SYLLABUS

1. Course title:

PHYSICYL PROPERTIES of FOOD

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

Physical Chemistry

7. Class restrictions:

(max. 150 characters)

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 Quality and Safety

12. Lecturer:

Husejin Keran

13. Lecturer's e-mail:

husejin.keran@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

The aim of course is that student has to get basics theoretical and practical knowledge about rheological properties of food, including physical parameters, optical, electrical and thermal properties of food.

16. Learning outcomes:

students should be able:
- to understand physical properties of food, such as size, form, rheological properties of food, including physical parameters, optical, electrical and thermal properties of food. After completing exams, students will be able to calculate nutritive properties of food, as well as to understand colligative properties.

17. Course content:

- Historical aspects of rheology,
- Basics of rheological properties of food (elasticity, viscosity, plasticity, newton and non newton liquids)
- Classification according to rheological properties (liquids, suspension, colloidial liquids, etc)
- Texture of solid materials -food,
- General measurement principles, devices and methods
- Rheological properties of wheat and flour,
- Rheological properties of potato and its products,
- Consistency of fruits and vegetables, and its products,
- Rheological properties of chocolate,
- Structural characteristics of fish, meat and its products,
- Rheological properties of milk and milk products,
- Rheological properties of oil and fat,
- Rheological properties of juices and ice

18. Learning methods:

- lectures including interactive communication with students, with practical samples about physical properties of food
- experimental exercises, where student learn on practical applications of methods for determination of physical and other main constituents of food using physical and chemical methods.
- consultancy.

19. Assessment methods:

During lectures students learn to solve practical problems, and they get skills on solving different problems.
and they have exams during lectures, three in total,
Students are going to get theoretical and practical knowledge to participate in research work, so they will attend to
- seminars,
- attendance at practical exercises in laboratory
- attendance at theoretical lectures,
- regular exams, planned by plan of exams during year

Students will during lectures attend two parts of exam, consisting from theory and practical work, e.g. I and II part.
Students who pass exams, from theoretical and practical parts, including I and II part, getting the maximum number of points, teacher will sign in the mark, but after all obligations done at subject (after getting teacher sign in index and passing kolokvijum).
Final exam will attend students who are not satisfied with mark or they not passed some parts of exam (I or II part), but completed all their obligations.
Student can not get final mark if he or she is not passed both practical parts of exam. After exam, results of exam will be published within 10 days.

20. Assessment components:

Final mark is based on the total number of points received through lectures and on final exam, according quality of knowledge and skills. Total number points is 100, and consisting from the following:
- attendance of lectures and experiments, total 5 points,
- entrance kolokvijum, total 5 points,
- final kolokvijum, 10 points,
- partial tests,
the first test, 7th week, 15 points
the second test, 14th week, 15 points
- seminar work, 10 points,
- total pre-exam points 60
- final exam, 40 points.

21. Required reading list:

1. V. Lelas, Fizička svojstva hrane, Zagreb, 2005.
2. T. Lovrić, Procesi u prehrambenoj industriji, zagreb, 2003.
3. Serpil S., G.S. Servet, Physical Properties of Food, Springer, 2005.

22. Web sources:

www.tf.untz.ba

23. Applicable starting from the academic year:

2015/2016

24. Adopted in the Faculty/Academy session:

(max. 10 char.)