

Biochemistry II Faculty of Pharmacy

Name of the subject: Biochemistry II

Neptun-Code: GYOBIBIKE2A and GYOBIBIKG2A

Credit points: 3

Name of the lecturer: Attila Ambrus Ph. D. assistant professor

Teaching secretary: Erzsébet Tóth associate lecturer

Administrator: Zsolt Ozsváth in EOK room 1.508, tel: +36-1-459-1500 ext. 60061

Prerequisites for registration to Biochemistry I: successful examination from Biochemistry I and Organic Chemistry II.

Holidays: 22 Oct. celebration and 23 Oct. national holiday

Lectures

Wednesday 15¹⁰-17¹⁵ in EOK (37-47 Tűzoltó Str.) seminar room No. 1

Lecturers:

István Léránt Ph. D. (IL)

Pál Bauer Ph. D. (PB)

Erzsébet Tóth (ET)

Attila Ambrus Ph. D. (AA)

László Tretter D.Sc. (LT)

Lecture topics / week

week	date	topic	lecturer
1	9 Sept	Hemostasis (IL)	
2	16 Sept	Hemostasis (IL)	
3	23 Sept	Metabolism of xenobiotics and some endogenous molecules (ET)	
4	30 Sept	Signal transduction (PB)	
5	7 Oct	Neurochemistry (ET)	
6	14 Oct	Metabolic integration (LT)	
7	21 Oct	Metabolic integration (LT)	
8	28 Oct	DNA replication and repair (AA)	
9	4 Nov	Genomics. Bioinformatics (AA)	
10	11 Nov	RNA synthesis (AA)	
11	18 Nov	Protein synthesis and sorting (AA)	
12	25 Nov	Regulation of gene expression (AA)	
13	2 Dec	Cell cycle. Cell death (PB)	
14	9 Dec	Tumors (LT)	

Practice topics / week

Week 1:	11 Sept	Safety rules, blood coagulation
Week 3:	25 Sept	Succinate dehydrogenase activity
Week 5:	9 Oct	Mitochondrial oxidation
Week 8:	30 Oct	1st midterm
Week 9:	6 Nov	LDS PAGE of proteins. Retake in extra time.
Week 11:	20 Nov	Serum cholesterol and TAG determination
week 12:	27 Nov	2nd midterm
Week 13:	4 Dec	Trypsin affinity chromatography and activity. 2nd midterm retake
week 14:	11 Dec	retake of both midterms

Practice: every second Friday 10⁴⁵-13¹⁵ in EOK Biochemistry practice room 5

Practice teacher: Erzsébet Tóth

Course requirements

Prerequisites: Organic Chemistry II (GYSZKSZKE2A), Biochemistry I GYOBIBIKE1A)

Students can register to Biochemistry II if they possess successful examinations from **all** the prerequisite subjects. Students transferring from any other University may register, too, if their previous education history qualifies them to do that; the decision is the exclusive right of the Lecturer of Biochemistry. The possibility of acceptance of a previous completion and/or a mark of any Biochemistry courses taken at another University will also be examined by the Lecturer and will be decided on the basis of the student's official credentials (only original and authorized paperwork will be accepted) and the similarities between curricula in question. ERASMUS students may also register if they have completed the prerequisite subjects of Semmelweis University in their home institutions.

Both midterms must be passed.

Conditions for acceptance:

Absence note is not required, but a maximum of two absences are permitted from practices due to any reason.

Knowledge testing during the semester: two obligatory written midterm examinations

Requirements of the signature at the end of the semester: successfully completed midterms, meeting attendance requirements

Performance control in the examination period: written final exam

There is a written semifinal exam with questions as follows: assays, formulae, multiple choice and sentence completion.

Midterm exams

The first obligatory midterm exam: on week 7 on the practice together with experimental practice. Its material is the material of 1-6 week lectures. Practice teachers give and correct the essay and open questions. Repetitions are on weeks 9 and 14.

The second obligatory midterm is on week 12 in extra time. Type of questions: multiple choices. Material: lectures between weeks 7 and 12. Repetitions are on weeks 13 and 14.

Both midterms entitle students for partial exception of the final exam.

Final exams

Written final exam from the materials of the two semesters.

2 blocks from the material of the first semester (multiple choice and open questions) 2 × 10 points

2 blocks from the material of the second semester (multiple choice and open questions) 2 × 10 points

the theory of one practice question - 5 points

The last part contains reactions with formulas and materials of the last three lectures – 5 points.

50 points can be gained as sum. Students have to reach minimum 4 points in the 1-4 blocks to pass. Those students, who get mark 4 for the first or second midterm, will get 8 points for the 3rd or 4th block of the final exam separately; although, these students have a choice to still solve this part of the written semifinal exam to improve to the *excellent* grade. However, such students have to accept the mark they get at the semifinal exam, even if it is worse than 8 points. Those students who get mark 5 for the first or second midterm will get 10 points for the 3rd or 4th block of the final exam separately and they do not need to answer for the questions of these blocks in the final exam. This offer is valid only in this examination period and will not be transferred in case of repetition of the semester or CV exam. Students do not carry over any exception from the first semester (everybody has to answer the questions of the Biochemistry I course).

Grades:

0-19 fail and/or < 4 points from any of 1-4. block

20-27 satisfactory and ≥ 4 points from each block

28-35 fair

36-43 good

44-50 excellent

Results will be published in the Neptun system on the same or the following day. Modifying exam date is free in Neptun, but only two days before the exam. In case a student does not come to the exam, but brings a justification for the absence in 3 days, we withdraw the name from the official exam list; otherwise the „absent from the exam” note will get into the index book. Retake of a failed exam or reparation of a passed exam is possible only after 3 days.

List of teaching materials: Berg-Tymoczko-Stryer: Biochemistry 7th edition

List of course materials: lecture slides with personal lecture notes