

Study programme: Forestry and Natural Resources Management			
Subject: Forest Soil Science			
Teachers: dr Olivera Košanin , associate professor; MSc Janko Ljubičić , teaching assistant			
Subject status: elective course			
Credits: 5 ECTS			
Requirement: None			
Purpose of course: Mastering knowledge in forest soils and obtaining a comprehensive picture of the importance of soil in the ecosystem, the production potential of the soil, the sustainable and rational use of soil as the basic natural resource.			
Course outcome Students will be able to apply physical and chemical soil analysis methods in the field and laboratory; describe soils in the field, classify them and evaluate their properties; argue and interpret results; identify soil processes, soil classification system and effects of soil management; understand production and ecological functions of the soil			
Contents of the course <i>Theoretical lectures:</i> Evolution and evolutionary-genetic series of soil. Fertility and productivity of the soil. Classification of the forest soils of Serbia. Soil-plant community link. Properties and functions of the soil. Sustainable use of soil. The degradation of soil. Legislation on the use and protection of land space. <i>Practical lectures:</i> Execute laboratory experiments. Laboratory analysis and their interpretation. Climate and humidity regime of the soil. Relief and hydrological characteristics of the soil. Determination of total nitrogen in the soil. Determination of physiologically active forms of phosphorus and potassium in soil. Ecological quality of the soil.			
Literature: 1. Pritchett L. W, Fisher F. R. (1987): Properties and Management of Forest Soils, 2 nd Edition. John Wiley & Sons. ISBN 0-471-89572-5. (494) 2. Hillel D. (1982): Introduction to Soil Physics. Academic Press. ISBN 0-12-348520-7. (364) 3. Plaster J. E. (2008): Soil Science and Management, 5 th Edition. Delmar, Cengage Learning. ISBN 978-1-4180-3865-6. (495) 4. Baver L. D., Gardner H. W., Gardner R. W. (1972): Soil Physics, 4 th Edition. John Wiley & Sons. ISBN 0-471-05974-9 5. Soil Atlas of Europe (2005). European Soil Bureau Network, European Commission, Office for Official Publications of the European Communities, L-2995 Luxembourg. ISBN 92-894-8120-X			
Hourse of active teaching 60		<i>Lectures:</i> 30	<i>Practical:</i> 30
Methods of teaching Lectures, practical teaching, students presentations, field excursions			
Mark (max. of poens 100)			
in-course assessment	points	Exam	points
Activity during lectures	20	<i>Oral exam</i>	<i>50</i>
Seminar	30		