Math 555: Mathematical Programming

Instructor: Ibraheem Alolyan

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Course Text:

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

- *Introduction to Linear Programming.* Ibraheem Alolyan (Arabic)

Supplemental Texts:

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

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

Course Work and Grades

The main grade will be based on two midterm exams ($2 \cdot 30 = 60$ mark) and a cumulative three hour final exam (40 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.