朝陽科技大學 095學年度第1學期教學大綱
Introduction to Digital Communications 數位通訊原理

當期課號	2384	**Course Number**	2384
授課教師	林仁勇	**Instructor**	Lin,Jen Yung
中文課名	數位通訊原理	**Course Name**	Introduction to Digital Communications
開課單位	資訊工程系(四日)四A	**Department**	
修習別	選修	**Required/Elective**	Elective
學分數	3	**Credits**	3
課程目標	本課程主要講述數位通訊的基本原理。課程內容包括-數位通訊專有名詞及數位通訊的基本原理。學生在完成本課程後，將可了解以下之數位通訊基本原理：1. 帶通數位傳輸、2. 展頻調變、3. 多使用者輻射通訊、4. 消息理論、5. 改錯碼。	**Objectives**	The goal of this course is to provide the students with a basic knowledge of digital communications. The main topics include terminology of digital communications and the concept of digital communication basics. The students will realize the following digital communication basics after finishing this course: 1. the functions and operation of passband digital transmission, 2. the spread-spectrum modulation, 3. the multiuser radio communications, 4. the fundamental limits in information theory, and 5. error-control coding.
教材	教材: 李家同, "Introduction to communication", http://163.22.21.49/lecture_notes_com.php 參考書: 1. S. Haykin, "Communication systems: 4th edition, 2001 2. B. Sklar "Digital Communications" Second edition, 2001.	**Teaching Materials**	Textbook: R. C. T. Lee, "Introducation to communications", http://163.22.21.49/lecture_notes_com.php Reference: 1. S. Haykin, "Communication systems: 4th edition, 2001 2. B. Sklar "Digital Communications" Second edition, 2001.
成績評量方式	平時40%，期中考30%，期末考30%	**Grading**	test and home work 40%, midterm 30%, final 30%
教師網頁			
教學內容	1.電腦通訊簡介 2.訊號空間表示法 3.訊號的傅利葉表示法 4.數位調變技術 5.多重進接技術 6.展頻通訊 7.來源編碼及通道編碼	**Syllabus**	1.An overview of computer communications 2.Signal space representation 3.Fourier representations for signals 4.Digital modulation techniques 5.Multiple access communications 6.Spread-spectrum communications 7.Source coding and channel coding

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