

# IMMERSIVE DESIGN

# SPRING 2018

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Advising Website <http://laurahuisinga-design.com/GD>

<http://laurahuisinga-design.com/GD159>

Check frequently for resources, updated schedules, due dates, and project descriptions.

## COURSE DESCRIPTION

This course explores 3D digital modeling and its incorporation into augmented and virtual environments. Students will research and explore different ways to implement augmented and virtual reality. (6 lecture-lab hours) It is usually expected that students will spend approximately 2 hours of study time outside of class for every one hour in class. Since this is a 3 unit class, you should expect to study an average of 6-12 hours outside of class each week. Units 3: Repeatable up to 6 units

Prerequisites for the course: GD 150 and GD 157 or permission of the instructor

## REQUIRED MATERIALS

There are no required course materials to purchase. Required readings and lynda.com videos will be provided in class. Students are expected to conduct their own research on immerse technologies using library and on-line resources.

## COURSE SPECIFICS

Summary/outline of the course: This course will be driven by research and experimental development of immerse technologies. Students will learn the basics of 3D modeling while researching how to implement them in different augmented and virtual environments. Time will also be spent considering the usability, UX (user experience) design and UI (user interface) design of an augmented or virtual reality interface.

# COURSE POLICIES

## COURSE GOALS

After completing this course students will be able to:

- Use critical thinking skills to conduct research and development
- Construct your own self driven project proposal and execute it.
- Create 3D models with Maya or other 3D modeling programs
- Add 3D model to augmented environment
- Add 3D model to virtual environment
- Be able to analyze, breakdown and discuss others 3D modeled environments and AR/VR environments.
- Use diverse approaches and tool to solve problems

## COURSE REQUIREMENTS/ ASSIGNMENTS

There will be in class demos and exercises that count toward your participation grade. Actively engaging in critiques is expected and will also count toward your grade.

### **REMEMBER!**

*It is better to show up to critique with unfinished work than to skip if you are unprepared.*

## ATTENDANCE POLICY

Attendance is required. You are excused for two absences per semester. Absences that exceed this number will result in a lower final grade. Additional excused absences may be considered in extenuating circumstances. Please discuss with me before missing class. Addition unexcused absences will result in a drop of a letter grade. You are expected to stay for the duration of the class, Missing 20 or more minutes of class will be considered Late, and 40 minutes an absence. Five Late Penalties will be considered an absence. If you plan to miss class, please contact your instructor for your assignment before the absence. If you miss due to unexpected reasons, it is your responsibility to get your assignment from a classmate so that you are prepared for the following class.

## GRADING POLICY

Grades will be based on the completion of the assignments, the execution of the design objectives, and the documentation in electronic process notebooks. Your grad for each project is based on the project description requirements as well as the syllabus. Please be sure to address any questions with the requirements with your instructor right away.

**A= 90%-100%, B= 80%-89%, C= 70%-79%, D= 60%-69% F= Below 60%**

Weekly assignments = 10%

Class attendance & participation (including assigned presentations) = 20%

Projects = 70%

Refer to the class website or google classroom for updated and accurate due dates.

# COURSE POLICIES

Key	Grading Rubric Labels	
[-NI-]	[NEEDS IMPROVEMENT]	Missing requirements, or major parts of the project. Lack of effort.
[-S-]	[SATISFACTORY]	Technically fulfilling at least 90% of requirements but lacking elaboration or depth to your concept and work.
[-G-]	[GOOD]	Fulfilling all requirements and deliverables providing thoughtful depth to your concept, and showing the use of UX principles and Design principles throughout your process and final product.
[-E-]	[EXCELLENT]	Going beyond the requirements, creating a concept of depth and complexity, demonstrating a consistent use of UX principles and design principles thought project and process book.

General Grading Rubric for Projects	
[NI] [_S] [_G] [_E]:	Completion of the assignment
[NI] [_S] [_G] [_E]:	Execution of the design objectives
[NI] [_S] [_G] [_E]:	Documentation in electronic process notebook

## COURSE POLICIES & SAFETY ISSUES

Late work and make-up work policy. Assignments are due at the beginning of class, turning an assignment in during the middle of class will be considered late work. Late work will be docked 20% and must be turned in within 5 days. Occasionally extenuating circumstances may change this policy; please contact me if you think there will be an issue with a due date. Technical issues (computer dying, hard drive crash, lost jump drive etc.) will not be accepted as a reason for late work. **Always have a plan B. Your work should be backed up in at least one other location. Dropbox, Box or Google Drive are excellent places to store and backup work.**

## ADDING/DROPPING CLASSES

Students are responsible for understanding the policies and procedures about the adding/dropping of classes, academic renewals, etc. Students can find more information on adding and dropping at <http://www.fresnostate.edu/studentaffairs/classschedule/registration/add-drop.html>.

# UNIVERSITY POLICIES & SERVICES

## UNIVERSITY POLICIES AND SERVICES

For information on the University's policy regarding cheating and plagiarism, refer to the Class Schedule (Legal Notices on Cheating and Plagiarism) or the University Catalog (Policies and Regulations).

## STUDENTS WITH DISABILITIES

Upon identifying themselves to the instructor and the university, students with disabilities will receive reasonable accommodation for learning and evaluation. For more information, contact Services to Students with Disabilities in the Henry Madden Library, Room 1202 (278-2811).

## HONOR CODE

"Members of the Fresno State academic community adhere to principles of academic integrity and mutual respect while engaged in university work and related activities." You should: understand or seek clarification about expectations for academic integrity in this course (including no cheating, plagiarism and inappropriate collaboration) neither give nor receive unauthorized aid on examinations or other course work that is used by the instructor as the basis of grading. Take responsibility to monitor academic dishonesty in any form and to report it to the instructor or other appropriate official for action. Instructors may require students to sign a statement at the end of all exams and assignments that *"I have done my own work and have neither given nor received unauthorized assistance on this work."*

## CHEATING AND PLAGIARISM

Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another student to do so. Typically, such acts occur in relation to examinations. However, it is the intent of this definition that the term 'cheating' not be limited to examination situations only, but that it include any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., their intellectual property) so used as one's own work. Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the university. For more information on the University's policy regarding cheating and plagiarism, refer to the Class Schedule (Legal Notices on Cheating and Plagiarism) or the University Catalog (Policies and Regulations).

## COMPUTERS

"At California State University, Fresno, computers and communications links to remote resources are recognized as being integral to the education and research experience. Every student is required to have his/her own computer or have other personal access

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to a workstation (including a modem and a printer) with all the recommended software. The minimum and recommended standards for the workstations and software, which may vary by academic major, are updated periodically and are available from Information Technology Services (<http://www.fresnostate.edu/technology>) or the University Bookstore (<http://www.kennelbookstore.com>). In the curriculum and class assignments, students are presumed to have 24-hour access to a computer workstation and the necessary communication links to the University's information resources."

## DISRUPTIVE CLASSROOM BEHAVIOR

"The classroom is a special environment in which students and faculty come together to promote learning and growth. It is essential to this learning environment that respect for the rights of others seeking to learn, respect for the professionalism of the instructor, and the general goals of academic freedom are maintained. Differences of viewpoint or concerns should be expressed in terms which are supportive of the learning process, creating an environment in which students and faculty may learn to reason with clarity and compassion, to share of themselves without losing their identities, and to develop an understanding of the community in which they live. Student conduct which disrupts the learning process shall not be tolerated and may lead to disciplinary action and/or removal from class."

## COPYRIGHT POLICY

Copyright laws and fair use policies protect the rights of those who have produced the material. The copy in this course has been provided for private study, scholarship, or research. Other uses may require permission from the copyright holder. The user of this work is responsible for adhering to copyright law of the U.S. (Title 17, U.S. Code). To help you familiarize yourself with copyright and fair use policies, the University encourages you to visit its Copyright Web Page <https://library.fresnostate.edu/info/copyright-policy> Blackboard course web sites contain material protected by copyrights held by the instructor, other individuals or institutions. Such material is used for educational purposes in accord with copyright law and/or with permission given by the owners of the original material. You may download one copy of the materials on any single computer for non-commercial, personal, or educational purposes only, provided that you (1) do not modify it, (2) use it only for the duration of this course, and (3) include both this notice and any copyright notice originally included with the material. Beyond this use, no material from the course web site may be copied, reproduced, re-published, uploaded, posted, transmitted, or distributed in any way without the permission of the original copyright holder.

### Subject to Change Statement

This syllabus and schedule are subject to change, the class website will be updated with any changes.

# UNIVERSITY POLICIES & SERVICES

## TUTORING

For free tutoring on campus, contact the Learning Center (<http://fresnostate.edu/studentaffairs/lrc>) in the Collection Level (basement level) of the Henry Madden Library. You can reach them by phone at 559.278.3052.

Our campus has developed SupportNet (<http://fresnostate.edu/studentaffairs/lrc/supportnet>) to connect students with specific campus resources promoting academic success. Students may be referred to it if you believe they need the services provided by SupportNet to succeed in your course.

## STUDENT HANDBOOK

Information on student rights, responsibilities, academic honesty, etc., can be found on the Fresno State Student Handbook web page. The web page is located at: <http://www.fresnostate.edu/studentaffairs/division/general/studenthandbook/>.

## COURSE CALENDAR

For an up to date, course calendar of daily activities, homework, resources, due dates and presentations see our class web site [www.laurahusinga-design.com/GD159](http://www.laurahusinga-design.com/GD159)

## WEEKLY TOPICS

Introduction to 3D modeling tools, Augmented reality tools and Virtual reality tool.

Using Cinema 4D or Maya to create 3D Models

Using Cinema 4D or Using Maya to create 3D Models

Exploring augmented reality options (research paper/presentation)

Integrating 3D model into augmented reality (using aurasma)

Integrating 3D model into augmented reality (using aurasma)

Exploring Virtual reality options (research paper/presentation)

Integrating 3D model into Virtual Reality (a-frame and google cardboard)

Integrating 3D model into Virtual Reality (a-frame and google cardboard)

Project Proposals For self guided final project

Final Project

Final Project

Final Project

Final Project

Final Project

Finals week