朝陽科技大學 096學年度第1學期教學大綱
Advanced Computer Aided Design and Manufacturing 高等電腦輔助設計與製造

當期課號	7680	Course Number	7680
授課教師	鄭宗明	Instructor	CHENG,TZONG MING
中文課名	高等電腦輔助設計與製造	Course Name	Advanced Computer Aided Design and Manufacturing
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	本課程將教導與CAD/CAM相關之數學、計算幾何與程式設計等基礎。	Objectives	This course will provide in-depth knowledge in computational geometry, CAD/CAM programming and related topics.
教材	CAD/CAM/CAE, K. Lee, Addison Wesley; Computational Geometry in C, J. O'Rourke, Cambridge Press; Computer Graphics and Geometric Modeling for Eng.,V. Anand, Wiley	Teaching Materials	CAD/CAM/CAE, K. Lee, Addison Wesley; Computational Geometry in C, J. O'Rourke, Cambridge Press; Computer Graphics and Geometric Modeling for Eng.,V. Anand, Wiley
成績評量方式	期中考 25%; 期末考 25%; 學期專題 50%;	Grading	Midterm 25%; Final 25%; Term Project 50%;
教師網頁	_		
教學內容	本課程主要在於訓練學員以幾何方法與電腦程式設計，製作輔助工程用途之軟體。課程內容包括2D幾何，3D幾何，實體模型，計算幾何演算法，以及電腦輔助製程規劃。所有修課學員必須於學期間自行設計且執行專題報告並於期末上台發表。	Syllabus	Students who attend the course will be trained with intensive computation / programming related subjects. Areas such as geometric modeling, computational geometry, geometric algorithm design, and application design are the focus. An ability of converting subjects in the physical world into their equivalent computer representations, and solving real world problems by computer arithmetical and / or logical iterations will be the main purpose of the training.

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