

Biochemical Analysis, II

Scope:

The course is directed to graduate students who specialize or are interested in **analytical, pharmaceutical, or clinical chemistry**, as well as **biochemistry, biotechnology, systems biology**, and related areas. The main focus is on detection, analysis and characterization of biomolecules in cells and biofluids using instrumental approaches.

Contents:

1. Introduction
2. Paper and thin-layer chromatography
3. Liquid chromatography
4. Gas chromatography
5. Electrophoresis
6. * Mid-term exam
7. Mass spectrometry
8. Microfluidics
9. Prototyping analytical instrumentation
10. * Students' presentations
11. Applications of biochemical analysis methods
12. * Final exam

Evaluation:

* Final mark will be based on the results of the mid-term exam (30%), presentation (30%), and the result of the final exam (40%). Additional points (up to 15%) can be gained for active participation in the class.

Requirements:

Students who have completed the Analytical Chemistry course are encouraged to participate. It is NOT required to take Biochemical Analysis I prior to Biochemical Analysis II.

Study material:

Handouts will be provided for selected topics.

Useful links: (This section will be expanded.)

tba