



教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	電機機械原理與控制		學年/學期 Academic Year/Semester	112/2
課程名稱(英文) Course Name in English	Electric Machinery and Its Control			
科目代碼 Course Code	EE__33620	系級 Department & Year	學三	開課單位 Course-Offering Department
				電機工程學系
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)	3.0/3.0	
授課教師 Instructor	/謝欣然			
先修課程 Prerequisite				
課程描述 Course Description				
Study on fundamentals of electric machines, including transformers and DC/AC machines. This course contains synchronous generators/motors, induction motors, DC motors/generators, and control of motor drives.				
課程目標 Course Objectives				
學習電動機械之基礎設計與驅動原理，提供相關理論分析、算式計算、以及電動機械模擬之方法				
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	Introduction to electric machines and control Introduction to grade evaluation method			02/19
2	DC machinery fundamentals -part 1			02/26
3	Suspended for holiday			03/04
4	DC machinery fundamentals -part 2 DC motors -part 1			03/11
5	DC motors -part 2			03/18
6	DC generators -part 1			03/25
7	DC generators -part 2			04/01
8	Suspended for holiday			04/08
9	1st Exam			04/15
10	Transformers			04/22
11	AC machinery -part 1			04/29
12	AC machinery -part 2			05/06
13	2nd Exam			05/13
14	Synchronous motors and generators I			05/20
15	Synchronous motors and generators II			05/27

16	3rd Exam	06/03
17	Suspended for holiday	06/10
18	Special issues on electric machinery and control	06/17

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 Industry-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		✓							
期末考成績 Final Exam		✓							
作業成績 Homework and/or Assignments					✓				
其他 Miscellaneous (_____)									
評量方式補充說明 Grading & Assessments Supplemental instructions									
Semester grade: 25%(exam), 35%(exam), 40%(exam), 10%(Extra)									
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.)									
Electric Machinery Fundamentals, McGraw-Hill, 2012. Authors: S. J. Chapman 東華書局/新月圖書 代理									
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)									