朝陽科技大學 095學年度第1學期教學大綱
Advanced Innovation and R&D 高等創造力與研發工程

當期課號	7656	Course Number	7656
授課教師	林均燁	Instructor	LIN,JIUN YEH
中文課名	高等創造力與研發工程	Course Name	Advanced Innovation and R&D
開課單位	工業工程與管理系碩士在職專班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	在微笑曲線兩端的其中一端即是研發工程。在政府大力鼓吹民間企業由OEM升級到ODM、甚至於升級到OBM的企圖心之下，國人一直以來最為薄弱的研發工程紮根的工作實在有必要藉由學校的教育來灌輸莘莘學子們相關的理論、應用與實務觀念。更甚者，在研發工程的整體流程中，除了相關理論的探討與實務應用的經驗累積之外，實際上還必須透過創新工程的培育方能夠強化研發過程中足以產生具備價值的創意、進而創造出具備競爭力之產品的能量。	Objectives	Research and development (R&D) engineering is on the left side of the famous smiling curve. Since the government started encouraging industrialists to promote their companies from OEM to ODM, and even to OBM industries, it has really become a duty of educators to teach students the related theories and practical issues of R&D engineering. Moreover, beside simply R&D, creativity engineering is very important for engineers to empower R&D process, and create valuable product concepts.
教材	1. Class handouts 2. Ulrich and Eppinger, Product Design and Development, 2/e, McGraw Hill. 3. Otto and Wood, Product Design, Prentice Hall. 4. J. A. Rehg and H.W. Kraebber, Computer Integrated Manufacturing. 5. Crawford and Di Benedetto, New Products Management, McGraw Hill.	Teaching Materials	1. Class handouts 2. Ulrich and Eppinger, Product Design and Development, 2/e, McGraw Hill.
成績評量方式	平時20%, 專題25%, 期中考25%, 期末考30%	Grading	Project 25%, Midterm 25%, Final 30%, Others 20%
教師網頁	http://www.cyut.edu.tw/~jlin/		
教學內容	CAD、CAE、CAM、產品資料管理(PDM)、C3P、製造與組裝設計方法(DFMA)、優化設計法則(DFX)、第四代研發、協同研發與設計、專利工程、創新問題解答方法。	Syllabus	CAD, CAE, CAM, Product Data Management (PDM), C3P (CAD/CAE/CAM/PDM), Design for Manufacturing and Assembly (DFMA), Design for Excellence (DFX), 4th Generation R&D, Collaborative Research, Development, and Design, Patent Engineering, TRIZ.