Study programme(s): Applied Mathematics (MB)	
Level: master	
Course title: Modelling Seminar 2 (MB-11)	
Lecturer: Jelena Aleksić	
Status: obligatory for MB, module Techno-mathematics	
ECTS: 3	
Requirements: none	

Learning objectives

Understanding and learning the simulation and/or modelling methods by using some simulation language.

Learning outcomes

Minimal:

Learning the basic methods of system modelling and computer simulation.

Desirable:

Students should be able to construct and analyze a mathematical or a simulation model of some real system.

Syllabus

Theoretical instruction

Basics of modelling and dynamical systems, simulation.

Practical instruction

Learning the basics of the AnyLogic modelling language and construction of some simulation models.

Literature

1. A. Takači, *Skripta iz Matematičkog modeliranja*, Departman za matematiku i informatiku PMF i WUS, Novi Sad 2006.
2. S. M. Ross, *Simulation,* Third Edition, Academic Press, New York 2002.
3. S. Lynch, *Dynamical Systems with Applications using MATLAB*, Birkhauser Verlag, Boston 2004.

Weekly teaching load				Other: 0
Lectures: 1	Exercises: 2	Other forms of teaching: 0	Student research: 0	

Teaching methodology

Teaching is conducted partly on the blackboard and partly on computers. The students have to write a seminar paper and present it to their colleagues and the teacher.

Grading (maximum number of points 100)			
Pre-exam obligations	**Points**	**Final exam**	**points**
Colloquia	25	Oral exam	50
Seminar paper	25		