

SYLLABUS

1. Course title:

PHYSIOLOGY AND MORPHOLOGY OF PLANTS

2. Code:**3. Cycle of study:**

1

4. ECTS credits:

6

5. Type of course: Mandatory Elective**6. Prerequisites:**

No prerequisites

7. Class restrictions:

No class restrictions

8. Duration / semester:

1

5

9. Weekly contact hours:

9.1. Lectures:

3

9.2. Seminars:

0

9.3. Laboratory/Practice classes:

2

10. Faculty:

Faculty of Technology

11. Department/study program:

Agronomy

12. Lecturer:

Sanida Osmanović, Ph.D. assistant professor

13. Lecturer's e-mail:

sanida.osmanovic@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

The aim of the module "Physiology and Plant Morphology" is to introduce students with basic concepts related to water regime, photosynthesis, mineral nutrition, then breathing as well as growth and development of plants. In addition, students will be introduced to basic morphological phenomena (root, leaf - primary and secondary structure) as well as the occurrence of plant reproduction. It is undisputed that the knowledge gained in this field is of practical importance because it contributes to the better exploitation of the productivity of the cultivated plants.

16. Learning outcomes:

After attending lectures and conducted laboratory exercises, students are expected to master the basic and classical methods of study from the lectures envisaged in the course, with the aim of using the acquired knowledge as the theoretical basis for practical agrotechnical and other measures undertaken in order to optimize the plant cultivation and to increase their productivity.

17. Course content:

1. Cytology - the structure of typical plant cell.
2. Morphology of plants (morphology of overhead organs and metamorphoses - analogs and homologues organs)
3. Anatomic structure of vegetative organs
4. Anatomy of generative organs.
5. Vegetative reproduction
6. Generative reproduction
7. Seed, fruit
8. Water regime: water potential, adoption, transport and water delivery, stoma physiology.
9. Photosynthesis
10. Breathing of plants
11. Mineral nutrition
12. Phytonutrients and bioregulators (auxin, gibberelin, ethylene, ABA)
13. Physiology of growth and development
14. Physiology of fruits and seeds - growth, development and maturation of the fruits and seeds, germination and seed hibernation.
15. Physiology of resistance

18. Learning methods:

Lectures - using video material - powerpoint presentations.

Laboratory exercises thematically follow the lectures, and on them, students are introduced to the basics of plant physiology.

19. Assessment methods:

It is evaluated:

Prerequisites:

Test I (in the sixth week of the semester) 15 points

Test II (in the 12th week of the semester) 15 points

Colloquium 12 points

Seminar work 5 points

Educational activities 3 points

Testing obligations:

Final exam 50 points (the final exam is taken orally)

A total of 54 points are required to complete the exam.

20. Assessment components:

Number of points scored	Rating (BiH)	(ECTS Rating)
<54,00	5	F
54,00-63,00	6	E
64,00-73,00	7	D
74,00-83,00	8	C
84,00-93,00	9	B
94,00-100	10	A

21. Required reading list:

1. Pevalek-Kozlina, B. (2003): Fiziologija bilja. Profil. Zagreb.

2. Tatić B., Petković B., (1998): Morfologija biljaka, Zavod za udžbenike i nastavna sredstva, Beograd.

22. Web sources:**23. Applicable starting from the academic year:**

2016/2017

24. Adopted in the Faculty/Academy session: