

朝陽科技大學 099學年度第2學期教學大綱
Production Scheduling 生產排程

當期課號	7172	Course Number	7172
授課教師	廖經芳	Instructor	LIAW, CHING FANG
中文課名	生產排程	Course Name	Production Scheduling
開課單位	工業工程與管理系碩士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	本課程旨在教授學生組合最佳化的基礎理論以及應用數學模式分析與求解各種生產排程問題。	Objectives	This course aims to provide students with fundamental knowledge of combinatorial optimization and solution techniques for solving various production scheduling problems.
教材	1. Industrial Scheduling, D. R. Sule, PWS, 1997. 2. Scheduling: Theory, Algorithms, and Systems, 2nd Edition, Michael Pinedo, Prentice Hall, 2000. Website: http://www.cyut.edu.tw/~cfliaw/course_1.htm	Teaching Materials	1. Industrial Scheduling, D. R. Sule, PWS, 1997. 2. Scheduling: Theory, Algorithms, and Systems, 2nd Edition, Michael Pinedo, Prentice Hall, 2000. Website: http://www.cyut.edu.tw/~cfliaw/course_1.htm
成績評量方式	1. Midterm 40% 2. Homework 40% 3. Projects and Presentations 20%	Grading	1. Midterm 40% 2. Homework 40% 3. Projects and Presentations 20%
教師網頁	http://www.cyut.edu.tw/~iem/~cfliaw		
教學內容	生產排程問題之型態及複雜度分析、基本排程理論與結果、基本排程方法（最佳解法及近似解法）。 1. Classes of Scheduling Problems 2. Computational Complexity 3. General Solution Methods: (1) Optimization (Integer Programming, Network Programming, Dynamic Programming, Branch-and-bound) (2) Approximation (Dispatching Rules, Local search, Lagrangian Relaxation) 4. Single Machine Models 5. Parallel Machine Models 6. Shop Models: Flow Shops, Job Shops, and Open Shops 7. Other Scheduling Problems	Syllabus	1. Classes of Scheduling Problems 2. Computational Complexity 3. General Solution Methods: (1) Optimization (Integer Programming, Network Programming, Dynamic Programming, Branch-and-bound) (2) Approximation (Dispatching Rules, Local search, Lagrangian Relaxation) 4. Single Machine Models 5. Parallel Machine Models 6. Shop Models: Flow Shops, Job Shops, and Open Shops 7. Other Scheduling Problems