

PSY 238: Human-Computer Interaction, Fall 2021

Wednesdays and Fridays from 8:30 a.m. to 9:50 a.m. in Hegeman 102

Instructor

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Office location: RKC 208

Office hours: Monday noon – 1:00 p.m. and Thursday 10:00 a.m. – 11:00 a.m.

Course description.

The field of Human-Computer Interaction (HCI) sits at the intersection of computer science and cognitive psychology. The guiding question of HCI is how can we leverage what we know about human information processing to design efficient interfaces between humans and computers? In this course, students will gain theoretical knowledge and practical experience in the fundamental aspects of human perception, cognition, and learning as it relates to the design, implementation, and evaluation of human-computer interfaces. In addition, this course will consider the ways in which the nature and ubiquity of human-computer interactions are changing the way we think, behave, and interact with one another.

Required reading material.

1. Norman, D. (2013). *The Design of Everyday Things*. Basic Books: New York, NY
Can be purchased through amazon.com or any other bookseller: [The Design of Everyday Things](#)
2. Additional course readings will be posted on the class Brightspace page: [HCI Brightspace Page](#)

Components of the course grade.

Bi-weekly Assignments (8 assignments, 25 points each)

Every other week I will post an assignment for you to complete within one week. The nature of the assignment will vary depending upon where we are in the class. For example, one week you will be asked to write a short paper describing and exploring a positive and negative experience with a specific user-interface. In a later week, you will be asked to complete a statistical worksheet which will include both hand calculations and work conducted through JASP statistical software. Assignments will be submitted through our course Brightspace account by the start of class on the date they are due.

Midway Presentation (25 points)

Midway through the semester you and a partner will give a brief (~5 minute presentation) about a user interface that you find interesting and want to learn more about. Your task will be to present an existing interface and generate ideas about ways to improve this interface based on the design and human factors principles we will learn at the start of the class. This should serve as a springboard to your final project. Specific expectations will be provided over the course of the semester.

Final Project (125 points)

In this class you and your partner will select and evaluate a user interface of interest to you. The final project will include a description of the interface, a qualitative reporting of participants experience with the interface as well as a quantitative report of the performance of a novice, moderate, and expert user. Finally, using this information you will propose a testable change to the system.

Poster Session (25 points)

Towards the end of the semester the class will be hosting a poster session to discuss what you have learned. This will be informal, but you will need to submit a poster in PowerPoint form to be printed prior to the session.

Class Participation (25 points)

You will be graded on your class participation. Although I will take attendance, this will not (except under extreme and unexcused circumstances) impact your grade. My hope is that you will come to class prepared to engage with the material and the other students in this class. Earning a high grade on class participation does not require you to answer every question in class.

Late assignments

An assignment will be considered late if it is not uploaded to the Brightspace site prior to the start of class (8:30 a.m.) on the day it is due. All late assignments will be subject to an immediate 50% reduction in maximum possible score on that assignment. Late assignments can be submitted at any point during the semester up until the last day of our class (Wednesday, December 15th) but will automatically incur the 50% late penalty.

Grading breakdown.

Point Allocation

| | |
|--|-----------|
| Bi-weekly Assignments (8 X 25 points each) | 200 |
| Midway Presentation | 25 |
| Final Project | 125 |
| Poster Presentation | 25 |
| <u>Class Participation</u> | <u>25</u> |
| Total Points | 400 |

FINAL GRADE = ((Total Points Earned)/400) *100

GRADING SCALE

- A-= 93% – 90%
- B+= 90% – 87%
- B = 87% – 83%
- B- = 83% – 80%
- C+=77%-80%
- C = 77% – 73%
- C- = 73% - 70%
- D = 70% – 60%
- F = less than 60%

Academic integrity.

All students are assumed to have read the Bard College Handbook and are familiar with the school's policies regarding Plagiarism and Academic Dishonesty. Violations of these policies are taken extremely seriously and one violation will result in a failing grade for the course and a referral to the Dean of Students for further action.

Academic accommodations.

Your experience in this class is important to me. I am committed to meeting the needs of all students in this course and will work with you to ensure your accommodations are adequately met. If you have already established accommodations, I will receive a letter from the Learning Commons Disability Support Services with additional information. If you have not yet established services through the learning commons, but have a temporary health condition or permanent disability that requires accommodations (conditions include but are not limited to: mental health, attention-related, learning, vision, hearing, physical or health impacts), please review the Student Accessibility Resources website:

<https://www.bard.edu/accessibility/students/>

Respect for diversity.

It is my intent that students from diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions on ways that I can improve the course and incorporate more diversity are encouraged and appreciated.

Notable dates.

Wednesday, September 8th – Add/Drop Period Ends

Wednesday, September 10th – No class

Wednesday, September 29th – Late Drop Period Ends, Pass/Fail Grading Deadline

Wednesday, November 24 and Friday, November 26th: No Class – Thanksgiving break

Friday, December 3 – Last Day to Withdraw from Class.

Friday, December 8 – No class – Advising day

Psychology 238 Course Schedule – Fall 2021

This course will be divided into four major topic areas.

1. Design Principles of HCI
2. Human Factors
3. Evaluation of Interfaces
4. Technology and Psychology, or (to steal a phrase from Experimental Humanities), how do computers mediate what it means to be human?

The amount of time we dedicate to each of these areas will depend upon the collective interest of the class. In addition, these four areas interact for much of the course. To allow for a more adaptable schedule, readings for the next class will be posted at the end of the previous class. For example, our assigned reading for next class is listed below and is posted on the course Brightspace site. I will post our readings for Wednesday, September 8 after class on Friday.

Friday, September 3rd – Human Centered Design

To Read for Class:

- a) Verma (2019). Three button designs that almost result in catastrophe.
- b) Norman (2013). The psychopathology of everyday things.

Despite the fluid reading and topic areas, the assignment dates will be firm and are listed below.

Wednesday, September 8 – Assignment #1

Wednesday, September 22 – Assignment #2

Wednesday, October 6 – Assignment #3

Friday, October 15 – Midway Presentations

Wednesday, October 20 – Assignment #4

Wednesday, November 3 – Assignment #5

Wednesday, November 17 – Assignment #6

Wednesday, December 1 – Assignment #7

Friday, December 3 – Final Project

Friday, December 10 – Poster Presentation

Wednesday December 15 – Assignment #8