

INTERACTION OF PHYSICAL FIELDS WITH BIOLOGICAL OBJECTS

The discipline «Interaction of physical fields with biological objects» is studied in the 3rd year of the bachelor «Radioelectronic devices» and refers to the cycle of professional and practical training of the biotechnical and medical apparatuses and systems design. The main task of the course is to develop students' understanding of the nature of physical fields (electromagnetic, thermal, acoustic, and other), ability to analyze the nature of their occurrence and influence on biological objects, to determine the main characteristics of the propagation of fields in the biomedica, and to take into account the peculiarities of interaction of fields with biological objects during the design and development of modern medical apparatuses. This course is base for studying of professional disciplines: «Biophysics and Photonics», «Introscopy of biological objects and methods to display information», «Equipment for biomedical research», «Electronic diagnostic devices and systems», «Electronics for medical technologies».