(Table 5.2) Course unit description

Study program :Chemistry				
Type and level of studies: Graduate Academic Studies				
Course unit: Food Analysis				
Teacher in charge : Stanić D. Zorka, associate professor				
Language of instruction (*English or other foreign language*): English				
ECTS: 6				
Prerequisites: Enrolled study program				
Semester (*Winter Semester or Summer Semester*): Summer semester				
Course unit objective Making students qualified for independent performance of food analysis, by using appropriate analytical methods.				
Learning outcomes of Course unit Knowledge, that is acquired on this course, gives students an ability to independently perform analysis of food samples.				
Course unit contents *Theoretical classes* The chemical composition of food. Methods for detection and determination of natural components in food. Methods of proving and determining additives and other ingredients that affect the safety of foodstuffs. Specific analyzing methods of individual foodstuffs. Sampling and sample preparation of food. Analysis of food ingredients: determination of water and mineral substances. Analysis of food ingredients: determination of heavy metals. Analysis of food ingredients: determination of proteins and amino acids. Analysis of food ingredients: determination of fats, carbohydrates determination, determination of some vitamins. Additives and preservatives in food. Analysis of some pesticides. Analysis of some foodstuffs: meat and meat products, milk and milk products, fats and oils, cereals and grain products, fruit and vegetables and their products, alcoholic and non-alcoholic beverages, common salt, yeast, and drinking water. *Practical classes* Sampling and sample preparation of certain foodstuffs. Photometric determination of nitrite in meat products. Determination of acidity of fats and oils. Determination of nitrogen in flour. Determination of metals (Cu) in fruit juice using AAS method. Spectrophotometric determination of quinine in non-alcoholic soft drinks. Photometric determination of iron in alcoholic beverages (wine, beer). Determination of iodide in common salt. Colorimetric determination of phosphorus in brewer's yeast. Potentiometric determination of fluoride in drinking water.				
Literature **1.** S.S. Nielsen, Food Analysis, 3rd. Edition, Kluwer Academic/Plenum Publisher, New York, 2003.				
Number of active teaching hours				**Other classes**
Lectures: 2 hours weekly	Practice: 2 hours weekly	Other forms of classes:(*for example: mentoring system*)	Independent work:	
Teaching methods Lectures, semester papers, laboratory exercises				
Examination methods (maximum 100 points)				
Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**	
Student's activity during lectures	**5**	oral examination	**30**	
practical classes/tests	**25**	written examination	**20**	
Seminars/homework	**20**	.....		
Project				
Other				

Grading system		
Grade	**No. of points**	**Description**
10	**100-91**	Excellent
9	**90-81**	Exceptionally good
8	**80-71**	Very good
7	**70-61**	Good
6	**60-51**	Passing
5	**under 50**	Failing