

Study Programme: <i>Forestry and Natural Resources Management</i>			
Name of the subject: <b>APPLIED FORESTRY</b>			
Teacher and teaching assistant: <a href="#">Dr. Babić Violeta</a> , <a href="#">Dr. Kanjevac Branko</a>			
Status of the subject: Obligatory			
Number of ECTS: 10			
<b>Subject aim:</b> Introducing students with the nature of the forest, influence of basic ecological factors (climate, edafic, orographic and biotic) on the forest, basic methods of natural regeneration and tending of forest, criteria for defining the state and degree of degradation of forests, methods of conversion of degraded and devastated forests into forests of better quality.			
<b>Subject outcomes:</b> Training students to apply methods of forest regeneration and tending, adjustment the silvicultural treatments to the actual state of the forest, conversion of degraded and devastated forests into higher quality forests.			
<b>Content of the subject:</b>			
<i>Active (theoretical) lectures:</i> Aim and tasks of the silviculture, nature of the forest, influence of basic ecological factors on the forest and influence of forest on ecological factors: climate factors and forest, edafic factors and forest, orographic factors and forest, biotic factors and forest. Basic methods of natural regeneration of forests (Clearcut system, Shelterwood system, Selection system). Development phases of stand, basic methods of forest tending and forest thinning. Degraded and devastated forests and deforested land. Causes of forest degradation. Ameliorative methods in degraded forests. Adjustment the silvicultural treatments to the actual state of the forest and climate change.			
<i>Practical lectures:</i> Defining environmental conditions (climate, orographic, edafic, characteristics of the locality, local heat potential); defining vulnerability and degree of degradation of forests and deforested land; defining methods and silvicultural treatments based on the type and degree of degradation; cost calculation according to the existing norms.			
<b>Basic literature:</b> <b>Kimmins J.P.</b> (2004): <i>Forest ecology</i> . New Jersey; <b>Matthews J.</b> (1989): <i>Silvicultural systems</i> . Clarendon press, Oxford; <b>Puettmann K., Coates D., Messier C.</b> (2009) <i>A critique of Silviculture: Managing for Complexity</i> . Island Press .Washington • Covelo • London. <b>Nicolescu V.N. et al.</b> (2018) <i>Silvicultural guidelines for European Coppice forests</i> . In eds: <i>Coppice forests in Europae</i> , Freiburg, Germany. <b>Diaci J., Govedar Z., Krstic M., Motta R.</b> ( 2012) <i>Importance and perspectives of Silviculture for science and practice of forestry</i> . International Scientific Conference: <i>Forestry science and practice for the purpose of sustainable development of forestry - 20 years of the Faculty of forestry in Banjaluka</i> . <u>Plenary lecture</u> . Proceedings, 23-40. Banja Luka, Republic of Srpska/B&H. 1th - 4th November. <b>Krstić, M., Stojanović, L.J., Rakonjac Lj.</b> (2010): <i>The tasks of siculture in regard to the curent climate shange</i> . International Scientific Conference “Forest ecosystems and climate changes“. Institute of Forestry Belgrade, March 9-10 <sup>th</sup> . <u>Plenary lectures</u> pg. 117-130. <b>Krstic M., Govedar Z.</b> ( 2012). <i>Tasks of silviculture with special emphasis on the conversion of degraded forests</i> . <u>Invited paper</u> . International Scientific Conference: <i>Forestry science and practice for the purpose of sustainable development of forestry - 20 years of the Faculty of forestry in Banjaluka</i> . Plenary lecture. Proceedings, 447-464. Banja Luka, Republic of Srpska/B&H. 1th - 4th November			
<b>Actual papers</b> about silvicultural works in scientific journals.			
Number of classes per week:	Lectures:	Exercises:	Other forms of teaching:
<b>Method of teaching:</b> Active (theoretical) lectures in the classroom on PowerPoint presentations; Exercises - examples about simulation of appropriate silvicultural works. Practical lectures: group seminar work of students by processing ameliorative-silvicultural works; individual work of students by creating elaborates of practical simulation of silvicultural works on examples; 2 days of one-day field lessons on the experimental plots around Belgrade; 2 days of school practice in the educational bases of the Faculty of Forestry where students practically perform appropriate ameliorative-silvicultural works.			
Rating of knowledge (maximum score 100)			
Pre-exam obligations	points	Final exam	points
activity during the lectures	5		
practical lectures	10	oral exam	65
elaborate	20		