

FLORICULTURE

(Specialization *Landscaping* 3rd Year of study, 1st Semester)

Credits (ECTS): 5

Course category: Domain-specific discipline (D), mandatory

Course holder: Prof. Lucia DRAGHIA, PhD

Objectives of the discipline:

- acquiring the notions for the classification and morphological description of flower plants;
- knowledge of the ecological requirements of flower plants;
- the ability to choose the best method to ensure the quality of propagative material in the floriculture sector;
- acquiring the principles and notions about growing techniques for established and maintenance of flower crops;
- knowledge of the way of harvesting, postharvest management and valorization of the flower products.

Contents (syllabus)

Course (chapters/subchapters)
1. Definition, object of study, importance and history of floriculture.
2. Classification of flower plants. 2.1. Botanical systematics. 2.2. Origin. 2.3. Life cycle. 2.4. Place of growing. 2.5. Morphological and ornamental characters. 2.6. Ways of use and inclusion in the decorative ensemble.
3. Relationship with environmental factors. 3.1. Light. 3.2. Water. 3.3. Temperature. 3.4. Air. 3.5. Soil, substratum, nutrients.
4. Constructions for growing flowering plants. 4.1. Greenhouses. 4.2. Crop tunnels. 4.3. Hotbeds
5. Propagation of flowers plants. 5.1. Seed propagation. 5.2. Vegetative propagation. 5.3. Production of seeds and vegetative material (general notions).
6. Establishment and maintenance of flower crops (in the field and in protected conditions). 6.1. Establishment (garden flowers, cut flowers, potted flowers). 6.2. Maintenance (in garden, in greenhouse, in pots).
7. Harvesting, postharvest management and valorization of flower products.

Practical activity
1. Presentation of the didactic collection (outdoors and indoor). Constructions and materials used in floriculture technology.
2. Preparation of flower plants for winter (hemicryptophytes and rustic geophytes); harvesting and storage of underground organs (semi-rustic geophytes).
3. Establishment of field crops (in autumn).
4. Establishment of crops in protected areas.
5. Biological and morphological features of propagative floriculture materials (seeds / fruits and underground organs)
6. Technique for seed propagation.
7. Technique for vegetative propagation.
8. <i>In vitro</i> propagation (general notions).

Bibliography

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2. Buta Erzsebet, Cantor Maria, 2009 – *Floricultură. Îndrumător de lucrări practice*. Editura Todesco, Cluj Napoca
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4. Cantor Maria, 2015 – *Floricultura generală*. Manual didactic. Editura Academic Pres, Cluj-Napoca.
5. Draghia Lucia, Chelariu Elena-Liliana, 2001 – *Floricultură. Îndrumător de lucrări practice*. Ed. Ion Ionescu de la Brad, Iași.
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9. Preda M., 1979 – *Floricultură*. Editura Ceres, București.
10. Șelaru Elena, 2008 – *Cultura florilor de grădină*. Editura Ceres, București.
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12. Toma Fl., 2009 – *Floricultură și Artă florală*, vol. I-IV. Ed. INVEL – Multimedia, București
13. Toma Fl., Petra Sorina, 2020 – *Floricultură și compoziții floricole*. Editura TOTAL PUBLISHING, București

Evaluation

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

Contact

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FLORICULTURE

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

Credits (ECTS): 4

Course category: Domain-specific discipline (D), mandatory

Course holder: Prof. Lucia DRAGHIA, PhD

Objectives of the discipline:

- ability to recognize the main flower species grown in the garden and in protected areas;
- knowledge of the biology, ecology and technology of the main flower species;
- ability to choose the optimal possibilities of valorization (economic and aesthetic) of the flower production.

Contents (syllabus)

Course (chapters/subchapters)
1. Biology, ecology and technology of the main garden flowers. 1.1. Annuals from the genera: <i>Ageratum, Alyssum, Alternanthera, Amaranthus, Ammobium, Antirrhinum, Arctotis, Begonia, Callistephus, Calendula, Centaurea, Celosia, Chrysanthemum, Cleome, Coleus, Consolida, Coreopsis, Cosmos, Dahlia, Dianthus, Eschscholtzia, Gazania, Gomphrena, Gnaphalium, Gypsophilla, Helichrysum, Iberis, Impatiens, Ipomoea, Iresine, Lathyrus, Limonium, Lobelia, Matthiola, Mirabilis, Nicotiana, Nigella, Petunia, Phlox, Portulaca, Salvia, Sanvitalia, Scabiosa, Tagetes, Tropaeolum, Verbena, Zinnia, Xeranthemum. 1.2. Biennials from the genera: <i>Althaea, Bellis, Campanula, Cheiranthus, Dianthus, Digitalis, Lunaria, Myosotis, Silene, Viola.</i> 1.3. Perennials. 1.3.1. Hemicryptophytes from the genera: <i>Achillea, Alyssum, Aquilegia, Aster, Cerastium, Chrysanthemum, Cineraria, Coreopsis, Dianthus, Echinops, Echinacea, Gaillardia, Gypsophila, Iberis, Lavandula, Limonium, Lupinus, Papaver, Phalaris, Phlox, Pyrethrum, Rudbeckia, Santolina, Sedum, Solidago, Vinca.</i> 1.3.2. Geophytes from the genera: <i>Canna, Dahlia, Gladiolus, Polianthes, Asphodeline, Bergenia, Convallaria, Crocus, Eremurus, Fritillaria, Galanthus, Hemerocallis, Hosta, Hyacinthus, Iris, Lilium, Muscari, Narcissus, Paeonia, Scilla, Stachys, Tulipa, Yucca.</i></i>
2. Biology, ecology and technology of the main flower species grown in the greenhouse soil (cut flowers), from the genera: <i>Alstroemeria, Anthurium, Chrysanthemum, Dianthus, Freesia, Gerbera, Strelitzia, Zantedeschia.</i>
3. Biology, ecology and technology of the main potted plants, from the genera: <i>Asparagus, Aspidistra, Azalea, Begonia, bromeliads, cacti and other succulents, Camellia, Chlorophytum, Colocasia, Cordyline, Cyclamen, Cyperus, Dieffenbachia, Dracaena, Euphorbia, ferns, Ficus, Fuchsia, Hedera, Hibiscus, Hippeastrum, Hydrangea, Impatiens, Monstera, Nerium, orchids, palms trees, Pelargonium, Philodendron, Saintpaulia, Sansevieria, Spathiphyllum, Yucca.</i>

Practical activity
1. Characterization of the main flower species grown in the garden (annuals, biennials, perennials). Possibilities of using flowers in garden. Plants design elements.
2. Characterization of the main flower species grown in the greenhouse soil (cut flowers) and in pots (potted plants). Plants design elements.
3. Establishment of flower crops in garden (in spring). Types of flower arrangements in gardens.
4. Maintenance of flower crops (outdoor and indoor). Maintenance of flower arrangement in garden and parks.

Bibliography

1. Băla Maria, 1998 – *Floricultură generală*. Editura Mirton, Timișoara
2. Buta Erzsebet, Cantor Maria, 2009 – *Floricultură. Îndrumător de lucrări practice*. Editura Toderco, Cluj-Napoca
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4. Cantor Maria, Erzsebet Buta, 2010 – *Artă florală*. Editura Toderco, Cluj Napoca
5. Cantor Maria, Erzsebet Buta, Buru Timea, 2021 – *Cultura plantelor ornamentale în climat controlat*. Editura AcademicPres, Cluj-Napoca
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14. Șelaru Elena, 2006 – *Culturi pentru flori tăiate*. Editura Ceres, București.
15. Șelaru Elena, 2006 – *Plante de apartament*. Ed. Ceres, București
16. Toma Fl., 2009 – *Floricultură și Artă florală*, vol. I-IV. Ed. INVEL – Multimedia, București
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Caracterizarea principalelor specii floricole cultivate în câmp. Modalități de utilizare și încadrare în ansamblul decorativ a plantelor floricole cultivate în teren neprotejat. Elemente de design vegetal. Introducerea de specii noi în sortimentul floricol (studii și cercetări).
Caracterizarea principalelor specii floricole cultivate în spații protejate. Modalități de utilizare și încadrare în ansamblul decorativ a plantelor floricole cultivate în spații protejate. Elemente de design vegetal
Pregătirea terenului și înființarea culturilor floricole în câmp (primăvara). Amenajări floricole în teren neprotejat.
Întreținerea culturilor floricole din câmp și seră (lucrări cu caracter general și special). Întreținerea amenajărilor floricole din parcuri și grădini.