



## Computer and Technology Programs

# Usability Studies Course Syllabus

### Course Summary

Usability refers to the factors that make a product, service or other technology systems easy for humans to use and understand. Typically, the more usable a system is, the more efficient the system will be, and the users will be more comfortable and satisfied with their use of the system. Usability considers human factors, ergonomics, psychology, and efficiency, and strives to make something that works for a range of people, without sacrificing functionality.

In this course, students will analyze existing systems and use heuristics to communicate usability standards. Students will also create and test prototypes to understand how usability testing can improve human-computer interactions. This course explores several branches of user experience design, including interaction design, information architecture, navigation, and user needs.

This is a class for those who wish to know more about usability, human-computer interaction, and the psychological aspects of computing.

### Prerequisites

User Experience Research is recommended but not required.

### Course Objectives

Upon successful completion of this course, the student will be able to:

1. Describe the intersection between human-centered design process and usability engineering;
2. Discuss usability design guidelines, their foundations, assumptions, advantages, and weaknesses;
3. Understand the goals and principles of usability testing;
4. Assess user interfaces using different usability engineering techniques;
5. Understand usability as it relates to mobile devices;
6. Design a user interface based on analysis of human needs and prepare a prototype;
7. Recognize the pitfalls of relying on developer intuition for judging usable designs.

### Course Requirements

Participants must attend a minimum of 70% of class sessions (nine hours, three sessions) and score a minimum of 70% on one exam to receive a certificate of completion.

## Materials

Course website

<http://ux.kegill.com/courses/usability-studies/>

Required text (none)

Recommended texts

- Krug, Steve (2006) *Don't make me think: A common sense approach to web usability*, 2<sup>nd</sup> edition. New Riders Publishing. 978-0321344755
- Norman, Donald A. (2013) *The design of everyday things*, revised and expanded edition. Basic Books. 978-0465050659
- Tullis, Tom and Albert, Bill (2013) *Measuring the user experience; collecting, analyzing and presenting usability metrics*, 2<sup>nd</sup> edition. Morgan Kaufmann. 978-0124157811

## Agenda/Assignments

LESSONS	TOPICS	ASSIGNMENT (due next session)
Lesson 1	<i>Design</i> We will examine easy-to-use and not-so-easy-to-use interfaces, exploring key design principles (efficiency, error prevention, graphic design, learnability, and visibility) and human capabilities that inform usable designs (attention, color vision, human error, motor skills, and perception).	Watch interview with Don Norman at UX Week. Come to class with three questions or ah-ha's for in-class discussion.
Lesson 2	<i>Evaluation</i> We will explore techniques for evaluating and measuring interface usability, including persona development, heuristic evaluation, and user testing.	(only one day – so not much)
Lesson 3	<i>Implementation</i> We will explore techniques for building and testing user interfaces, including low-fidelity prototypes and other prototyping tools.	

## General Course Recommendations and Requirements

Please turn off all electronic devices during class times. If it is necessary to leave a device on, please make certain it is in silent mode.

Please limit non-class computer usage to breaks as excessive/noisy keyboarding can be disturbing to the students around you.

## **Accommodation**

The Disability Resource Center serves students with a wide array of learning challenges and disabilities. If you are a student who has a disability or learning challenge for which you have documentation or have seen someone for treatment and if you feel you may need accommodations in order to be successful in college, please contact us as soon as possible.

If you are a person who requires assistance in case of an emergency situation, such as a fire, earthquake, etc., please meet with your individual instructors to develop a safety plan within the first week of the quarter.

If you are a student with a documented autism spectrum disorder, there is an additional access program available to you. Contact [asn@bellevuecollege.edu](mailto:asn@bellevuecollege.edu) or 425.564.2764. Autism Spectrum Navigators is located in the Library Media Center in D125.

[www.bellevuecollege.edu/autismspectrumnavigators/](http://www.bellevuecollege.edu/autismspectrumnavigators/)

The DRC office is located in B132 or you can call our reception desk at 425.564.2498. Deaf students can reach us by video phone at 425-440-2025 or by TTY at 425-564-4110. Please visit our website for application information into our program and other helpful links at [www.bellevuecollege.edu/drc](http://www.bellevuecollege.edu/drc).

### **Once you have completed *Usability Studies*, we recommend the following classes:**

- User Experience (UX) - Information Architecture
- User Experience (UX) - Interaction Design
- User Experience Design Fundamentals
- User Experience Research
- Web Accessibility