

2023/2024. ACADEMIC YEAR							
PROGRAM OF STUDY (FOR STUDENTS OF 1ST YEAR)							
Full (Hun) name of the subject: A biofizika fizikai alapjai							
Program: Undivided program (pharmaceutical): undivided program							
Schedule: full-time							
Short name of the subject: Phys. basics of Biophysics							
English name of the subject: Physical basics of Biophysics							
German name of the subject: Physikalische Grundlagen der Biophysik							
Type of registration: obligatory/obligatory elective/elective/criteria requirement							
Neptun code of the subject: GYKFIZ267E1A							
Responsible Department: Department of Biophysics and Radiation Biology							
Responsible tutor Dr. Levente Herényi Contact information: - phone: +361 459-500/60222 - email: herenyi.levente@med.semmelweis-univ.hu				Title, academic degree: associate professor, Ph.D.			
Name of the persons responsible for the teaching of the subject: Dr. Nikoletta Kósa Dr. Ádám Orosz Dr. Ádám Zolcsák				Title, academic degree: assistant lecturer PhD assistant senior lecturer PhD PhD student			
Class per week: 1 hour				Credit point(s): 1			
Professional content, intent of acquirement and it's function in order to implement the goals of the program: The aim of the subject is to remedy the deficiencies in the education of mathematics and physics in secondary schools, and to provide the background knowledge necessary for the Biophysics subject.							
Short description of the subject: The brief summary of secondary school physics necessary for understanding of biophysics							
<i>Course data</i>							
Recommend ed term	Contact hours (lecture)	Contact hours (practice)	Contact hours (seminar)	Individu al lectures	Total number of contact hours/sem ester	Normal course offer	Consult ations
1. semester	1	-	-	-	14	Autumn semester	--

Program of semester**

Topics of theoretical classes (pro week):

1. Mathematics necessary for understanding biophysical laws.
2. Physical quantities and units. Kinematics – physics of motion
3. Statics – changes of shape, forces, mechanical stress, pressure
4. Dynamics – work, energy
5. Fluid mechanics, Oscillations
6. Waves, Thermodynamics
7. Electricity – charges in rest and in motion
8. Magnetism, magnetic induction

(1.75 hours/occasion) during the first 4 weeks of the semester

Topics of practical classes (pro week):

-

Schedule of consultations: -

Course requirements

Prerequisites: -

Conditions of attending the classes, amount of acceptable absents, way of presentation of leave, opportunity for makeup:

Number, topics and dates of tests during the semester, opportunities of makeup and improvement of results*:**

The grading method; the conditions for getting the signature; the number, topic(s) and date(s) of the mid-term assessments, (reports, term tests), and the process in which they contribute to the final grade; and the possibility of their retake or their upgrading retake (as provided in §§ 25-28 of the STUDY AND EXAMINATION REGULATIONS):

Requirements of signature (as provided for in STUDY AND EXAMINATION REGULATIONS § 29):

Participation on at least 75% of lessons

Number and type of projects students have to perform independently during the semester and their deadlines:

Type of the semester-end examination: signature*/practical grade*/semi-final*/final* (*Please underline*)

Examination requirements: as published by the education-research department on the MOODLE interface by the start of the academic term.

Form of the semester-end examination: written*/oral*/combined examination/**practical examination/the assessment of completing project work (according to STUDY AND EXAMINATION REGULATIONS 30.§)*** (*Please underline*)

The possibility and conditions for offering grades:

A list of the basic notes, textbooks, resources and literature that can be used to acquire the knowledge necessary to master the curriculum and to complete the assessments, as well as the main technical and other aids and study aids that can be used:

In the case of a subject lasting more than one semester, the position of the teaching/research department on the possibility of parallel enrolment and the conditions for admission**:**

yes*/no*/on and individual assesment basis* (*Please underline*)

The course description was prepared by:

Dr. Levente Herényi and Dr. István Voszka

**** A tantárgy tematikáját oly módon kell meghatározni, hogy az lehetővé tegye más intézményben a kreditismerési döntéshozatalt, tartalmazza a megszerzendő ismeretek, elsajátítandó alkalmazási (rész)kézségek, (rész)kompetenciák és attitűdök leírását, reflektálva a szak képzési és kimeneti követelményeire.**