: Introduction, Setting up a blog, Virtuality Continuum, Health Care

Phase 2: Augmented Reality Space for: Projection Mapping Project 1

Week 2: MR in Interactive Art/Public Art

Week 3: Environment Research, Storyboard, Design Proposal

Week 4: Contents Development

Week 5: Interaction Design

Week 6: Physical System Implementation

Week 7: Project 1 Presentation

Phase 3: Navigable Space in Healthcare Environment: Project 2

Week 8: Immersive Space Design-Concept development, Due for Project 1 Documentation

Week 9: Immersive VR Techniques, Bodily Interaction Design
Week 10: Immersion/Presence, Stereoscopic Display
Week 11: System Implementation
Week 12: Physical Space Fabrication
Week 13: Project 2 Presentation
Week 14: Participant study

Phase 4: Dissemination

Week15: VIST Show, Due of Research Paper and Documentation Video

Grading Policies

- Students in VIST 405 will be evaluated according to the following criteria:
- Project 1: 35%
- Project 2: 35%
- Research + Documentation: 15%
- Research Paper: 10%
- Class Participation: 5%
- TOTAL 100%

As an aide to understanding the method by which your assignments are evaluated, read the following carefully. The actual grading criteria will be related to these categories but will be more specific to the given assignment. The scores noted below are relative to a 100 % assignment.

A: 90 – 100: The student work has imagination and the response to the assignment show understanding and thought; The work is highly developed and well presented; The entire project shows depth and breath and is well coordinated; The project potential has been achieved.

B: 80 – 90: The student work shows imagination and potential; Presentation and visual content is good; The assignment requirements are fulfilled but in need of more refinement or development; There are no major issues that would require a total redesign of the project.

C: 70 – 80: The student has completed the basic assignment, but the work lacks depth of understanding; Some aspects are not completely satisfied and the work contains little promise even though most issues have been addressed.

D: 60 - 70: The work has problems in two or more major areas; Skill and problem development is marginal or incomplete; The project lacks imagination and/or design/artistic potential.

F: 60 and below: The student work is unresolved; the intentions are unclear and major criteria or goals lack resolution; Presentation is incomplete and/or of poor quality; There is a complete lack of problem solving intent, artistic content and/or visual merit.

Additional Ground Rules

1. You are responsible for receiving and responding to email I send as part of the class. I will use the official email address provided in the class roster. This is typically in the form yourname@neo.tamu.edu. Be sure you are receiving email sent to that address.
2. Attendance will be taken at the start of every class. University rules related to excused and unexcused absences are located on-line at <http://student-rules.tamu.edu/>
3. If you are not ready for presentations or to hand in an assignment, don't skip class. Your contributions in the form of participation are important, and missing class will not prevent lateness penalties.
4. Always observe safe practices using equipment and media. Spray paints, glues, and other aromatic substances should be used in the outdoor painting booths.

5. You are responsible for anything noted in this syllabus whether it is discussed in class or not.
6. Class time for studio work must be spent on assignments for this class and not others.

Plagiarism

In this course, we want to encourage collaboration and the free interchange of ideas among students and in particular the discussion of reading and writing assignments and review questions, approaches to solving them, etc. However, we do not allow plagiarism, which, as commonly defined, consists of passing off as one's own the ideas, words, writings, etc. which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one form of scholastic dishonesty. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section on Scholastic Dishonesty.

Please note the use of source code, software libraries, images and sound, and other materials from outside sources is only allowed when it is clearly declared at the time the assignment is turned in, and when doing so does not violate copyright or other limitations stipulated by the original creator.

Aggie Honor Code

"An Aggie does not lie, cheat or steal, or tolerate those who do"

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System.

For additional information please visit: <http://www.tamu.edu/aggiehonor/>

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>

Academic Integrity

For additional information please visit: <http://www.tamu.edu/aggiehonor>

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Syllabus

Is subject to change based on the needs of the class