



## “FOREST REVITALIZATION” SYLLABUS

Basic data of the subject			
<b>Academic Unit:</b>	<b>Life and Environmental Sciences Faculty</b>		
<b>Course title:</b>	<b>Forest revitalization</b>		
<b>Program:</b>	<b>Forestry and Environmental Sciences</b>		
<b>Level:</b>	<b>Bachelor</b>		
<b>Course status:</b>	<b>Compulsory</b>		
<b>Study year:</b>	<b>Third year, first semester</b>		
<b>Number of hours per week:</b>	<b>3+2</b>		
<b>Credit value – ECTS:</b>	<b>6</b>		
<b>Time / location:</b>	<b>To be announced</b>		
<b>Lecturer:</b>	<b>Prof. Asoc .Dr. Mirvjena Kellezi</b>		
<b>Contact details:</b>	<b>mirvjena.kortoci@uni-prizren.com</b>		
<b>Course description:</b>	<p>The field of forest ecosystems restoration is a complex interdisciplinary field that is becoming more important in a world that depends on increasingly degraded ecosystems to support growing human societies. This course is intended to provide you with information on forests and their importance. Degradation and causes of forest degradation. Revitalization of forests (Why, where, how to revitalize the forests). Revitalizing ecological functions. Revitalizing socio-economic values. Restoring the landscape to the previous forest state. Revitalization of different types of forests. Revitalization after disturbances (after fires, storms, risk from invasive-alien species management, erosion control, forest restoration in abandoned areas). Implementation of forest legislation.</p>		
<b>Course objectives:</b>	<p>The main objective of this subject is to provide students with basic knowledge on forest revitalization. This is foreseen to be linked to practical experience in forest ecosystems in Kosovo in selected degraded forests but also in conserved forest areas.</p>		
<b>Learning outcomes:</b>	<p>After successful completion of this course students will be able to:</p> <ol style="list-style-type: none"> <li>1. Determine the importance of forest revitalization.</li> <li>2. Define and explain the forest degradation.</li> <li>3. Preview why, where and how to revitalize the forests.</li> <li>4. Unfasten the revitalization of ecological functions and the revitalization of socio-economic values.</li> <li>5. Propose the appropriate measures in the revitalization after disturbances in the forests and to develop the acquired knowledge in theory and in practice.</li> </ol>		
<b>Contribution on student load (must correspond with learning outcomes)</b>			
<b>Activity</b>	<b>Hours</b>	<b>Days/week</b>	<b>Total</b>



Lectures	3	15	45
Exercise theoretical/laboratory	2	15	30
Practice work	-	-	-
Contact with lecturer/consultations	1	15	15
Field exercises	1	15	15
Mid-terms, seminars	2	-	2
Homework	-	-	-
Individual time spent studying (at the library or home)	1	15	15
Final preparation for the exam	1	15	15
Time spent in evaluation (tests, quiz, final exam)	2	5	10
Projects, presentations, etc.	3	-	3
<b>Total</b>			<b>150 hours (6 ECTS)</b>
<b>Teaching methods :</b>	Lectures, discussions, laboratory exercises, outdoor research exercises, consultations, independent projects, homework assignments, colloquia, seminars. Assessments (I & II), exams.		
<b>Evaluation methods:</b>	First assessment: 10%, Second assessment: 10%, Seminars or other engagements: 10%, Final exam: 70%, Total: 100%.		
<b>Literature</b>			
<b>Basic Literature:</b>	Elliott, S. D., D. Blakesley and K. Hardwick (2013): Restoring Tropical Forests: a practical guide. Royal Botanic Gardens, Kew; 344 pp. Mansourian, S., Vallauri, D., Dudley, N.. (2005): Forest restoration in Landscapes-Beyond planting trees. Springer. Printed in USA. Springeronline.com. 437 p.		
<b>Additional Literature:</b>	Lamb, D., Gilmour, D. (2003): Rehabilitation and Restoration of Degraded forests. IUCN. Gland. Switzerland and Cambridge. UK and WWF, Gland, Switzerland. x+110 pp.		

<b>Designed study plan:</b>		
<b>Week</b>	<b>Lectures</b>	<b>Exercises</b>
<i>First week:</i>	Introduction. Forests and their importance. What is revitalization? Definitions (invasive species, fragmentation and parcelization, conservation of	Practice on forests and their importance. The concept of revitalization and other concepts taken during the lectures.

	<p>habitat diversity, afforestation, reforestation, forest expansion, deforestation, forest degradation, succession, climax, erosion, abandoned terrain, marginal terrain).</p>	
<i>Second week:</i>	<p>Introduction. Forests and their importance. What is revitalization? Definitions (invasive species, fragmentation and parcelization, conservation of habitat diversity, afforestation, reforestation, forest expansion, deforestation, forest degradation, succession, climax, erosion, abandoned terrain, marginal terrain). What is degradation? Deforestation. Measuring Degradation.</p>	<p>Practice on degradation, deforestation and measuring degradation or various indicators to suggest that a forest is degraded.</p>
<i>Third week:</i>	<p>What is degradation? Deforestation. Measuring Degradation.</p>	<p>Practice on degradation, deforestation and measuring degradation or various indicators to suggest that a forest is degraded.</p>
<i>Fourth week:</i>	<p>Addressing degradation. Biophysical aspects of degradation. Human well-being aspects. Ecological aspects. Socio-economic reasons.</p>	<p>Practice on interventions on smaller or larger surfaces. Ecosystems that can regenerate themselves or not and establishment of conditions for succession occurrence. Clarification of the terms "restoration", "rehabilitation" and "recuperation". Community decision-making on revitalization issues.</p>
<i>Fifth week:</i>	<p>When and where to intervene? Ecological factors. Socio-economic factors.</p>	<p>Practice on the right moments when and where to intervene? Recognizing the pre-existing situation and the current situation. Ecological factors such as river stabilization or erosion. Socio-economic factors such as the choice of the most suitable areas for intervention based on the available finances.</p>
<i>Sixth week:</i>	<p>Approaches at the site level (micro-level). Preconditions. Species selection. Advices for planting trees. What it means to restore the forest in its</p>	<p>Practice on the right moments when and where to intervene? Recognizing the pre-existing situation and the current situation. Ecological factors such as river stabilization or erosion.</p>

	<p>entirety. Interventions for the biodiversity restoration. Passive restoration. Enrichment plantings. Direct seeding. Scattered tree plantings. Close-spaced plantings. Close-spaced planting using different species. Intensive ecological reconstruction after mining. Directing ecological successions. Distance from intact forests. Wildlife. Ecological surprises. Interventions providing biodiversity and productivity. Managing secondary forests. Agroforestry. Monoculture plantations. Monoculture plantations and buffer strips. Mixed species plantations. Encouragement of understorey development. How many species? Economic incentives for tree planting.</p>	<p>Socio-economic factors such as the choice of the most suitable areas for intervention based on the available finances.</p>
<p><i>Seventh week:</i></p>	<p>Approaches at the site level (micro-level). Preconditions. Species selection. Advices for planting trees. What it means to restore the forest in its entirety. Interventions for the biodiversity restoration. Passive restoration. Enrichment plantings. Direct seeding. Scattered tree plantings. Close-spaced plantings. Close-spaced planting using different species. Intensive ecological reconstruction after mining. Directing ecological successions. Distance from intact forests. Wildlife. Ecological surprises. Interventions providing biodiversity and productivity. Managing secondary forests. Agroforestry. Monoculture plantations. Monoculture</p>	<p>Practical advices on tree planting. The right elements to maintain a healthy restoration. Passive restoration that can be achieved simply by protecting the site from further disturbances and allowing natural colonization. Different ways of human intervention to aid restoration. Subsidies for tree plantations.</p>



	<p>plantations and buffer strips. Mixed species plantations. Encouragement of understorey development. How many species? Economic incentives for tree planting.</p>	
<i>Eighth week:</i>	<p>Approaches at the site level (micro-level). Preconditions. Species selection. Advices for planting trees. What it means to restore the forest in its entirety. Interventions for the biodiversity restoration. Passive restoration. Enrichment plantings. Direct seeding. Scattered tree plantings. Close-spaced plantings. Close-spaced planting using different species. Intensive ecological reconstruction after mining. Directing ecological successions. Distance from intact forests. Wildlife. Ecological surprises. Interventions providing biodiversity and productivity. Managing secondary forests. Agroforestry. Monoculture plantations. Monoculture plantations and buffer strips. Mixed species plantations. Encouragement of understorey development. How many species? Economic incentives for tree planting.</p>	<p>Practical advices on tree planting. The right elements to maintain a healthy restoration. Passive restoration that can be achieved simply by protecting the site from further disturbances and allowing natural colonization. Different ways of human intervention to aid restoration. Subsidies for tree plantations.</p>
<i>Ninth week:</i>	<p>Approaches at the site level (micro-level). Preconditions. Species selection. Advices for planting trees. What it means to restore the forest in its entirety. Interventions for the biodiversity restoration. Passive restoration. Enrichment plantings. Direct seeding. Scattered tree plantings. Close-spaced plantings. Close-spaced</p>	<p>Practical advices on tree planting. The right elements to maintain a healthy restoration. Passive restoration that can be achieved simply by protecting the site from further disturbances and allowing natural colonization. Different ways of human intervention to aid restoration. Subsidies for tree plantations.</p>



	<p>planting using different species. Intensive ecological reconstruction after mining. Directing ecological successions. Distance from intact forests. Wildlife. Ecological surprises. Interventions providing biodiversity and productivity. Managing secondary forests. Agroforestry. Monoculture plantations. Monoculture plantations and buffer strips. Mixed species plantations. Encouragement of understorey development. How many species? Economic incentives for tree planting.</p>	
<p><i>Tenth week:</i></p>	<p>Approaches at the site level (micro-level). Preconditions. Species selection. Advices for planting trees. What it means to restore the forest in its entirety. Interventions for the biodiversity restoration. Passive restoration. Enrichment plantings. Direct seeding. Scattered tree plantings. Close-spaced plantings. Close-spaced planting using different species. Intensive ecological reconstruction after mining. Directing ecological successions. Distance from intact forests. Wildlife. Ecological surprises. Interventions providing biodiversity and productivity. Managing secondary forests. Agroforestry. Monoculture plantations. Monoculture plantations and buffer strips. Mixed species plantations. Encouragement of understorey development. How many species? Economic incentives for tree planting.</p>	<p>Concrete examples and demonstrations of various revitalization cases such as after fires, after heavy storms. Invasive species risk management. Erosion control. Restoration of forests in abandoned lands.</p>



<i>Eleventh week:</i>	Forest landscape revitalization after fires. Revitalization of forests after violent storms. Managing the risk of invasive alien species in restoration. Erosion control. Restoring forests after land abandonment.	Concrete examples and demonstrations of various revitalization cases such as after fires, after heavy storms. Invasive species risk management. Erosion control. Restoration of forests in abandoned lands.
<i>Twelfth week:</i>	Forest landscape revitalization after fires. Revitalization of forests after violent storms. Managing the risk of invasive alien species in restoration. Erosion control. Restoring forests after land abandonment.	Intermediate exam on forest landscape revitalization after fires. Revitalization of forests after violent storms. Managing the risk of invasive alien species in restoration. Erosion control. Restoring forests after land abandonment.
<i>Thirteenth week:</i>	Forest landscape revitalization after fires. Revitalization of forests after violent storms. Managing the risk of invasive alien species in restoration. Erosion control. Restoring forests after land abandonment.	Course assignment on the revitalization of a forest area close to the residential area of each student, highlighting the causes of degradation, degree of degradation and rehabilitation methods.
<i>Fourteenth week:</i>	Forest landscape revitalization after fires. Revitalization of forests after violent storms. Managing the risk of invasive alien species in restoration. Erosion control. Restoring forests after land abandonment.	Course assignment on the revitalization of a forest area close to the residential area of each student, highlighting the causes of degradation, degree of degradation and rehabilitation methods.
<i>Fifteenth week:</i>	Forest landscape revitalization after fires. Revitalization of forests after violent storms. Managing the risk of invasive alien species in restoration. Erosion control. Restoring forests after land abandonment.	Course assignment on the revitalization of a forest area close to the residential area of each student, highlighting the causes of degradation, degree of degradation and rehabilitation methods.
<b>Academic policies and rules of conduct:</b>		
Students are obliged to attend regular lectures, participate in field visits (excursion). Disconnection of mobile phones, timely access to the classroom and keeping quiet in the lesson are also mandatory.		