SYLLABUS

1. Course title:

AGROCHEMISTRY

2. Code:

3. Cycle of study:

1

4. ECTS credits:

8

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

No prerequisites

7. Class restrictions:

No class restrictions

8. Duration / semester:

1 3

9. Weekly contact hours:

9.1. Lectures:	4
9.2. Seminars:	0
9.3. Laboratory/Practice classes:	2

10. Faculty:

Faculty of Technology

11. Department/study program:

Agronomy

12. Lecturer:

Amra Bratovčić, Ph.D. assistant professor

13. Lecturer's e-mail:

amra.bratovcic@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

The course should enable the student to acquire knowledge about the composition and properties of the soil, the origin and concentrations of soil nutritions, to explain the chemistry of the biogenic and toxic elements in the soil, to explain the chemical elements taken by plants, depending on the physical and chemical properties of the soil and the processes in the soil , On the nature and distribution of fertilizers, on the origin and behavior of each micro and macro element in the soil which is added by fertilizers and to explain the specificity of fertilization of certain species.

16. Learning outcomes:

At the end of the semester, successful students will be able to understand processes that affect the availability of particular nutrients in the soil, know the properties of fertilizers and their impact on soil fertility, yield level and product quality, to get acquainted with different types and different ways of fertilizing, to be familiar with the extent to which the fertilizer application will meet the environmental conditions.

17. Course content:

Soil properties and factors influencing the accessibility of the elements, adsorption-desorption and colloid complexes of soil, soil acidity, water-air soil regimens, oxidation-reduction processes, organic soil matter. Origin and properties of macro and micro elements, origin and their total soil content, their accessibility and chemical behavior of the soil. Distribution of fertilizers and their properties. Influence of fertilizer on ecosystem. Heavy metals and soil and plant contamination.

18. Learning methods:

The following activities of successful learning are planned:
- lectures with the use of multimedia resources, with active participation and students discussion;
- preparation and presentation of group and individual seminar papers;
- laboratory exercises;
- consultations.

19. Assessment methods:

During the examination prerequisites, students will take the colloquium which carries maximally 10 points. The minimum number of points for passing is 5. During the pre-requisites, the students will take two tests. Each test carries 25 points. For the attendance of classes / students, students can achieve a maximum of 5 points. Final exam carries a maximum of 35 points.

20. Assessment components:

The assessment of the exam is based on the total number of points the student has obtained by fulfilling the pre - requisites and passing the exam according to the quality of the acquired knowledge and skills, and it contains a maximum of 100 points and is determined according to the following scale:

Student obligations	Points
- output colloquium	10
- test from theoretical part	50
- attendance in class	5
- final exam	35

21. Required reading list:

- An internal script prepared by the course teacher with the content of the lectures.
- Ružica Džambić, Dragi Stevanović, Agrohemija, Beograd 2014.
- Vlado Ličina.Agrohemija, Beograd 2009

22. Web sources:

23. Applicable starting from the academic year:

2016/2017

24. Adopted in the Faculty/Academy session: