國立東華大學

教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	影像處理導論			學年/學期 Academic Year/Semester	114/1
課程名稱(英文) Course Name in English	Introduction to Image Processing				
科目代碼 Course Code	CSIE30700	系級 Department & Year	學三	開課單位 Course-Offering Department	資訊工程學系
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/林信鋒				
先修課程 Prerequisite					

課程描述 Course Description

1. Introduction
2. Point Processing
3. Neighborhood Processing
4. The Fourier Transform
5. Image Restoration
6. Image Segmentation
7. Mathematical Morphology
8. Color Processing
9. Image Coding and Compression

課程目標 Course Objectives

引導學生進入影像處理這個領域，培養影像處理的知識與技能。
To lead students into the field of image processing and cultivate the knowledge and skills of image processing

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	9/10 Class description	
2	9/17 Chapter 1 Introduction and Chapter 2 Images and MATLAB	Ex 1(Due 10/01)
3	9/24 Chapter 3 Image Display, Chapter 4 Point Processing	
4	10/01 Chapter 5 Neighborhood Processing ~ 5.5	Ex 2(Due 10/22)
5	10/08 5.6 ~ 7.5.1(p. 33) (Skip Chap 6)	
6	10/15 7.5.1 ~ 8.3	
7	10/22 8.4 & Chapter 9 Image Segmentation(p. 58, 9.10)	Ex 3(Due 11/12)
8	10/29 9.10 (p. 58)~ 10.4 (p. 33)	
9	11/05 期中考試週 Midterm Exam (No Exam !) 10.4 (p. 33)~ 10.9	
10	11/12 校慶運動會(停課一天), School Anniversary and Sports Day (No class!)	Ex 4(Due 12/03)

11	11/19 Midterm Exam I of Ch 1-5	
12	11/26 Midterm Exam Discussion, Chapter 13 Color Processing (Skip Chap 11, 12)	
13	12/03 Chapter 14 Image Coding and Compression	
14	12/10 Final Project	
15	12/17 Midterm Exam (II, Chap 7-10, Chap 13-14)	
16	12/24 Midterm Exam Discussion & Additional topics Final Project	
17	12/31 期末考試週 Final Exam (No Exam !) ~ Jan. 07 is the last class Final Project	
18	01/07 Supplement	

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:

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(含出缺席) General Performance (Attendance Record)	10%								Class attendance
期中考成績 Midterm Exam	60%	✓							Closed book
期末考成績 Final Exam	15%				✓				Final Project
作業成績 Homework and/or Assignments	15%		✓						Program assignments
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.)

Introduction to digital image processing with MATLAB Asia Edition
Alasdair McAndrew, Jung-Hua Wang, Chun-Shun Tseng
高立圖書有限公司

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.)

其他補充說明 (Supplemental instructions)