Information sheet for the course Chemistry

University: Alexander Dubček University of Trenčín

Faculty: Faculty of Health Care

Course unit code: Chem/e Course unit title: Chemistry

Type of course unit: compulsory

Planned types, learning activities and teaching methods:

Lecture: 2 hours weekly/26 hours per semester of study; full-time

Number of credits: 3

Recommended semester: 1^{st} semester in the 1^{st} year (part-time)

Degree of study: *I (bachelor)* **Course prerequisites:** *none*

Assessment methods:

Written or oral examination (50 score points) - for obtaining the particular grades it is necessary to achieve:

at least 45 score points for the grade A

at least 40 score points for the grade B

at least 35 score points for the grade C

at least 30 score points for the grade D

at least 25 score points for the grade E

Learning outcomes of the course unit:

The student will acquire knowledge by studying the subject of basic concepts and theoretical principles of chemistry in the context of qualitative, quantitative and instrumental analysis. The student will acquire a solid and sufficiently broad theoretical and methodological basis for chemical and instrumental analysis.

Course contents:

- 1. Introduction to Chemistry
- 2. Basic principles of volumetric analysis
- 3. Acid-base reactions
- 4. Complex reactions
- 5. Precipitation reactions
- 6. Redox reactions
- 7. General procedures of chemical analysis
- 8. Evaluation of analytical results
- 9. Separation methods
- 10. Introduction to chromatographic methods (HPLC, GC, TLC)
- 11. Electrochemical analysis
- 12. Optical Methods
- 13. Electromigration methods

Recommended of required reading:

- 1. ŽURKOVÁ, L. A KOL. 1985. Všeobecná chémia. Bratislava: SPN. 1985.
- 2. GARAJ, J. BUSTIN. D. Hladký, Z. 1987. *Analytická chémia*. Bratislava: Alfa/SNTL. 1987.
- 3. HOLZBECHER, Z. CHURÁČEK, J. A KOL. 1987. *Analytická chemie*. Praha: SNTL/Alfa. 1987.
- 4. ZÝKA, J. 1979. Analytická příručka 1. Praha: SNTL/Alfa. 1979.

Language: Slovak

Remarks: -

Evaluation history: Number of evaluated students -					
A	В	С	D	Е	FX
-	-	-	-	-	-
Lectures: RNDr. Zdenka Krajčovičová, PhD.					
Last modification: 22.04.2014					
Supervisor: doc. MUDr. Mária Štefkovičová, PhD., MPH.					