General Information			
Course name	ÚCHV/ANCH3/03 Analytical Chemistry	ECTS Credits	6
		Semester	summer

#### Aims

Fundamentals of Analytical Chemistry for biologists.

### **Content**

What is the Analytical Chemistry?

Basic principles, classification and selection of analytical methods.

Qualitative and quantitative analysis.

Qualitative analysis, separation by selective precipitation.

Quantitative methods. Gravimetry, general principles of method.

Volumetric methods.

Preparation of accurate solutions.

Indication of equvivalency point.

Titration curves, calculations in volumetric analysis.

Acidimetry, alkalimetry. Manganometry. Iodometry. Complexometry. Argentometry. Instrumental methods of analytical chemistry (basic principles, instrumentation and applications) electroanalytical, optical and separation methods.

Chromatographic and electrophoretic methods.

## **Assessment Methods and Criteria**

**Oral Examination** 

#### **Grading Scale (in %):**

100-91%-A, 90-81%-B, 80-71%-C, 70-61%-D, 60-51%-E, 50-0%-FX

#### **Grading System:**

The University recognises the following six degrees for the evaluation of the study results:

- a) A excellent (excellent results) (numerical value 1)
- b) B very good (above average results) (1.5)
- c) C good (average results) (2)
- d) D satisfactory (acceptable results) (2.5)
- e) E sufficient (results meet the minimum criteria) (3)
- f) FX –failed (requires further work) (4)

# **Bibliography**

- 1.D.Harvey: Modern Analytical Chemistry. McGraw Hill, Boston, 2000.
- 2.D.A.Skoog: Principles of Instrumental Analysis. Saunders Col. Publishing, New York 1985.
- 3.E.Prichard: Quality in the Analytical Chemistry Laboratory, Wiley, 1995.

