

## M.Sc. Economics

<b>Code:</b>		<b>Type:</b>	M.Sc. 2 <sup>nd</sup> year, fall 2010
<b>Title:</b>	Applied General Equilibrium Theory (Elective course)		
<b>Lecturer:</b>	Larry Blume		
<b>ECTS:</b>	3	<b>Contact hours (per term):</b>	20
<b>Semester:</b>	Fall 2010	<b>Frequency of the lecture:</b>	10 units
<b>Dates:</b>	November 22, 2010 until December 10, 2010		

<b>Prerequisites:</b>	
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### Learning objectives (What are the intended learning outcomes? Which skills will be acquired?):

The goal of the course is to build up enough analytical familiarity with basic general equilibrium modelling to discuss intertemporal general equilibrium models and general equilibrium under uncertainty.

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

This course will develop the tools of general equilibrium analysis for application to issues in international economics, macroeconomics and finance. Although the theory of general equilibrium analysis has continued to develop since the late 1960s, other areas of economic theory have grown as well (notably game theory) and so even as the field has grown, the amount of time devoted to it has shrunk. This course will review basic general equilibrium theory, including the welfare theorems, and then treat specific GE models that are important for intertemporal economies and economies that allocate goods under uncertainty.

1. Introduction — The one person economy
2. Ricardian economies
3. Heckscher-Olin economies
4. Exchange Economies
  - (a) Existence (brief)
  - (b) Welfare theorems
  - (c) Comparative statics
    - i. Sonnenschein's theorem
  - (d) Interpretations of the model
5. Uncertainty
  - (a) The state-preference approach
  - (b) Complete markets
  - (c) An introduction to GEI
  - (d) Asset Pricing
    - i. CAPM
    - ii. APT
    - iii. Lucas
6. Intertemporal equilibrium models
  - (a) The overlapping generations model
  - (b) Overlapping generations with production — The Diamond model
  - (c) The Cass-Koopmans model as a market equilibrium

## M.Sc. Economics

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

Lecture

**Workload** (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):

See Readings.

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

See Readings.

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

Final exam

**Grading** (A maximum of 20% outside the class room):

To be announced in class.

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

**Contact information:**

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**Office hours:**

By appointment

**Course website:**

<https://cecnet.tuwien.ac.at/>

## M.Sc. Economics

### Readings

Here is a useful set of readings. They are not **required**, but they are very useful for the student who wants to have general equilibrium in his or her toolkit.

Arrow, K. 1963. The Role of Securities in the Optimal Allocation of Risk- Bearing. *Review of Economic Studies* 31: 91–96.

Brown, D. J., and R. L. Matzkin. 1996. Testable Restrictions on the Equilibrium Manifold. *Econometrica* 64:1249–62.

Chipman, J. 1987. International Trade. in *The New Palgrave: A Dictionary of Economics*, vol. 2. J. Eatwell, M. Milgate and P. Newman, eds. London: The Macmillan Press.

Diamond, P. A. 1965. National Debt in a Neoclassical Growth Model. *American Economic Review* 55: 1126–50.

Diamond, P. A. 1967. The Role of a Stock Market in a General Equilibrium Model with Technological Uncertainty." *American Economic Review* 57: 759–76.

Dybvig, P. 1983. An explicit bound on deviations from APT pricing in a finite economy. *Journal of Financial Economics* 12, 483–96.

Gale, D. 1973. Pure exchange equilibrium of dynamic economic models. *Journal of Economic Theory* 6: 12–36.

Geanakoplos, J. 1990. An Introduction to General Equilibrium with Incomplete Asset Markets. *Journal of Mathematical Economics* 19: 1–38.

Geanakoplos, J. 2008. overlapping Generations Model of General Equilibrium. In *The New Palgrave: A Dictionary of Economics*, 2nd Ed. vol. 6. S. Durlauf and L. Blume, eds. Basingstoke: Palgrave-Macmillan, Ltd.

Hart, O. 1975. On the Optimality of Equilibrium When the Market Structure Is Incomplete. *Journal of Economic Theory* 11: 418–443.

Kehoe, T. 1989. Intertemporal General Equilibrium Models. in *The Economics of Missing Markets, Information and Games*. F. Hahn, ed. Oxford: Clarendon Press.

Koopmans, Tjalling. *Three Essays on the State of Economic Science*. McGraw-Hill, 1957.

Lucas, R. E. 1978. Asset Prices in an Exchange Economy. *Econometrica* 46: 1429–45.

Mas-Colell, A., M. Whinston, and J. Green. 1995. *Microeconomic Theory*. New York, NY: Oxford University Press.

Samuelson, P.A. 1958. An exact consumption-loan model of interest with or without the social contrivance of money. *Journal of Political Economy* 66: 467–82.