

# 國立臺灣大學電資學院電機學群開授課程大綱格式

所別：電機系	組別：電機系共同必修	修習年級：大二	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：EE 2004	班次： 03	學分：3
	中文名稱：電路學                      英文名稱：Electric Circuits		
授課教師	陳信樹		
課程大綱	<p>A. Course Description: In this course students study the basic circuit concepts and circuit analysis methods. The course includes the detailed coverage of node and mesh equations, phasors, and Laplace transforms. Also, the coverage of resistive and dynamic circuits, operational amplifiers, frequency response, and Bode plots can support courses on electronic circuits.</p> <p>A. Course Description Course Topics: 1. Circuit Variables and Laws (1.4, 1.5) 2. Properties of Resistive Circuits (2.3, 2.4, 2.5) 3. Applications of Resistive Circuits (3.2) 4. Systematic Analysis Methods (4.1, 4.2, 4.3) * First Quiz (5.1, 5.2 will be introduced briefly, but will not be part of exam/quiz material) 5. Dynamic Circuit (5.3) 6. Transient response (9.1, 9.3, 9.4) * Second Quiz 7. AC Circuits (6.1, 6.2, 6.3) 8. AC Power (7.1, 7.2) * Third Quiz (10.1, 10.2, 10.4 will be introduced briefly, but will not be part of exam/quiz material) 9. Frequency Response and Filters (11.1, 11.2, 11.4) * Fourth Quiz 10. Laplace Transform Analysis (13.1, 13.2, 13.3) 11. Two-Port Networks (14.1, 14.2, 14.3)</p> <p>B. Prerequisites: Calculus, Freshman Physics</p> <p>C. Grade: Quizzes: 60% (around 4 quizzes, the top 3 scores out of 4 will be included as part of the semester score) Final: 40% (the portion not covered by quizzes will be highly weighted)</p> <p>D. Textbook: A.B. Carlson, <i>Circuits-Engineering concepts and analysis of linear electric circuits</i> Brooks/Cole. 2000</p>		
更新日期	106    年    9    月    12    日		