Biophysics (2024)

Regulations and Additional Information for ED Students

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How to get credit for a biophysics course?

To receive credit, students must fulfil all of the following conditions:

- Attend all practical sessions, submit reports approved by tutors and achieve a minimum of 15 points,
- Attend all seminars.
- Pass all quizzes on the e-learning platform. After each lecture and seminar, students are required to complete a short quiz; To pass the quiz, a student must answer at least 60% of the questions correctly,
- Pass the final written test, covering all the material from the lectures, seminars and practical classes.

Before the first meeting, students should check on the elearning platform which group they belong to and what is the order of the seminars/experiments in that group (see **Division into Groups** and **Schedule** on the e-learning platform). If the order changes, this will be announced on the e-learning platform.

Students will be assigned to groups according to the allocation made by the Dean's Office (this is not a matter of free choice). Students may only change groups at the beginning of the course if they have good reason to do so.

Students attending laboratory classes or seminars should sign the attendance register. This is an important responsibility of the student. If the list is missing, the instructor of the class should be asked for it. Failure to sign will be treated as an absence.

Prior to the laboratory activities, students should read and understand the relevant instructions available on the e-learning platform. At the beginning of the laboratory session students can expect an introduction from the teacher. During this part of the meeting, students will have the opportunity to ask questions and clarify any doubts about the experiment.

This will be followed by an experiment / (demonstration). After the experiment / demonstration students will be given an

experiment report form with the instructions to follow and the questions to answer. The report should be signed by the student. The form should be returned to the teacher for evaluation before the end of the session.

A teacher may refuse to accept a report if the text is illegible or the report is carelessly prepared (e.g. dirty or crumpled paper, etc.). In such a situation, the report will be considered undelivered.

Students should bring their own calculators, pens, pencils, rulers and erasers.

Students will be assessed on the results of their reports. The results should be available to students on the e-learning platform the following week. The maximum number of points that can be awarded per report is 5, so a total of 25 points can be awarded for 5 sessions.

After each lecture and during or after each seminar students will be given a corresponding short quiz. Students must answer at least 60% of questions correctly to pass the quiz. Passing the quiz is a prerequisite for recognition of student attendance.

There will be a final test in May covering all material from lectures, seminars and practical exercises. Students must answer at least 60% of the questions correctly to pass the test. Students who do not pass the test may retake it. There are two (and only two!) opportunities to resit the final test. In order to participate in the final test a student has to submit 5 accepted reports and collect at least 15 points during laboratory sessions. A student should also participate in all of the seminars and solve all of the quizzes on the e-learning platform.

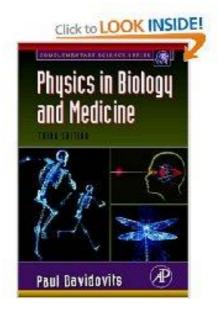
Attention:

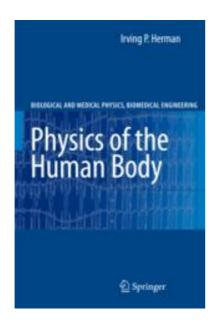
Smoking, eating and drinking are prohibited in the laboratories.

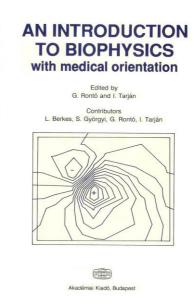
Suggested Literature:

- Daviodovits P.: Physics in Biology and Medicine (3rd ed.), Harcourt Academic Press, An Imprint of Elsevier, 2008
- 2. Herman I.P.: Physics of the Human Body, Springer, Berlin-Heidelberg-New York, 2007

3. Ronto G., Tarjan I. (Eds.): An Introduction to Biophysics with Medical Orientation, (3rd ed.), Akadémiai Publishing Company, Budapest, 1999



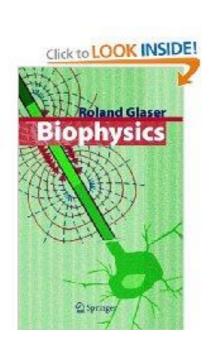


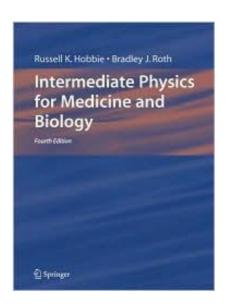


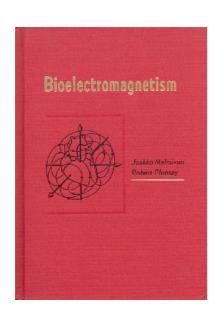
Supplementary Literature:

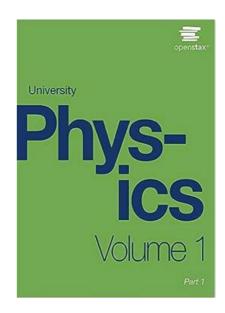
- 1. Glaser R., Biophysics, Springer-Verlag 2005
- 2. Hobbie R.K., Roth B.J.: Intermediate Physics for Medicine & Biology (4-th ed.), Springer, 2007

- 3. Malmivuo J., Plonsey R.: Bioelectromagnetism, Principles and Applications of Bioelectric and Biomagnetic Fields. New York, Oxford University Press, 1995.
- Samuel J. Ling, Truman State University, Jeff Sanny, Loyola Marymount University, William Moebs formerly of Loyola Marymount University (senior contributing authors) University Physics (Vol 1, Vol 2, Vol 3) Access for free at openstax.org.









The teacher can also suggest reading a text in a specialised magazine on the subject of the experiment.

Information about the final test:

The final test lasts 90 minutes and contains 50-60 questions (items). There are four answers (options) to each question as in the example below:

The mass-energy equivalence is described by the equation:

a)
$$E = mc$$
 b) $E = m/c$ c) $E = m^2c$ d) $E = mc^2$

There is only one correct answer to each question. To pass the test, student must answer at least 60% of the questions correctly.

The results will be available no later than two working days after the test.

Rules:

- Mobile phones, iPods and other data transmission devices are strictly prohibited,
- No personal notes or other materials may be used during the examination,
- Before the exam, all personal belongings should be left near the teacher's desk,
- It is forbidden to talk to other students during the examination,
- You may only use your own calculator,
- If you have a question during the examination, you should raise your hand and wait in silence until an invigilator is available to answer your question.

Problems

1) A student was absent once or twice.

If a student was absent from a practical class or seminar, he or she should inform the course organizer (piotr.jelen@wum.edu.pl) of the absence and the reason for it as soon as possible.

He/she is also required to make up this absence. A student should arrange the exact date and time with the teacher in charge and carry out the missing experiment (or attend the seminar) with another group of students.

Each practical class is held 12 times. Each seminar runs 6 times. Opportunities to make up practical classes are limited due to classroom capacity. Practical classes cannot be completed by writing a paper. It is necessary to participate in activities.

We do not organise additional seminars for students, and attendance is the only form of credit.

Important!

- We do not organise any additional classes. A student can choose only one of the experiments / seminars listed in the schedule of classes which is available on the website of the Department of Biophysics, Physiology and Pathophysiology and is posted on the ED board near the entrance to our department.
- 2) A student has been absent 3 or more times and has not provided an official document confirming the reason for the absence.
 - Such a student blatantly disregards the subject and we cannot help him. We can only offer to try to pass Biophysics in the next academic year.
- 3) A student was absent 3 times or more and provided an official document confirming the reason for the absence.

We will try to help, but only if the student is able to make up the absences. If this is not possible, and if a student's numerous absences are related to their health, we suggest that they consider taking a medical leave of absence.

4) A student did not achieve 15 points in practical classes.

We cannot help.

5) A student did not pass the final test as well as two retakes.

We cannot help. We do not organise any additional tests in May, June or in September during a retake session.

Address: Zakład Biofizyki, Fizjologii i Patofizjologii, ul. Chałubińskiego 5, 02-004 Warszawa (4th floor)

Requests:

- Please use the cloakroom. We do not have enough stands in our department. The cloakroom is located at the entrance from Chałubińskiego Street. You can open the door using your student ID.
- Do not use the lift yourself. It is old and cannot be operated from outside. It is for the use of patients and hospital staff only

