Topics in Economic Theory
Winter 2014

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Course Description

- In this course, we study topics in economic dynamics.

- Textbook:

  J. Stachurski, *Economic Dynamics: Theory and Computation*,
  MIT Press, 2009.

- Mainly based on lectures,

- but occasionally students are asked to show the proof of
  a theorem or solve an exercise on the blackboard
  (possibly with assistance from the instructor).

Course Outline

1. Analysis in metric space (Chapter 3)

2. Dynamical systems (Section 4.1)

3. Markov chains (Sections 4.2, 4.3)

4. Theory of nonnegative matrices

5. Dynamic programming (Sections 5.1, 6.2, 6.3)

6. (Selected topics from Part II)

Mathematics

- Required:

  Knowledge of basic concepts in real analysis;
  see Appendix A in the textbook.

Programming

- ▶ We also discuss computational methods.

- ▶ We use Python.

  - ▶ Recommended:

    Install "Anaconda" from http://continuum.io/downloads.

- ▶ Attend the special seminar by John Stachurski:

  - ▶ October 1, 14:00-16:00
  - ▶ Conference Room, Kojima Hall 2nd floor

- ▶ Or teach yourself:

  - ▶ Chapter 2
  - ▶ Quantitative Economics, http://quant-econ.net/

Course Information

- Webpage:

  www.oyama.e.u-tokyo.ac.jp/theory14

- Grade:

  Class participation, presentation, occasional homework

- Office hours:

  Friday 14:00-15:30 at 1012