



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	113/2
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
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			02/17
2	DC machinery fundamentals I			02/24
3	Suspended for holiday			03/03
4	DC machinery fundamentals II DC motors I			03/10
5	DC motors II			03/17
6	DC generators I			03/24
7	DC generators II			03/31
8	Suspended for holiday			04/07
9	1st Exam			04/14
10	Transformers I			04/21
11	Transformers II			04/28
12	AC machinery I			05/05
13	2nd Exam (Tentative)			05/12
14	AC machinery II			05/19
15	Synchronous motors and generators I			05/26

16	Synchronous motors and generators II	06/02
17	3rd Exam (written exam or homework)	06/09
18	Special issues on electric machinery and control	06/16

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(含出缺席) General Performance (Attendance Record)	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: 20%(exam), 30%(exam), 40%(exam), 10%(Attendance)

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)