

Subject:				
General Equilibrium Theory				
ECTS code	Semester	Faculty: Finance		
	6	Major: Finance and Accounting		
		Corporate Finance and Accounting		
Faculty:				
Lecture: Andrzej Malawski				
Classes:				
System of studies:				
part time, first degree				
Subject status	Pass requirement	Number of contact hours		ECTS points
		Lectures	Classes	
		18	18	5
Teaching language				
English				
Subject provisions and objectives (including the expected can-do of students on completion of the course)				
At the completion of the course the student should: <div><div>1.</div><div>Be able to understand the basic concepts of the set-theory and topology to apply them to economic theory.</div></div> <div><div>2.</div><div>Be able to understand the fundamental concepts and results of the modern general equilibrium theory.</div></div> <div><div>3.</div><div>Gain experience in practical problem solving by use mathematics.</div></div>				
Teaching curriculum ( in case of prescribed subjects, compliance with the standards, maximum 15 topics)				
<div><div>1.</div><div><math>R^1</math> as a commodity-price space</div></div> <div><div>2.</div><div>Production system – technologies, profit maximization</div></div> <div><div>3.</div><div>Consumption system – consumption sets, budget constraints, preference maximization</div></div> <div><div>4.</div><div>Debreu economy with private ownership</div></div> <div><div>5.</div><div>Existence of Walrasian equilibria</div></div> <div><div>6.</div><div>Pareto optimality</div></div> <div><div>7.</div><div>Fundamental theorems of welfare economics</div></div>				
Class topics (maximum 15 topics)				
As above				
Introductory topics				
After standard courses on higher mathematics and microeconomics				
Teaching methods				
Lecture plus class problem sessions				
Basic literature and other sources				
G. Debreu, Theory of Value, Wiley, New York 1959				
A. Mass-Colell, M.D. Whinston, J.R. Green, Microeconomic Theory, Oxford UP, New York 1995				
Materials and exercise sheets prepared by teachers				

<b>Pass requirements for signature/examination</b>
Assessment of problem sessions: two middle-term tests plus attendance Assessment of the course: final exam (written form)
<b>Examples of questions for tests and examinations</b>
<ol style="list-style-type: none"><li>1. Interpret <math>\mathbb{R}^l</math> as a commodity space.</li><li>2. Find the supply correspondence of a producer, whose production set <math>Y \subset \mathbb{R}^2</math> is of the form: <math>Y = \{(y_1, y_2) \in \mathbb{R}^2; -5 \leq y_1 \leq 0, -3 \leq y_2 \leq 0\}</math>.</li><li>3. Prove that the indifference relation <math>\approx</math> of a consumer is an equivalence one.</li></ol>