
Communication 3545 – Human-Computer Interaction

Summer 2017 – MWF 1:30-3:05pm – Journalism 216

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Office Hours: WF 11:30am-1:30pm in Journalism 216
By appointment in Derby Hall 3045F

DESCRIPTION OF COURSE

This course is an introduction to the study of human-computer interaction (HCI). The goal of this class is to help you learn how to design usable interactive technologies. To that end, we will consider what constitutes good design, we will study a variety of ways to conceptualize design problems, we will examine how users' cognitive abilities and emotions influence design, and we will learn about interfaces.

By the end of this course, you should be able to:

- Explain the theoretical origins for the study of HCI and their application to design
- Apply communication concepts and theories to media technologies
- Develop strategies for designing and evaluating media technologies
- Critically analyze and interpret media technologies

REQUIRED READINGS

The textbooks for this course are available free online through the OSU Library and Safari Tech Books Online. The online edition of the first book below is an older addition and is missing a few terms that we will cover in class. You are welcome to look at the full book during office hours or you may prefer to just buy this textbook as it costs less than \$10.

- Lidwell, W., Holden, K., & Butler, J. (2015). *The pocket universal principles of design: 150 essential tools for architects, artists, designers, developers, engineers, inventors, and makers*. Beverly, MA: Rockport Publishers.
 - Read online: <http://proquest.safaribooksonline.com.proxy.lib.ohio-state.edu/book/graphic-design/9781592535873>
 - Purchase full edition: https://www.amazon.com/Pocket-Universal-Principles-Design-Architects/dp/1631590405/ref=sr_1_1?ie=UTF8&qid=1496787183&sr=8-1&keywords=pocket+universal+principles+of+design
- Rogers, Y., Sharp, H., & Preece, J. (2011). *Interaction design: Beyond human-computer interaction* (3rd ed.). West Sussex, UK: Wiley.
 - Read online: <http://proquest.safaribooksonline.com.proxy.lib.ohio-state.edu/book/web-development/usability/9780470665763>
 - Note: We will be using only the 3rd edition for class, so you do not need to have access to the 4th edition (most current).
- All other readings are provided on Carmen as PDFs.

COURSE REQUIREMENTS

Graded Activities

<i>Participation and In-Class Activities</i>	60 points
<i>Evaluations</i>	
Evaluation 1	60 points
Evaluation 2	60 points
<i>Design Diary</i>	160 points
<i>Exams</i>	
Midterm	80 points
Final	80 points
TOTAL	500 points

Grading Scale Distribution (OSU Standard Scheme)

A	465-500	B	415-434	C	365-384	D	315-334
A-	450-464	B-	400-414	C-	350-364	D-	300-314
B+	435-449	C+	385-399	D+	335-349	E	Under 300

Communication and Journalism majors must receive a grade of C- or better to pass

Attendance, Participation, and In-Class Activities

Attendance (both mental and physical) is the key to your success in this class and your grade is largely contingent on your continued presence. This class involves regular collaborative learning activities, so missing class or falling behind on your assignments disrupts the progress of the whole class.

Additionally, much of the material presented in lecture is not found in your readings, so it is in your best interest to attend all classes. **Lecture slides will NOT be posted on Carmen.**

Routine events, such as conflict between class hours and internship/working hours, will not count as excused absences. Do not schedule work, internships, or classes during COMM 2511 class time. Also, do not make travel plans during finals week. Please discuss any existing schedule conflicts with me at the beginning of the semester.

Participation is required. While sickness and unexpected emergencies will arise from time to time, you should expect that if you are regularly absent your grade will be negatively affected. Your participation will routinely be evaluated via in-class activities throughout the course of the semester. **These activities cannot be made up outside of class.** If you are absent on a day when there is an in-class activity (most class days), you will not receive credit for that activity. **There are no exceptions to this policy, even for “legitimate” class absences.** However, I will drop your two lowest scores to provide you some cushion should you need to miss class.

In-class activities will be based on the readings assigned for that day, so make sure to come prepared by reading the materials prior to class. Also, **please**

bring something to write with and something to write on to each class session, as in-class activities will frequently be handwritten on your own paper.

Evaluations

Throughout the semester, you will conduct evaluations that will give you the opportunity to integrate your experiences with technology with what you learn in class through written analyses. There will be three opportunities to conduct evaluations – **you will submit papers for two out of three evaluations** (your choice which ones).

Each paper will be preceded by an in-class evaluation day – **you MUST be in attendance on the evaluation day and stay for the entire evaluation in order to submit a paper for that evaluation.** The evaluations will involve writing a 3-4 page paper based on research and your own insights. More detailed instructions and an example evaluation will be provided prior to the first evaluation.

Design Diary

You will be conducting your own independent (i.e., outside of class) evaluations for this project. The Design Diary involves evaluating multiple objects/products and using your creativity and knowledge to develop design alternatives. Essentially, you will be observing design problems and creating solutions to these problems based on what you have learned in class.

You will be allowed to work in groups of up to 4 people for this project; however, group work is not required and you are welcome to do the Design Diary independently if you prefer to do so. More detailed instructions will be provided in class on Wednesday, June 28.

Exams

You will take two exams that will require recall and application of material covered in class, including the course readings and lectures. The exams consist of multiple choice and short answer questions and will be preceded by study guides and in-class reviews. The final exam is not cumulative – it will only cover material from the second half of the course.

The exams MUST be taken at the scheduled times. Make-up exams will not be given except in cases of extreme, unforeseen, and convincingly documented emergencies (notification required within 24 hours of the exam time), or official University-related absences (notification required at least 2 weeks in advance). Your instructor reserves the right to determine what qualifies as extreme and what documentation is required. Unacceptable excuses include, but are not limited to: being out of town, having a note from the health center (flu excepted), oversleeping, having to work, not being able to find a parking space, car trouble, and flight delays or cancellations.

The exam dates are clearly identified on the schedule below – **if you foresee a conflict with the exam time, you will need to reschedule your conflict or reconsider your enrollment in this class.**

COURSE POLICIES

Technology Use, Distractions, and Disruptions

This is a technology-heavy course, but it must be used responsibly. This is a discussion-based course and requires you to pay active attention and interact with your classmates. Additionally, research indicates that learning is hampered by the use of technology during class, not just for the student using it but also for other students around him/her. **Therefore, cell phones, laptops, tablets, music players, and other electronic devices must be turned off completely and out of sight during class.**

Classroom computers will only be used for in-class activities. We will use the classroom computers for some activities – when not in use the classroom computers must be closed/out of sight. If you require a computer for notetaking due to a disability, please see the disability portion below and come speak with me to discuss arrangements.

Disruptions and distractions (including talking during lecture, text message or other phone use, non-class computer use, etc.), threatening behavior, and negative participation (e.g., use of inappropriate language or derogatory speech) will not be tolerated. Any student who engages in such behavior may be asked to leave class, suffer grade penalties, and be reported to the Dean of Students and/or University Police. **Any student who is observed using their phone or whose phone rings, beeps, or audibly vibrates during class will suffer grade penalties** (5 point reduction of your final grade per incident).

Email and Carmen

Throughout the semester, you will receive course information and turn in assignments via Carmen. As such, it is important that you check Carmen and your OSU email account regularly (at least 2-3 times per week) to make sure that you are not missing any critical information.

I **strongly** recommend that you set up Carmen notifications to receive an email or text message when an announcement or course content is posted. This will help you stay informed throughout the semester, especially for time sensitive announcements.

The best way to contact me is via email. You can email me using the Carmen inbox or you can email me directly at cooper.2114@osu.edu. I check my email frequently and will get back to you as quickly as possible; however, please allow up to 24 hours for response during the week and up to 48 hours for response on the weekend.

Late Work and Punctuality

As adults, you are expected to meet assigned deadlines. **No credit will be given for any assignment submitted after its deadline.**

Computer/technology problems will **NOT** be considered an acceptable justification for late work. If you are having difficulties with Carmen, you may email me your assignment **before** the deadline to receive credit.

You are expected to arrive to class on time and to attend class for the duration of each meeting. If you are not present at the time of an in-class activity, you will not receive credit for it or be able to make it up.

Academic Integrity and Misconduct

I take academic dishonesty very seriously. Students in this course accept responsibility for being held to the highest of academic standards as set forth by The Ohio State University Office of Academic Affairs. Violations will result in severe penalties in this course (including a zero on the assignment) and will be reported to the Committee on Academic Misconduct. For a full information on the Code of Student Conduct, see <http://studentconduct.osu.edu/>.

For this course, *academic misconduct* includes (but is not limited to):

- Using someone else's ideas or expression (e.g., writing) without proper acknowledgment of the source. Proper acknowledgment (e.g., citation, quotation, footnote) should make clear both the **extent** and **nature** of the use. If you have used someone's exact words, you should use "quotation marks" as well as a (citation). If a large portion of your writing uses another person's ideas, argument structure, or narrative form then you should make clear where the "borrowing" begins and ends. **Note that paraphrasing someone, summarizing their arguments, or using their ideas are all plagiarism if the source is not acknowledged. Plagiarism is more than just using someone else's exact words.** Also, be aware that "someone else's ideas" here includes textbooks, articles, web pages, your instructor's lectures/notes, your roommate's assignment from another class, and anything else other than your own ideas and your own writing. There is no outside source that it is acceptable to use without citing.
- Collaborating with other students on any assignment, homework, class project, etc. without the clear consent of the instructor. If work is not assigned as a group project or activity, you must do it entirely on your own.
- Taking your own work from one course and submitting it in a different course. It is not appropriate to claim that work was done for one class when in fact it was done for a different class.
- Exchanging information with another individual during an exam or using any materials not permitted for the exam.

It is your responsibility to be aware of the rules of academic dishonesty – ignorance is not a defense. **When in doubt, consult with me before doing anything about which you are uncertain.**

SUCCEEDING IN CLASS

A General Note

Graduating seniors (and other students) who “need” this course to graduate should work especially hard to ensure that they will pass this class (a C- or higher is required for Communication and Journalism majors). There will **NOT** be opportunities for you to re-take exams or re-complete assignments in order to raise your grade. It is your responsibility to ensure that you receive a passing final grade by working diligently and responsibly throughout the semester. **No exceptions will be made.** Do not ask me to reconsider your grade when the semester is over because making an exception for one student would be unfair to the rest of the class.

My Expectations

This is a Communication class, so I expect that as a student in this field you have master of communication-related skills, including (but not limited to): the ability to express and argue an idea using proper language and logic; the willingness to speak publicly and civilly in class; the aptitude to write a formal and appropriate email; the capability to conduct yourself in a civil and professional manner when interacting interpersonally with classmates, administrators, guests, and your instructor; and the proficiency for clear and grammatical written work. In addition, I expect you to have developed the time management and study skills to ensure your success in this class. However, I want to help you learn as much as possible so **please come talk to me if you are struggling.**

On Learning Strategies

There is a lot of reading in this course and we will cover a lot of information. *It won’t be easy.* Yet there are a few strategies that are likely to bring success. One of the best ways to understand any subject is to actively try to make connections between a new topic and information you already have stored in memory. The more you can make connections between the new material you encounter in this class and what you already “know” (such as things you’ve read in the news or learned in other classes), the better you will be able to remember and apply it.

The ultimate goal is “knowledge integration” – connecting the dots between what at first might appear to be disparate concepts, but are in fact ideas that fit together into a bigger picture, thereby providing a broader context for understanding. The best ways to achieve knowledge integration are to:

- Make sure you do all of the readings before class, actively connecting the readings to things you already know, have read in the news, or are learning in other classes.

- Participate actively in class, challenging the propositions and evidence provided in the studies, by the instructor, or by other students, and asking questions about things you may not understand. *Disagreement is good!*
- Discuss the readings during class, at office hours, or informally with fellow students and/or the instructor.
- Review the readings again in doing assignments and writing essays.
- *Think. Talk. Think. Talk.* The more times you engage with the material in this course – and talk to others about it – the more successful you will be.

Disability Accommodations

If you have a documented disability, please register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations, so they may be implemented in a timely fashion. If you have any questions about this process, please contact Disability Services at 614-292-3307 orslds@osu.edu.

Additional Resources

I encourage you to explore these support resources for additional help with your assignments and papers during this course and throughout your academic career:

- Walter E. Dennis Learning Center (<http://dennislearningcenter.osu.edu>) – This center provides academic services and support to students to help you develop learning strategies (e.g., note taking, exam preparation) for success in the college classroom.
- The Writing Center (<https://cstw.osu.edu/writing-center>) – This center provides free help with any assignment at any stage of the writing process via face-to-face sessions and online tutorials.
- *The Elements of Style* by Strunk and White. If you are uncertain of what constitutes good writing, this classic book is very straightforward and extremely helpful. There are several editions and you can find it on Amazon for about \$5 – it's well worth the investment. Here is a link to buy it on Amazon: <http://a.co/hNcLKV>.
- *The American Psychological Association (APA) Style Manual*. For those of you pursuing a degree in social science, this book is an excellent resource on the expectations for your research and writing. It includes guidelines on citations, formatting, tone, etc. APA style is required for the assignments submitted in this class. Here is a link to buy it on Amazon: <http://a.co/bY92D2g>.
- For free resource on APA formatting and style, check out this website: <https://owl.english.purdue.edu/owl/resource/560/01/>.

This syllabus is an agreement between the instructor and the student. The instructor reserves the right to make changes to the syllabus (with adequate notice) if deemed necessary. **If you object to these policies or do not feel that you can adhere to them, please do not remain enrolled in this course.**

Readings and Course Schedule

Under each class day is a list of readings, in-class evaluations, and assignments due. Most days include a list of terms from the Lidwell textbook – terms not included in the online edition are indicated with *. Readings labelled “ID” are from the other required course textbook. As indicated, other assigned readings are available as PDFs on Carmen. **You are expected to complete each day’s readings BEFORE coming to class.**

Wednesday, June 7 – Course introduction, review syllabus

Friday, June 9 – Introduction to HCI

- Lidwell terms – Dunning-Kruger effect*
- ID Chapter 1

Monday, June 12 – Affordances and key concepts

- Lidwell terms – Affordance, Constraint, Form follows function, Mapping, Mental model, Visibility
- Norman Chapter 1 (Carmen)

Wednesday, June 14 – Basic design principles

- ID Chapter 2

Friday, June 16 – Basic design principles

- Lidwell terms – 80/20 rule, Confirmation, Consistency, Control, Factor of safety, Flexibility tradeoffs*, Forgiveness, Hierarchy, Iconic representation, Modularity, Redundancy, Signal-to-noise ratio

Monday, June 19 – Basic design principles

- Norman Chapter 2 (Carmen)

Wednesday, June 21 – Theories; Evaluation assignments

- **In class – Evaluation 1**
- Reeves & Nass Chapter 1 (Carmen)
- Nass Chapter 2 (Carmen)

Friday, June 23 – Theories

- Lidwell terms – Classical conditioning, Operant conditioning, Priming, *Reciprocity, Scarcity, Shaping

Monday, June 26 – Interfaces

- ID Chapter 6

Wednesday, June 28 – Interfaces; Design Diary assignment

- Lidwell terms – Entry point, Five hat racks, Garbage in garbage out, Ockham's razor

Friday, June 30 – Users: Cognition

- **Evaluation 1 due to Carmen dropbox by 11:59pm**
- Lidwell terms – Performance load, Recognition over recall
- ID Chapter 3

Monday, July 3 – Users: Cognition; Midterm review

- Lidwell terms – Chunking, Hick's law, Interference effects, Rosetta stone, Serial position effects, Stickiness*, Von Restorff effect, Zeigarnik effect*

Wednesday, July 5 – MIDTERM EXAM

Friday, July 7 – Users: Affect

- **In class – Evaluation 2**
- Lidwell terms – Biophilia effect, Supernormal stimulus*, Threat detection; Black, Blue, Green, Red, White, Yellow Effect*
- ID Chapter 5

Monday, July 10 – Users: Affect

- Lidwell terms – Aesthetic-usability effect, Cognitive dissonance, Contour bias, Errors, Flow*, Mere exposure effect*, Performance vs. preference, Wabi sabi
- Schneiderman Chapter 11 (Carmen)

Wednesday, July 12 – Persuasive design

- Lidwell terms – Nudge, Veblen effect
- Evil by Design (Carmen)

Friday, July 14 – Users: Social

- **In class – Evaluation 3**
- **Evaluation 2 due to Carmen dropbox by 11:59pm**
- Lidwell terms – Immersion
- ID Chapter 4

Monday, July 17 – Users: Social

- Lidwell terms – Anthropomorphism*, Attractiveness bias, Crowd intelligence*, Expectation effects*, Face-ism*, Uncanny valley

Wednesday, July 19 – Design process

- Lidwell terms – Design by committee, Development cycle, IKEA effect*, Iteration, Most advanced yet acceptable, Selection bias*, Sunk cost effect*
- ID Chapter 9

Friday, July 21 – Requirements

- **Evaluation 3 due to Carmen dropbox by 11:59pm**
- Lidwell terms – Feature creep*, KISS*, Life cycle
- ID Chapter 10

Monday, July 24 – Prototyping

- ID Chapter 11
- Schell Chapter 7 (Carmen)

Wednesday, July 26 – Final review

Friday, July 28 – **FINAL EXAM**

Design Diary due to Carmen dropbox by 11:59pm Sunday, July 30

References for Non-textbook Readings

Dadlich, S. (2014). Wrong design. *Wired*.

Nass, C., & Yen, C. (2010). *The man who lied to his laptop: What we can learn about ourselves from our machines*. New York: Penguin.

Nodder, C. (2013). *Evil by design: Interaction design to lead us into temptation*. New York: Wiley & Sons.

Norman, D. A. (1988). *The psychology of everyday things*. New York: Basic Books.

Reeves, B., & Nass, C. (1996). *The media equation: How people treat computers, television, and new media like real people and places*. New York: Cambridge.

Schell, J. (2014). *The art of game design: A book of lenses*. Boca Raton, FL: CRC Press. Shneiderman, B. (2003). *Designing the user interface*. New York: Pearson.