Mathematics for Decision Making I (MA437)

Angela Carnevale & Joshua Maglione

Semester 1 (2024)

Module information:

Coordinates:

Wednesdays 3:00pm – 3:50pm AC201 Thursdays 1:00pm – 1:50pm AMB-G005

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Website: Canvas and https://joshmaglione.com/2024MA437.html

Topics: We will cover three fundamental topics of optimization:

- 1. the simplex algorithm,
- 2. polyhedral geometry,
- 3. the notion of duality.

Time permitting we will cover some topics in integer programming.

Assessment: There is no timed final exam for this module. The overall assessment comprises three components:

- an in-class test during either week 6 or 7,
- a group project, including a short presentation in week 12,
- a "take-home" exam, due approximately at the end of the exam period.

Each of the three components is worth the same, so each part is one third of the final mark. The details of these components are not yet set and will be announced once they are known.