



## 課程概述 Course Description

課程代碼 Course Code	中文課程名稱 Course Name(Chinese)	英文課程名稱 Course Name(Chinese)	總學分數 Credits	總時數 Hours	冊別 Hours
03284	數位通訊	Digital Communication	3	3	1
中文概述 Chinese Description	1.簡介：概觀、資訊源、通道、通訊品質、數位通訊系統 2.信號與系統：傅立葉轉換、線性系統 3.類比數位變換：取樣、量化、脈碼調變 4.機率與隨機程序 5.基頻脈波傳送：相配濾波器、信號間干擾與脈波塑型、等化 6.數位通頻傳輸：ASK,PSK,QPSK,DPSK,FSK,QAM,MSK 7.多工與展頻技術：分頻多工、分時多工、直序列與跳頻分碼多工 8.源編碼：熵、資料緊縮、霍夫曼編碼、資料壓縮、JPEG 9.通道編碼：線性區塊碼、迴旋碼				
英文概述 English Description	1.introduction :overview,information sources,channels,quality measurement,a closer look of modern digital communication systems 2.Signals and Systems:Fourier transform,linear systems 3.A/D Conversion :sampling ,quantization ,PCM 4.Probability and Random Process 5.Baseband Pulse Transmission :matched filters,ISI and shaping ,qeualization 6.Digital Passband Transmisson:ASK,PSK,QPSK,DPSK,FSK,QAM,MAK 7.Multiplexing and Spread Sprctrum Techniques:FDMA,TDMA,direct sequence and frequency hopping CDMA 8.Source Coding:entropy ,data compaction,Huffman coding,data compression,JPEG 9.Channel Coding :linear block codes,convolucional codes				