國立東華大學

教學計劃表　Syllabus

課程名稱(中文) Course Name in Chinese	高互動多媒體設計之研究			學年/學期 Academic Year/Semester		112/2
課程名稱(英文) Course Name in English	Highly interactive multimedia design					
科目代碼 Course Code	CSIEM0640	系級 Department & Year	碩士	開課單位 Course-Offering Department		資訊工程學系
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)		3.0/3.0		
授課教師 Instructor	/黃武元					
先修課程 Prerequisite						

課程描述　Course Description

Foster Students' critical and creative thinking through presentation, discussion, and brainstorming to find some strengths, weaknesses, and potentials of the HCI journal papers. Students will be grouped for some collaboration for preparing paper presentations and will be asked to think about how to integrate advanced technologies to improve HCI design of the paper they presented in the mid-term and final evaluations. Therefore, students will learn how to solve problems together and cultivate the HCI research sense.

課程目標　Course Objectives

Foster Students' critical and creative thinking through presentation, discussion and brainstorming for finding some strengths, weakness and potentials of the HCI journal papers. Students will be grouped as some collaboration for preparing paper presentation and furthermore will be asked to think how to integrate advanced technologies for improving HCI design of the paper they presented in the mid-term and final evaluations. Therefore, students will learn how to solve problems together and cultivate the HCI research sense.

	系專業能力 Basic Learning Outcomes	課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives
A	統合資工知識技術之能力Ability to integrate knowledge and technologies of computer science and information engineering.	○
B	設計技術理論驗證實驗之能力Ability to design and conduct science experiments and to validate hypotheses.	○
C	資訊軟硬體設計開發之能力Ability to design and develop computer software and hardware.	
D	團隊專案開發之能力Ability to design and develop team projects.	
E	批判性思考與創新研發之能力。Ability of analytical thinking, creative research planning, and innovative development.	

圖示說明Illustration ：● 高度相關 Highly correlated ○中度相關 Moderately correlated

授 課 進 度 表 Teaching Schedule & Content

週次Week	內容 Subject/Topics	備註Remarks

1	Foster Students' critical and creative thinking through presentation, discussion, and brainstorming to find some strengths, weaknesses, and potentials of the HCI journal papers. Students will be grouped for some collaboration for preparing paper presentations and will be asked to think about how to integrate advanced technologies to improve HCI design of the paper they presented in the mid-term and final evaluations. Therefore, students will learn how to solve problems together and cultivate the HCI research sense.	
2	Chapter 1 Social Constructivism (2) 1.3 Benefit of Intra-action for Web-based learning 1.4 Group Discussion for suggestions and conclusion	
3	Chapter 2 Applications using Intra-action (1) 2.1What is Intra-action: Annotations and Learning Journal 2.2 Encoding and Facilitating Short-term Memory	
4	Chapter 2 Applications using Intra-action (2) 2.3 Intra-Psychology before Inter-Psychology 2.4 Group Discussion for suggestions and conclusion	
5	Part II Distant Field Interaction for Collaboration Chapter 3 Annotation for Collaboration 3.1 Multimedia Annotation with Computers and Internet	
6	3.2 Annotations Sharing and Teamwork 3.3 Study on Annotation versus Homework Reviewing	
7	3.4 Multimedia Annotation for Learning English, Computer and Mathematic 3.5 Annotation in E-readers for Learning English with Parental Involvement	
8	3.6 Group Discussion for suggestions and conclusion	
9	期中考試週 Midterm Exam Mid-term Presentation(Summary & Reflection& Proposal)	
10	Mid-term Presentation(Summary & Reflection& Proposal)	
11	Chapter 4 Whiteboard for collaboration 4.1 Multimedia Whiteboard with computers and Internet 4.2 Whiteboard Sharing and Teamwork	
12	4.3 Multimedia Whiteboard for Creativity in Mathematic Problem Solving 4.4 Peer learning behaviors using multiple representations in virtual reality with Multimedia Whiteboard on geometry problem solving 4.5 Group Discussion for suggestions and conclusion	
13	Part III Near Field Interaction for Collaboration Chapter 5 Handheld Device for Collaboration and Practice 5.1 Characteristics of Handheld Device for Learning 5.2 Familiar Contexts with Handheld Device for Practice	
14	5.3 Bridging formal and informal learning with Handheld device	
15	5.4 Group Discussion for suggestions and conclusion	
16	Chapter 6 Multi-touch Device for Collaboration and Practice 6.1 Characteristics of Multi-touch Device for Learning	
17	.2 Awareness and Presence for Collaboration 6.3 Applications of Multi-touch Device for Collaboration	
18	期末考試週 Final Exam Final Presentation(Summary & Reflection & Proposal) Final Presentation(Summary & Reflection& Proposal)	

教 學 策 略 Teaching Strategies

☑ 課堂講授 Lecture ☑ 分組討論Group Discussion ☐ 參觀實習 Field Trip

☐ 其他Miscellaneous:<u>2. 3 hours are divided into 3 parts based on Flipped Classroom.</u>

教 學 創 新 自 評 Teaching Self-Evaluation

創新教學(Innovative Teaching)

☑ 問題導向學習(PBL) ☑ 團體合作學習(TBL) ☑ 解決導向學習(SBL)

☑ 翻轉教室 Flipped Classroom ☐ 磨課師 Moocs

社會責任(Social Responsibility)

☑ 在地實踐Community Practice ☐ 產學合作 Industy-Academia Cooperation

跨域合作(Transdisciplinary Projects)

☐ 跨界教學Transdisciplinary Teaching ☐ 跨院系教學Inter-collegiate Teaching

☐ 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

學期成績計算及多元評量方式 Grading & Assessments									
配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	10%			✓	✓				
期中考成績 Midterm Exam	25%			✓	✓				
期末考成績 Final Exam	45%			✓	✓				
作業成績 Homework and/or Assignments	20%			✓	✓				
其他 Miscellaneous (＿＿＿＿)									

評量方式補充說明
Grading & Assessments Supplemental instructions

教科書與參考書目（書名、作者、書局、代理商、說明）
Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

SSCI papers

課程教材網址(含線上教學資訊,教師個人網址請列位於本校內之網址)
Teaching Aids & Teacher's Website(Including online teaching information. Personal website can be listed here.)

Learning Management System
1. Google classroom: Please login Google classroom using
xxx@gms.ndhu.edu.tw
2. Video lecturing online through "Google meet"

其他補充說明 (Supplemental instructions)