Studying course: Forestry and Natural Resources Management

Subject: Conservation of forest genetic resources

Professor/professors: Dr. Mirjana Šijačić-Nikolić, full prof. and Dr. Marina Nonić, assis. prof.

Status of the subject: Elective (izborni)

ECTS number: 5

Condition: -

Goal of the subject:
Gaining knowledge about the importance and methods of conservation and directed utilization of forest genetic resources.

Result of the subject:
Acquired knowledge in the field of conservation and directed use of forest genetic resources.

Content of the subject

Theoretical part:

1. Biological diversity: Definition; Threats to biodiversity (2)
2. Genetic diversity: Importance of genetic diversity; Sources of genetic diversity; Genetic diversity determination; Threats to genetic diversity (2)
3. Forest genetic resources: Definition; Forest Genetic Resources Conservation Methods (2)
4. State of forest genetic resources conservation in Europe (2)
5. *In situ* conservation case studies (2)
6. *Ex situ* conservation case studies (2)
7. Linking Forest Genetic Resources with People (1)
8. Climate change aspects in forest genetic resources conservation (2)

Practical part:

1. Biological diversity and genetic diversity: Sources, Threats, and Conservation (2)
2. Forest genetic resources: Definition; Forest Genetic Resources Conservation Methods (2)
3. *In situ* and e*x situ* conservation case studies (2)
4. Writing the seminar paper about conservation of the gene pool of rare and endangered species - an introduction (2)
5. The selection of areas for the conservation of the gene pool of rare and endangered species (2)
6. Writing a proposal for a program of conservation and directed utilization of specific species - independent student work (3)
7. Oral defense of seminar paper (2)

References:

1. Šijačić-Nikolić, M., Milovanović, J., Nonić, M. (2014): ***Conservation of Forest Genetic Resources***. In: Ahuja M.R., Ramawat K.G. (eds.) "Biotechnology and Biodiversity" (Series: *Sustainable Development and Biodiversity*, Vol. 4). Springer: 103-129
2. Šijačić-Nikolić, M., Milovanović, J., Nonić, M. (2018): ***Forests of Southeast Europe Under a Changing Climate: Conservation of Genetic Resources***. eBook ISBN 978-3-319-95267-3; Hardcover ISBN 978-3-319-95266-6; DOI 10.1007/978-3-319-95267-3; Springer International Publishing: 486 pages
3. Šijačić-Nikolić M. and Nonić M. (2019): ***Biological Diversity: Global Threats***. In: Encyclopedia of the UN Sustainable Development Goals, Walter Leal Filho et al. (Eds): Life on Land (*in press*)
4. Nonić M. and Šijačić-Nikolić M. (2019): ***Genetic Diversity: Sources, Threats, and Conservation***. In: Encyclopedia of the UN Sustainable Development Goals, Walter Leal Filho et al. (Eds): Life on Land (*in press*)
5. Šijačić-Nikolić M. and Milovanović J. (2019): ***Conservation of Plant Species***. In: Encyclopedia of the UN Sustainable Development Goals, Walter Leal Filho et al. (Eds): Life on Land (*in press*)

Number of active teaching lessons: 60 (30+30) = 2+2	**Theoretical part of teaching: 2 (15)**	**Practical part of teaching: 2 (15)**

Methods of giving lectures:
During the lectures and practical classes, modern visual teaching tools are used to present the past and current activities on the conservation and directed utilization of forest genetic resources, both *in situ* and *ex situ*. During the practical classes, students work on a seminar paper.

Knowledge evaluation (max 100 points)

Before exam obligations:	points	**Final exam:**	points
activity during lectures		written exam	
practical teaching	**10**	oral exam	**60**
colloquium(s)		.....	
seminar(s)	**30**		