

# Human-Computer Interaction

Syllabus Number

3B323

Special Subjects

Elective 2 credit

ISHIKAWA, Tomoharu

## 1. Course Description

The aim of this course is to understand the fundamental concepts of the interaction between humans and computers (Human Computer Interaction, HCI), and to acquire a knowledge of product development. This course is related to DP4C and DP4M as a diploma policy.

## 2. Course Objectives

The main contents of the lectures are as follows.

- (1) Human sensation and perception, and the cognition and mechanism of understanding
- (2) Interactive systems
- (3) Input interface
- (4) Visual interface
- (5) Communication between human and computers
- (6) Interface for virtual space (Virtual Reality etc.)
- (7) Evaluation of an interface

## 3. Grading Policy

The standard of the pass mark is to acquire more than 60 percent of the whole score. The whole score is calculated by the score of the periodic test and the report (or Midterm test) as 60 percent and 40 percent. A comment to a report is fed back during a lecture, so utilize that for self-study. The condition to receive a periodic test is based on a regulation (Attendance of more than 2/3 is indispensable.)

## 4. Textbook and Reference

Textbook

Kenichi Okada, "Human Computer Interaction", Ohmsha, Ltd.

Lecture materials are raised in LMS beforehand, therefore print and bring them to class.

## 5. Requirements(Assignments)

The lesson contents are adjusted by the degree of progress.

This subject is a required subject of a JABEE program and corresponds to item 5-1 in the learning arrival target.

## 6. Note

## 7. Schedule

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| [1]  | Human and HCI 1 (Senses and Perception of Human)                                   |
| [2]  | Human and HCI 2 (Physiological responses of Human)                                 |
| [3]  | Human and HCI 3 (Cognition and Understanding of Human)                             |
| [4]  | Design of interactive system   |
| [5]  | Input interface1 (Keyboard, Japanese language input method)                        |
| [6]  | Input interface2 (Pointing device, Handheld device)                                |
| [7]  | Vision interface1 (Display device)   |
| [8]  | Vision interface2 (GUI and Window systems, Information visualization)              |
| [9]  | Communication between human-computers1 (Non-verbal communication, Sound interface) |
| [10] | Communication between human-computers1 (Gesture interface, Multimodal interface)   |
| [11] | Space type interface1 (Virtual reality, Stereovision)                              |
| [12] | Space type interface2 (Real-world-oriented interface)                              |
| [13] | Evaluation of an interface1 (Evaluation by specialists)                            |
| [14] | Evaluation of an interface2 (Evaluation by general users)                          |
| [15] | Test and overview  |