

COURSE SPECIFICATION

Name of institution Mahidol University
Campus/faculty/department International College

Section 1 General Information

1. Course code and course title

Thai	การปฏิสัมพันธ์ระหว่างมนุษย์กับคอมพิวเตอร์
English	ICCS 312 Human-Computer Interaction

2. Number of credit

4 (4-0-8)
 (lecture 4 hour – laboratory 0 hours/ self-study 8 hours/ week)

3. Curriculum and type of subject

3.1 Curriculum	Computer Science Major Course
3.2 Type of Subject	Elective

4. Responsible faculty member

Dr. Suporn Pongnumkul

5. Trimester / year of study

5.1 Trimester	1	/	Year of study	Sophomore - Senior
5.2 Number of students	11			

6. Pre-requisite

-

7. Co-requisite

-

8. Venue of study

Mahidol University, Salaya Campus

9. Date of latest revision

25 September 2014

Section 2 Goals and Objectives

1. Goals

To let students understand about the Human-Computer Interaction (HCI), focusing on the design process that is central to HCI. It consists of a term-long group project, small individual assignments and readings, exams and presentations, and lectures.

2. Objectives of development/revision

To introduce the concepts of Human-Computer Interaction.

Section 3 Course Management

1. Course descriptions

(Thai) วิชานี้เป็นการศึกษาการปฏิสัมพันธ์ระหว่างมนุษย์กับคอมพิวเตอร์ โดยเน้นที่กระบวนการการออกแบบซึ่งเป็นหัวใจของการปฏิสัมพันธ์ระหว่างมนุษย์กับคอมพิวเตอร์ โดยมีโปรเจกต์กลุ่มระยะหนึ่งเทอม การบ้าน การอ่านหนังสือ และการฟังการบรรยายเป็นส่วนช่วยให้นักศึกษาได้เรียนรู้

(English) This course provides an introduction to the Human-Computer Interaction (HCI), focusing on the design process that is central to HCI. It consists of a term-long group project, small individual assignments and readings, exams and presentations, and lectures.

2. Credit hours / trimester

Lecture (Hour)	Additional class (Hour)	Laboratory/field trip/internship (Hour)	Self study (Hour)
44 hours (4 hours x 11 weeks)	-	-	88 hours (8 hours x 11 weeks)

3. Number of hours that the lecturer provides individual counseling and guidance

2 hours / week

Section 4 Development of Students' Learning Outcome

1. Expected outcome on students' skill and knowledge

Students will be able to apply the knowledge from the lecturer and the practice from the term project when designing software.

2. Teaching methods

Course organized using lecture, individual assignments, readings and term project. Teaching materials include documents, lecture notes and visual aids.

3. Evaluation methods

1. Morality and Ethics

1.1 Expected outcome on morality and ethics

- (1) Perceive importance of morality, ethics, and integrity
- (2) Have discipline, self and social responsibility
- (3) Have a positive attitude in professional and express their morality and ethics
- (4) Be responsible and participate in activity for development
- (5) Can adjust to work in team both as leader or follower
- (6) Respect and follow rules and regulations of institution and society
- (7) Respect other people's right and are a good listener

1.2 Teaching methods

Learning Centered Education : Emphasis on knowledge development, important skills in career development and living, encourage students to use their full potentials

- (1) Term project
- (2) Individual assignment
- (3) Readings
- (4) Lectures

1.3 Evaluation methods

- (1) Written examination
- (2) Term project
- (3) Individual assignment
- (4) Class attendance, class participation and behavior in class

- (5) On-time submission of reports and assignments and their quality

2. Knowledge development

2.1 Expected outcome on knowledge development

- (1) Knowledge of theories and concepts in evolution of arts and sciences in the Thai and global communities
- (2) Analysis of causes and consequences of events/ situations/ problems and solutions to current case studies
- (3) Analyze impact of work and problems
- (4) Keep up on academic progress and situations occurring in everyday's life and global society

2.2 Teaching methods

Learning Centered Education : Emphasis on knowledge development, important skills in career development and living, encourage students to use their full potentials

- (1) Lecture
- (2) Case studies with past experiences and current events
- (3) Emphasis on morality and ethics
- (4) Group discussion
- (5) Group assignment

2.3 Evaluation methods

- (1) Written examination
- (2) Presentation
- (3) Class attendance, class participation and behavior in class
- (4) On-time submission of reports and assignments and their quality

3. Intellectual development

3.1 Expected outcome on intellectual development

- (1) Have analytical thinking
- (2) Can apply theoretical and practical knowledge to their real life activities
- (3) Can apply knowledge and skill to solve problem and synthesize of solutions and precautions

3.2 Teaching methods

- (1) Real experience teaching and encourage on skill development besides the professional skill

- (2) Project assignment and presentation
- (3) Analysis of case studies

3.3 Evaluation methods

- (1) Presentation of knowledge synthesis
- (2) Class attendance, class participation and behavior in class
- (3) On-time submission of reports and assignment and their quality

4. Interpersonal relationship and responsibility

4.1 Expected outcome on Interpersonal relationship and responsibility

- (1) Express appropriate opinion
- (2) Can adjust to work in team both as leader or follower
- (3) Self development both in academic and professional career and have responsibility for assignment (individual / group)

4.2 Teaching methods

- (1) Group participation in case studies
- (2) Assignment of group and individual reports
- (3) Encourage real-life experience and current events in teaching

4.3 Evaluation methods

- (1) Written examination
- (2) Presentation
- (3) Class attendance, class participation and behavior in class
- (4) On-time submission of reports and assignments and their quality

5. Mathematical analytical thinking, communication skills, and information technology skills

5.1 Expected outcome on Mathematical analytical thinking, communication skills, and information technology skills

- (1) Can use their effective communication skills (Listening, Speaking, Reading, and Writing) to communicate with others in group meeting, project workshop, and presentation
- (2) Can use information technology for communication and presentation in appropriate ways
- (3) Develop analytical skills from reading & skills to search information from the internet
- (4) Skills to use information technology for communication such as e-mail communication, group communication

5.2 Teaching methods

- (1) Lecture and group discussion of case studies
- (2) Participation in class

- (3) Assignment for searching from website, e-learning and report with emphasis on mathematical numbers and statistics from reliable sources

5.3 Evaluation methods

- (1) Group discussion
- (2) Practical presentation in class
- (3) Reports and presentation using information technology
- (4) Participation in group discussion

Section 5 Teaching and Evaluation Plans

1. Teaching plan

Week	Topic	Hours	Teaching methods/multimedia	Instructor
1	Introduction to HCI	4	Lecture	Suporn
2	Picking Project Teams & Problem Finding	4	Lecture, In-class workshop	Suporn
3	History of HCI	4	Lecture, In-class workshop	Suporn
4	Design Discovery & Exploration	4	Lecture, In-class workshop	Suporn
5	Video Prototyping & Concept Videos	4	Lecture, In-class workshop	Suporn
6	Midterm exam			
7	Conceptual Models & Interface Metaphors	4	Lecture, In-class workshop	Suporn
8	Early Stage Prototyping	4	Lecture, In-class workshop	Suporn
9	Heuristic Evaluation	4	Lecture, In-class workshop	Suporn
10	User Testing	4	Lecture, In-class workshop	Suporn
11	Special Topic: Advanced HCI Research	4	Lecture	Suporn
12	Final exam			

2. Evaluation plan

Expected outcomes	Methods / Activities	Week	Percentage
	Midterm exam	6	15
	Final exam	12	30
	Class Project	1-11	40

Section 6 Teaching Materials and Resources

1. Texts and main documents

- 1) Optional Textbook : Designing the User Interface: Strategies for Effective Human-Computer Interaction (2009)

2. Documents and important information

- 1) Weekly lecture notes
- 2) Assigned reading

3. Documents and recommended information

-

Section 7 Evaluation and Improvement of Course Management

1. Strategies for effective course evaluation by students

1.1 Evaluation of peers by students

1.2 Student evaluation

(1) Course content

(2) Course management

(3) Suggestions

(4) Overall opinion

2. Evaluation strategies in teaching methods

a. Student evaluation

b. Presentation

3. Improvement of teaching methods

-

4. Evaluation of students' learning outcome

Analysis of students' learning outcomes using scores from class attendance, group activity and presentation of project and poster presentation

5. Review and improvement for better outcome

-
