

# 國立臺灣大學電資學院電機學群開授課程大綱格式

所別：電子所	組別：ICS	修習年級：大四、研究所	每週演講時數：3
課 程	<input checked="" type="checkbox"/> 1.一般性課程（含必修、選修） <input type="checkbox"/> 2.通識教育課程【    】(1)人文 (2)社會 (3)物質 (4)生命 <input type="checkbox"/> 3.教育學程 <input type="checkbox"/> 4.軍訓課程 <input type="checkbox"/> 5.體育課程		
	課號：EEE5004	班次： 01	學分：3
	中文名稱：高等類比積體電路                      英文名稱：Advanced Analog Integrated Circuit		
授課教師	陳信樹		
課程大綱	<p>一 內容</p> <p>In this course students study the design of mixed-signal circuits for implementing the interfaces between analog and digital signals in CMOS VLSI systems. The course begins with an overview of data conversion system applications, performance metrics and architectures, followed by an examination of CMOS operational amplifiers, sample-and-hold circuits, comparators, and gain blocks. It would also include data converter testing techniques. The course would focus on the design of Nyquist-rate and oversampling A/D and D/A converters.</p> <p>二.教科書</p> <p>1 Fundamentals of data converters          2 Sampling Circuits          3 Comparators          4 Nyquist-rate ADC designs          5 Nyquist-rate DAC designs          6 Oversampling delta-sigma ADC and DAC designs</p> <p>三.成績評量方式</p> <p>Homework (20%) + One Examination (30%) + Project (50%)</p> <p>四.建議預修課程</p> <p>Analog IC Design, Microelectronics, Electric Circuits</p>		
更新日期	107 年 9 月 5 日		