

Analytical Techniques In Geochemistry - Syllabus

Lecturer: Dr. Alexey Kamyshny

Topics:

- Statistics
- Sampling and preservation techniques
- Wet methods of analysis
- Spectral methods of analysis
- Mass-spectrometric methods of analysis
- Principles of chromatography
- Liquid chromatography
- Gas chromatography

Reference books:

- Skoog, West, Holler – Fundamentals of Analytical Chemistry
- Fifield and Haines – Environmental Analytical Chemistry
- Gill – Modern Analytical Geochemistry
- Ekman, Silberring, Westerman-Brinkmalm, Kaj (Eds.) – Mass Spectrometry, Instrumentation, Interpretation and Applications
- McNair and Miller – Basic Gas Chromatography
- Snyder, Kirkland and Dolan – Introduction to Modern Liquid Chromatography

Course structure:

- 2 hours of lecture per week
- 1 hour of seminar per week
- 2 laboratory assignments per course on Fridays 08:00 – 15:00

Requirements:

- Attendance (lectures and seminars) – 80%
- Attendance (laboratory assignments) – 100%

Grades:

- Homework – 20% of the final grade, will be uploaded on Moodle
- Laboratory assignments – 20%
- Mid-term examination (בוחן מגן) – 0-20% of the final grade
- Final examination – 40-60% of the final grade