

## **Pomology (HORTICULTURE, IV<sup>TH</sup> YEAR, VII<sup>TH</sup> SEMESTER)**

**Credit value (ECTS): 6**

**Course category:**

**Specialized discipline (mandatory)**

**Course holder:**

**Professor PhD. ISTRATE MIHAI**

### **Discipline objectives (course and practical works)**

The study of the particularities of growth and fruition of the different species and groups of varieties, for the establishment of differentiated technologies of culture. Modernization of specific technologies and varieties of fruit trees and shrubs.

Knowledge of the importance, origin and area of spread as well as the ecological requirements for the proper zoning of the apple species.

Study of the biological and technological particularities of each apple species, to establish the differentiated technologies by species and groups of varieties.

### **Contents (syllabus)**

<b>Course</b>
<b>Introductory notions</b>
Diversity and potential for use of fruit tree species
Objectives and parameters for the fruit tree species breeding
<b>Research methods used in fruit growing</b>
The role of differentiated ecology, biology and technology in fruit production and quality
Scion-rootstock association and differentiated agro-technology
<b>Apple culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Pear culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Quince, medlar and mountain ash culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Plum culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics.
<b>Sweet cherry culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Sour cherry culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Apricot culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Peach culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics

<b>Practical works</b>
<b>Pomological characters used in determining pomaceae species varieties.</b>
<b>Study and recognition of summer and autumn apple varieties.</b>
<b>Study and recognition of winter apple varieties.</b>

<b>Study and recognition of pear varieties.</b>
<b>Studying and recognizing varieties of quince.</b>
<b>Pomological characters used in determining the drupaceae species varieties.</b>
<b>Study and recognition of plum varieties.</b>
<b>Study and recognition of sweet cherry varieties.</b>
<b>Study and recognition of sour cherry varieties.</b>
<b>Study and recognition of apricot varieties.</b>
<b>Study and recognition of peach varieties.</b>
<b>Study and recognition of varieties of walnut, almond, hazelnut and chestnut.</b>
<b>Study and recognition of strawberry, raspberry and blackberry varieties.</b>
<b>Study and recognition of the varieties of currant, gooseberry and blueberry.</b>
<b>Study and recognition of varieties of small fruit bushes.</b>

### Bibliography

- Cepoiu N., 1994- Înfiin area unei planta ii pomicole, Ed. Ceres, Bucure ti.
- Botez M., B descu G., Botar A., 1984- Cultura pomilor i arbu tilor fructiferi, Ed. Ceres, Bucure ti.
- Cimpoie Gh., Bucarciuc V., Caimacan I., 2001 – *Soiuri de m r.* Intreprinderea Editorial Poligrafic tiin a Chi in u.
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- Gr dinariu G., Istrate M., 2003- *Pomicultur general i special* , Ed. Moldova, Iasi.
- Gr dinariu G., Istrate M., Dasc lu M., 1998- *Pomicultur* , Ed. Moldova, Iasi.
- Mih iescu G., B descu Gh., 1985- *Pomicultura zonelor înalte*, Ed. Ceres, Bucure ti.
- Mitre V., 2007 – *Pomologie.* Editura Todesco, Cluj-Napoca.
- Mladin Gh., Mladin Paula, 1992- *Cultura arbu tilor fructiferi pe spa ii restrânse*, Ed. Ceres, Bucure ti.
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### Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Course	Exam	60%
	Presence	
Practical works	Tests + cours and practical	40%

### Contact

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## **Pomology (HORTICULTURE, IV<sup>TH</sup> YEAR, VIII<sup>TH</sup> SEMESTER)**

**Credit value (ECTS): 4**

**Course category:**

**Specialized discipline (mandatory)**

**Course holder:**

**Professor PhD. ISTRATE MIHAI**

### **Discipline objectives (course and practical works)**

The study of the particularities of growth and fruition of the different species and groups of varieties, for the establishment of differentiated technologies of culture. Modernization of specific technologies and varieties of fruit trees and shrubs.

Knowledge of the importance, origin and area of spread as well as the ecological requirements for the proper zoning of the apple species.

Study of the biological and technological particularities of each apple species, to establish the differentiated technologies by species and groups of varieties.

### **Contents (syllabus)**

<b>Course (chapters/subchapters)</b>
<b>Almond culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Walnut culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Hazelnut culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Chestnut culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Strawberry culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Black currant and gooseberry culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Raspberry and blackberry culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Fig and lemon for the apartment culture:</b> Importance, origin and area of spread; Biological characteristics; Technological characteristics
<b>Elements regarding the culture of sea buckthorn, mulberry, blueberry and other small shrubs</b>

<b>Practical works</b>
<b>Study and recognition of the main apple rootstocks</b>
<b>The technology of differentiated pruning in intensive and superintensive plantations of apple, pear and quince</b>
<b>The technology of differentiated pruning in plum plantations</b>
<b>The technology of differentiated pruning in sweet and sour cherry plantations</b>
<b>The technology of differentiated pruning in apricot and peach plantations</b>
<b>The technology of differentiated pruning in shrubs plantations</b>

<b>Project-Establishment new orchard</b>
How to use the land/Organization of the territory
Premeasurement 1 – Land preparation for planting and Planting plan
Premeasurement 2 - Preparation of the land for planting trees
Premeasurement 3 - Maintenance of the plantation in the first year after planting
Premeasurement 4 - Maintenance of the plantation in the second year after planting
Premeasurement 5 - Maintenance of the plantation in the third year after planting
Centralized estimations for the materials, labor, transport, equipment

### Bibliography

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### Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Course	Exam	60%
	Presence	
Practical works	Tests + cours and practical	40%
Project	Project presentation	100%

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