

朝陽科技大學 094學年度第2學期教學大綱  
Error Control Coding 錯誤更正碼

當期課號	7228	Course Number	7228
授課教師	楊政穎	Instructor	YANG, CHENG YING
中文課名	錯誤更正碼	Course Name	Error Control Coding
開課單位	網路與通訊研究所碩士班二A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	"本課程目標在於使學生了解錯誤更正碼的相關理論及其應用, 並提供學習者未來修習其他高等通訊課程之理論基礎課程內容包含: 1.Introduction to Algebraic codes 2.Mathematical foundations 3.Introduction to BCH codes and Finite Fields 4.Finite Fields 5.Cyclic codes 6.BCH, RS codes and their decodings 7.Convolutional codes and Viterbi decoding 8.Reed Muller codes and Reed decoding "	Objectives	1.Introduction to Algebraic codes 2.Mathematical foundations 3.Introduction to BCH codes and Finite Fields 4.Finite Fields 5.Cyclic codes 6.BCH, RS codes and their decodings 7.Convolutional codes and Viterbi decoding 8.Reed Muller codes and Reed decoding
教材	Error Control Coding Fundamental and Applications by Shu Lin and Daniel J. Costello, Jr., Prentice Hall, 2004.	Teaching Materials	Error Control Coding Fundamental and Applications by Shu Lin and Daniel J. Costello, Jr., Prentice Hall, 2004.
成績評量方式	Participation and Homework 15% Project 15% Midterm 30% Final 40%	Grading	Participation and Homework 15% Project 15% Midterm 30% Final 40%
教師網頁	<a href="http://www.cyut.edu.tw/~cyang">http://www.cyut.edu.tw/~cyang</a>		
教學內容	The goal of this course is to help students started in the practice of information Engineering. It concludes the fundamental information theory such as source coding and channel coding. In the source coding part, the concept of source entropy, channel capacity and Markov process are included. Forward Error Control (FEC) coding is given as the channel coding part.	Syllabus	The goal of this course is to help students started in the practice of information Engineering. It concludes the fundamental information theory such as source coding and channel coding. In the source coding part, the concept of source entropy, channel capacity and Markov process are included. Forward Error Control (FEC) coding is given as the channel coding part.

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