

## SYLLABUS

<b>Subject:</b>	<b>ANALYTICAL METHODS IN BIOCHEMISTRY</b>		
<b>Field of study:</b>	<i>General Medicine</i>	<b>Degree of study:</b>	<i>III.</i>
<b>Study programme:</b>	<i>Clinical Biochemistry</i>	<b>Form of study:</b>	<i>Internal / External</i>
<b>Subject evaluation:</b>	<i>Exam</i>	<b>Subject type:</b>	<i>Compulsory optional</i>

Department: **Department of Medical and Clinical Biochemistry UPJŠ Faculty of Medicine**

<i>Lectures, seminars and practical exercises</i>	
<b>Laboratory techniques</b> <ul style="list-style-type: none"> <li>- Quantitative analysis</li> <li>- Qualitative and quantitative analysis</li> <li>- Separation techniques - centrifugation, ultrafiltration</li> </ul> <i>Practical exercises</i>	
<b>Optical methods</b> <ul style="list-style-type: none"> <li>- Spectrophotometry</li> <li>- Fluorescence techniques</li> <li>- Determination of the concentration of an unknown substance</li> </ul> <i>Practical exercises</i>	
<b>Isolation techniques</b> <ul style="list-style-type: none"> <li>- Protein isolation</li> <li>- DNA and RNA isolation</li> <li>- Determination of the concentration of isolated substances</li> </ul> <i>Practical exercises</i>	<b>1. Revision test</b>
<b>Electrophoretic techniques</b> <ul style="list-style-type: none"> <li>- Agarose electrophoresis</li> <li>- PAGE</li> </ul> <i>Practical exercises</i>	
<b>Physico-chemical methods of separation and detection of substances</b> <ul style="list-style-type: none"> <li>- Chromatographic methods</li> <li>- HPLC, FPLC</li> <li>- Mass spectrometry</li> </ul> <i>Practical exercises</i>	
<b>Immunoanalytical methods</b> <ul style="list-style-type: none"> <li>- ELISA</li> <li>- RIA</li> <li>- EIA</li> </ul> <i>Practical exercises</i>	<b>2. Revision test</b>