

課程名稱：自動控制		課程編號：611 38100	
英文名稱：Automatic Control			
必修或選修：必修	學分數：3 學分	修習年級：三下 (新課程)	
每週時數：3 小時		預修科目：工程數學 (I) (II)	
實習或實驗：		同修科目：	
內容綱要：			
<ol style="list-style-type: none"> 1. Introduction to Control Systems 2. Modeling of Dynamic Systems 3. Solutions of Differential Equations Of Dynamic Systems 4. Block Diagrams and Signal-Flow Graphs 5. Stability of Linear Control Systems 6. Important Components of Feedback Control Systems 7. Time-Domain Performance of Control Systems 8. State – Space Analysis and Controller Design 9. Root-Locus Analysis 10. Frequency-Domain Analysis 11. Design of Control Systems 			
計分標準：2 Exams 70 %， 作業 30 % (包括 MATLAB 習作) (暫定)			
上課時間：每週二 下午 14:20 ~ 17:30			
上課地點：生機系 知武館 207 室			
教科書：			
<ol style="list-style-type: none"> 1. M. Farid Golnaraghi & Benjamin C. Kuo, <i>Automatic Control Systems</i>, the 10th ed., 2017. 2. Richard C. Dorf, <i>Modern Control Systems</i>, 11th ed., 2008. 3. Norman S. Nise, <i>Control Systems Engineering</i>, the 4th ed., 2008. 4. G. F. Franklin, J. D. Powell, & A. Emani-Naeini, <i>Feedback Control of Dynamic Systems</i>, the 5th ed., 2006. 5. Lecture Notes 			
參考書：			
<ol style="list-style-type: none"> 1. Charles L. Philips & Royce D. Harbor, <i>Feedback Control Systems</i>, 4th ed., 2000. 2. Katsuhiko Ogata, <i>Modern Control Engineering</i>, 4th ed., 2002. 			
授課教師：江昭皚			
備註：本課程包括 MATLAB 程式之介紹與習作。			