

**Expressive Agents**  
CIS 6930 Section 30197  
**Class Periods:** Thursday Period 8-9-10, 3:00-5:45pm  
**Location:** NPB 1001  
**Academic Term:** Spring 2024

**Instructor:**

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352-294-6653

Office Hours: MH 5125, 2-3pm Thursday. Option: Zoom or by appointment

**Teaching Assistant:**

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Office Hours: TBD, Zoom or by appointment

**Course Description**

Humans increasingly interact with physical and virtual agents in all areas of life and work. This course will cover foundational concepts and currently ongoing work in the multidisciplinary pursuit of generating expressive agents. Students will get an overview of the field and experience first-hand the challenges involved through project activities. (3 credits)

**Course Pre-Requisites**

COP 3530 Data Structures and Algorithms (C)

**Course Objectives**

At the end of this course, students will be able to locate literature relevant to their interest, analyze research papers, demonstrate critical thinking and effective technical communication, and translate scientific reports related to this area of work into practical implementations.

**Materials and Supply Fees**

List if applicable

**Relation to Program Outcomes (ABET):**

Outcome	Coverage*
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	Medium
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	
3. An ability to communicate effectively with a range of audiences	High
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	

5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	High
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	High
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies	High

\*Coverage is given as high, medium, or low. An empty box indicates that this outcome is not covered or assessed in the course.

### **Required Textbooks and Software**

Human-Robot Interaction: An Introduction, Bartneck et al., Cambridge University Press.

ISBN: 978-1108735407

<https://www.human-robot-interaction.org/>

Instructor-curated articles and book chapters made available through course reserves. Course notes created by instructor as applicable.

Programming based projects using appropriate open source tools/publicly available libraries and software.

### **Recommended Materials**

Affect and emotion, R. Picard. Affective Computing, MIT Press, 1997 ISBN: 9780262661157

Designing Sociable Robots, Cynthia Breazeal, MIT Press, 2004 ISBN: 9780262524315

Computer Graphics: Principles and Practice, Foley, van Dam, Feiner, Hughes (Second Edition in C)

Embodied Conversational Agents, edited by Justine Cassell, Joseph Sullivan, Scott Prevost, Elizabeth Churchill, MIT Press, 2000

### **Tentative Course Schedule**

- Week 1: class expectations, the role of generative AI in the course
- Week 2: syllabus quiz; make project groups [5 pts]; how to find and read research papers
- Week 3: project pitch (abstract; this is where we say if something is in scope or out of scope) [5pts]
- Week 4: class work
- Week 5: project update 1 [10 pts]
- Week 6: class work
- Week 7: class work
- Week 8: project update 2 [10pts]
- Week 9: class work
- Week 10: SPRING BREAK NO CLASS
- Week 11: (no class; time to work on project wrap up and writing)
- Week 12: writeup red team review [5pts+5pts]
- Week 13: writeup peer review [20pts = average of peer review scores] [paper decision] [6-13 are selected for oral presentation]
- Week 14: oral paper presentations [top 2-4 are selected at this stage]
- Week 15: poster session; awards + reflections

## **Attendance Policy, Class Expectations, and Make-Up Policy**

Class attendance is expected. Excused absences are consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require appropriate documentation.

Late policy: There is no reason to have a late policy as all graded work is group based. Even if one or two persons are out due to an excused absence, there should be someone on the group who can present on behalf of that team. If all members of a group are needing to be out, for example, to attend a conference, please contact the TA.

### **Graded Work**

<b>Assignment</b>	<b>Deadline</b>	<b>Total Points</b>
Preparatory work	Week 2 Sunday midnight (project groups 5pts) Week 3 Sunday midnight (project pitch 5pts)	2x5 = 10
Project update 1	In class Week 5	10
Project update 2	In class Week 8	10
Project writeup	Red team review in class during Week 12 (5pts+5pts); Peer review in class during Week 13 (20pts).	30
Total		60

### **Brief Description of Graded Work:**

Students will experience an accelerated version of the scientific life cycle of an idea. We will simulate how research papers are graded by recreating the type of peer review process used in major computer science conferences.

This means that students will get a group grade for the group project. This grading scheme reflects real-life research where you are essentially graded with respect to how your team performs. For example, when we are submitting our work to a major venue for publication and presentation, ultimately our “grade” is whether the paper was accepted or rejected and if accepted, whether it was selected for a presentation and/or given an award. This is entirely dependent how well our team comes together to do the work. The group project provides an opportunity to learn and practice these life skills. A sample process for peer review is provided below.

### **Grading Policy**

The following is given as an example only.

A = best paper award wow! (top 10%) (instructor decides)

A- = paper got into IEEE VR yay! (next 20%) (60+paper is accepted for oral presentation)

B = paper is borderline, recommended as poster (next 20%) (60 and paper is borderline)

B- = paper is rejected (60 and paper is rejected)

Anything below this is case by case.

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### **Students Requiring Accommodations**

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is

important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### ***Course Evaluation***

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

### ***In-Class Recording***

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

### ***University Honesty Policy***

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://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-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.

### ***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@eng.ufl.edu](mailto:nishida@eng.ufl.edu)

### **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: <https://registrar.ufl.edu/ferpa.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 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](mailto:title-ix@ufl.edu), located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, [title-ix@ufl.edu](mailto:title-ix@ufl.edu)

##### **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://care.dso.ufl.edu>.

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