

SUBJECT: **Mathematics for Economists**

HOURS: 48

ECTS: 5

Name/title of the author:	Prof. dr hab. Andrzej Malawski, Dr Beata Ciałowicz
Course Description:	<p>This course covers the standard general equilibrium theory in axiomatic Arrow-Debreu set-up. The model under consideration is assumed to be the theoretical hard core of the neoclassical research programme in the contemporary economic science. The course gives the general, strict and elegant account of the behaviour of consumers and producers, as well as such analysis of general, competitive equilibrium and Pareto optimality.</p>
Learning Outcomes (Goals and Objectives of the course):	<p>At the completion of the course the students should:</p> <ol style="list-style-type: none">1. be able to discuss and analyse decision making mechanisms of economic agents,2. be able to describe and explain the interrelationships between the main positive and normative economic categories3. gain experience in the critical discourse.
Entrance qualifications:	After basic Applied Mathematics and Microeconomics courses
Course Content:	<ol style="list-style-type: none">1. Introduction- historical remarks, general description of the economy2. Commodity/price space R^I3. Production system- general description, assumptions on production sets, profit maximization4. Consumption system- general description, consumption sets, preferences, preference maximization5. Debreu economy with the private ownership6. General competitive equilibrium- definition, existence7. Pareto optimality- social preference relation, Pareto optimum, fundamental theorems of welfare economics
Assessment policy (examination):	Assessment of problem sessions: two mid-term plus attendance and participation, Assessment of the course: final exam (written)
Course materials/bibliography:	<p>A. Malawski, Introduction to mathematical economics, Cracow University of Economics, 2000 (manual)</p> <p>Additional readings will be announced in the beginning of the semester</p>
Methods of Instruction:	Lecture plus class problem sessions