

## ECTS catalog with learning outcomes University of Montenegro

## Biotechnical Faculty / NURSERY PRODUCTION / PRODUCTION OF DENDROLOGICAL PLANTING MATERIAL

Course:	PRODUCTION OF DENDE	ROLOGICAL PLANTING	G MATERIAL						
Course ID	Course status	Semester	ECTS credits	<b>Lessons</b> (Lessons+Exer cises+Laboratory)					
12423	Mandatory	3	6	2+1+1					
Programs	NURSERY PRODUCTION	•	-	•					
Prerequisites	does not have								
Aims	To acquaint students with the basics of reproduction and production of dendrological planting material, as well as the characteristics of the most important genera of decorative dendrological plants of conifers, broadleaved trees and evergreen broadleaved trees								
Learning outcomes	After passing the exam, the student will be able to: - recognize the most important ornamental species of trees and shrubs - produce seedlings of trees and shrubs from seeds - apply modern technology of scarification and produce dendrological species by cuttings - chooses adequate methods and care of seedlings - organizes and manages nursery production								
Lecturer / Teaching assistant	Dr Jelena Lazarević								
Methodology	ectures, exercises, seminar work, colloquiums (identification of plant material) and final exam								
Plan and program of work									
Preparing week	Preparation and registration of the semester								
I week lectures	The use and importance of dendrological planting material. Functions of greenery in cities. Dendrological planting material in afforestation and land reclamation								
I week exercises	Forest vegetation in Montenegro, overview of basic types and functions								
II week lectures	Basic types of coniferous trees and shrubs in use in Montenegro								
II week exercises	Morphological characteristics and species recognition								
III week lectures	Basic types of broadleaves trees and shrubs in use in Montenegro								
III week exercises	Morphological characteristics and species recognition								
IV week lectures	Nurseries of dendrological planting material								
IV week exercises	Planning a nursery production of dendro reproductive material (spatial and chronological component, Colloquium I								
V week lectures	Propagation of woody plants. Basic types of reproduction. Generative reproduction. Fruiting of woody species; collection and storage of seeds. Origin of seeds.								
V week exercises	Testing the quality of seeds of woody species, parameters.								
VI week lectures	Seed dormancy of woody and shrub species (with examples) and procedures for overcoming dormancy. Seed treatment before sowing. Sowing seeds.								
VI week exercises	Overcoming dormancy, seed treatment before sowing, practical examples.								
VII week lectures	Vegetative propagation of woody species. Significance; Division of vegetative propagation.								
VII week exercises	Examples of vegetative propagation of shrub species								
VIII week lectures	Sowing seeds, work in the seedbed in the first year after sowing. Care of cuttings in the first year. Production and schooling of shruby plantlets.								
VIII week exercises	Field tour of ornamental plant nurseries								
IX week lectures	Production and training/care of tree seedlings (basic principles).								
IX week exercises	Production of row seedlings, examples, Colloquium II								
X week lectures	Propagation of conifers. Generative propagation of conifers and production of conifer seedlings (according to species)								
X week exercises	Coniferous Forest Nurseries. Principles of forest seed selection								
XI week lectures	Propagation of conifers. Vegetative propagation of conifers and production of seedlings (by species).								
XI week exercises	Vegetative propagation of thuja								
XII week lectures	Propagation of deciduou	is trees. Generative	propagation of deciduous tre	ees and production of					



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		deciduous seedlings (according to species)							
XII week exe	ercises	Use of hardwoods on green areas, examples							
XIII week led	ctures	Propagation of deciduous trees. Vegetative reproduction of deciduous trees							
XIII week ex	ercises	Conditions, objects and substrates							
XIV week le	ctures	Basic	principles of the est	tablishment of plantations of woody plants in urban areas.					
XIV week ex	cercises	Maintenance and care of conifers. II colloquium							
XV week led	tures	Market of dendrological planting material.							
XV week ex	ercises	Visit of the dendrological planting material sales center							
Student we	orkload	Weekly: 6 credits $\times$ 40/30= 8 hours Structure: 2 hours of lectures; 1 hour of exercises; 1 hour laboratory 4 hours independent student work, including consultations; During the semester Classe and final exam: 8 hours $\times$ 16 Sunday = 128 hours Necessary preparations before the beginning of semester (administration, registration, certification) 2 $\times$ 8 = 4 p.m.; Total workload for the course: 30 = 180 hours Additional work for exam preparation in the remedial course the deadline, including passing the remedial exam, from 0 to 36 hours; Load structure: 128 hours (teaching), 16 hours (preparation) and 36 hours (additional work)							
Per week			Per semester						
6 credits x 40/30=8 hours and 0 minuts 2 sat(a) theoretical classes 1 sat(a) practical classes 1 excercises 4 hour(s) i 0 minuts of independent work, including consultations			Classes and final exam:  8 hour(s) i 0 minuts x 16 =128 hour(s) i 0 minuts  Necessary preparation before the beginning of the semester (administration, registration, certification):  8 hour(s) i 0 minuts x 2 =16 hour(s) i 0 minuts  Total workload for the subject: 6 x 30=180 hour(s)  Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item)  36 hour(s) i 0 minuts  Workload structure: 128 hour(s) i 0 minuts (cources), 16 hour(s) i 0 minuts (preparation), 36 hour(s) i 0 minuts (additional work)						
Student obligations				Students are required to attend classes and exercises					
Consultations			Wednesday; 4-5 pm (after class, classroom)						
Literature			L iterature: Radulović M.2011: Production of dendrological planting material, script, Stilinović S., 1986: Production of planting material of forest and ornamental trees and shrubs, University of Belgrade, Faculty of Forestry Stilinović S. 1988. Seed production of forest and ornamental trees and shrubs, University of Belgrade, Faculty of Forestry						
Examination methods			Forms of knowledge testing and assessment: - Seminar work: 10 points - Colloquium: (2 x 20) 40 points - Final exam: 50 points Grades and points: A ( $\geq$ 90 to 100 points); B ( $\geq$ 80 to < 90); C ( $\geq$ 70 to < 80); D ( $\geq$ 60 to < 70); E ( $\geq$ 50 to < 60) F < of 50						
Special rer	marks								
Comment									
Grade:	F		Е	D	С	В	А		
Number of points	less than 50 points		greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points		