

**General Equilibrium – Part II**  
**Teoría del Productor, Consumidor y Equilibrio General – Maestría (14700001)**  
**Universidad del Rosario - Facultad de Economía**  
**Semestre 2014 – II**

**Syllabus**

**Instructor:** Çağatay Kayı.

**Class Hours:** Mondays 09:00 – 11:00 & Thursdays: 07:00 – 09:00 (Part II starts on Monday, 22<sup>nd</sup> September 2014).

**Lecture Hall:** Auditorio I, Pedro Fermin.

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**Office:** Pedro Fermin 3 – 15 Ext. 4138.

**Office Hours:** Thursdays: 9:00 – 11:00. Otherwise, please e-mail me to arrange a mutually convenient time.

**Objectives:** This course is aimed for students in the Master of Economics. The course introduces and explores general equilibrium theory and the welfare properties of competitive equilibria, externalities, public goods, social choice theory, cooperative bargaining, and an application of competitive equilibrium. The purpose of the course is to introduce advanced theories and analytical tools as well as the types of questions that are used and answered in each area. The topics covered in this course are important since they are either basic analytical tools that are used in many fields of economics or basic economic theories that will be needed in your future study and bring you to the frontier of theoretical research.

**Requirements:** There are lectures (twice a week) and problem sessions (every week, starting from second week). Evaluation is based on two final exams (one for Part I by Darwin Cortes and one for Part II – 30% each), participation (10%), and the problem sets and quizzes in the problem set sessions (30%). If a student misses an exam, we follow the regular procedure determined by the academic regulations. There are NO make-up exams without documented medical evidence that should be presented within one week of the exam. Failure to do so results in a score of zero on the missed exam. After the final, there is no rounding for grades and the grades are not subject to change unless there exists a well-founded claim.

The schedule is as follows:

- *First day of Part II:* 22 September 2014, Monday.
- No classes on October 6 and 9 (Semana Rosarista), October 13, and November 3 and 17.
- *Last day of Part II:* 20 November 2014, Thursday.
- *Final:* 24 November 2014, Monday.

**Course Outline:**

1. General Equilibrium.
  - (a) Definitions.
  - (b) Basic Properties of Walrasian Equilibrium.
  - (c) The Edgeworth Box.
  - (d) Existence of Walrasian Equilibria.
  - (e) The Set of Equilibria for a Fixed Economy.
  - (f) The Equilibrium Correspondence.

2. General Equilibrium, Efficiency, and the Core.
  - (a) The First Theorem of Welfare Economics.
  - (b) The Second Theorem of Welfare Economics.
  - (c) Walrasian Equilibria are in the Core.
  - (d) In a Large Enough Economy, Every Core Allocation is a Walrasian-Equilibrium Allocation.
  - (e) Externalities and Lindahl Equilibrium.
3. Social Choice Theory.
  - (a) Social Choice and Paradox of Voting (Condorcet Paradox).
  - (b) Arrow's (Im)possibility Theorem.
  - (c) Arrow's Theorem without Transitivity.
  - (d) Single-peaked Preferences and Median Voter Theorem.
  - (e) Sen's Impossibility Theorem (Impossibility of Paretian Libertarianism).
4. Cooperative Bargaining.
  - (a) Bargaining Problems and Properties of Bargaining Solutions.
  - (b) Egalitarian, Utilitarian, Nash, and Kalai-Smordinsky Solutions.
  - (c) The Characterization of Nash Solution.
  - (d) Cooperative Bargaining and Pareto Frontier.
5. An Application of Competitive Equilibrium: Housing Markets.
  - (a) Two-sided One-to-one Matching Problems: Marriage Problem.
  - (b) One-sided One-to-one Matching Problems: Roommate Problem.
  - (c) One-sided Matching Problems with Endowments: Housing Markets.
  - (d) Housing Markets and Competitive Equilibrium.
  - (e) One-sided Matching Problems without Endowments: House Allocation Problems.

**Textbooks:**

- Kreps, D.M. (1990). A Course in Microeconomic Theory. Princeton University Press.
- Kreps, D.M. (2013). Microeconomic Foundations I: Choice and Competitive Markets. Princeton University Press.
- Mas-Colell, A., Whinston, M.D., and Green, J.R. (1995). Microeconomic Theory. Oxford University Press.