

朝陽科技大學 099學年度第2學期教學大綱  
Signals & Systems 訊號與系統

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| 當期課號   | 3697   | Course Number      | 3697   |
| 授課教師   | 廖俊鑑  | Instructor         | LIAW,JIUN JIAN   |
| 中文課名   | 訊號與系統  | Course Name        | Signals & Systems  |
| 開課單位   | 資訊與通訊系(四進)二A   | Department         |  |
| 修習別    | 必修   | Required/Elective  | Required   |
| 學分數    | 3  | Credits            | 3  |
| 課程目標   | "本課程使學生能夠 1.了解連續時間與不連續時間訊號、訊號與系統間之特性及其相互關係。(知識) 2.能夠瞭解系統及線性非時變系統的數學模型。(能力) 3.瞭解類比系統以及離散系統的時域與頻域表示法之意義及其重要性。(態度) 4.能描述系統及線性非時變系統之特性並比較之。(其他)" | Objectives         | The goal of this course is enables students to 1. understand the characteristics and their mutual relations of the continuous time, discrete time signals, and systems. (Knowledge) 2. to understand the system and linear non-time-dependent mathematical model of the systems. (Capacity) 3. understand the simulation system and discrete-time systems-domain and frequency-domain notation of the significance and importance. (Attitude) 4. can describe the system and linear non-time-varying systems characteristics and comparison. (Other) |
| 教材     | Signals and Systems, by Simon Haykin and Barry Van Veen, Wiley   | Teaching Materials | Signals and Systems, by Simon Haykin and Barry Van Veen, Wiley   |
| 成績評量方式 | midterm 30%, final 30%, test 30%,attendance 10%  | Grading            | midterm 30%, final 30%, test 30%,attendance 10%  |
| 教師網頁   | <a href="http://www.cyut.edu.tw/~jliaw">http://www.cyut.edu.tw/~jliaw</a>  |                    |  |
| 教學內容   | 1. 簡介<br>2. 連續續號及離散訊號<br>3. 系統的性質<br>4. 時域分析<br>5. 傅利葉級數<br>6. 傅利葉轉換<br>7. 離散傅利葉轉換<br>8. 時域分析<br>9. 取樣<br>10. 拉氏轉換<br>11. Z轉換                | Syllabus           | 1. Introduction<br>2. Mathematical Description of Continuous-Time and Discrete-Time Signals<br>3. Properties of Continuous-Time and Discrete-Time Systems<br>4. Time-Domain Analysis of Continuous-Time and Discrete-Time Systems<br>5. The Continuous-Time Fourier Series<br>6. The Continuous-Time Fourier Transform<br>7. The Discrete-Time Fourier Transform<br>8. Fourier Transform Analysis of Signals and Systems<br>9. Sampling and the Discrete Fourier Transform<br>10. The Laplace Transform<br>11. The z Transform                       |

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