

Course description

General information about the course		
1. Major of study: medicine	2. Study level: unified MSc	
	3. Form of study: intramural	
4. Year: II	5. Semester: IV	
6. Course name: Introduction to Medical Analyses		
7. Course status: required		
8. Course contents and assigned learning outcomes		
<p>The course is designed to meet the needs of students majoring in pre-medicine. The objective of the course is to teach the students basic and modern analytical methods used for separation, identification and quantification of medically and pharmaceutically important compounds present in the body fluids including solid phase and solid phase microextraction and modern spectroscopic methods. Advances in chromatographic, immunochromatographic and electrophoretic systems applied in non-invasive and invasive clinical analysis for detection of new and upcoming markers of different diseases as well as in drug-monitoring therapy are presented during this course. Other important aspects of the course include acquainting the students with actual procedures and modern instruments needed to work in the medical laboratory. The students are taught statistical computer evaluation of laboratory data and method validation. Upon completion of this course, students will be able to: know and understand modern analytical techniques used in medical laboratory, select an appropriate method and equipment for separation and detection of different biological or pharmaceutical samples, identify and estimate the content of bioactive compounds in a sample including potential biomarkers using laboratory measurements, validate of laboratory method, evaluate the results of medical analysis using figures and graphs, make the statistical calculations of analyzed data and interpret the obtained results.</p> <p>Learning outcomes / reference to learning outcomes indicated in the standards For knowledge – student knows and understands: B.W8., B.W10., B.W27., B.W29. For skills student can do: B.U8., B.U9., B.U10. For social competencies student is ready to:</p> <ul style="list-style-type: none"> – use of objective sources of information – formulate conclusions from their own measurements or observations – to see and recognise their own limitations and make a self-assessment of educational deficits and needs 		
9. Number of hours for the course		65
10. Number of ECTS points for the course		6,5
11. Methods of verification and evaluation of learning outcomes		
Learning outcomes	Methods of verification	Methods of evaluation*
Knowledge	Written evaluation – open questions/MCQ Grade credit – MCQ	*
Skills	Oral presentation Solving written tasks and problems Observation	*
W zakresie kompetencji Competencies	Observation	*

* zakłada się, że ocena oznacza na poziomie / The following evaluation system has been assumed:

Very good (5,0) – the assumed learning outcomes have been achieved and significantly exceed the required level

Better than good (4,5) – the assumed learning outcomes have been achieved and slightly exceed the required level

Good (4,0) – the assumed learning outcomes have been achieved at the required level

Better than satisfactory (3,5) – the assumed learning outcomes have been achieved at the average required level

Satisfactory (3,0) – the assumed learning outcomes have been achieved at the minimum required level

Unsatisfactory (2,0) – the assumed learning outcomes have not been achieved