

Oct 17/90  
W.91

**Management Science 207**  
**MG 207**  
**Decision Analysis**

Prerequisite : Cs321 and Ms301  
Instructors : Libero Ficocelli                      Franco Carlacci  
Office : D304    D306  
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**Course Content:**

This course is intended to be a first course in management science and as such will provide the student with the techniques and methodologies which they can apply towards "intelligent decision making". We will explore a variety of quantitative methods which will provide the framework for making "rational and analytical decisions".

The lab portion of the course will provide students with hands-on experience in the use of microcomputer software packages which will help facilitate the number-crunching aspects of the formalisms being applied.

The student is expected to have a comprehensive understanding of Quattro Pro software or similar Lotus-type spreadsheet packages. Furthermore everyone is expected to have a working knowledge of the DOS operating system for the IBM PC and compatibles.

Each student is expected to complete a variety of assignments on each of the topics introduced.

**Text:**

Theory : **Quantitative Methods for Business**  
D.R. Anderson, D.J. Sweeney, T.A. Williams  
West Publishing

Lab : **The Management Scientist Software Package**  
West Publishing

**Supersheet: Lotus Templates**  
T.O. Carroll, J. Kahn  
West Publishing

**Optional Lab Texts:**

**Osborne McGraw-Hill Series**  
**Pocket Reference Guides:**  
DOS  
Quattro Pro

**Coures Topics:**

- 1) Linear Programming
  - 1.1 Simplex Method
  - 1.2 Transportation, Assignment and Transshipment
  - 1.3 Integer Linear Programming
- 2) Decision Theory
- 3) Inventory Models
- 4) Project Management
  - 4.1) PERT
  - 4.2) CPM
- 5) Simulation / Queuing Theory
- 6) Forecasting

**Marking:**

Assignments	20%
Quizzes	10%
Midterm	30%
Final Exam	40%

**Special Notes :**

- 1) The Student must pass the Theory portion of the course in order to obtain a passing grade for the term.
- 2) The penalty for late assignments is a 20% deduction for any assignment submitted up to one week late. Any material recieved after this time period will be marked for errors but will not be assigned a grade.
- 3) The student is responsible for adhering to all requirements as specified for each assignments.

**Optional References:**

- 1) G.D. Eppen, F.J. Gould and C.P. Schmidt, Introductory Management Science, Prentice-Hall, Second Edition, 1987.
- 2) J. Oberstone, Management Science: Concepts, Insights and Applications, West , 1990.
- 3) Y. Chang and R.S. Sullivan, Qunatitative Systems for Business, Prentice-Hall, 1986.