(Table 5.2) Course unit description

Study program : Chemistry
Type and level of studies: Doctoral Academic Studies
Course unit: Nonaqueous solution chemistry
Teacher in charge : Stanić D. Zorka, associate professor
Language of instruction (*English or other foreign language*): English
ECTS: 10
Prerequisites: Enrolled study program
Semester *(Winter Semester or Summer Semester)*: Winter or summer semester
Course unit objective The main purpose of this course is to provide a higher level of students' knowledge of properties, characteristics and application of non-aqueous solvents in analytical chemistry, as well as, electrochemical investigation in non-aqueous solutions. Additionally, students will be able to develop an effective approach to solving problems in the field of analytical chemistry of non-aqueous solution.
Learning outcomes of Course unit Students should be familiar with the basic knowledge of the non-aqueous solutions and application of non-aqueous solvents in analytical chemistry; general principles of electrochemical methods used for testing in non-aqueous solutions; the ability of effective solving practical problems of analytical chemistry of non-aqueous solution.
Course unit contents *Theoretical classes* Properties of solvents and their classification. Solvation and complex formation of ions and behavior of electrolytes. Acid-base reactions in non-aqueous solvents. Redox reactions in non-aqueous solvents. Electrochemical techniques and their applications in non-aqueous solutions. Practical aspects of the application of non-aqueous solutions. *Practical classes*
Literature **1.** K. Izutsu, Electrochemistry in Nonaqueous Solutions, Wiley-VCH Verlag GmBH, Weinheim, Germany, 2002.

Number of active teaching hours				**Other classes**
Lectures: 5 hours weekly	Practice:	Other forms of classes:*(for example: mentoring system)*	Independent work:	

Teaching methods
Lectures, semester papers, searching database in the field of current research.

Examination methods (maximum 100 points)			
Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**
Student's activity during lectures	**10**	oral examination	**50**
practical classes/tests		written examination	
Seminars/homework	**40**	.....	
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