

**Credits: 4**

**Term: Summer 2019**

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**OSU catalog course description:** Basic principles of usability engineering methods for the design and evaluation of software systems. Includes the study of human-machine interactions, user interface characteristics and design strategies, software evaluation methods, and related guidelines and standards.

**Prerequisites:** CS 161 or CS 295 or CS 151 or ECE 151

## **Two fundamental rules**

1. You are responsible for knowing the contents of the syllabus and all the information about the course provided on Canvas.
2. You are responsible for knowing the contents of any instructor emails sent to you, instructor messages sent to you via Canvas or Piazza, and instructor announcements made on Canvas, which means that you should make sure you receive such communications, that you check for new ones at least once a day, and that you read them. (You do not have to read all posts anyone makes in Piazza or discussion boards or even all the posts I make - just the ones that are in response to a post you made.)

## **Course overview**

**Overall goals:** This class will give you hands-on experience with usability evaluation and user-centered design. In this class you will not learn how to implement user interfaces, but rather how to **design these based on the needs of users**, which you will determine, and learn how to evaluate your designs rigorously. This is a class for those who wish to know more about usability, human-computer interaction, the psychological aspects of computing, evaluation, and/or experimentation.

### **Course Content:**

- Requirements gathering and interpretation
- Prototyping and iterative design
- Usability testing methods, and legal and ethical requirements
- Evolution of Interfaces

**Your project:** Much of your work will be done collaboratively (online) on group projects (~4 person groups). A significant portion of your grade will be based on that team project, where you will propose, prototype, and evaluate your own solutions. There will be no programming.

**Readings:** It is best to do the reading before viewing the videos or participating in the discussions. The lectures will be used to elaborate or discuss the material's implications or usage. This does not mean the assigned reading is not important or will not be covered in a test.

**Textbooks:**

**Required:** Interaction Design, 4<sup>th</sup> Ed, Preece, 978-1-119-02075-2

Optional: Rocket Surgery Made Easy, Krug, 978-0-321-65729-9

**Canvas:** This course will be delivered via Canvas, your online learning community, where you will interact with your classmates and with me. Within the course Canvas site, you will access the learning materials, tutorials, and syllabus; participate in the discussions; submit assignments; take quizzes; email other students and the instructor; and display your projects. To preview how an online course works, visit the [Ecampus Course Demo](#). For technical assistance, Canvas and otherwise, see: <http://ecampus.oregonstate.edu/services/technical-help.htm>.

## Learning objectives

At the completion of this course, students will be able to:

1. Describe the human centered design process and usability engineering process and their roles in system design and development.
2. Discuss usability design guidelines, their foundations, assumptions, advantages, and weaknesses.
3. Describe basics of human subjects research.
4. Complete a basic human subjects research certification form.
5. Design a user interface based on analysis of human needs and prepare a prototype system.
6. Assess user interfaces using different usability engineering techniques.
7. Make a final report that justifies design decisions.

## Course Schedule & Topics

**Instructions:** This is a summer term. So, we have only 8 weeks. Most assignments are due Sundays. Quizzes are due Sunday but we recommend you start them Fridays. The due dates are assigned in Canvas and can be viewed on the Canvas calendar. To See the full schedule please check class "Syllabus & Schedule" posted on Canvas.

## Grading/Evaluation

This course requires that you take one exam under the supervision of an approved proctor. Proctoring guidelines and registration for proctored exams are available online through the Ecampus testing and proctoring [website](#). It is important to submit your proctoring request as early as possible to avoid delays.

## Grade Distribution:

Component	% of your grade
Participation	22%
Peer Reviews and group participation, Project support activities, End of course Reflection	
Quizzes	8%
Final Exam	30%
Project	40%
Project grading breakdown:	
Proposal	5%
Formative Research	5%
Prototype	15%
Evaluation	10%
Peer & Self Evaluation	5%

The grading scale for this class is demonstrated in the below table. At the end of the term, some borderline scores may also be adjusted due to participation quality.

Grade	Percentage
A	$\geq 92.5$
A-	$\geq 90$
B+	$\geq 87.5$
B	$\geq 82.5$
B-	$\geq 80$
C+	$\geq 77.5$
C	$\geq 72.5$
C-	$\geq 70$
D+	$\geq 67.5$
D	$\geq 62.5$
D-	$\geq 60$
F	less than 60

EECS department policy is that grades less than a C are not considered a passing grade towards a CS degree or a prerequisite for a CS course.

## Course & Grading Policies

- There will be a Syllabus Quiz over the syllabus. This will be a 15 question (T/F and multiple choice) quiz in Canvas. You can take it, as many times as you need, but you MUST have a score of 100% to continue with the course before its due date.
- Every other quiz will have around 10 questions (T/F and multiple choice) in Canvas. You may

take the quiz a second time, but only the score of the final attempt will count. Each attempt will be timed.

- The final exam is proctored. Please schedule a proctor as soon as possible. You can see the options at the Ecampus proctored exam webpage.
- The final exam contains short answer questions. Based on prior experience with the class, the time limit is set at twice amount of time that you would normally need.
- Electronic gadgets are not allowed during the exams.
- The exam is closed book. You can bring one double sided 3x5 index card (hard copy) as a study aid. You will have 110 minutes for the final.
- If you have a question about a grade, you must contact your grader through EMAIL within ONE WEEK of receiving your grade. After one week, you will not be able to dispute your grade.
- If you are dissatisfied with your TA's response (or if they neglect to respond at all), then you should contact me about it.
- Late submissions are not graded. It is better to submit an incomplete work for possible partial credit than to not have your work graded at all.
- Be aware of what time zone Canvas is using to display deadlines. If it's not your local time zone, you can set it to be. The Canvas phone app always displays times for the time zone the phone is in. This is important to keep in mind if you will be traveling.
- There is no extra credit.
- I don't plan to "curve" the grades, but that's something I'll re-assess at the end of the term.
- Makeup exams take considerable effort to schedule, so they will not be given under normal circumstances. If you learn about an event that may cause you to alter your exam scheduling, then contact me and your proctor (or the testing coordinator) as soon as you can so that accommodations may be considered.
- Incompletes will be given very rarely. If you have been doing well in the course so far, but an emergency comes up that prevents you from continuing according to schedule, let me know as soon as you can.

## **Getting Help / Communication Policy**

When you have a question about something, the order of steps you should take to pursue answers is roughly the following:

1. First, please review the relevant materials (assignment/project description, readings, lectures, also you can search internet). Also, if your question relates to a group project, discuss it with your group members.
2. For general questions, please search the class discussion board on Piazza (it can take some practice to learn how to refine your searches well).
3. Post you general question to the class discussion board on Piazza (by doing #1 and #2 first, you might save yourself asking a question, and you might also then be better able to help others). When you post a question on Piazza and it's answered there, that benefits other people who have the same question (if you're shy, you can post anonymously).
4. If you've tried #1-3 and feel like your question hasn't been fully addressed, or if you have an urgent question please email your assigned TA (copy me) or myself.

## Notes:

- Please post your official questions about the course or assignments on Piazza. Use slack for more synchronous casual discussions/questions with the course members
- Never be afraid to ask questions (on Piazza, to your TA, or to myself). You have the option on Piazza of posting anonymously (to classmates) if you wish.
- While your instructor mainly answers asynchronous questions on Piazza, you are still highly encouraged to use slack for more synchronous casual discussions/questions with the course members and for the group activities.
- For your questions on piazza or asked via email, expect to receive an answer from your instructor/ TAs within one business day. If not, send us a reminder email.
- If you have an urgent question from your TA or instructor, please email them directly. Please tag your email with "[CS 352]" in the subject line.
- Copy your instructor in all emails you are sending to your TAs.
- I highly encourage students to help each other. One way is to answer the questions posted on discussion boards (e.g. Piazza). When you are willing to help others on the discussion board and take pains to not make anyone feel like they asked a dumb question, you are reinforcing both your technical knowledge and your people skills, both of which are highly valued not just here, but out in the real world.
- I will reward active and constant participation in Piazza by giving extra credit to those students who contributed to the discussion through good questions and answers! Please note you should be very active on Piazza to be eligible to receive extra credit at the end of the term.

**Office Hours:** TA / instructor's office hours will be held online through the class Slack workspace in the #general channel or Webex. The details for instructor office hours will be announced weekly in Canvas. Details for TA office hours can be found in "Who is grading Whom" module in Canvas.

**Technical Assistance:** If you experience computer difficulties, need help downloading a browser or plug-in, assistance logging into the course, or experience any errors or problems while in your online course, contact the OSU Help Desk for assistance. You can call (541) 737-8787, email [osuhelpdesk@oregonstate.edu](mailto:osuhelpdesk@oregonstate.edu) or visit the OSU Computer Helpdesk online.

**Tutoring** — [NetTutor](#) is a leading provider of online tutoring and learner support services fully staffed by experienced, trained and monitored tutors. Students connect to live tutors from any computer that has Internet access. NetTutor provides a virtual whiteboard that allows tutors and students to work on problems in a real time environment. They also have an online writing lab where tutors critique and return essays within 24 to 48 hours. Access NetTutor from within your Canvas class by clicking on the NetTutor icon.

## Academic Dishonesty

- You **MAY** discuss (verbally) the meaning of assignments, general approaches, and strategies with other students in the course.
- You **MAY** show your work to the TAs or instructor for feedback and help.
- You **MAY NOT** share individual assignment content, or documentation of any kind with any other student in the course.

- You **MAY NOT** show your group assignment work with any student who is not in your group for any reason.
- You **MAY NOT** copy documents from any other source, including the Internet.
- You **MUST** write your own documents for your assignments.
- You **MUST** approachably cite any references (e.g., paper, websites, etc.) that you are using in your work.

We use plagiarism-detection software check your work/documents against the work or documents from other students/groups.

If you are found in violation of any of the above policies, whether you are the giver or receiver of help, you will receive a zero on the assignment or fail the course (Instructor's discretion). The academic dishonesty charge will be documented and sent to your school's dean and the Office of Student Conduct. The first offense results in a warning; the second offense results in an academic dishonesty charge on your transcript, a disciplinary hearing, and possible expulsion. Please, read the [department](#), [college](#), and university dishonesty policy, [OAR 576-015-0020 \(2\) Academic or Scholarly Dishonesty](#)

### **Students with Disabilities**

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

### **Ground Rules for Online Communication & Participation:**

- *Online threaded discussions* are public messages, and all writings in this area will be viewable by the entire class or assigned group members. If you prefer that only the instructor sees your communication, send it to me by email, and be sure to identify yourself and the class.
- Posting of personal contact information is discouraged (e.g. telephone numbers, address, personal website address).
- *Online Instructor Response Policy*: I will check email and Piazza frequently and will respond to course-related questions within 1 business day if possible.
- *Observation of "Netiquette"*: All your online communications need to be composed with fairness, honesty and tact. Spelling and grammar are very important in an online course. What you put into an online course reflects on your level of professionalism. Here is a reference
  - netiquette: <http://www.albion.com/netiquette/corerules.html> .

(Adapted from statements provided by Becky Warner, SOC)

## **Guidelines for a productive and effective online classroom**

- The discussion board is your space to interact with your colleagues related to current topics or responses to your colleague's statements. It is expected that each student will participate in a mature and respectful fashion.
- Participate actively in the discussions, having completed the readings and thought about the issues.
- Pay close attention to what your classmates write in their online comments. Ask clarifying questions, when appropriate. These questions are meant to probe and shed new light, not to minimize or devalue comments.
- Think through and reread your comments before you post them.
- Assume the best of others in the class and expect the best from them.
- Value the diversity of the class. Recognize and value the experiences, abilities, and knowledge each person brings to class.
- Disagree with ideas, but do not make personal attacks. Do not demean or embarrass others. Do not make sexist, racist, homophobic, or victim-blaming comments at all.
- Be open to be challenged or confronted on your ideas or prejudices.

*(Adapted from a statement provided by Susan Shaw, WS)*