Mathematical Economics

Daisuke Oyama

www.oyama.e.u-tokyo.ac.jp/mathecon22

October 7, 2022

Outline

- ▶ Friday 10:25-12:10
  Class Room 8 (except for the first class: on line)

  - ▶ October 7, 14, 21, 28
  - ▶ November 4, 11 (no class on 18)
  - ▶ December 2, 9, 16, 20, 23
  - ▶ January 6, 20 (no class on 13)

- ▶ Course webpage:
  http://www.oyama.e.u-tokyo.ac.jp/mathecon22/

- ▶ In this course, we study mathematical tools useful for advanced level economics, including important topics from convex analysis, as well as advanced topics from discrete mathematics such as lattices and supermodularity (and matroids if time permits).

Textbook

- R. V. Vohra, *Advanced Mathematical Economics*, Routledge, 2004.

Topics

1. (Things to know)

2. Feasibility

3. Convex sets

4. Linear programming

5. (Non-linear programming)

6. Fixed points

7. Lattices and supermodularity

8. Matroids

Other Information

- ► Grading:
  Final exam

  (Homeworks do not directly count.)

- ► Homework:
  Submit your homework through ITC-LMS.

- ► Office hours:
  Fridays 14:00-15:30, or by appointment
  10th floor, 1012