

FLORICULTURE

(Specialization *Horticulture* 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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7. Draghia Lucia, Chelariu Elena-Liliana, 2011 – *Floricultură*. Editura Ion Ionescu de la Brad, Iași.
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9. Preda M., 1979 – *Floricultură*. Editura Ceres, București.
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11. Șelaru Elena, 2006 – *Culturi pentru florilor tăiate*. Editura Ceres, București.
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 *Horticulture* 3rd Year of study, 2nd Semester)

Credits (ECTS): 4

Course category: Domain-specific discipline (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, Helichrysum, Impatiens, Ipomaea, 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, 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)
2. Characterization of the main flower species grown in the garden (biennials)
3. Characterization of the main flower species grown in the garden (perennials)
4. Characterization of the main flower species grown in the greenhouse soil (cut flowers)
5. Characterization of the main flower species grown in pots (potted plants)
6. Establishment of flower crops in the field (in spring)
7. Maintenance of flower crops (outdoor and indoor)
8. Valorization of the flower production

Bibliography

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4. Cantor Maria, Erzsebet Buta, 2010 – *Artă florală*. Editura Toderco, Cluj Napoca
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14. Șelaru Elena, 2006 – *Culturi pentru flori tăiate*. Editura Ceres, București.
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Evaluation

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Final exam	Oral examination	60
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