

Tentative Syllabus . . . . . Updated - August 20, 2009

Course: ICS 464 Human Computer Interaction I (3 credits) - Fall 2007 – POST 126

**Subject:**

Application of concepts and methodologies of human factors, psychology and software engineering to address ergonomic, cognitive, and social factors in the design and evaluation of human-computer systems. Pre: 311 or consent.

**Prerequisites:**

1. Pre: ICS 311 (Algorithms) or consent. Students requesting consent must take the class for grade (A-F).
2. Access to Microsoft WORD and Powerpoint program.

**Focus Hallmarks:**

“This course has a Contemporary Ethical Issues (E) Focus designation. Contemporary ethical issues are fully integrated into the main course material and will constitute at least 30% of the course content. At least 8 hours of class time will be spent discussing ethical issues. Through the use of lectures, discussions and assignments, students will develop basic competency in recognizing and analyzing ethical issues; how to responsibly deliberate on ethical issues; and making ethically determined judgments.”

**Textbook:**

Designing the User Interface: Strategies for Effective Human-Computer Interaction (5th Edition) about \$95, hardcover. Note that if you purchase a used book at around \$76 you will need to purchase a media access code for around \$18.

**Lecture:**

Monday / Wednesday, 12:00 – 1:15 pm

**Instructor:**

Curtis Ikehara  
Office/Phone: POST 306B / 956-3581  
Office hours: Wednesday, 1:30 – 2:30pm or by appointment  
Email: For questions about lectures: cikehara@hawaii.edu

Email homework to: cikehara@hawaii.edu

## Semester Schedule

Introduction

Chapter 1 - Usability of Interactive Systems

Afterwords

Societal and Individual Impact of User Interfaces (Ethics)

Chapter 2 - Guidelines, Principles, and Theories

Designing for Universal Access (Ethics)

Chapter 3 - Managing Design Processes

Human Subjects Experimentation (Ethics)

Chapter 4 - Evaluating Interface Designs

Subject Data Confidentiality (Ethics)

Chapter 5 – Direct Manipulation and Virtual Environments

Chapter 6 - Menu Selection, Form Fill-in, and Dialog Boxes

Law Related to Universal Access (Ethics)

Chapter 7 - Command and Natural Languages

Chapter 8 - Interaction Devices

Designing Interaction Devices for Universal Access (Ethics)

Chapter 9 – Collaboration and Social Media Participation

Team Ethics (Ethics)

Chapter 10 - Quality of Service

Chapter 11 - Balancing Function and Fashion

Chapter 12 - User Documentation and Online Help

Chapter 13 - Information Visualization

Project Presentations

## Learning Objectives

### Human-Computer Interaction

1. An understanding of the guidelines, principles, and theories of human-computer interaction.
2. Practical application of guidelines, principles, and theories of human-computer interaction.
3. Knowledge of different types of human-computer interaction modalities, mechanisms and approaches.
4. An appreciation for the large variety of users and user needs that need to be addresses when designing a human-computer interface application.
5. Knowledge of different types of human-computer interaction design and development processes.
6. Knowledge of the different types of software tools used to develop applications.
7. Knowledge of the different types of methodologies used to evaluate human-computer interaction applications.

### Ethical Focus Learning Objectives

The focal areas in human-computer interaction (HCI) ethics addressed are the ethical conduct of research and moving towards universal access to computing resources.

1. Introduction: An understanding the meaning of ethics and the benefits of ethical behavior in our lives.
  - a. The student will acquire an understanding of the societal and individual impact of user human-computer interfaces..
  - b. The student will acquire a knowledge of professional ethical codes
  - c. Case study of ethical lapses in Human Computer Interaction
2. Conducting Research
  - a. The student will understand the ethical requirements of submitting a research application to an institutional review board and committee for human subjects.
  - b. The student be familiar with how to conducting research ethically and professionally
  - c. The student will be required to receive online certification that satisfies the NIH human subjects training requirement for obtaining Federal Funds.
3. Universal Access to Computing resources
  - a. The student will acquire a broad overview of why designing for universal access, which includes all types of users, is a moral and ethical obligation and part of professional behavior..
  - b. The student will be familiar with the laws and practices related to universal access.
  - c. The student will understand the ethical and legal and legal basis for the design of specific types of interaction devices that meet the needs of special populations.

Grading (tentative):

	Points	Number
Homework and Assignments	200	10
Quizzes	200	4
Exam 1	100	1
Exam 2	100	1
Exam 3	100	1
Final Exam	150	1
Poster/Presentations	<u>150</u>	3
TOTAL	1000	
Extra Credit	50	5

1000	961	A+
960	921	A
920	881	A-
880	841	B+
840	801	B
800	761	B-
760	721	C+
720	681	C
680	641	C-
640	601	D+
600	561	D
560	521	D-
520	0	F

Turning in assignments:

What to turn in:

- \* Your own work. It is OK to discuss homework with others, but the work you turn in should be your own work.
- \* Answers should always include how the answer was derived.
- \* NOTE: Keep backup copies of your work. These could be important if there are questions about the completion of your work.

How to turn it in:

- \* Always include the course number and assignment number information in the subject line of the email.
- \* Hard copy --- may be turned in before it is due at the lecture or time stamped in the office and put into my mailbox in POST 316.

**Late Work: There is no contingent for late work.**

**Alternate Class Site:**

All lectures will be conducted and exams will be administered even in the event we are prevented from accessing our classroom. We will meet next to Kuykendall near Food Area.



**Academic Dishonesty:**

The each occurrence of academic dishonesty will result in a grade of 0 for the assignment or exam and a memo in your ICS department file describing the incident. This will be done for each student involved. Should there be more than one memo of this type in your file, the incident will be referred to the Dean of Students.

**DISCIPLINARY SANCTIONS -**

<http://www.hawaii.edu/student/conduct/discipline.html>

Sanctions include: Warning, Probation, Rescission of Grades or Degree, Suspension & Expulsion.

Academic Dishonesty - <http://www.hawaii.edu/student/conduct/imper.html>

Because UHM is an academic community with high professional standards, its teaching, research, and service purposes are seriously disrupted and subverted by academic dishonesty. Such dishonesty includes cheating and plagiarism as defined below. Ignorance of these definitions will not provide an excuse for acts of academic dishonesty.

Cheating includes but is not limited to giving or receiving unauthorized assistance during an examination; obtaining unauthorized information about an examination before it is given; submitting another's work as one's own; using prohibited sources of information during an examination; fabricating or falsifying data in experiments and other research; altering the record of any grade; altering answers after an examination has been submitted; falsifying any official University record; or misrepresenting of facts in order to obtain exemptions from course requirements.

Plagiarism includes but is not limited to submitting, in fulfillment of an academic requirement, any work that has been copied in whole or in part from another individual's work without attributing that borrowed portion to the individual; neglecting to identify as a quotation another's idea and particular phrasing that was not assimilated into the student's language and style or paraphrasing a passage so that the reader is misled as to the source; submitting the same written or oral or artistic material in more than one course without obtaining authorization from the instructors involved; or "drylabbing," which includes obtaining and using experimental data and laboratory write-ups from other sections of a course or from previous terms.

If you have any questions, please contact the instructor and obtain authorizations in writing.

### **Special Needs:**

If you need reasonable accommodations because of the impact of a disability, please:

1. contact the Kokua Program by telephone (V/T) at 956-7511 or 956-7612 or in person at the Queen Liliuokalani Center for Student Services building, room 013;
2. speak with me privately to discuss your specific needs. I will be happy to work with you and the KOKUA Program to meet your access needs related to your documented disability.

Information about the Kokua Program is available online at:  
<http://www.hawaii.edu/kokua/>.