

M.Sc. Economics

Code:		Type:	M.Sc. 2 nd semester lecture series
Title:	Microeconomics II		
Lecturer:	Egbert Dierker		
ECTS:	7	Contact hours (per semester):	24 units à 90 min.
Semester:	Summer 2010	Frequency of the lecture:	Twice a week
Dates:	March 8 th , 2010 until June 14 th , 2010		
Prerequisites:	Mathematics I and II, Microeconomics I		

Learning objectives (What are the intended learning outcomes? Which skills will be acquired?):

Deeper understanding of consumer and producer theory. Familiarity with the main concepts and theorems (including their proofs) in General Equilibrium Theory.

Content (Which professional competence and which contents will be imparted?):

Part I:

a) Consumer theory:

- Properties of preference relations, Debreu's utility representation theorem.
- Choice structures and revealed preferences, the weak axiom (WA) and rationalisability of choice structures.
- Duality and prices, expenditure functions as support functions, duality theorem.
- Sums of closed convex sets and support functions.
- Individual choice, differentiability of demand, Slutsky equation.
- Continuity properties of correspondences and Berge's maximum theorem.
- WA and the law of demand, Slutsky compensation and law of compensated demand.
- When does aggregate demand depend only on aggregate wealth? Gorman form.
- Aggregation, the loss of the WA and of the absence of a representative consumer.

b) Theory of production:

- Assumptions and interpretation, profit and support functions.
- Aggregate technology, aggregate supply correspondence and aggregate profits. Existence of a representative producer; production efficiency and profit maximization.

Part II:

General Equilibrium Theory:

- Pareto efficiency and Walrasian Equilibria in an Edgeworth box with production.
- Feasible allocations and Pareto-efficiency.
- Private ownership economies, Walrasian equilibria and equilibria with transfers.
- First welfare theorem and the underlying hidden assumptions.
- Obstacles to a converse theorem: Non-convexities and the minimum-wealth problem; quasi equilibrium with transfers.
- Second welfare theorem, proof and discussion.
- Nonconvex technologies, marginal cost pricing equilibria, efficiency and the need for redistribution.
- Existence of Walrasian equilibria in exchange economies with two goods, the excess demand correspondence and Walras' law.
- Retractions and derivation of Brouwer's fixed point theorem.
- Kakutani's fixed point theorem, Debreu's fundamental existence lemma and Debreu's equilibrium existence theorem.
- Global uniqueness of equilibrium, the WA, gross substitutes and the dominant-diagonal

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- property.
- Local uniqueness and robustness of equilibria, regular economies and “smallness” of the set of critical economies.
- Index Theorem.
- Price adjustment, the WA and global stability.
- Sonnenschein-Mantel-Debreu Theorem.
- Core and Walrasian equilibria, replica economies and the Debreu-Scarf theorem.

Teaching approach (Description of the learning and teaching methods):

Lecture and group work

Workload (Optional: definition of workload (ECTS), divided in pre-modules (e.g. pre-readings), core-modules (contact hours), post-modules (e.g. case studies)):

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Language of instruction (Information on the language of teaching):

English

Obligatory literature (E.g. scripts, books, articles, cases, papers):

Mas-Colell, Whinston, Green: “Microeconomic Theory”, parts 1 and 4

Additional literature (E.g. books, articles, cases, papers):

- Debreu: “Theory of value”
- Hildenbrand, Kirman: “Equilibrium analysis”
- Arrow, Hahn: “General competitive analysis”
- Debreu and Scarf (1963): “A Limit Theorem on the Core of an Economy”

Mode of examination (Mode of the examinations and tests (e.g. oral or written examination, lecture, homework, papers, class participation)):

- Regular homework assignments. Students are encouraged to work in groups of 2 or 3 persons. The answers will be discussed in TA sessions.
- Midterm exam after the end of part 1 (consumer and producer theory).
- Final exam.

Grading:

The midterm exam accounts for 30% and the final exam for 70%. Students can improve their grades through classroom participation and their contributions to TA sessions.

Special features (E.g. excursion, guest speaker):

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Office hours:

By appointment

Course website

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