

SYLLABUS

1. Course title:

MINERALS AND VITAMINS IN THE DIET

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

3

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

Recommended previous courses in: organic chemistry, biochemistry, biology, instrumental methods

7. Class restrictions:

does not have

8. Duration / semester:

1

8

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/Food Quality and Safety

12. Lecturer:

dr.sc. Midhat Jašić

13. Lecturer's e-mail:

jasic_midhat@yahoo.com

14. Web site:

www.hranomdozdravlja.com

15. Course aims:

The main goal is to acquire knowledge about vitamins and minerals in food, their preservation during processing and effects on human health.

Specific objectives:

1. Adoption of knowledge about the types of vitamins and minerals in food, methods for their preservation during production, processing, packaging, distribution and preparation of food.
2. Learning in the field of vitamin biosynthesis.
3. Acquisition of basic knowledge in the field of vitamin biosynthesis.
4. The development of awareness of the importance of vitamins and minerals in foods and their effect on human health.

16. Learning outcomes:

Basic knowledge of the types and levels of vitamins and minerals in food. The student acquires the skills necessary for qualitative and quantitative assessment of the needs for vitamins and minerals the human body. In addition, the student will be able to identify, define and classify the form of vitamins and their vitamers and form chelate combination of minerals in food, and their preservation during processing in the food industry. Students will get knowledge about biosynthesis and the production of vitamin and mineral preparations and learn the biological, physical and chemical methods for the analysis of vitamins and minerals.

17. Course content:

Vitamins and minerals in food. Definitions and types of vitamins. Ingredients like vitamins. Preservation of vitamins during production, processing, packaging, distribution and preparation of food. The effect of vitamins on human health.

Minerals. Macro, micro elements and trace elements. Chelating components and bioavailability and bioavailability of minerals. The most common chelating group. Biosynthesis of vitamins. The production of vitamin supplements and fortification of food with vitamins. The importance of vitamins and minerals in foods and their effect on human health.

18. Learning methods:

1. Lectures. Each methodological unit is developed according to the principle: theme, objectives, teaching strategies (lectures, discussions, discussion groups), educational issues, the sources of information-literature.
2. Laboratory exercises. Based on the acquisition of skills in the analysis of vitamins and minerals that may be present in food.
3. Consultations. The teacher is available for consultation 2 hours per week during the lectures at the Faculty.

19. Assessment methods:

During the course assures permanent monitoring of the degree of the knowledge of students, as well as the monitoring of their activities. Students' work is monitored and evaluated continuously during the semester following the overall work and knowledge of students in all forms of teaching. Examination is done in writing and orally.

Written exams. Written exam is in the form of test combined with tasks and written responses. A student in the course of the lecture approach laying Tests I and II, and after the completion of every fifteen lectures.

Final exam. The final exam consists of an oral answer and defense seminars like the individual project. On the final exam there are two issues according to pre published list of questions. Student chooses a randomized questions. Seminar is done by pre-prescribed procedure of defense seminars.

Rating. Students who have met on the first and second test + final exam, the teacher will obtain a rating in the index after the completion of all obligations in the case (the signature of the teachers in the index). The requirement for a signature are performed duties attendance at schools in accordance with the rules of the University.

Reformatory exam. Additional examination approach the students who did not meet the test (I + II + final exam), and have done all obligations to the case (with the signature of the teachers in the index). The first is a written exam, if the student is not the same already successfully passed during the continuous assessment. Passed part of the written exam is recognized in subsequent examination periods during the same school year.

Notification. Communication on the results exam tasks is using the usual message boards. The test results can be sent via e-mail or verbally announce the students in a certain time for consultations.

Keeping of results the examination. Results of written examinations are kept before 1 of November following school year.

20. Assessment components:

The final grade is based on of results the continued activity, test, laboratory practice and the final exam. During attendance counts coming and activity of students in class with a maximum of 10 points. Tests during the course, after every 15 hours of lectures. Both maximum of 40 points. The passage of a minimum achievement of 22 points in both tests. Work in the laboratory a maximum of 20 points. The final exam is mandatory and carries 30 points.

21. Required reading list:

1. Kukrić Z, Jasić M: Bioactive components of food, Technology faculty, University of Tuzla-Banja Luka, 2013.
2. Grujić R., Marjanović B.Ž., Jašić M., Beganlić A., Spaseska A.E.: Vitamins and minerals in the diet, Technology faculty, University of Tuzla, 2014.

22. Web sources:

www.hranomdozdravlja.com

23. Applicable starting from the academic year:

2015/2016

24. Adopted in the Faculty/Academy session:

(max. 10 char.)