

VR for the Social Good - Spring 2019  
CIS 4930/6930; JOU 4930/MMC 6936  
NPB 1001, Tuesday 7-9th periods (1:55 PM - 4:55 PM)

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Office Hours (CSE 544): Tuesdays 6th period (12:50 PM - 1:40 PM)

Teaching Assistant (TA): Fatemeh Tavassoli ([ftavassoli@ufl.edu](mailto:ftavassoli@ufl.edu))  
TA Office Hours (CSE 309): Thursday 10:30 AM - 11:30 PM

**Course Website:** <https://sites.google.com/view/vrforthesocialgood-spring2019>

### **Course Description:**

This course focuses on using effective messaging perspectives and applying virtual reality, mixed reality, and augmented technology to create a compelling story on a social good issue. Thus, it adopts a multidisciplinary approach to solving pressing social problems by blending social science practices with innovative technology. Ultimately, a successful formula = effective message+effective medium.

### **Course Objectives:**

The Virtual Reality (VR) for the Social Good course is a special topics class that will have students (seekers) learn the basics of message effects and how to apply these components effectively in VR, form teams, and develop VR projects proposed by researchers, innovators, and entrepreneurs (solvers).

### **Course Structure:**

The core component of the course lies in implementing effective message design in VR.

Learning Message Science and VR to Convey a Social Good Message (Weeks 1-5)

- Class Lectures will touch upon important messaging principles from diverse perspectives

- Self-directed Learning – core VR topics will be learned through tutorials and self-directed learning outside of class
- VR Learning projects - individual projects will assess learning of core principles (unity, integration with Google Cardboard, etc.)
- Class meeting times will be used to demonstrate work

The fourth week of class (September 18) is Pitch Day! Pitch Day! is when you will present ideas to your classmates about how to benefit the UF Diabetes Institute (<https://diabetes.ufl.edu>).

Applying VR to Social Good issues (Week 6-15)

- Work with project pitchers to build a VR experience to address the social good
- Integrate message elements into the VR experience
- Group meetings to demonstrate progress
- Platforms can vary from smartphones, Google Cardboard, immersive VR (HTC Vive and Oculus Rift), and augmented reality (Microsoft HoloLens)

#### **Learning Objectives:**

- Use VR technologies to create and deploy VR experiences
- Explain the science of effective message strategies using VR technologies

#### **Who is this Course for:**

This course is for students of any level (CIS4930/JOU4930 is for freshmen through seniors, CIS6930/MMC6936 is for graduate students) and for any major.

#### **Any Prior Virtual Reality Experience Needed?**

No prior experience in virtual reality, computer science, or programming is required.

#### **Useful Information**

Please join the GatorVR Facebook page and attend the meetings of the group (the FB page notifies people about upcoming meetings). GatorVR holds additional workshops on technical topics, invites speakers, and provides development assistance to people interested in VR.

#### **Prerequisites:**

- None

#### **Texts:**

- *None.*

*Suggested Reading:*

- [Sutherland - The Ultimate Display](#)
- *Brooks - What's real about VR*

(tentative) **List of Topics:**

Week 1: **Introduction to Course, Messaging, and VR**

Week 2: **History of VR, What's VR good for?**

Week 3: **Messaging in VR**

Week 4: Pitch Day!

Week 5: Teams formed, **Agile Development**, Sprint 0 begins

Week 6: Build your first VR application due, Demo projects, Sprint 1 begins

Week 7: **Messaging in VR**

Week 8: Sprint 2 begins, Storyboards of interaction due

Week 9: Spring Break!

Week 10: **Design Thinking**

Week 11: First iteration of experience due

Week 12: **Evaluating Effectiveness**

Week 13: Second iteration of experience due

Week 14: **Future of Immersive Storytelling**

Week 15: Third iteration of experience due

Week 16: Demo Day - Fourth iteration of experience due

**Grading:**

The course has two assignments.

**Assignment #1 - Learning Storytelling in VR - 20% of final grade**

Students learn the skills needed to build a VR experience. Students learn a 3D game engine and how to incorporate 3D models into a scene. Students deploy the scene in a mobile head-mounted display. Students apply this knowledge to a self-generated project to create an experience to message positive change for the social good. Grading is based on the effective integration of messaging in a VR experience.

**Assignment #2 - Applying Storytelling in VR - 80% of final grade**

Students form *teams* and work on projects pitched to. Students will use the Agile software development method to deliver value to the project owners (people who pitched the project). Grading is as follows:

- 40% following Agile processes and Scrum ceremonies (evaluated through submission of documentation)

- 60% evaluation by product owners and teammates

There is NO FINAL EXAM

Score (rounded to the nearest point)	Grade	Grade Points
100-92	A	4.00
91-90	A-	3.67
89-88	B+	3.33
87-82	B	3.00
81-80	B-	2.67
79-78	C+	2.33
77-72	C	2.00
71-70	C-	1.67
69-68	D+	1.33
67-62	D	1.00
61-60	D-	0.67
59-0	E	0.00

More information on UF grading policy may be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### **Extra Credit Opportunities**

Up to two extra credit opportunities will be available for students. These involve study participation in VR/immersive media experiments conducted across campus. More details will be spelt out later in the semester.

**Late Assignments** – There is a 10% penalty for submissions that are late (maximum 48 hours after the initial deadline). Requests for extreme circumstances must be requested in writing preferably before the due date. Requirements for class attendance

are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.”

**Incompletes:** Incompletes will not be granted except under previous agreement of the professors. To be considered for an incomplete, the student \*must\* 1) let a professor know in advance that they are seeking an incomplete, and 2) provide documentation to support the request.

### **Development environment**

We will be using the Unity 3D game engine and development environment.

### **Programming Requirements**

none.

### ***Students Requiring Accommodations***

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### ***Course Evaluation***

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

### ***University Honesty Policy & Collaboration:***

High level questions, syntax topics, and algorithms can be discussed. Not allowed in this course include the following: 1) plagiarism (misrepresenting others ideas as your own), 2) copying code, and 3) work deemed offensive to others.

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore,

you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### ***Software Use***

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

### ***Student Privacy***

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

## **Campus Resources:**

### Health and Wellness

#### **U Matter, We Care:**

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

#### **Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

### Academic Resources

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu). <https://lss.at.ufl.edu/help.shtml>.

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

**Library Support**, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <https://teachingcenter.ufl.edu/>.

**Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>.

**Student Complaints Campus:**

[https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf).

**On-Line Students Complaints:** <http://www.distance.ufl.edu/student-complaint-process>.

**Commitment to a safe and inclusive learning environment**

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination.

It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind please contact your instructor or any of the following:

Your academic advisor or Graduate Program Coordinator

Robin Bielling, Director of Human Resources, 352-392-0903, [rbielling@eng.ufl.edu](mailto:rbielling@eng.ufl.edu)

Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, [taylor@eng.ufl.edu](mailto:taylor@eng.ufl.edu)

Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, [nishida@ufl.edu](mailto:nishida@ufl.edu)

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the Office of Title IX Compliance, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, [title-ix@ufl.edu](mailto:title-ix@ufl.edu)

**Miscellany** – To reduce distraction to your fellow classmates, please:

1. Turn off all cell phone ringers (if your cell phone rings, you'll have to stand up the next class period and either bring a snack, read a poem, or tell a G-rated joke. [Here's why](#))