

Botany (Ist Year of study, Ist Semester)

Credit value (ECTS) 5

Course category

Basic discipline (imposed)

Course holder

Lecturer PhD. Mariana HUȚANU

Discipline objectives (course and practical works)

The course aims to provide students the theoretical basis of the plant morpho-anatomy and plant systematics, and to form basic skills to act autonomously in observing, analyzing, interpreting and finding concrete solutions in the field of botany.

Practical works seek to familiarize students with the technical work in the laboratories of botany, in order to know the structure and the role of plant cells and tissues, the structural and functional organization of the vegetative and generative organs of plants, as well as the direct observation and knowledge of the main species of some families of vascular plants, representative for the flora of Romania.

Contents

Course (chapters/subchapters)
I.Plant cell.
II.Plant tissues.
III.Morphology and anatomy of plant organs. 1.Vegetative organs of plants. 2.Plant multiplication. Generative organs of plants.
IV.Plant systematic and taxonomy: classification systems, taxonomic categories (taxa), scientific names.
V. Curiosities from the world of plants.
VI.Kingdom <i>Plantae</i> : phylums <i>Bryophyta</i> , <i>Polypodiophyta</i> and <i>Pinophyta</i> .
VII.Phylum <i>Magnoliophyta</i> : 1.Class <i>Magnoliopsida (Dicotyledonatae)</i> : subclasses <i>Magnoliidae</i> , <i>Hamamelidae</i> , <i>Rosidae</i> , <i>Caryophyllidae</i> , <i>Dilleniidae</i> , <i>Asteridae</i> . 2.Class <i>Liliopsida (Monocotyledonatae)</i> : subclass <i>Liliidae</i> .

Practical works
1.Optical microscope. Observation of living cells of onion (<i>Allium cepa</i>).
2.Plant tissues: protective tissues and conductive tissues.
3.Root morphology and anatomy.
4.Stem morphology and anatomy.
5.Leaf morphology and anatomy.
6.The flower and inflorescences.
7.Fruit and seed.

8. Phylum <i>Magnoliophyta</i> : family <i>Rosaceae</i> .
9. Family <i>Fabaceae</i> .
10. Families <i>Vitaceae</i> , <i>Apiaceae</i> .
11. Families <i>Chenopodiaceae</i> , <i>Brassicaceae</i> .
12. Families <i>Solanaceae</i> , <i>Lamiaceae</i> .
13. Families <i>Asteraceae</i> , <i>Liliaceae</i> .
14. Family <i>Poaceae</i> .

References

1. Anghel Gh. & colab., 1972 – *Buruienile din culturile agricole și combaterea lor*, București.
2. Ciocârlan V., Berca M. & colab., 2004 – *Flora segetală a României*, București.
3. Grau Marga, 2006 – *Plante cu flori în decursul anotimpurilor*, Sibiu.
4. Huțanu Mariana, 2015 – *Mediul și conservarea durabilă a biodiversității*, Iași.
5. Popovici Lucia, Moruzi Constanța & Toma I., 1973, *Atlas botanic*, București.
6. Săvulescu Elena, 2013 – *Sistematica plantelor*, București.
7. Sîrbu C., 2020 – *Botanica. Morfologia și anatomia plantelor*, Iași.
8. Sîrbu C. & Paraschiv Luminița Nicoleta, 2005 – *Botanică sistematică*, Iași.
9. Sârbu I., Ștefan N. & Oprea A., 2013, *Plante vasculare din România*, București.
10. Șerbănescu-Jitariu Gabriela & Toma C., 1980, *Morfologia și anatomia plantelor*, București.
11. Turenschi E., Pascal. P. & colab., 1998, *Lucrări practice-Botanica*, Litogr. USAMV Iași.
12. Zanoschi V. & Toma M., 1990, *Curs de Botanică, Partea I-a. Anatomie și Morfologie*, Litogr. Inst. Agr., Iași.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Written evaluation	80%
Appreciation of the activity during the semester	Oral assessment during the semester and verification tests, including active participation in learning activities	20%

Contact

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