

淡江大學 96 學年度第 2 學期課程教學計畫表

授課科目名稱：電腦整合製造(Computer Integrated Manufacturing)

授課教師：周文成

開課班級	機械與機電工程學系				系 所	(日、進、研)	年 班	必/選修	選
學分數	3 學分 小時(單、上、下學期)			先修科目		CAD、CAM			
教學內容 及進度	週次	月/日	內 容						
	第一週	-/--	Opening						
	第二週	2/25	Overview on traditional and advanced manufacturing processes						
	第三週	3/3	What's CIM? Introduction to CAX						
	第四週	3/10	FMS, EPR, PDM						
	第五週	3/17	Engineering Economics, Quality Engineering, CAD/CAM Systems,						
	第六週	3/24	Engineering Metrology, CNC machining and part programming,						
	第七週	3/31	Rapid prototyping,						
	第八週	4/7	Post Process, High Speed Machining						
	第九週	4/14	Automation and Plant Layout						
	第十週	4/21	Midterm Exam. Week						
	第十一週	4/28	Communications						
	第十二週	5/5	Process engineering, Tooling						
	第十三週	5/12	Group technology						
	第十四週	5/19	Process planning						
	第十五週	5/26	Integrated Computer Aided Manufacturing						
	第十六週	6/2	Lean Production						
	第十七週	6/9	Project Presentation						
	第十八週	6/16	Final Exam. Week						
講授方式	v	課堂講授	v	分組討論	v	參觀實習	其他 (_____)		
教學設備	v	電腦	v	投影機	v	其他 (_____)			
教材課本	No single textbook exists in this course. Most of the references below will be used. The PowerPoint slides presented during lectures will be provided as lecture notes.								
參考書籍	<ol style="list-style-type: none"> 1. "Automation, Production Systems and Computer-Integrated Manufacturing", M.P. Groover, 2nd Ed., Prentice-Hall, 2001 2. "21st Century Manufacturing", P.K.Wright, Prentice-Hall, 2001 3. "Systems Approach to Computer-Integrated Design and Manufacturing", N. Singh, J.Wiley and Sons, 1996 4. "Product Design and Development", K.T.Ulrich and S.D. Eppinger, McGraw-Hill, 1995 5. "The Machine That Changed the World", J.P. Womack, D.T. Jones and D. Roos, Harper Perennial, 1990 6. "Lean Thinking", J.P.Womack and D.T.Jones, Simon & Schuster, 1996 7. "Manufacturing Processes for Engineering Materials", S. Kalpakjian, Addison Wesley, 7th Ed., 2002 8. "NC Machine Programming and Software Design", Chang, C.-H. and Melkanoff, M.A., Prentice Hall 1989 								
成績考核方式	v	平時作業：40 %		v	期中考成績：30 %		v	期末考：30 %	
					其他 (_____)				
備 考									