

Table 5.2 Course specification

Type and level of studies: Bachelor			
Course name: Drinking water quality			
Course status: Elective			
Number of ECTS credits: 6			
Requirement: None			
Course aim			
Introduce students to chemical, microbiological, biological and health aspects of drinking water. Mastering the technology of water treatment.			
Course outcome			
After completing the course, student is able to: understand, monitor and control the processes during the drinking water treatment. Student demonstrates acquired knowledge and understanding of basic facts, concepts, principles and theory in the field of drinking water preparation. Student can apply acquired knowledge for the process/technology optimization and obtaining safe drinking water.			
Course content			
<i>Theory</i>			
The following areas are studied: drinking water resources, the chemical aspects of drinking water, microbiological, biological and health aspects of drinking water quality control, separation methods for the preparation of drinking water (sedimentation, filtration and membrane separation), chemical methods of drinking water treatment (coagulation, flocculation, oxidation processes, the use of ozone, advanced oxidation processes); diffusion methods in the preparation of drinking water, water disinfection, oxidation by-products; removal of specific organic and inorganic substances from drinking water, bottled water.			
<i>Practice:</i>			
Experimental determination of toxic metals and toxic organic chemicals in different water matrices. Microbiological and biological analysis of drinking water. Drinking water quality control. Experimental determination of technological performance of membrane filtration. Chemical methods in the preparation of drinking water. Diffusion method in the preparation of drinking water. Disinfection of water. Determination of oxidation/disinfection by-products content in drinking water. Experimental determination of technological parameters for the removal of iron and manganese from drinking water. Computational exercises in the field of determination of chemicals toxicity in drinking water, sedimentation and filtration, diffusion method in the preparation of drinking water.			
Literature			
1. Agbaba J., Dalmacija B., Bečelić-Tomin M., Tubić A.: Kvalitet vode za piće (udžbenik), Prirodno-matematički fakultet, Departman za hemiju, biohemiju i zaštitu životne sredine, 2014.			
2. Dalmacija M., Maletić S., Agbaba J., Dalmacija B., Molnar J., Ugarčina Perović S., Tomašević D.: Praktikum iz kvaliteta vode za piće, Prirodno-matematički fakultet, Departman za hemiju, biohemiju i zaštitu životne sredine, 2013.			
<i>Additional literature</i>			
1. Dalmacija B., Agbaba J., Klačnja M. (Ur.): Savremene metode u pripremi vode za piće, Prirodno-matematički fakultet, Novi Sad, 2009.			
2. Dalmacija B., Agbaba J., Petrović O. (Ur.): Voda i biofilm, Prirodno-matematički fakultet, Novi Sad, 2007.			
3. Dalmacija B., Agbaba J. (Ur.): Kontrola kvaliteta vode za piće, Prirodno-matematički fakultet, Novi Sad, 2006.			
4. Dalmacija B., Agbaba J., Klačnja M. (Ur.): Dezinfekcija vode, Prirodno-matematički fakultet, Novi Sad, 2005.			
5. Gligorić M.: Priprema vode za piće, Tehnološki fakultet, Zvornik, 2010.			
Number of classes of active teaching: 5(75)			Other classes
Lectures: 3 (45)	Practice: 2 (30)	OFT:	
Teaching methods: Lectures, laboratory work, colloquium, consultations			
Assessment of knowledge (maximum of 100 points)			
Pre-exam obligations	Points	Final exam	points
activity during lecture classes	10	written exam	30
practical teaching	20	oral exam	20
Colloquia (2 two colloquiums)	20		