Table 5.2. Subject/module curriculum on BSc course

Study course: Ecological engineering for soil and water resources protection			
Subject/module: Forest amelioration 2			
Professor/professors: Sara Lukić			
Status of the module/subject: mandatory			
ECTS credits: 5			
Prerequisites: Forest amelioration 1			
Learning objectives The module will introduce students with ameliorative methods to control wind erosion, environmental conditions in degraded habitats on specific parent material such as limestone, serpentinite, peridotite and sands and basics of design in control degradation in degraded habitats and habitats prone to degradation.			
Learning outcomes Training for independent observation, planning and maintenance of biological facilities for control of the degradation process (primarily erosion caused by anthropogenic impact) in degraded habitats to varying extents.			
Module contents *Lectures* *Wind erosion and drought as dominant factors of degradation, assessment of soil losses in wind erosion for designing protective forest belts. Protective forest belts. Protective forest belts for special uses (field shelterbelts, living snow fences, riparian forest belts, protective forest belts for noise control). Protective forest belts as an element of agroforestry practices. Protective forest belts and plantations for erosion control: ilofilters, colmation belts, "forest caps", plantations for the protection of small reservoirs; design and establishment. Ameliorative facilities and works on degraded and/or bare land on karst, serpentinite, peridotite, rocky areas and sandy habitats. Care and maintenance of established plantations of protective forest belts. Agroforestry as a perspective in the improvement of bare land. Preparation of the final paper.* *Practical* *Analysis of the dominant drivers of wind erosion by processing data from digital databases to determine the spatial arrangement of protective forest belts. Preparation and design of field shelterbelts (structure, spatial arrangement, species). Establishing and planting dynamics of field shelterbelts. Preparation and design of living snow fences (structure, spatial distribution, species selection). Care and maintenance of protective forest belts. Design of degradation control facilities on limestone, serpentinite, peridotite. Design of amelioration facilities for binding sands and wind erosion protection.* *The module includes mandatory professional practice.*			
Literature/References Lukić S. (2019): Šumski zaštitni pojasevi – praktikum. Univerzitet u Beogradu Šumarski fakultet Dožić, S., Lujić, R. (2005): Šumske melioracije [Forest amelioration], autorizovana skripta, Univerzitet u Beogradu;			
Contact hours	**Lectures: 3**		**Practical: 3**
Teaching methods Lectures with an introduction to the literature from this discipline. Through practical and exercises, students gain practical knowledge in the design of protective forest belts and ameliorative afforestation methods in areas of degraded habitats, and through the preparation of term papers, they show personal initiative in solving problems in this area.			
Assessment (max 100 points)			
Before exam obligations	points	**Final exam**	points
Activity during lectures	10		
Activity during practical	20	**Oral exam**	40
Tests	20		
Seminary/term paper	10		