

## Course Content

Course Title (English)	Digital Signal Processing
Course Title (Chinese)	數位訊號處理
Credit	3
Instructor	Prof. Char-Dir Chung 鐘嘉德 教授
Outline	<p>The course consists of lectures organized in class notes and follows the assigned textbook with the outline:</p> <ol style="list-style-type: none"><li>1. Introduction</li><li>2. Discrete-Time Signals and Systems (Sections 2.0-2.9)</li><li>3. The z-Transform</li><li>4. Sampling of Continuous-Time Signals (Sections 4.0-4.8)</li><li>5. Transform Analysis of Linear Time-Invariant Systems</li><li>6. Structures for Discrete-Time Systems (Sections 6.0-6.9)</li><li>7. Filter Design Techniques (Sections 7.0-7.9)</li><li>8. The Discrete Fourier Transform (Sections 8.0-8.8)</li><li>9. Computation of the Discrete Fourier Transform (Sections 9.0-9.3)</li></ol>
Goal	<p>The purpose of this course is to provide students with mathematical background and underlying concepts for understanding digital signal processes. It is a prerequisite for advanced study of numerous signal processing applications, including digital communication systems, radar and sonar signal processing, speech and video signal processing, biomedical engineering, acoustic signal processing, numerical analysis, etc. The students majoring in signal processing and communications are strongly recommended to take this course.</p>
English Teaching	<input type="checkbox"/> YES <span style="margin-left: 200px;"><input checked="" type="checkbox"/> NO</span>

Teaching  
Material

English

Chinese