

BIOCHEMISTRY I

SEMINARS

GENERAL MEDICINE, DENTISTRY

VSBC021s, ZLBC021s

Date	
1. week 16. 2. – 20. 2.	Introduction into the metabolism of cells (differences between prokaryotic and eukaryotic cell, compartmentation of metabolic processes, enzyme markers of cell fractions, non-covalent interactions in the cell and their significance).
2. week 23. 2. – 27. 2.	Structure of haemoglobin and its relationship to the function. Hb types in the blood of healthy subjects, HbCO and MetHb, abnormal Hb types.
3. week 2. 3. – 6. 3.	Enzymes - reaction rate, progress curve, the Michaelis plot and K_m , enzyme inhibition.
4. week 9. 3. – 13. 3.	Coenzymes, their relationship to vitamins.
5. week 16. 3. – 20. 3.	Membrane structure and assembly. Transport across membranes. Written test I – 25 questions (Haemoglobin, enzymology, coenzymes).
6. week 23. 3. – 27. 3.	Metabolism of glucose: Glycolysis under anaerobic and aerobic conditions and the oxidation of pyruvate. Gluconeogenesis. Glycogenesis and glycogenolysis.
7. week 30. 3. – 3. 4.	Metabolism of proteins. Common features of amino acid conversion. The synthesis of urea. Nitrogen balance.
8. week #7. 4. – 13. 4.	<i>#Beginning the 8th week the weekly program starts on Tuesdays</i> Important reactions in amino acid catabolism.
9. week 14. 4. – 20. 4.	Biosynthesis and desaturation of fatty acids. The sources of essential fatty acids. Metabolism of triacylglycerols. Written test II- 25 questions (Membranes, membrane transport, metabolism of saccharides and amino acids.)
10. week 21. 4. – 27. 4	Peroxidation of lipids. Metabolism of phospholipids. Biosynthesis of eicosanoids.
11. week 28. 4. – 4. 5.	The citric acid cycle. Written test III – 25 questions (Metabolism of lipids.) 1.5. National holiday – groups 32, 35 have this seminar on 15.5.
12. week 5. 5. – 11. 5.	The respiratory chain and oxidative phosphorylation. 8.5. National holiday – groups 32, 35 have this seminar on 22.5.
13. week 12. 5. – 18. 5.	Replication, transcription, translation. Groups 32, 35 do not have this seminar.
14. week 19. 5. – 22. 5.	Compensatory lessons. Credit test for the students who did not reach the required limit 52/75.
15. week 25. – 29. 5.	<i>Anatomy dissections</i>

Conditions for giving the course-unit credit

- Full (100%) attendance in seminars is the principal condition.
- If any absence, it must be apologized through Department of Study Affairs **up to five days**.
- If apology is recorded in Information System (IS), then student is allowed to make up the absence according to teacher's instructions.
- Three revision tests are written in seminars, semestral limit for credit is 52/75.
- If the semestral limit is not fulfilled, student must write the Credit test (limit 14/30).
- All absences must be made up before writing the credit test.
- One repetition of the Credit test is approved.

Deadline for any issue (making up all missing and justified lessons, passing the credit test) **is 11. 6. 2015.**

Students that will not meet this requirement will not be given the course-unit credit.

Obtaining of course-unit credits of practices and seminars is the pre-requisite for registration to the examination of Biochemistry I.