



Syllabus

Term: 2026/27/1 **Subject name:** Plant Anatomy and Morphology **Subject code:** ENBIOB2102

Unit (Unit code) (BIOLOGIA)

Lecturer responsible for the course: Dr. KOCSIS Marianna

Requirement: Term mark

Classes per week : 0/0/3

Classes per term: 0/0/39

Purpose of education:

Students completing the course successfully:

Are familiar with the structure and function of the light microscope, the characteristics of plant cells and tissues, and the morphological structure of the plant organism. have knowledge of the terminology of the discipline, apply it correctly;

Are able to interpret and explain biological processes of plant cells and tissues to recognize the relationship between structure and function. It is suitable for the detection and interpretation of plant cell, histological and morphological diagrams, microphotographs. They are able to distinguish the morphological features of the plant body.

They are open to the knowledge and acceptance of disciplines related to the plant organization, have basic information, and strive to apply plant knowledge during their further studies;

They are able to independently interpret, portray and present basic experiments and their results, and are able to produce presentations and summaries of plant-related issues independently.

Contents:

Week 1 The microscope parts. How To Use a Light Microscope. Plant cell organs.

Week 2 Meristems of the root. Meristems of the shoot. The epidermis. Stomata, trichomes, secondary epidermis.

Week 3 Ground tissues. Vascular tissues.

Week 4 Histology of root. Histology of shoot.

Week 5 Histology of leaf.

Week 6 1st written test.



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Week 7 Root morphology. Modified roots.

Week 8 Shoot morphology. Leaf morphology.

Week 9 Morphology of flower.

Week 10 Morphology of inflorescences. Morphology of fruit 1.

Week 11 Morphology of fruit 2.

Week 12 2nd written test.

Week 13 Semester closing.

System of examing and valuation:

Final mark is based on written tests and lab notebook.

Bibliography:

1. William C. Dickinson 2000: Integrative Plant Anatomy. Academic Press.
2. Larry R. Peterson, Carol A. Peterson, Lewis Melvill 2008: Teaching Plant Anatomy through creative laboratory exercises. NRC Press, Ottawa, Ontario. 164 pp.
3. Cutler D.F., Botha T., Stevenson D.W. (2008) Plant Anatomy. An Applied Approach. Wiley-Blackwell
4. Evert R.F., Eichhorn S.E. (2006) Esau's Plant Anatomy: Meristems, Cells and Tissues of the Plant Body: Their Structure, Function and Development. 3rd edition. Wiley
5. Fahn A. (1990) Plant Anatomy. 4th edition. New York, Pergamon Press
6. Glimn-Lacy J. and Kaufman P.B. (2006) Botany Illustrated. Introduction to Plants, Major Groups, Flowering Plant Families. Springer, New York.
7. Mauseth J.D. Plant Anatomy Laboratory. Micrographs of Plant Cells and Tissues, with



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Bibliography:

Explanatory Text. <http://www.sbs.utexas.edu/mauseth/weblab/>

8. An electronic textbook is available from the lecturer.

Bibliography: