

Study program: Mathematics (Ph.D. program)			
Course: Numerical Methods for Mathematical Models in Economics			
Course instructor(s): Zorana Lužanin			
Course type (compulsory/elective): elective			
Credit points: 10 ECTS			
Prerequisites: -			
Course objectives: Introduction to the numerical methods applied to mathematical models in economics.			
Learning outcomes: The student will understand and apply a wide spectrum of numerical methods to mathematical models that appear in micro- and macroeconomics.			
Course description (outline): Fixed point theory in equilibrium problems. Numerical methods for solving dynamical models in economics. Numerical methods of optimization to models of risk minimization and profit maximization.			
References:			
1. Angel de la Fuente, Mathematical Methods and Models for Economists, Cambridge University Press, 2000.			
2. A. Mas-Colell, M. D. Whinston, J. R. Green, Microeconomic Theory, Oxford University Press, 1995.			
Active teaching hours	Theoretical classes: 2	Practice classes: -6	
Methods of teaching: Lectures and practice, with active participation of the students, discussion, etc.			
Grading structure			
Pre-exam obligations	Points	Exam	Points
Colloquia	25	Oral exam	50
Seminars	25		