# 朝陽科技大學 093學年度第1學期教學大綱
## Advanced Operations Research(1) 高等作業研究(一)

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| 當期課號 | 7099 | **Course Number** | 7099 |
| 授課教師 | 廖經芳 | **Instructor** | LIAW,CHING FANG |
| 中文課名 | 高等作業研究(一) | **Course Name** | Advanced Operations Research(1) |
| 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以數學模式與數量方法分析及求解複雜之問題,並訓練學生發展有效方法求解相關最佳化問題之能力。 | **Objectives** | This course aims to study the planning, management, and evaluation of complex problems with mathematical models. Through learning different operation research techniques, the graduate students are trained to understand the state of the art of methodologies in operations research and to develop efficient methods for solving and analyzing relevant problems. |
| 教材 | Operations research: models and methods, Paul A. Jensen & Jonathan F. Bard | **Teaching Materials** | |
| 成績評量方式 | 作業(20%), 期中考(40%), 期末考(40%) | **Grading** | Quizzes 40%, Midterm 25%, Final 25%, Homework 10% |
| 教師網頁 | _ | | |
| 教學內容 | 線性規劃模式、線性規劃求解方法、敏感度分析與對偶理論、網路流量模式、網路流量求解方法、整數規劃模式、整數規劃求解方法、非線性規劃模式、非線性規劃求解方法。 | **Syllabus** | Linear programming formulations, Linear programming solution methods, Sensitivity analysis and duality, Network flow models, Network flow methods, Integer programming models, Integer programming solution methods, Nonlinear programming models, Nonlinear programming solution methods. |