

POMOLOGY

(Specialization Landscape Architecture 3rd Year of study, 1st Semester)

Credits (ECTS): 3

Course category: Specialized discipline (mandatory)

Course holder: Lecturer Cristina ZLATI, PhD

Objectives of the discipline:

Knowledge of the biological, ecological and technological particularities of fruit trees and shrubs, for the foundation of culture technologies; the technology for the production of tree planting material. The study of the particularities of growth and fruiting of different species and groups of varieties, for the establishment of differentiated technologies.

Contents (syllabus)

Course (chapters/subchapters)
1. Introductory notions:
1.1. Definitions, Terminology, Taxonomy
1.2. Introduction in fruit growing
2. The biological bases of modern fruit growing
2.1. Fruit trees life cycle
2.2. Alternation of bearing
3. Ecology of fruit trees and shrubs
4. Production of certified tree planting material
5. Establishment and maintenance of fruit plantations
5.1. Establishment of fruit plantations
5.2. Maintenance of fruit plantations
6. Apple culture technology
6.1. Importance, origin and spread area
6.2. Biological and ecological characteristics
6.3. Technological characteristics
7. Pear and quince culture technology
7.1. Importance, origin and spread area
7.2. Biological and ecological characteristics
7.3. Technological characteristics
8. Plum culture technology
8.1. Importance, origin and spread area
8.2. Biological and ecological characteristics
8.3. Technological characteristics
9. Sweet and sour culture technology
9.1. Importance, origin and spread area
9.2. Biological and ecological characteristics
9.3. Technological characteristics
10. Apricot and peach culture technology
10.1. Importance, origin and spread area
10.2. Biological and ecological characteristics
10.3. Technological characteristics
11. Walnut and hazelnut culture technology

11.1. Importance, origin and spread area
11.2. Biological and ecological characteristics
11.3. Technological characteristics
12. Strawberry culture technology
12.1. Importance, origin and spread area
12.2. Biological and ecological characteristics
12.3. Technological characteristics
13. Blackcurrant, blueberry, raspberry and blackberry culture technology
13.1. Importance, origin and spread area
13.2. Biological and ecological characteristics
13.3. Technological characteristics
14. Elements regarding culture technology of elderberry, sea buckthorn, ziziphus, aronia, dog rose and Rosa Damascene mulberry
14.1. Importance, origin and spread area
14.2. Biological and ecological characteristics
14.3. Technological characteristics

Practical activity
Fruiting branches in pomaceae
Fruiting branches in drupaceae
Fruiting branches in nut trees
Fruiting branches in shrubs
Grafting as a method of trees propagation
Trees plantation
The formation of globular crowns with and without a central axis
The formation of flattened and artistic - palisade crowns
Principles regarding prunings in fruit trees
The main varieties of apple, pear and quince
The main varieties of sweet and sour cherry, apricot, plum, peach
The main varieties of walnut, hazelnut, chestnut
The main varieties and biotypes of strawberry, currant, raspberry and blackberry
The main varieties and biotypes of blueberry, gooseberry, sea buckthorn, cornelian cherry, dog rose, sweet rose, elderberry and aronia

Bibliography

1. *Cepoiu N., 1994*- Înființarea unei plantații pomicole, Ed. Ceres, București.
2. *Botez M., Bădescu G., Botar A., 1984*- Cultura pomilor și arbuștilor fructiferi, Ed. Ceres, București.
3. *V., Caimacan I., 2001* – Soiuri de măr. Intreprinderea Editorial Poligrafică Știința Chișinău.
4. *Cimpoieș Gh., 2000* – Conducerea și tăierea pomilor. Intreprinderea Editorial Poligrafică Știința Chișinău.
5. *Cimpoieș Gh., 2002* – Pomicultura specială. Editura Colograf-Com, Chișinău.
6. *Ghena N., Braniște N., 2003* – Cultura specială a pomilor. Editura Matrix Rom, București.
7. *Grădinaru G., 2002*- Pomicultură specială. Ed."Ion Ionescu de la Brad" Iași.
8. *Grădinaru G., Istrate M., 2003*- Pomicultură generală și specială, Ed. Moldova.
9. *Mitre V., 2007* – Pomologie. Editura Todesco, Cluj-Napoca.
10. *Mladin Gh., Mladin Paula, 1992*- Cultura arbuștilor fructiferi pe spații restrânse, Ed. Ceres, București.
11. *Popescu M. și colab., - Pomicultură generală și specială*, Ed. Didactică și Pedagogică, București, 1992.
12. *Zlati Cristina, Grădinaru G., 2010* – Pomologie, Ed. Moldova, Iași.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
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Final exam	Written / oral examination	60 %
Evaluation of the activity during the semester	Written and oral assessments during the semester	40 %

Contact

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VITICULTURE

(Specialization Landscaping 3rd Year of study, 2nd Semester)

Credits (ECTS): 3

Course category: Domain-specific discipline (mandatory)

Course holder: Assoc. Prof. Mihai MUSREA, PhD

Objectives of the discipline:

Knowledge of the biological peculiarities of the vine, the establishment and maintenance of vine plantations cultivated for landscape purposes.

Contents (syllabus)

Course (chapters/subchapters)
1. Introduction: definition and content; the history of vine culture, the situation of viticulture around the world and in Romania.
2. Morphology and anatomy of the vine.
3. The ecology of the vine: the influence of climatic factors, edaphic factors, secondary biotope factors.
4. Biology of the vine: the ontogenetic biological cycle, the annual biological cycle.
5. Establishing fruitful vine plantations: choosing and preparing the land for planting, choosing fruitful and rootstock varieties, planting vines.
6. Maintenance of young plantations of fruitful vines: the choice and design of support systems, the cuttings of vine formation.
7. Maintenance of fruitful vine plantations: vine pruning, soil maintenance systems, green works and operations, fertilization and irrigation, grape harvesting.

Practical activity
1. Recognition of the woody elements of the vine
2. Morphology and anatomy of buds. Determination of bud viability
3. Planting vines
4. Training cuts on the vine
5. Fruiting cuttings of the vine
6. Management of the vine on means of support
7. The agrotechnical works applied in the plantations of fruitful vines
8. The works and operations in the green of the fruitful vines
9. Fertilization of fruit vine plantations

Bibliography

1. Dejeu L., 2010 Viticulture, Ceres Publishing House, Bucharest.
2. Dobrei A., Rotaru Liliana, Dobrei Alina, 2017 – Viticulture, Ampelography, Oenology. Solness Publishing House, Timisoara.
3. Mustea M., 2004 – Viticulture, biological bases, establishment and maintenance of young plantations of fruitful vines. "Ion Ionescu de la Brad" publishing house, Iasi.
4. Mustea M., 2022 – Viticulture. Vine culture technology. "Ion Ionescu de la Brad" publishing house, Iasi.
5. Oprea St., 2001 – Viticulture. Academicpress Publishing House, Cluj-Napoca.

6. Pop Nastasia, 2010 – General viticulture, Eikon Publishing House, Cluj-Napoca.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Final exam	Written examination	70
Evaluation of the activity during the semester	Written and oral assessments during the semester	30

Contact

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