

SYLLABUS

1. Course title:

WATER QUALITY CONTROL

2. Code:**3. Cycle of study:****4. ECTS credits:****5. Type of course:** Mandatory Elective**6. Prerequisites:**

Knowledge gained from the natural sciences.

7. Class restrictions:

Students Department of Food Technology, Quality and Food Safety.

8. Duration / semester:**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:

Food Technology/Food Quality and Safety

12. Lecturer:

Ramzija Cvrk, Associate Professor, PhD.

13. Lecturer's e-mail:

ramzija.cvrk@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

- Introducing of students to different aspects of the quality of drinking water and water for industry.
- Gaining the knowledge in the field of regulations of water quality criteria and the quality of drinking water and water used in the food industry.
- Gaining the knowledge necessary to analyze the quality of drinking water, bottled water and water quality for the food industry. Introduction to the standard method of water quality.
- Gaining the knowledge related to the safety of drinking water in water supply systems.

16. Learning outcomes:

- Understand the criteria for drinking water quality and the needs of the food industry. Understand the legislation that determines the quality and safety of drinking water.
- Gained the skills of various aspects water quality analysis (chemical/physical parameters, the organic/inorganic parameters, etc.).
- Understand the application of standard methods for quality control of water, be able to choose the appropriate method for the studied parameters.
- Understand the importance of quality control of drinking water and monitoring of drinking water in water supply systems and food industries.

17. Course content:

The properties of water. Ingredients of natural water. The criteria of quality drinking water. Water quality in the food industry. Chemical aspect of the quality of drinking water. Physico-chemical parameters of drinking water. Physico-chemical parameters of drinking water. The inorganic and organic quality parameters of drinking water. The radioactivity of drinking water. Legislation and standards for define the quality of drinking water (B&H and international). Quality control of drinking in water supply systems. Quality control of bottled water. Analysis of drinking water and bottled water. Overview of standard methods for the analysis of drinking water , bottled natural water, spring water and mineral water. The management of the health safety of drinking water in water supply systems. The microbiological parameters of drinking water quality. Epidemiological concept of drinking water quality (water supply, epidemiological studies, measuring the occurrence).

18. Learning methods:

- Interactive lectures using of modern techniques.
- Consultations of students in a group and individually.
- Visits to industrial plants.
- Writing of seminars.

19. Assessment methods:

After the first half of the semester (seventh or eighth week) students take the first test (midterm), which includes previously treated topics (lectures and exercises). The test consists of 20 questions related to the treated topics. Each question is scored with 1 point. In the first test, the student can get min 11 points and max 20 points. After the end of the semester students take the second test which includes previously treated topics (lectures and exercises). The test consists of 20 questions related to the treated topics. Each question is scored with 1 point. On the second test, a student can also get min 11 points and maximum 20 points. Both tests taken by all students at the same time. The final exam is oral. Final exam is open to all students who have completed all the experimental exercises and passed the final colloquium after the exercise, and passed both a written test (midterm exam). The final oral exam student can get min 26 points, max 50 points. Students who have not passed the written tests, will have the possibility to take the written tests at the time of the final exam, provided they finished preexamination obligations (completed the experimental exercises and passed the final test, and regularly attending classes/lectures). For total success achieved at the exam a student can get min 54 points and max 100 points.

20. Assessment components:

Students obligations:	Points:
Attendance and activity in class:	min 3 - max 5
Laboratory exercises and a final colloquium:	min 3 - max 5
Written test I (first test):	min 11- max 20
Written test II (second test):	min 11- max 20
Final test (written / oral):	min 26 - max 50

Note: For each of these obligations the student must have a min 54% of the maximum specified points.

21. Required reading list:

1. Cvrk R., Begić S.(2015): Tehnologija vode za piće, Printcom Tuzla -Udžbenik univerziteta u Tuzli.
2. Čoha F (1990): Voda za piće-Standardne metode za ispitivanje higijenske ispravnosti, Privredni pregled, Beograd.
3. Dalmacija B. (2001): Kontrola kvaliteta voda, Prirodno-matematički fakultet, Univerzitet u Novom Sadu.

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

2015/2016

24. Adopted in the Faculty/Academy session:

(max. 10 char.)