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|  | | | **UNIVERSITY OF EAST SARAJEVO**  Faculty of Medicine | | | | | | | | | | |  | | |
| ***Study program:medicine*** | | | | | | | | | | |
| Integrated academic studies | | | | | | I study year | | | | |
| **Full subject title** | | | BIOPHYSICS | | | | | | | | | | | | | |
| **Department** | | | Department for preclinical subjects, Faculty of Medicine in Foca | | | | | | | | | | | | | |
| **Subject code** | | | | | | **Subject status** | | | | | **Semester** | | | **ECTS** | | |
|
| МЕ-01-2-010-2 | | | | | | elective | | | | | II | | | 1 | | |
| **Professor/ -s** | | associate. professor. Milan Kovacevic, PhD | | | | | | | | | | | | | | |
| **Associate/ -s** | |  | | | | | | | | | | | | | | |
| **Number of lectures/ teaching workload (per week)** | | | | | | | **Individual student workload (in hours per semester)** | | | | | | | | **Coefficient of student workload So[[1]](#footnote-1)** | |
| **L** | **E** | | | | **SP** | | **L** | | | **E** | | **SP** | | | **So** | |
| 1 | 0 | | | | 0 | | 1\*15\*1 | | | 0\*15\*1 | | 0\*15\*1 | | | 1 | |
| total teaching workload (in hours, per semester)    1\*15 + 0\*15 + 0\*15 =15 | | | | | | | | total student workload (in hours, per semester)    1\*15\*1 + 0\*15\*1 + 0\*15\*1 = 15 | | | | | | | | |
| Total subject workload (teaching + student):15 + 15= 30 hours per semester | | | | | | | | | | | | | | | | |
| **Learning outcomes** | | 1. Adoption of basic concepts on the physical laws of the functioning of the human organism.  2. Getting a good base for understanding physiology, cardiology, neurology, oftamology, radiology, etc.  3. Acquisition of elementary knowledge from modern biophysics as the basis for application in modeling in medicine.  4. Acquiring operational knowledge for students to independently find, read and understand the latest professional and scientific papers from biomedical research as well as to independently solve some problems in biophysics. | | | | | | | | | | | | | | |
| **Preconditions** | | No preconditions | | | | | | | | | | | | | | |
| **Teaching methods** | | Lectures and seminar papers | | | | | | | | | | | | | | |
| **Subject content per week** | | **Lectures:**  1-2. Biomechanics of the locomotor system of man  3-4. Biomechanics of the cardiovascular system  5-6. Therodynamics of the human organism  7-8. Transport processes in the human organism  9-10. Bioelectric processes in the human organism  11-12. Bioacoustics  13-14. Lightness in medicine - physics of eye and vision  15. Seminars | | | | | | | | | | | | | | |
| **Compulsory literature** | | | | | | | | | | | | | | | | |
| **Author/s** | | | | **Publication title, Publisher** | | | | | | | | | **Year** | | **Pages (from-to)** | |
| **Hobbie**, Russell K., **Roth**, Bradley J | | | | Intermediate Physics for Medicine and Biology", Springer | | | | | | | | | 2015. | |  | |
|  | | | |  | | | | | | | | |  | |  | |
| **Additional literature** | | | | | | | | | | | | | | | | |
| **Author/s** | | | | **Publication title, Publisher** | | | | | | | | | **Year** | | **Pages (from-to)** | |
| P.I. Herman | | | | Physics of the human body, Springer-Verlag, Berlin Heidelberg | | | | | | | | | 2007 | |  | |
|  | | | |  | | | | | | | | |  | |  | |
| **Student responsibilities, types of student assessment and grading** | | **Grading policy** | | | | | | | | | | | | **Points** | | **Percentage** |
| Pre-exam activities | | | | | | | | | | | | | | |
| seminar paper | | | | | | | | | | | | 50 | | 50% |
| Final exam | | | | | | | | | | | |  | |  |
| Written test | | | | | | | | | | | | 50 | | 50% |
| TOTAL | | | | | | | | | | | | 100 | | 100 % |
| **Certification date** | | December 13 th 2018 | | | | | | | | | | | | | | |

Responsible Person of the Faculty

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Coefficient of student workload So is calculated as it follows:

   а) for the study programs not going through the licensing process: So = (total workload in semester for all the subjects 900 hrs – total teaching workload L+E in semester for all the subjects 870 hrs)/ total teaching workload L+E in semester for all the subjects \_\_\_\_\_ hrs = \_\_\_\_. Consult form content and its explanation.

   b) for the study programs going through the licencing process, it is necessary to use form content and its explanation. [↑](#footnote-ref-1)