Faculty of Environmental Protection
Department of Forestry and Forestry Engineering

Subjects and references for ASSOCIATE PROFESSOR, position 5 in the Staff Establishment of the Department of Forestry and Forestry Engineering

Position: Dendrology I, II; Wooden Structures
Published in the Official Gazette no. 1400 from 26.11.2019. part III

Subjects: Dendrology I, II - Course

1. Clade Gymnospermae

1.1 Class Cycadopsida. Order Ginkgoales. *Family Ginkgoaceae*

1.2 Class Coniferopsida. Order Coniferales. *Family Pinaceae, Family Taxodiaceae, Family Cupressaceae*

1.3 Class Taxopsida. Order Taxales. *Family Taxaceae*

2**. Clade Angyospermae**

2.1 Class Dicotyledoneae. Order Fagales. *Family Betulaceae, Family Fagaceae*

2.2 Class Dicotyledoneae. Order Juglandales. *Family Juglandaceae*

2.3 Class Dicotyledoneae. Order Salicales, *Family Salicaceae*

2.4 Class Dicotyledoneae. Order Urticales. *Family Moraceae, Family Ulmaceae*

2.5 Class Dicotyledoneae. Order Santalales. *Family Loranthaceae*

2.6 Class Dicotyledoneae. Order Tricoccae. *Family Buxaceae*

2.7 Class Dicotyledoneae. Order Ranales. *Family Magnoliaceae, Family Ranunculaceae, Family Berberidaceae*

2.8 Class Dicotyledoneae. Order Rosales, *Family Saxifragaceae, Family Platanaceae, Family Rosaceae*

2.9 Class Dicotyledoneae. Order Fabales, *Family Leguminosae*

2.10 Class Dicotyledoneae. Order Rutales, *Family Rutaceae, Family Simaroubaceae*

2.11 Class Dicotyledoneae. Order Sapindales, *Family Anacardiaceae, Family Sapindaceae, Family Aceraceae, Family Hippocastanaceae, Family Aquifoliaceae*

2.12 Class Dicotyledoneae. Order Celastrales, *Family Staphyleaceae*

2.13 Class Dicotyledoneae. Order Rhamnales, *Family Rhamnaceae*

2.14 Class Dicotyledoneae. Order Malvales, *Family Tiliaceae, Family Malvaceae*

2.15 Class Dicotyledoneae. Order Thymelaeales, *Family Thymelaeaceae*

2.16 Class Dicotyledoneae. Order Umbelliflorae, *Family Cornaceae*

2.17 Class Dicotyledoneae. Order Ligustrales, *Family Oleaceae*

2.18 Class Dicotyledoneae. Order Rubiales, *Family Caprifoliaceae*

2.19 Class Monocotyledoneae. Order Liliales, *Family Liliaceae*

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13. **Şofletea N., Curtu L., 2007** - Dendrology, "Transilvania" University Publishing House, Braşov.
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15. **Vlad I., Petrescu L., 1977** - Spruce culture in Romania, Ceres Publishing House, Bucureşti.

Subjects: Dendrology II - Practical activities

1. **Clade Angiospermae**

1.1 Specific characters for the recognition of the species of the genus: *Quercus*

1.2 Specific characters for the recognition of the species of the genus: *Juglans, Carya, Pterocarya*

1.3 Specific characters for the recognition of the species of the genus: *Populus, Salix, Morus, Ulmus, Celtis, Viscum, Loranthus, Buxus*

1.4 Specific characters for the recognition of the species of the genus: *Magnolia, Liriodendron, Clematis, Berberis, Mahonia, Philadelphus, Deutzia, Ribes, Liquidambar, Platanus, Spiraea, Rubus, Rosa*

1.5 Specific characters for the recognition of the species of the genus: *Malus, Pyrus, Sorbus, Crataegus, Mespilus, Prunus*

1.6 Specific characters for the recognition of the species of the genus: *Cercis, Gleditsia, Sophora, Genista, Laburnum, Cytisus, Amorpha, Wisteria, Robinia, Colutea, Caragana*

1.7 Specific characters for the recognition of the species of the genus: *Ptelea, Ailanthus, Cotinus, Rhus, Koelreuteria.*

1.8 Specific characters for the recognition of the species of the genus: *Acer, Aesculus, Ilex, Euonymus, Staphylea, Frangula, Paliurus, Vitis, Parthenocissus*

1.9 Specific characters for the recognition of the species of the genus: *Tilia, Hibyscus, Daphne, Elaeagnus, Hippophae, Tamarix, Cornus, Hedera, Rhododendron, Vaccinium, Paulownia, Catalpa*

1.10 Specific characters for the recognition of the species of the genus: *Fraxinus, Syringa, Ligustrum, Forsythia, Sambucus, Viburnum, Lonicera, Ruscus.*

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Subjects: Wooden Structures - Course

1. Wooden structures
2. Joints for furniture and industrial wood products
3. Joints without accessories, joints with accessories
4. Door and window joints
5. Joints for wooden stairs
6. Joints used when making model gaskets in foundries
7. Glued joints, the bases of glued joints
8. The joints of the elements of the wooden constructions: classification
9. Joints with prismatic wooden feathers
10. Joints with metal feathers or special construction
11. Joints with nails and bolts
12. Joints glued to wooden constructions
13. Design principles and technologies of wood joints
14. Modern joinst in wooden constructions

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3. **Curtu I., Roșca C., 1993**-Rheology of wood, Publishing House of Transilvania University Brașov.
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6. **Curtu I., Ghelmeziu N., 1984**-Mechanics of wood and wood-based materials, Technical Publishing House, Bucureşti.
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Subjects: Wooden Structures - Practical activities

1. Mechanical characteristics of the materials
2. The basic hypothesis in the theory of elasticity and strength of materials
3. Calculation of undetermined static structures
4. Establishing the degree of static indeterminacy
5. The strain and flexural effort of an element
6. Transforming unknown efforts into bar efforts
7. Stability of structures
8. Criteria for assessing the quality of wood joints
9. The strength and rigidity of fixed or demountable joints
10. Tensile strength, shear, bending and torsion
11. Resistance of joints in teeth
12. Rigidity of different types of joints
13. Measurement of rigidity at T-joints

14. Sustainability tests

References:

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2. **Curtu I., Ghelmeziu N., 1984**-Mechanics of wood and wood-based materials, Technical Publishing House, Bucureşti.
3. **Curtu I., Nastase V. et al., 1988**-Wood joints (structure, technology, reliability), Technical Publishing House, Bucureşti.
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19. ●●● SR EN 335/1,2-1997-" Durability of wood and wood-derived materials. Definition of risk classes of biological attack"
20. ●●● SR EN 336-"Wood construction. Softwoods and poplar. Allowable dimensions and deviations "

Head of Forestry and Forestry Engineering Department
Prof. univ. dr. ing. Vlad Ioan