

Syllabus

1 . Course Title, style, and credit:

Human Interface (x) Lecture, () Discussions () practice, 2 credit

2 . Appropriate grade level and Eligible Departments:

(x)1, (x)2, (x)3, (x)4, ()5: (x)School of Cultural Sciences , (x) All Departments , (x) Other

3 . Lecturer(s): Kikuo Asai

Contacts to the lecturer (e-mail address, Tel and Fax numbers, and the office):

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4 . Time:

The lecture is basically held every week, though a longer lecture gathering several lectures is sometimes held about once or a couple of times. The schedule may be arranged on negotiations with the students.

5 . Place:

The Open University of Japan, R&D Building 8F, Student Lecture Room

6 . Prerequisites and Styles

It is recommended that students should have the basic knowledge of computer science and cognitive psychology, related to human computer interaction, but they are not crucial. The lecture is basically given at a combinational style of on-site lecture, paper survey, and assignment submission. Students can also select the alternative way when it's required.

7 . Contents:

The basic concepts and applications on human computer interaction are surveyed, discussing the issues and prospects. The user interfaces and interaction techniques are studied from the physical and cognitive viewpoints.

8 . Course objectives:

1. Students comprehend the concept of human interface.
2. Students comprehend the technologies composed of human interface and cognitive control functions of humans.
3. Students comprehend the design and evaluation methods of human interface.
4. Students comprehend the relationship of the related areas and applications to human interface.

9 . Schedule:

- (1) Concept of human interface
- (2) History and progress of human interface
- (3) Body characteristics
- (4) Physiology characteristics
- (5) Cognitive characteristics

- (6) Interaction with input devices
- (7) Interaction with output devices
- (8) Interaction styles
- (9) Design
- (10) Evaluation
- (11) User supports
- (12) 3D environment
- (13) 3D interaction
- (14) 3D user interface
- (15) Neuro-feedback

10 . Lecture materials and readings

The materials used in the lecture are uploaded as an electric file on the Web. The following books will lead you to the extended studies.

- D. Hix, H. Hartson, Developing user interfaces: ensuring usability through product and process, John Wiley and Sons (1993)
- B. Shneiderman, C. Plaisant, Designing the user interface: strategies for effective human-computer interaction, 4th ed., Addison Wesley (2004)
- J. Barrilleaux, 3D User interfaces with Java 3D, Manning Publications (2000)
- Jef Raskin, The humane interface: new directions for designing interactive systems, Addison Wesley (2000)
- A. J. Dix, J. E. Finlay, G. D. Abowd, R. Beale, Human-Computer Interaction, 2nd ed., Prentice Hall (2003)
- D. A. Bowman, E. Kruijff, J. J. Laviola, Jr., I Poupyrev, 3D user interfaces: theory and practice, Addison Wesley (2005)

11 . Grades:

The credit will be given the student who presents or submits assignments to the lecturer by the provided deadline and are evaluated to understand the points. The subject(s) of the report must be one of the four aspects that are presented in the above Course Objectives. The grade is determined by quality of the presented or submitted assignments, and attendance will not be counted.

12 . Notes

None.