SYLLABUS

1. Course title:

FOOD ANALYSIS

2. Code:

3. Cycle of study:

1

4. ECTS credits:

4

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

no course prerequisites

7. Class restrictions:

none

8. Duration / semester:

1 5

9. Weekly contact hours:

9.1. Lectures:	2
9.2. Seminars:	0
9.3. Laboratory/Practice classes:	1

10. Faculty:

Faculty of Technology

11. Department/study program:

Food Technology

12. Lecturer:

Mirsad Salkić

13. Lecturer's e-mail:

mirsad.salkic@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

- introduction in the theories of the most significant classical and modern analytical methods used to analyze food components,
- practical laboratory work,
- possibilities of application of various methods to monitor changes during a food production process and in food quality control.

16. Learning outcomes:

- principles of standard and modern analytical methods in determining moisture, proteins, fats, carbohydrates, vitamins, mineral content and additives,
- proposing analytical methods to determine food ingredients,
- practical and independent use of analytical methods for quantitative analysis of food ingredients,
- calculation and interpretation of analytical results of food ingredients determination.

17. Course content:

Introduction to food analysis. Science and food regulation. Assessment of analytical methods and data. Principles of techniques used in food analysis: gravimetric methods, titrimetric methods, solvent extraction methods, refractometry, polarimetry, spectroscopic methods, chromatography, electrophoresis and immunochemical methods. Theory of analytical methods for specific food constituents: sampling and sample preparation, determination of moisture, proteins, fats, carbohydrates, vitamins, mineral elements and additives.

18. Learning methods:

- lectures with students' active participation and discussion,
- practical laboratory work.

19. Assessment methods:

After one third of the semester, the students take the first mid-term test which includes the topics covered in the lectures. The test consists of theoretical questions. Maximum score in the first test is 30 points. After the second third of the semester, the students take the second mid-term test which includes the topics covered in the second third of the semester. The test consists of theoretical questions. Maximum score in the second test is 30 points. Students can score a maximum of 20 points for continuous activity in the lectures and practical laboratory work during the entire semester. At the end of the semester, students take a written final exam which covers the remaining topics from the lectures. The test consists of theoretical questions. Maximum score in the written final exam is 20 points.
All examination forms form part of the cumulative grade. Students pass the exam only if they pass each individual part of it.
The minimum requirement to pass the exam is 54 cumulative points.

20. Assessment components:

The final grade is based on the total number of points before and during the exam. The maximum score is 100 points, and it is calculated according to the following:

Students' tasks	Points
Attendance	10
Laboratory work	10
Tests	60
Final examination	20

21. Required reading list:

1. James C. S. (1995). Analytical Chemistry of Foods. London: Chapman&Hall.
2. Nielsen S. S. (2003). Food analysis. USA: Springer.
3. Nielsen S. S. (2003). Food analysis laboratory manual. New York:Kluwer Academic/Plenum Publishers.

22. Web sources:

23. Applicable starting from the academic year:

2015/2016

24. Adopted in the Faculty/Academy session: