

Instructor	Dr. K. B. Reed Office: ENC 2503 Email: kylereed@eng.usf.edu Office hours: Tuesdays: 3:00pm-4:00pm & Wednesdays: 12:30pm-1:30pm
Class Time/Place	Wednesdays from 5:15pm until 8:00pm in NES 108.
Description	This class will introduce the field of haptics as it relates to creating touch feedback in simulated and virtual environments. You will learn about human haptic sensing and control, haptic interfaces (tactile and force), teleoperation, haptic rendering, modeling, control and stability of virtual environments, and how to program these implementations on a SensAble Phantom Omni.
Prerequisites	EML 3041 Computational Methods EML 4312 Mechanical Controls
Textbook	There is no textbook for this course. Readings will be distributed in class and/or on blackboard.
Attendance Policy	You are not required to show up to class, however you are highly advised to do so. You are responsible for all announcements and material covered during the class sessions. It is the instructor's discretion to post announcements to blackboard (i.e., some announcements will not be posted).
Grading	<b>Homeworks</b> (30%): There will be regular homeworks, some of which will involve programming assignments using several shared computers. <b>Project</b> (35%): There will be one team-based semester project, culminating in a final report and a haptics demonstration. Progress and check points before the final due date will count toward the final grade. The project demonstration is scheduled for Friday, April 27 from 10:00am until 12:30pm in ENB 110. <b>Quizzes</b> (15%): There will several quizzes throughout the semester, all of which will be announced ahead of time. <b>Class Participation</b> (10%): Students must keep up with readings and actively participate in class discussions as participation will be graded. <b>Presentation</b> (10%): The presentation is a detailed lecture on a topic related to haptics, done individually for graduate students and in pairs for undergraduates. The presenter(s) will also be responsible for preparing a short discussion or group activity related to the paper. <b>Policy</b> : 90+ = A; 80-89.9 = B; 70-79.9 = C; 60-69.9 = D; <59.9 = F +/- grades may be assigned the grades may be curve.

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Make-up Policy	NO make-ups will be given for quizzes, homeworks, projects, or presentations unless you are seriously ill, a death in the family, or other legitimate, documented, family emergency. Notification of absence <b>must</b> be given prior to the scheduled assignment due date.
Class Rules	The class rules can be summarized as having respect; respect your classmates and respect the instructor and the instructor will respect you. More specifically, silence your phones during class and if you <i>must</i> take a call, do so quietly and walk far enough away from the door so we don't hear you. If you are going to sleep or read a newspaper in class, don't bother coming to class since you would better off sleeping in your bed or reading in a quieter environment. Please refrain from eating during class. Since the class is so long, breaks will be given periodically throughout the class.
Accommodations for students with Disabilities	Students in need of academic accommodations for a disability may consult with the office of Students with Disabilities Services to arrange appropriate accommodations. Students are required to give reasonable notice prior to requesting an accommodation.
Policy on Religious Observations	Students who anticipate being absent from class due to the observation of a major religious observance must provide notice of the date(s) to the instructor, in writing, at least one week prior to the first absence.
USF Academic Policy	The USF Academic Policy applies in this class regarding, but not limited to, the following items: Incomplete Grade Policy, Academic Dishonesty, and Disruption of Academic Process.
Alternate forms of teaching in an emergency	In the event of an emergency, it may be necessary for USF to suspend normal operations. During this time, USF may opt to continue delivery of instruction through methods that include, but are not limited to: Blackboard, Elluminate, Skype, and email messaging and/or an alternate schedule. It's the responsibility of the student to monitor the Blackboard site for each class for course-specific communication, and the main USF, College, and department websites, emails, and MoBull messages for important general information.
Plagiarism tracking software	The University of South Florida has an account with an automated plagiarism detection service which allows instructors to submit student assignments to be checked for plagiarism. I reserve the right to submit assignments to this detection system. Assignments are compared automatically with a huge database of journal articles, web articles, and previously submitted papers. The instructor receives a report showing exactly how a student's paper was plagiarized.

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