

Subject: CLINICAL BIOCHEMISTRY	Subject type:	Elective course
Study year: 4	Content:	1/1 summer term
Study program: Dental Medicine		

Learning outcomes (*Aim of the course*)

The graduate should understand the relationships between metabolic changes and laboratory test results and be able to interpret selected the laboratory tests result of patients important not only for the health oral cavity but the organism as a whole. The course is organized in form of lectures and seminars (e.g. solution of selected case reports) and it offers information on biochemical laboratory methods important for screening, diagnostics and therapy monitoring of selected diseases. It is a highly applied biochemistry, which is performed by lecturers with experience in clinical biochemistry.

Education: lectures, seminars

Assessment: written tests and written exam

Syllabus

Introduction to clinical biochemistry. Biological material, sampling and manipulation in preanalytical phase. Interpretation of results – reference intervals, biological variation, sensitivity, specificity, predictive values of the test.

Water and mineral homeostasis. Regulation of osmolality. Hyponatremia, hypernatremia. Hyper- and hypokalemia. Assessment of hepatic and renal function. Diabetes mellitus – biochemical background and tests for diagnosis and monitoring of disease. Markers of inflammation – cytokines. Basic haematology – complete blood count, coagulation tests. Biochemical markers of bone metabolism. Diagnostic use of saliva