

97-1 大葉大學 完整版課綱

基本資訊

課程名稱	線性系統	科目序號 / 代號	0651 / EEI3004
開課系所	電機工程學系	學制 / 班級	大學日間部3年1班
任課教師	蔡渙良	專兼任別	專任
必選修 / 學分數	必修 / 3	畢業班 / 非畢業班	非畢業班
上課時段 / 地點	(一)12 / H341 (二)5 / H341	授課語言別	中文

課程簡介

This course is to provide an effective and efficient environment for students to learn the theory and problem-solving skills for linear systems. The material is designed to provide appropriate background to proceed into areas such as communications, control systems, digital filter design and signal processing and analog filter design. We use a computer-biased approach in which computer solutions and theory are viewed as mutually reinforcing rather than as an either-or proposition.

課程大綱

1. Signals and Sequences
2. Continuous Systems
3. Laplace Transforms and Application
4. Midterm
5. Frequency Response of Continuous Systems
6. Continuous-Time Fourier Series and Transforms
7. State-Space Topics for Continuous Systems
8. Matlab
8. Final Exam.

基本能力或先修課程

工數

課程與系所基本素養及核心能力之關連

- 3.1. 蒐集資料、模擬分析、設計實驗及解決問題之能力
- 4.2. 瞭解國內外電機相關產業的發展趨勢與脈動
- 4.3. 充分認知專業倫理之重要性，瞭解工程技術對環境、社會及全球的影響，善盡工程師之社會責任

成績稽核

教科書(尊重智慧財產權，請用正版教科書，勿非法影印他人著作)

書名	作者	譯者	出版社	出版年
無參考教科書				

參考教材及專業期刊導讀(尊重智慧財產權，請用正版教科書，勿非法影印他人著作)

書名	作者	譯者	出版社	出版年
無參考教材及專業期刊導讀				

上課進度

週次	教學內容	分配時數(%)				
		講授	示範	習作	實驗	其他
1	Introduction	100	0	0	0	0
2	Continuous systems	100				
3	Continuous systems	100				
4	Laplace Transforms and applications	100				
5	Frequency response of continuous systems	100				
6	Frequency response of continuous systems	100				
7	Continuous-time Fourier series and transforms	100				
8	Continuous-time Fourier series and transforms	100				
9	Mid-Exam	0				
10	State-space topics for continuous systems	100				
11	State-space topics for continuous systems	100				
12	Discrete systems	100				
13	z transforms and applications	100				
14	Frequency response of discrete systems	100				
15	Frequency response of discrete systems	100				
16	Discrete Fourier transforms	100				
17	State-space topics for discrete systems	100				
18	Final-Exam	0				