Studying course: Forestry and Natural Resources Management

Subject: Climate adaptive forest establishment

Professor/professors: Vladan Ivetić, Jovana Devetaković

Status of the subject: Elective

ECTS: 5

Condition: -

Goal of the subject:

The graduate knows and understands:

- the methods and techniques of forest establishment, with particular emphasis on afforestation, reforestation and forest restoration on the principles of forest sustainability and productivity,
- the methods and techniques of maintaining the necessary level of genetic diversity (on species, population, and individual level) in new forests, including the basics of evolution, adaptation, and migration dynamics of trees,
- the principles of forest reproductive material (at species, provenances, family, and individual level) to planting site matching according to the predicted future environment conditions,
- the history and importance of planted forests, with particular emphasis on role of planted forests in sustainable development from ecological and socio-economic aspects.

Result of the subject:

The graduate is able to prepare a plan of establishment of new forest according to the management goals and current and predicted environment conditions, as a part of afforestation, reforestation, and forest restoration programs.

Content of the subject

Theoretical part:

Definitions – The Frame

A requirements and needs for forest establishment – The stage

Climate change – The challenge

Range, space, and time vs. evolution, adaptation, and migration – The race

Long term strategies – Theoretical and practical actions

Short term tactics – Field actions

Measuring success and/or facing the failure – Taking responsibility

Practical part:

References:

Ivetić V. 2019. Forest establishment [on Serbian with summary for each section and all tables and figures, as well as their captions on English] University of Belgrade – Faculty of Forestry. 358 p. Siyag PR. 1998. Afforestation, Reforestation and Forest Restoration in Arid and Semi-arid Tropics. Springer-Verlag. 400 p.

Fournier MV. 2009. Forest Regeneration: Ecology, Management and Economics. Nova Science.198p.

Ivetić V, & Devetaković J. 2016. Reforestation challenges in Southeast Europe facing climate change. Reforesta 1, Pp. 178-220.

Number of active teaching	Theoretical part of	Practical part of tanchings /
lessons:	teaching:	Practical part of teaching: /

Teaching methods:

Lectures and seminars.

Knowledge	evaluation	(max 10	00 points)

Before exam obligations:	points	Final examination:	points
Activity during lectures	10		
Activity during practicals		Oral exam	60
Writing test			
Seminary	30		