New York University Tandon School of Engineering
Department of Computer Science & Engineering
CS-GY 6543 & CS-UY 4543 Human Computer Interaction
Spring 2021

Professor Raymond Allen "Ray" Lutzky, Ph.D.
Email:

Course Assistant:
Email: _

Course Prerequisites
There are no prerequisites for this course. Experience creating and/or participating in the design and dissemination of information, production of interactive experiences, and/or software will be helpful.

Course Description
The field of human computer interaction (HCI) deals with the theory and research of the relationships between humans and technology. This is not a programming course – the purpose of this course is to explore the *human* side of HCI through interfaces, user research, and the design/evaluation of experiences. We will examine HCI research, discuss how engaging content is developed, and evaluate the future of user experience design. Students will cover a broad overview of these and other topics critical to a holistic understanding of human computer interaction beyond software engineering and information architecture. Because HCI (and communication as a scholarly field) borrows from many disciplines, this course will touch briefly on a variety of theories and practices from other fields. My background is in communication theory and digital audiences, so you will probably see that coming through. I'm also interested in HCI's connection to product marketing and, in particular, persuasive technology's impact on humans and their choices. Finally, it is expected that you will have opportunities to create some work that may be useful in other projects or as part of your portfolio for prospective employers, so please consider what's best for you individually as you learn in this course.

Course Objectives
- To look at a wide range of possibilities for interaction between humans and computers/technology through the products and experiences.
- To gain experience designing and developing interfaces and testing their effectiveness.
- To understand the importance of users, interface usability and the consequences of bad design.
- To understand social, cultural, and ethical considerations of human computer interaction today.
- To have fun while accomplishing the above goals.

Course Structure
Each week a new HCI topic will be presented by the instructor along with accompanying learning materials (all class meetings are virtual/asynchronous, there is no regular meeting time for this class). All assignments and readings are due each week on the due date listed, (Tuesdays) by 12 pm Eastern time unless otherwise noted. Students will have assignments due throughout the term accompanied by quizes. There will be one (and only one) extra credit assignment available for this course. Live virtual study sessions may be conducted at the discretion of the instructor, and all announcements/updates will be made via NYU Classes.

Readings
Please obtain these excellent HCI books; other materials will be provided by the instructor:
- Designing the User Interface: Strategies for Effective Human-Computer Interaction (Sixth Edition, 2017) by Ben Shneiderman, Catherine Plaisant, Maxine Cohen, Steven Jacobs, & Niklas Elmqvist (Available at NYU)
- The Design of Everyday Things (Revised Edition, 2013) by Donald Norman (Free through NYU Libraries)

- Persuasive Technology: Using Computers to Change What We Think and Do (2003) by B.J. Fogg (Free through NYU Libraries)

Course Requirements

To facilitate the learning experience, students will select a sample HCI product or experience and use it for assignments throughout the course. Student grades will be calculated on a scale of 100 points from the assignments and quizzes, each building on the knowledge of the last and culminating in a final design plan/presentation. A more detailed description of each assignment will be provided during the course:

Usability Evaluation (10 points)	An evaluation of the usability of the HCI product/experience that discusses the affordances, constraints, signifiers and other aspects of the design (300-400 words).
Persona Design (10 points)	A well-conceived persona of a prospective user for your chosen HCI product/experience that creatively and realistically addresses the requirements for your users (1-2 slides).
Social Media Content (20 points)	A mock-up campaign of social media content to engage users for your chosen HCI product/experience (6 social media posts).
Final Design Plan (30 points)	A detailed strategy for a prototype HCI product or experience that incorporates best practices of usability research and design (10-12 slides).
Quizzes (30 points/10 points each)	Three (3) quizzes will be conducted to assess learning material comprehension (10 questions each).
Total: 100 points	*(+ optional extra credit assignment to be announced)*

Course Policies

- Academic misconduct of any kind will not be tolerated and may result in an automatic "F" grade. Please familiarize yourself with NYU School of Engineering policy below (when in doubt please ask via email).
- Professor will attempt to respond to student inquiries as received, usually within 24 hours.
- Student assignments are due on the date listed in the syllabus in NYU Classes.
- Student quizzes are due on the date listed and will not be accepted after the due date.
- Students are strongly encouraged to complete all readings and fully engage with the materials, as well as connect with your classmates to discuss topics of mutual interest during the course..
- One optional extra credit assignment will be made available. No additional extra credit will be awarded.

About the Instructor

Dr. Ray Lutzky joined the NYU Tandon faculty in 2015 and has taught undergraduate and graduate courses in the Department of Computer Science & Engineering and in the Department of Technology, Culture & Society. He previously taught human-computer interaction graduate students at Cornell Tech. Ray received his Ph.D. from Rensselaer Polytechnic Institute, where his research focused on culture and usability. He also holds an M.S. in public relations from Syracuse University and is completing an M.S. in digital audience strategy at Arizona State University.

Course Schedule (*subject to change*)

This course schedule is loosely structured in four parts to help you focus your thinking and correspond with the learning materials. Part one explores usability and user experience design. Part two goes in-depth on research methods and techniques, while part three will focus on digital audiences and persuasive technology. The final part of the course will summarize our work and cover building HCI experiences across diverse sets of users.

Module	Due Date	Class Topic	Assignment	Reading Due
1	February 2	Intro to User Experience Design	Review syllabus, obtain readings	---

2	February 9	Affordances and Empathy		Norman 1, 2
3	February 16	Personas	Usability Evaluation Due	Norman 3, 4 Podcast: What is wrong with Personas?
4	February 23	Research I: Understanding Data	Persona Design Due	Norman 5, 6
5	March 2	Research II: Techniques	Quiz 1: Design of Everyday Things	Shneiderman et al. 1, 2, 3
6	March 9	Research III: Usability Testing		Shneiderman et al. 4, 5, 6
7	March 16	Research IV: Conducting Interviews		Shneiderman et al. 12, 13, 14
8	March 23	Service Design	Quiz 2: Designing the User Interface	Shneiderman et al. 15, 16 Video: What is the value of Service Design?
9	March 30	Social Media Engagement		Schwartz, Newberry, Bayn
10	April 6	Persuasive Technology	Social Media Content Due	Fogg 1, 2, 3, 4
11	April 13	Digital Audience Strategy		Fogg 5, 6, 7, 8
12	April 20	Prototyping	Quiz 3: Persuasive Technology	Fogg 9, 10
13	April 27	Diversity in Digital Audiences		Auger-Dominguez, Moran & Bui, Castaneda et al., Drakett et al., Morley
14	May 4	Culturally Situated Design	Strategy Design Plan/Proposal Paper Due Extra Credit Essay Due	Video: Eglash

Grade Calculation

Final course letter grades will be determined accordingly:

Letter Grade	**Total Earned Points**
A	94-100 or above
A-	90-93
B+	87-89
B	83-86
B-	80-82

C+	77-79
C	73-76
C-	70-72
D+	67-69
D	60-66
F	59 and below

Moses Center Statement of Disability

If you are a student with a disability who is requesting accommodations, please contact New York University's Moses Center for Students with Disabilities (CSD) at 212-998-4980 or mosescsd@nyu.edu. You must be registered with CSD to receive accommodations. Information about the Moses Center can be found at www.nyu.edu/csd. The Moses Center is located at 726 Broadway on the 3rd floor.

NYU School of Engineering Policies and Procedures on Academic Misconduct

A. Introduction: The School of Engineering encourages academic excellence in an environment that promotes honesty, integrity, and fairness, and students at the School of Engineering are expected to exhibit those qualities in their academic work. It is through the process of submitting their own work and receiving honest feedback on that work that students may progress academically. Any act of academic dishonesty is seen as an attack upon the School and will not be tolerated. Furthermore, those who breach the School's rules on academic integrity will be sanctioned under this Policy. Students are responsible for familiarizing themselves with the School's Policy on Academic Misconduct.

B. Definition: Academic dishonesty may include misrepresentation, deception, dishonesty, or any act of falsification committed by a student to influence a grade or other academic evaluation. Academic dishonesty also includes intentionally damaging the academic work of others or assisting other students in acts of dishonesty. Common examples of academically dishonest behavior include, but are not limited to, the following:

    1. Cheating: intentionally using or attempting to use unauthorized notes, books, electronic media, or electronic communications in an exam; talking with fellow students or looking at another person's work during an exam; submitting work prepared in advance for an in-class examination; having someone take an exam for you or taking an exam for someone else; violating other rules governing the administration of examinations.
    2. Fabrication: including but not limited to, falsifying experimental data and/or citations.
    3. Plagiarism: intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise; failure to attribute direct quotations, paraphrases, or borrowed facts or information.
    4. Unauthorized collaboration: working together on work that was meant to be done individually.
    5. Duplicating work: presenting for grading the same work for more than one project or in more than one class, unless express and prior permission has been received from the course instructor(s) or research adviser involved.
    6. Forgery: altering any academic document, including, but not limited to, academic records, admissions materials, or medical excuses.

NYU School of Engineering Policies and Procedures on Excused Absences – complete policy here

A. Introduction: An absence can be excused if you have missed no more than **10 days of school**. If an illness or special circumstance has caused you to miss more than two weeks of school, please refer to the section labeled Medical Leave of Absence.

B. Students may request special accommodations for an absence to be excused in the following cases:

    1. Medical reasons
    2. Death in immediate family
    3. Personal qualified emergencies (documentation must be provided)
    4. Religious Expression or Practice

Deanna Rayment, deanna.rayment@nyu.edu, is the Coordinator of Student Advocacy, Compliance and Student Affairs and handles excused absences. She can assist you should it become necessary.

NYU School of Engineering Academic Calendar – complete list here.

The last day of the final exam period is 5/18/2021. Final exam dates for undergraduate courses will not be determined until later in the semester. Final exams for graduate courses will be held on the last day of class during the week of 5/12/2021. Also, please pay attention to notable dates such as Add/Drop, Withdrawal, etc. For confirmation of dates or further information, please contact Susana: sgarcia@nyu.edu