

Study programme: MAS Geography			
Course title: Applied soil science			
Teacher: dr Biljana Basarin			
Status: elective			
ECTS: 6			
Requreiments: none			
Learning objectives The aim of this course is to understand the principles of soil functioning based on the relationships between factors, processes and properties of soils. Basic concepts of land and soil management, soil erosion processes and mechanisms, water and wind erosion, erosion prevention and control measures.			
Learning outcomes After successfully completing the course the students will be able to: Integrate the basic disciplines to analyze and diagnose soil processes and the functioning of soils, to better understand the impact of man on them; To integrate the principles of soil functioning to understand the soil in the landscape and ecosystem.			
Syllabus <i>Theoretical part:</i> Soil forming processes and current pedological processes: diagnosis of the current processes, soil evolution, geography of major soil types: recognition of land in the international WRB system, study the functioning of major soil types in their natural ecosystems and in ecosystems modified by man. Soil management and conservation, soil remediation technologies, soil bioengineering, treatment technologies for contaminated soil. <i>Practilac part:</i> Field visit (soil profile; sampling and processing), mapping of different soil types.			
Literature Tan, K.H. (2009): Environmental soil science. CRC Press, NY, USA Miljković, N.S. (1996): Osnovi pedologije. Institut za geografiju, Novi Sad. Singer, M. J. (2002): Soils an Introduction, Prentice Hall, New Jersey Schaetzi, Randall J. (2009) Soils, Cambridge University Press, New York Reddy, K.R., (Ed.) (2010): Soil engineering, testing design and remediation. Gene-Tech Books, New Delhi, India Margesin, R., Schinner, F.,(Eds.)(2005): Manual for Soil Analysis – Monitoring and Assessing Soil Bioremediation. Springer, Germany			
Weekly teaching load 4 (60)		Lectures 2	Exercises 2
Methods of Teaching Lectures, Illustration and Demonstration, Practical skills in the laboratory.			
Grading method (maximu 100 points)			
Pre-examination assignments	points	Final examination	points
Activities during lectures	0-5	Written examination	
Activities during exercises	0-5	Oral examination	30-45
Colloguia	20-40		
Seminar paper	0-5		