Course Syllabus

1. **Program of Study** Bachelor of Science (Computer Science)
   Faculty/Institute/College Mahidol University International College
   Mahidol University

   Course Code ICCS 312 **Course Title** Human Computer Interaction

2. **Number of Credits** **4 (Lectures/lab)** (4 - 0)

3. **Prerequisite(s)** ICCS 201, ICCS 365

4. **Type of Course** Elective

5. **Trimester / Academic Year** Trimester I / Year 2005 - 2006

6. **Course Description**
   Major themes in HCI: the concept of task analysis, the absence of relevant design formalisms, the cognitive basis of proposed interaction taxonomy, the notion of self-explanatory tools, and the use of artificial intelligence techniques in HCI; instilling appreciation of the interdisciplinary complexities of both practical and theoretical aspects of HCI; analysis and design work in HCI; projects on designing HCI components

7. **Course Objective(s)**
   By the end of the course students should be able to:
   - Gain understanding of interdisciplinary concepts in HCI
   - Be knowledgeable about human factors relevant to the software development process
   - Be able to adopt the user-centered design and perform rapid prototyping and formative evaluation
   - Develop and evaluate effective graphical user interfaces

8. **Course Outline**

Week	Topic		Instructor
	Lecture	Hour	
1	Human Factors of Interactive Software, Theories, Principles, and Guidelines	4	Mr. Poramin Bheganan
2	Managing Design Processes, Expert Reviews, Usability Testing, Surveys, and Continuing Assessments	4	
3	Software Tools	4	
4	Direct Manipulation and Virtual Environments	4	
5	Menu Selection, Form Fillin, and Dialog Boxes	4	
6	Command and Natural Languages, Interaction Devices	4	
7	Response Time and Display Rate	4	
8	Presentation Styles: Balancing Function and Fashion, Printed Manuals, Online Help, and Tutorials	4	

Week	Topic		Instructor
	Lecture	**Hour**	
9	Multiple-Window Strategies	4	Mr. Poramin Bheganan
10	Computer-Supported Cooperative Work	4	
11	Information Search and Visualization, Hypermedia and the World Wide Web	4	
	Total	44	

9. Teaching Method(s)

Lectures, in-class practical exercises, discussion, and self-study

10. Teaching Media

Text and teaching materials, Powerpoint, and handouts

11. Measurement and Evaluation of Student Achievement

Assessment made from stated criteria: students with 85% obtain grade A

12. Course Evaluation

1. Participation 5%
2. Assignments (×5) 25%
3. Project 15%
4. Mid-term exam 20%
5. Final exam 35%

13. Reference(s)

Shneiderman, B. & C. Plaisant, 2004. Designing the User Interface : Strategies for Effective Human-Computer Interaction-4th ed. Addison Wesley.

Dix A., et al. 2004. Human-Computer Interaction-3rd ed. Prentice Hall.

14. Instructor(s)

Mr. Poramin Bheganan

15. Course Coordinator

Mr. Poramin Bheganan