

CLINICAL BIOCHEMISTRY

Bachelor study

2004/05

2st year

0/2 CE

Winter term

A special subject Clinical Biochemistry deals with relationships between biochemistry and physics and molecular biology and physiology and other in living organisms.

Biochemical examinations provide very important informations for diagnostic and therapeutic purposes. Many new diagnostic biochemical tests are developed each year. Students in seminars are acquainted with proper sampling, chemistry and biochemistry of the tests most convenient for specific diagnoses. A part of teaching is performed at the Department of clinical biochemistry.

Literature:

1. J. Duchoň a kol.: *Lekárska chémia a biochémia*, Osveta, Martin, 1988
2. P. Schneiderka a kol.: *Stanovení analytů v klinické biochemii*, Praha 1998
3. F. Varga: *Klinická biochémia*, Osveta Martin, 1996

Content:

1. Introduction to clinical biochemistry. The role of clinical biochemistry in medicine
2. Essentials of sugar metabolism and its disturbances
3. Essentials of lipid metabolism and its disturbances
4. Essentials of protein (amino acid) metabolism and its disturbances
5. Regulation of metabolism and role of hormones (control test)
6. Analytical methods in clinical biochemistry
7. Blood plasma, serum and urine – basic biological materials
8. Composition and examination of urine
9. Enzymatic activity and heart disease diagnostics
10. Clinico-biochemical diagnostics of drug use (control test)
11. ABB and biochemistry of internal environment
12. Biochemical diagnostics of kidney function impairment
13. Biochemical diagnostics of gastrointestinal tract – liver, pancreas
14. Biochemical diagnostics of metabolic diseases (control test)

Final exam – written test