General Information

Course name	**ÚCHV/PBC2/99 Biochemistry Practical**	**ECTS Credits**	**4**
		Semester	**winter**

Aims

To allow students to get practical experience in experimental techniques and methods, currently used in a biochemical research: UV/VIS spectrophotometry, thin layer chromatography (TLC), gel electrophoresis, isolation of macromolecules and substances from biological materials and their quantitative and qualitative determination.

Content

The most important biochemical laboratory methods.
The qualitative tests for amino acids and proteins.
Timedependent course of enzyme catalyzed reaction: determination of enzymatic activity, determination of the first order rate constant, calculations of math models (examples), effect of a substrate concentration on initial rate of reaction, determination of Km and Vmax for urease.
Isolation and detection of nucleic acids.

Assessment Methods and Criteria

2 written tests
protocols + 75 % continuous evaluation

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

Sedlák, Danko, Varhač, Paulíková, Podhradský: Practical exercises from biochemistry, 2007
(English translation of the specific exercises upon request)