

FORESTRY (IIIrd Year of study, Vrd Semester)

Nr. transferable credits: 4

Course category

Domain (Imposed)

Discipline holder:

Lecturer PhD. SANDU TATIANA

The objectives of the discipline (course and applications):

The courses and practical works have the following main objectives:

- learning the basics of forest and forest ecosystems;
- knowledge and use of the notions of the production of forest planting material;
- knowledge and proper use of the notions related to the effects of forestry works in the forest life;
- explanation of aspects related to the cultivation technologies of forest species;
- knowledge and the proper use of the notions related to the composition of the forest formations and the processes within the forest ecosystems.

Content of the discipline

COURSE (Chapters / Subchapters)
Head. 1. Generalities concerning Silviculture. Definition. The purpose, purpose and method of research. Interdisciplinarity. The contribution of Romanian and foreign scientists to the development of the discipline.
Head. 2. Their forests and zoning. The importance of the forest. Zoning forests around the globe. The evolution of forests on the Glob. The evolution of forests in Romania. The phenomenon of succession in the evolution of forests.
Head. 3. The current situation of forest in the world and our country. Distribution of forest areas in the world. Distribution of forest areas in our country. Zoning of forest vegetation in Romania. The evolution of the forest structure in Romania. Institutional framework in the forestry sector. Forestry Strategy of the European Union.
Head. 4. Constitution and organization of the forest. Forest biosystem. The vegetation floors in the forest.
Head. 5. Ecological factors in the forest life. Climatic factors in forest life. The soil in the forest life.
Head. 6. Farming. Theoretical basis. The planning principles. Territorial-administrative organization of forests. Functional zoning of forests in our country. Establishing the functions of forests in our country. Structure of the production fund.
Head. 7. The forest nursery. Establishment and organization of forest nursery. Land choice for forest nursery. Organization of the forest nursery territory. Preparing the land in the forest nursery. Sowing. Sowing schemes. Supply of seeds and cuttings, storage, preservation and stratification of seeds. Vegetative propagation in forest species. Works for crown formation in trees and shrubs in the nursery.
Head. 8. Production of seeds in the main forest species. Culture of the main resin species: <i>Abies alba</i> , <i>Picea abies</i> , <i>Larix decidua</i> , <i>Pinus silvestris</i> , <i>Pinus nigra</i> , <i>P. strobus</i> , <i>P. cembra</i> , <i>P. ponderosa</i> . <i>Pseudotsuga menziesii</i> , <i>P. glauca</i> , <i>Taxus baccata</i> , <i>Taxodium distichum</i> , <i>Abies nordmanniana</i> , <i>Chamaecyparis lawsoniana</i> , <i>Juniperus virginiana</i> , <i>Thuja plicata</i> .

Christmas tree culture. The culture of the main deciduous species. Oaks culture. Beech culture. Acerine culture. Ash culture. Carp culture. Edible chestnut culture. Acacia culture. The bucket culture. Lime culture. Elm culture. Culture of the Anineas. Cherry culture. The culture of the forest apple. Sorb culture. The culture of walnuts. Poplar culture. Willow culture.
Head. 9. Harvesting and capitalizing on forest by-products. Forestry accessories used in the food industry or for direct consumption. Forestry accessories for the pharmaceutical and cosmetics industries. Forestry accessories for the chemical industry. Raw materials for handicrafts, ornaments, household and fodder.
Practical work
Classification of forest woody plants. Vegetative and reproductive organs. Recognition of forest species from the range. Gymnospermae (families: Taxaceae, Ginkgoaceae, Pinaceae).
Recognition of forest species from the range. Angyospermae (family Betulaceae and family Fagaceae).
Recognition of forest species from the range. Angyospermae (families Salicaceae, Ulmaceae and Platanaceae).
Calendar of works in the forest nursery.
Zone units of forest vegetation. Forest eradication schemes.
Planting of forest species. Vegetative propagation in forest species. Practical application.
Repetition of forest species. Planting and transplanting of trees and shrubs.

Bibliography

1. Florescu Gh., 1999 - *Forests. Forest Nurseries*, Univ. "Transylvania", Brasov.
2. Sandu, Tatiana, 2008 - *Forestry - course*, PIM Publishing House, Iași,
3. Sandu, Tatiana, 2009 - *Ornamental Arboriculture*, "Ion Ionescu by Brad" Publishing House Iasi.
4. Sandu Tatiana, Vlahidis V., 2016 - *Dendrological nursery*, "Ion Ionescu by Brad" Publishing House, Iași.

Final evaluation

Forms of evaluation	Methods of evaluation	Percentage of final grade
Written exam	Acquiring knowledge presented at lectures and in the supplementary bibliography	60%
	Presence monitoring	20%
Practical work	Individual study	20%

Contact

Lecturer PhD. SANDU Tatiana

Faculty of Horticulture - IULS Iași

3, Mihail Sadoveanu Alley, Iași, 700490, Romania

E-mail: tatiana_sandu69@yahoo.com;

tatiana_sandu@uaiasi.ro