# CS 5153 User Interfaces and Usability – Fall 2009

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<thead>
<tr>
<th>Location: TBD</th>
<th>Office Hours:</th>
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<tbody>
<tr>
<td><strong>Time:</strong> TR 5:30-6:45pm</td>
<td>- T 4:30-5:30pm</td>
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<td><strong>Professor:</strong> John Quarles</td>
<td>- R 4:30-5:30pm</td>
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<td><strong>Office:</strong> TBD</td>
<td>- By appointment (email)</td>
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<tr>
<td><strong>Email:</strong> <a href="mailto:ipq@cs.utsa.edu">ipq@cs.utsa.edu</a>(Put UI in the subject)</td>
<td>- Drop by the office</td>
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## Course Description:

A study of the major topics in user interfaces and human-computer interaction (HCI), including interface design (principles, theories), usability and evaluation methods, software tools, virtual environments, interactive devices, collaboration, and visualization.

## What is this course, and who is it for?

This course is directed towards senior undergraduate students and graduate students who wish to learn the **basic concepts** and **current research** into the design and creation of user interfaces. The course involves three core components:

- Lectures – core HCI topics will be presented and discussed
- Research paper reading – cutting-edge HCI research conference and journal publications will be read and discussed in-class.
- Creation and Evaluation of an interface – each student will also 1) create their own interface and 2) evaluate their interface

Upon completion of this course, students will be able to understand and be able to evaluate the criteria used in developing interfaces.

**Prerequisites:** experience with software development and data structures

**Texts:**

*Recommended:* *Designing the User Interface 5th Edition*, Ben Shneiderman and Catherine Plaisant.

## Tentative List of Topics:

1. *Interface Basics*
2. *Design guidelines, principles and theory*
3. *Evaluating Interface Designs*
4. *Software Tools*
5. *Virtual Environments, and 3D Interaction*
6. *Classic topics: Menu, Forms, and Dialogs*
7. *Natural Languages*
8. *Interaction Devices*
Grading:

- 15% Project #1 (user study)
- 20% Project #2 (create new interface)
- 25% Project #2 (evaluate new interface)
- 20% midterm paper
- 20% quizzes/assignments/class participation

There will be no final exam.

Basic Workload:

**Weekly:** class lectures, and readings outside of class (followed by in-class quizzes)

**Semester:**
September: students will conduct a study that compares simple interfaces for a web-based task.
October: students will identify a task that would be enhanced through an improved interface.
Students will identify a client for this interface. Students will create a new interface (can involve a combination of coding, physical creation, etc.)
November: students will evaluate the new interface

The course requires an average to above average time commitment depending on the scope of the project you propose.

Equipment and Facilities:
You can work on these projects at home or in a lab, using any development environment (Windows, Linux, Mac) and use any programming language. You will also have access to the equipment in my lab (location: TBD).

Course Webpage: http://www.cs.utsa.edu/~jpq/teaching/uiu-f09/

Class Policy

Collaboration:
Working together is encouraged, but I urge all students to please use intelligent discretion. High level questions, syntax topics, and algorithms can be discussed. Not allowed in this course include the following: 1) plagiarism (misrepresenting others ideas as your own, can be fixed with simple citation), 2) copying code, and 3) work offensive to others.

Academic Dishonesty:
The penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all the cases, the course grade is reduced to “F”. Students are expected to report cases of academic dishonesty to the course instructor immediately.

Late Assignments: A late penalty of -10% for each day late will be assessed. After 3 days, you will receive a 0. Only under EXTREME circumstances will tests be given other than the time listed on the syllabus.

Tardiness: Please be considerate of your instructor and fellow students by being on time to class.

Attendance: Attendance is not required but may affect your final participation grade. If you are sick, please contact me, and we will work out a way for you to catch up.
Suggestions for success:

- Ask questions. If you are uncomfortable with asking in front of the class, please talk to me after class or during office hours.
- Have fun and experiment. Go all out. Who knows what you'll make, discover, or explore!
- Aim to have your final project be a paper you could publish

The final project requires each student to identify an interface problem or application that requires a new approach to solving the problem. This is not a course filled with mathematical equations and memorization of formulas. Instead this will involve reading research papers, critical thinking, and creating your own interfaces.

If you have any questions about how prepared you are, please feel free to see me at anytime. We can discuss whether this class is a good fit for you.

Class Disruption:
To reduce distraction to your fellow classmates, please:
  1. turn off all cell phone ringers
  2. do not read the newspaper or browse the web during class
  3. do not disrupt other students’ learning

Multiple and/or willful disregard will lead to an escalating penalties from emails to verbal chats to a deduction in the class participation grade will be assessed.