

**Course Name: CS 352 – Introduction to Usability Engineering****Credits: 4****Instructor name: Terry Rooker****Instructor email: [rookert@enr.oregonstate.edu](mailto:rookert@enr.oregonstate.edu)****Office: KEC 2099****Phone:** For a number of reasons, do not expect me to answer if you call my office phone. Email is the best way to get in touch with me.

**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

**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:** 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.

## 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.

Component	% of your grade
Participation	20%
Journals, Peer Reviews, Project support activities	
Quizzes	10%
Final Exam	30%
Project	40%
Project grading breakdown:	
Proposal	3%
Formative Research	8%
Prototype	10%
Evaluation Plan	4%

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.

### Specific Grading Policies

- There will be a policies 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.
- 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 is a proctored exam containing 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 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**.

### Academic Dishonesty

You **MAY** discuss (verbally) the meaning of assignments, general approaches, and strategies with other students in the course.

You **MAY** show your code to the TAs or instructor for feedback and help.

You **MAY NOT** share assignment code, pseudocode, or documentation of any kind with any other student in the course.

You **MAY NOT** show your assignment work with any student who is not in your group for any reason.

You **MAY NOT** ask another student for help debugging your assignment code.

You **MAY NOT** use or copy code or documents from any other source, including the Internet.

You **MUST** write your own documents and code for your assignments.

We use plagiarism-detection software check your code against the code from other students. It is quite sophisticated and can easily see through variable name changes and formatting differences. We can also check documents for plagiarism.

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.

### **Student Assistance:**

#### **Getting assistance:**

- Your first line of assistance should be to take a break, skim through the book, lectures, notes, and Internet,
- If you cannot find the answer yourself after some searching, you should then communicate with your fellow classmates, (remember that I want you to learn the basics in whatever way works best for you!)
- Please contact your TA or me via email to bring your question to our attention if you remain stuck on finding a solution,
- Remember to form study groups,
- We have several methods of communicating, but I would prefer we use a discussion board so that we can refer back to our previous discussions and citations.

**Technical Assistance** — If you experience computer difficulties, need help downloading a browser or plug-in, assistance logging into the course, or if you experience any errors or problems while in your online course, contact the OSU Help Desk for assistance. You can call (541) 737-3474, email [osuhelpdesk@oregonstate.edu](mailto:osuhelpdesk@oregonstate.edu) or visit the OSU Computer Helpdesk online.

(you can also clearly ask in discussion with the class and we can try to work through it for the benefit of the class)

### 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 somewhat frequently and will respond to course-related questions within 24 hours 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> .
- Please check the Announcements and the course syllabus before you ask general course "housekeeping" questions (i.e. how do I submit assignment 3?). If you don't see your answer there, then please contact someone through chat or discussion boards.
- (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)