Math 555: Mathematical Programming

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Course Text:

- *Introduction to Mathematical Programming: Applications and Algorithms.* W. Winston.

Supplemental Texts:

- *Operations Research: An Introduction.* H. Taha.

- *Introduction to operations research.* F. Hillier and G. Lieberman.

Course Work and Grades

Some of the material should be presented by students (4 marks). The main grade will be based on two midterm exams $(2 \cdot 23 = 46$ mark) and a cumulative three hour final exam (50 mark).

Contents

1. The Simplex Method.

2. Sensitivity Analysis.

3. Duality.

4. Parametric Programming

5. Integer Programming.

6. Goal Programming.

7. Application in various fields.