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②图 i 東華大學 教學計劃表 Syllabus

		7人7	- 미 町 11	Oy 1	Tabus					
	課程名稱(中文) Course Name in Chinese					ester	ster 113/2			
	課程名稱(英文) Course Name in English Random Signals and Stochastic Processes									
	目代碼 rse Code	EEM0200	系級 Department & Year	碩士	開課單位 Gourse-Offering Department		電機工程學系			
	修別 Type	選修 Elective	0/3.0							
	課教師 tructor	/張伯浩								
	修課程 equisite									
課程描述 Course Description										
This course	aims for the u	understanding o	f random signa	als and	stochastic processes					
課程目標 Course Objectives										
This course aims for the understanding of random signals and stochastic processes.										
	Cor	程目標與系專業能 力相關性 relation between urse Objectives and Dept.'s Education Objectives								
A develo	A 培育具備電機電子資訊工程等專業技術研發之能力。To cultivate the research and developing ability of electrical, electronics and information engineering。									
	拉直系統分析、樹擬驗證、實作實現之能力。To cultivate the advanced shility of									
	训练勘跚工目供用的西避审政队然和互赫明之处力To train the auxiliary ability between									
	训練雷機雷子咨詢惠蒙知識與工程會發胡万丝人演用之能力。To train the integrate shility									
	菠蜜给文研究之群體計論與團隊合作之互助能力。To fulfill the research shility in									
F 落實發	兹帝兹识明略、思韶八长、太阳布西南柱庙旗羽入作为。To fulfill the shility of question									
了解學 G the ab	了解學術倫理與智慧財產觀念,掌握國內外產業更迭需求與具備多元專長之能力。To obtain									
了解國 H change techni		0								
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	1 Introduction									
2 Axioms of Probability										

3	Random Variables: Distributions and Densities						
4	Functions of One Random Variable						
5	Expected Value, Moments and Characteristic Function						
6	Joint Distributions and Densities						
7	Functions of Two Random Variables						
8	4/7 調整上課(放假)						
9	期中考試週 Midterm Exam						
10	Convergence, Law of Large Numbers and Central Limit Theorem						
11	Mean-Square Estimation and Orthogonality Principle						
12	Stationary Random Processes						
13	Transformation of Random Processes (Systems)						
14	Continuous-Time Signals and Systems						
15	Discrete-Time Signals and Systems						
16	Correlation and Power Spectrum						
17	期末考試週 Final Exam						
18	Matched Filters						
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Mis	scellaneous:						
	th 組 Al th A At Tanahima Calif Evaluation						
創新粉學(教學創新自評 Teaching Self-Evaluation Innovative Teaching)						
翻轉教室 Flipped Classroom							
社會責任(Social Responsibility) 「在地實踐Community Practice 」 產學合作 Industy-Academia Cooperation							
跨域各作(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	配分比例 Percentage	多元評量方式 Assessments							
Items		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									
期中考成績 Midterm Exam	50%								
期末考成績 Final Exam	50%								
作業成績 Homework and/or 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.)

Textbook: A. Papoulis and S. Pillai, "Probability, Random Variables and Stochastic Processes", 4th ed. 2002, McGraw Hill (歐亞)

References:

- 1. Roy D. Yates and David J. Goodman, "Probability and Stochastic Processes", 2nd ed. 2005, John Wiley (滄海)
- 2. R. Hogg and A. Craig, "" Introduction to Mathematical Statistics", 5th ed. 1995, Prentice Hall (台北)
- 3. E. Cinlar, "Introduction to Stochastic Processes", 1975, Prentice Hall
- 4. S. Ross, "Stochastic Processes", 1983.
- 5. E. Wong, "Stochastic Processes in Information and Dynamical Systems", 1971, McGraw Hill.

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)