

## Horticultural Technologies (IVrd Year of study, VIIth Semester)

**Credit value (ECTS) 4**

### Course category

Domain (Imposed)

### Course holder:

Assist. Prof. PhD. Marius Constantin DASCĂLU

### Discipline objectives (course and practical works)

Discipline aims, in theory and practice, to prepare students in the field of fruit trees culture respectively: nursery, establishment and maintenance of orchards for temperate species (Apple, Pear, Quince, Sweet cherry, Sour cherry, Plum, Peach, Apricot, Common hazel, Walnut, Chestnut, Strawberry, Blueberry, Raspberry, Blackberry, Gooseberry, European blueberry, Sea Buckthorn, European cornel, Dog rose, Elderberry, Damask rose).

### Contents (syllabus)

Course (chapters/subchapters)
Definitions, Terminology, classification of the fruit tree species .
Morphology and physiology of the fruit tree species
The life cycle of the fruit tree species
The ecology of fruit trees and shrubs.
Nursery for fruit trees and shrubs.
New orchard establishment.
Maintenance technology for orchards.
Apple tree cultivation
Pear tree cultivation
Sweet and sour tree cultivation
Apricot and Plum tree cultivation
Peach and Almond cultivation
Walnut, Common hazel and chestnut cultivation
Elements regarding on shrubs cultivation.

Practical works
Fructifying branches for apple and pear trees
Fructifying branches for quince tree
Fructifying branches for sweet and sour cherry trees
Fructifying branches for plum and apricot trees
Fructifying branches for peach and almond trees
Fructifying branches for walnut, common hazel and chestnut trees
Fructifying branches for shrubs
Crown shapes – globular with central spindle and without central spindle.

Crown shapes – flattened with central spindle and small volume
Grafting systems – grafting with detached buds and branches
Main apple varieties
Main pear varieties
Main sweet and sour cherry varieties
Main plum and apricot varieties
Main peach and almond varieties
Main walnut, common hazel and chestnut varieties
Main shrubs varieties.

### Bibliography

1. Ceapoiu N., - *Înființarea unei plantații pomicole*, Ed. Ceres, București, 1994.
2. Ceapoiu N. și colab., - *Curs de pomicultură biologică*, U.S.A.M.V. București, 1996.
3. Cireașă V., - *Pomicultură generală*, curs lito., Uai, 1995.
4. Cireașă V., Drobotă Gh., Drobotă Mari - Ann., - *Pomicultură generală* - Îndrumător de lucrări practice, lito U.A.I., 1990.
5. Grădinariu G., Istrate M., **Dascălu M.**, 1998- *Pomicultură*, Ed. Moldova.
6. Grădinariu, G. (2002) – *Pomicultură specială*. Editura „Ion Ionescu de la Brad”, Iași.
7. Istrate M., 2007 - *Pomicultură generală*. Editura „Ion Ionescu de la Brad”, Iași.

### Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Oral examination	60%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	40%

### Contact

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## Horticultural technologies – Floriculture (IV<sup>th</sup> Year, VIII<sup>th</sup> Semester)

Credit value (ECTS) 2

### Course category

Domain (Imposed)

### Course holder:

Assoc. Prof. PhD Elena Liliana CHELARIU

### Discipline objectives (course and practical works)

The aim of the course is students' achievement of theoretical knowledge regarding the main floral species, biology and ecology of floral plants, producing of floral seedling material, utilisation modalities of floral plants, capitalization of flowers and floral products.

At practical works the aim is to develop the students' ability to produce floral seedling material, to know the utilisation modalities of floral plants, capitalization of flowers and floral products, as well as characterization of the main floral species.

### Contents (syllabus)

Course (chapters/subchapters)
<b>General notions.</b>
<b>Classification of floral species after:</b> origin place, biological cycle, cropping area, morphological characters and decorative features, utilisation way and placement in decorative assembly.
<b>Relation of floral plants with environment factors:</b> light, temperature, moisture, air, soil / cropping substrate.
<b>Producing of floral seedling material:</b> floral plants' multiplication on sexual way, vegetative and "in vitro".
<b>Establishment and maintenance of floral crops</b> in field and protected spaces.
<b>Biology, ecology, cropping technology and capitalization way of the main floral species cultivated in unprotected fields and in protected spaces.</b>

Practical works
<b>Presentation of didactic collection</b> (field, glasshouse and solariums). Constructions and materials utilised in cropping technologies for flowers.
<b>Producing technology of floral seedling material:</b> multiplication by seed, vegetative multiplication.
<b>Characterization of the main floral species cultivated in unprotected fields.</b>
<b>Characterization of the main floral species cultivated in protected spaces.</b>

### References

1. Cantor Maria, Pop Ioana – *Floricultură*. Baza de date. Editura Todesco, Cluj Napoca, 2008.
2. Cantor Maria, Buta Erzsebet – *Artă florală*. Editura Todesco, Cluj Napoca, 2010.
3. Draghia Lucia, **Chelariu Elena-Liliana** – *Floricultură - îndrumător de lucrări practice*. Editura "Ion Ionescu de la Brad", Iași, 2001.
4. Draghia Lucia, **Chelariu Elena-Liliana** – *Floricultură*. Editura "Ion Ionescu de la Brad",

- Iași, 2011.
5. **Chelariu Elena-Liliana** – *Floricultură – plante de apartament*. Editura “Ion Ionescu de la Brad”, Iași, 2015.
  6. Șelaru Elena – *Cultura florilor de grădină*. Editura Ceres, București, 2008.
  7. Toma Fl. – *Floricultură și Artă florală, vol. I*. Ed. INVEL – Multimedia, București, 2009.

### Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Examination	Written evaluation	70%
Appreciation of activity during semester	Oral evaluation during semester, recognition of multiplication material for floral plants, cuttings making for floral plants, identification of main floral species	30%

### Contact

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