

Course Syllabus
CPSC 4140/6140: Human Computer Interaction
Section 001
Fall 2018

Instructor:

Prof. Nathan J. McNeese
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Teaching Assistant:

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Please contact Carrie with most of your questions.

Office Hours: Office hours will be directly after class on Thursday. Please let me know you want to meet after class, so I can ensure I am in my office. Alternatively, I am always open to appointment based meetings.

Class Time & Place: Tuesdays and Thursdays from 3:30pm-4:45pm in 217 Daniel Hall at times and days designated in the calendar below. Individual meetings with me will take place in my office (218 McAdams) or other mutually convenient location. Students are responsible for making individual appointments with me via email and are strongly encouraged to make them as early as possible for maximum scheduling flexibility.

Class Materials:

- Required: *Interaction Design: Beyond Human-Computer Interaction, Fourth Edition* by Preece, Sharp & Rogers, 2015. I really don't like using textbooks (due to pricing) but for this class there will be one. HCI is a very broad and in many cases ambiguous topic, so it is important that you have a cohesive resource that uses the same perspective to define HCI. Also, throughout the semester, I will assign various readings ranging from journal articles, book chapters, and conference proceedings papers. These readings will be stored on Canvas and can be downloaded.
- Recommended: *The Design of Everyday Things: Revised and Expanded Edition* by Don Norman, 2013.
- YOU NEED TO READ IN THIS CLASS. A LOT. There is an expectation that each assigned reading is read before the assigned class period. For this course it is *very* important to read, digest, and comprehend scientific literature that is then subsequently discussed and analyzed with depth.

Course Description:

First, this class should really be called Human Technology Interaction. The term computer is dated and we will discuss much more than how humans interact with 'computers' in this class. Human Computer Interaction (HCI) is easily one of the more interesting domains of study in relation to Computer Science. HCI is truly at the intersection of human behavior and technological invention/development. The relationship between human behavior and technology is a two way street. Humans directly impact technology, and technology directly impacts humans. For technology to work in an optimal and efficient manner it must be designed with human considerations. Therefore, there is a necessary need to study human behavior with

technology to better inform technological considerations and design. HCI is a very large domain of interest and consists of multiple iterative processes, such as user research, design, and evaluation. Throughout the semester, we will explore each of these processes from a conceptual point of view but also with applied practice.

Course Objectives:

- 1) Develop awareness and knowledge regarding HCI;
- 2) Develop awareness and knowledge regarding the cognitive, social, and emotional aspects of HCI;
- 3) Develop awareness and knowledge of data gathering;
- 4) Understand how to establish requirements;
- 5) Understand design and prototyping;
- 6) Understand evaluation;
- 7) Actually carry out a project that encompasses data gathering, requirements, design and prototyping, and evaluation.

Attendance Policy:

Attendance will be taken at random points throughout the semester. I'm not going to tell you whether you should show up to class or not. At this point, I think you know the answer to that. If you don't show up for this class, don't expect to do well. If for some reason there is a problem (sick, death in family, etc.) just shoot me an email/ also provide documentation and we will figure out how to proceed. Also, your classmates may be willing to help you out on material you have missed. Ultimately, you are responsible for the material you miss during class and the potential academic consequences if not dealt with responsibly.

If for some reason, I am more than 15 minutes late to class, you can leave. Don't count on this happening.

All students are required to attend the first scheduled day of classes and laboratories. Students who cannot attend the first class are responsible for contacting the instructor to indicate their intent to remain in that class. If a student does not attend the first class meeting or contact the instructor by the second meeting or the last day to add, whichever comes first, the instructor has the option of dropping the student from the roll. However, students intending to drop a class should request the course be dropped and should not assume they will be dropped due to lack of attendance.

Late Work:

Unexcused, late work and class-based exercises will not be accepted after the fact. Exceptions are very rare. If you have a legitimate excuse given to me *in advance*, and the assignment can be made up within a week, then I will consider makeups on a case-by-case basis. Only in very special circumstances, will makeups be allowed after 1 week from due date. Reductions in grades may apply for late work (e.g., 20% reduction in grade).

Syllabus:

I reserve the right to add, remove, or alter this syllabus as needed throughout the semester.

Evaluation (*Graduate students in parentheses*):

Team Requirements	40	(45)
Team Research Article Presentation	5	(5)
Team Project	35	(40)
Proposal	5	(5)
User Research Paper	5	(5)
Requirements Paper	5	(5)
Design & Digital Prototype (GUI Requirements)	5	(5)

User Evaluation Paper	5	(5)
Presentation (with demo video)	5	(5)
Final Paper (Grad Students- Formatted Research Paper)	5	(10)
Individual Requirements	60	(55)
Mid-Term Exam	15	(15)
Final Exam	20	(20)
Fix a Website	5	(5)
Paper Prototype	5	(5)
Design Journal	5	(5)
Participation and In-Class Work	10	(5)
Total Possible Points	100	(100)

Major Assignments:

The major team and individual assignments have been briefly described below. More specific details for each assignment, including my expectations and grading criteria, will be provided in Canvas as the course progresses.

Team Level:

Team Research Article Presentation- Once during the semester your team will present a published research paper that is assigned to you. The expectations are that every member of your team presents during the presentation and that your team overviews important sections of the paper. These presentations will last 10 minutes.

Team Project- The team project consists of your team defining a relevant project to HCI. The requirements at a high level for this project are that your team must go through the design process from beginning to end with the end product being a working digital prototype with evaluation findings. This means that you will be expected to conduct user research, define requirements, design and prototype, and conduct user evaluations. Your prototype can be either a mobile app or a desktop software. Don't be boring with what you pick. I don't want to see a bunch of apps for improving restaurants or the gym. Think creatively. Specific required assignments that your team will have to turn in are: a proposal, a user research document, a requirements document, a design and digital prototype document with working video of prototype, and a user evaluation document. Presentation and final paper will be required. Teams will be assigned (no exceptions).

Individual Level:

Mid-Term Exam- Traditional exam. Multiple choice, T/F, maybe some short answers.

Final Exam- Same deal as the Mid-Term. Cumulative.

Fix a Website- Identify a website that is less than optimal. Overview why it is not good using a UI critique. Then specifically detail how you would change the website using HCI principles.

Paper Prototype- You will define a problem statement, create a user journey, and then create a paper prototype that relates to the user journey and task consisting of about 10 different screens.

Design Journal- I strongly believe that each student should be actively generating knowledge and learning from their own perspective, as well as cooperatively learning from what other students and the Professor presents. Therein, in order to gauge your degree of engagement and reflectivity with content and processes within this course and outside, you will be required to keep a weekly design journal. You may write whatever

you would like in this journal as long as it is focused on identifying good and bad designs throughout your daily life. Explain why they are good and bad. I expect an entry for every week of the semester with multiple good/bad designs highlighted in each entry. I'll collect these only at the end of the semester, so keep the journal together (either paper or one large digital document). I do reserve the right to randomly ask to look at them throughout the semester, so keep up with them.

Participation & Class Work- Discussion in this class is of paramount importance. You must read the assigned articles before class and be ready to discuss them at a deep level. Come to class with a combination of 3 questions and/or comments on the reading. We will discuss these questions/comments at the beginning of class.

Letter Grades:

Undergrad		Grad	
A	90%	A	90%
B	80%	B	80%
C	70%	C	70%
D	60%	F	60%
F	<60%	F	<60%

Standard rules of rounding will apply, so .5 and above will be rounded up to the next whole number.

Tentative Class Calendar:

* I have the right to change this calendar throughout the semester and it most likely will change depending on how fast or slow we move throughout the semester.

Each class will consist of varying activities. There is no way I am lecturing the entire class...that wouldn't be fun for anyone involved. I want this class to be interactive and not boring, so we will do multiple things during any given class. Typical class format will consist of a quick discussion about the reading or a research paper presentation (10 min), lecture (25 min), and a hands-on activity (35 min).

Date	Topic	Reading before class (pages in PRS text)	Assignments
8/23	Course Introduction/Welcome Formation of Teams	None	
8/28	HCI Overview: HCI/Interaction Design Overview of Team Project	1-33	
8/30	HCI Overview: Interfaces	158-186	
9/4	HCI Overview: Interfaces	186-223	
9/6	HCI Foundations: Cognition	65-82	Team 1 Research Paper Presentation
9/11	HCI Foundations: Cognition	82-99	Team 2 Research Paper Presentation
9/13	HCI Foundations: Social	100-115	Team 3 Research Paper Presentation <i>Team: Research Proposal Due</i>
9/18	HCI Foundations: Social	115-130	Team 4 Research Paper Presentation

9/20	HCI Foundations: Emotion	131-157	Team 5 Research Paper Presentation <i>Individual: Fix a Website</i>
9/25	HCI User Research: Data Gathering	226-251	Team 6 Research Paper Presentation
9/27	HCI User Research: Data Gathering	251-274	Team 7 Research Paper Presentation
10/2	HCI User Research: Data Analysis	275-301	Team 8 Research Paper Presentation
10/4	HCI User Research: Requirements	350-368	Team 9 Research Paper Presentation <i>Team: User Research Paper</i>
10/9	HCI User Research: Requirements	368-380	Team 10 Research Paper Presentation
10/11	Mid-Term Exam		Mid-Term Exam
10/16	HCI Design: Design, Prototyping, and Construction	385-406	Team 11 Research Paper Presentation
10/18	HCI Design: Design, Prototyping, and Construction	406-428	Team 12 Research Paper Presentation
10/23	Open- to be scheduled		Team 13 Research Paper Presentation <i>Team: Requirements Paper</i>
10/25	HCI Evaluation	452-469	Team 14 Research Paper Presentation
10/30	HCI Evaluation	474-498	Team 15 Research Paper Presentation
11/1	HCI Usability Testing		<i>Individual: Paper Prototype</i>
11/6	No Class- Fall Break		
11/8	HCI Experiments and Field Studies		
11/13	HCI Heuristic Evaluation	500-518	<i>Team: Design & Digital Prototype</i>
11/15	Work Day		
11/20	Field Trip around Campus		
11/22	No Class- Thanksgiving		
11/27	Wrapping Up		<i>Team: User Evaluation Document</i>
11/29	Research Project Presentations		
12/4	Research Project Presentations		
12/6	Research Project Presentations		<i>Team: Final Paper Individual: Design Journal</i>
12/11	Final Exams Week- No Class		
12/13	Final Exams Week- No Class		

Device Policy:

Don't use your phone or any other similar device during class. This will be a great way to irritate me. If you want to take notes on a laptop that is fine...but remember the TA and I will be walking around the class.

Recording:

Lectures may not be recorded without my permission and notes or slides may not be used for commercial purposes.

Copyrighted Materials:

Materials in some courses are copyrighted. They are intended for use only by students registered and enrolled in a particular course and only for instructional activities associated with and for the duration of the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the Tech Act. Students should be reminded to refer to the Use of Copyrighted Materials and "Fair Use Guidelines" policy on the Clemson University website. Additional information is detailed at <http://libguides.clemson.edu/copyright>.

Academic Integrity:

"As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a 'high seminary of learning.' Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form. In instances where academic standards may have been compromised, Clemson University has a responsibility to respond appropriately to charges of violations of academic integrity."

I view academic integrity as a very serious issue. If I become aware of any violations of academic integrity, the student will be reported to the Dean of Students. Bottom line, do your own work.

Equal Opportunity and Sexual Harassment Policy (Title IX):

Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran's status, genetic information or protected activity in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. This policy is located at <http://www.clemson.edu/campus-life/campus-services/access/title-ix/>. Mr. Jerry Knighton is the Clemson University Title IX Coordinator. He also is the Director of Access and Equity. His office is located at 110 Holtzendorff Hall, 864.656.3184 (voice) or 864.565.0899 (TDD).

Inclement Weather Policy:

In case a scheduled class meeting is cancelled due to inclement weather, any assignments due or examinations scheduled for that day will move to the next regularly scheduled class meeting, unless otherwise announced via the instructor

Accommodations for Students with Disabilities:

Student Accessibility Services coordinates the provision of reasonable accommodations for students with disabilities and students experiencing barriers due to inaccessibility. Accommodations are individualized, flexible, and confidential and are based on the nature of the disability and the academic environment, in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

Students are encouraged to consult with the Accessibility Services staff early in the semester, preferably prior to the first day of class. Current documentation of a specific disability from a licensed professional is needed. Additional information or appointments are available from Student Accessibility Services, Suite 239 in the Academic Success Center, 656-6848. Details on policies and procedures are available at www.clemson.edu/academics/studentaccess/.