The primary objective of this course is to cover in a more sophisticated manner some of the decision making techniques which were instructed in the graduate courses Operations Research I and II. An additional objective is to teach the students some additional techniques not covered in those undergraduate courses and thus to broaden the range of the decision making tools they are capable of using.

The decision making tools to be instructed are presented in the course outline. Fuzzy models and nonlinear programming are more advanced topics that will be added to those covered in the course BUSS 529. A large number of model building applications will be made with a particular emphasis on fuzzy goal programming and nonlinear programming with a view to help the students gain some experience about how the mathematical models are employed for decision making purposes.

The class will be conducted primarily in lecture format. Regardless, students will be encouraged to raise questions and to make comments whenever they wish. Participation of the students in the class discussions is expected to play a predominant role. Bulk of the lessons will be conducted in the computer laboratory. The package programs that will be employed are LINDO and LINGO.

A good understanding of the topics covered in operations research courses, particularly linear programming, is assumed. Experience on the package programs is not needed. It will be quite easy to learn how to use them. Attendance is mandatory at every class. A midterm and a final exam will be made. Homeworks will be assigned throughout the course. Participation in the discussions during the class will be valued in favour of the student.

The students are required to receive a grade of at least 50 points from the final exam. The course grade which must be at least 65 points is the weighted average of the midterm exam and the final exam. The weighs are 40% and 60% respectively.

Major Texts:
3) Richard Bronson, Theory and Problems of Operations Research -

EXTRA INFORMATION
I will be pleased to answer your questions about any subject pertaining to this course. No office hours. You can find me anywhere and anytime in the school building.

COURSE OUTLINE
The topics and number of weeks that will be devoted to each are as follows:

Duality and Sensitivity Analysis in Linear Programming - One Week
Integer Linear Programming- One Week
Multiobjective Linear Programming/Goal Programming- Two Weeks
Fuzzy Linear and Fuzzy Goal Programming- Two Weeks
Nonlinear Programming-Four Weeks
Model Building Applications - Four Weeks