



COURSE TITLE : **QUANTITATIVE ANALYSIS**

COURSE NUMBER : **DSCI 220**

CREDITS : 3

PREREQUISITE : MATH 210

ECTS CREDITS : 6

OFFERED : SPRING

SEMESTER HOURS : 36

COURSE DESCRIPTION :

This course provides second year students with an overall picture of the nature and scope of quantitative techniques. It describes several of the quantitative methods, explains how they work and shows how they can be applied and interpreted. It emphasizes real-world problems and the role of modeling in solving such problems. The focus will be kept on the relationship between problem and model.

COURSE OBJECTIVES :

To provide students with a sound conceptual understanding of the role that management science plays in the decision-making process.

INSTRUCTIONAL METHODOLOGY :

The course is developed through lectures, discussion and numerical problem solving sessions. Students are expected to participate in class discussion. Will be covered in class :

- Model and Modeling
- Linear Programming : Formal Models
- Linear Programming : Geometric Representation and Graphic Approach
- Analysis of LP Models
- The Simplex method
- Network models
- Inventory Control
- Decision Theory and Decision Trees

TEXT : ***Managerial DecisionModelling***, Ragsdale, Thomson, 1stEdition

EVALUATION :

The final grade will be made up of a class participation and homework, a mid-term test and the final examination.