

Educational Programme	<b>Biophysics and Biomedical Physics</b>
Degree Awarded	Master in Biophysics and Biomedical Physics
Standard Length of Studies (Number of ECTS Credits)	2 years – 4 semesters – 120 ECTS
Type of Study	Full-time
Higher Education Institution	Babeş-Bolyai University
Faculty / Department	Faculty of Physics
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Profile of the Degree Programme	Biophysics and Biomedical Physics degree program
Target Group / Addressees	Graduates in Physics, Chemistry, Environmental Science, Biology, Medicine and Pharmacy.
Entrance Conditions	The admission exam consists of a scientific-based interview designed to test the students' knowledge in the field of the chosen domain. This counts for 50% of the total, while the overall undergraduate average grade represents the remaining 50%.
Further Education Possibilities	The master's programme aims at providing students with the appropriate tools for further doctoral studies and to become professional experts in the field.
Description of Study	The master's program in Biophysics and Biomedical Physics allows students to acquire fundamental knowledge and expertise in a multidisciplinary area. <i>Core courses:</i> Biomaterials and Bio-Nanostructures; Physical Methods of Investigation and Medical Therapy Treatment; Resonance Methods with Biomedical Applications; Medical Applications of Radioisotopes; Medical Imaging; Modelling Methods for Systems of Biomolecular Interest; Nanobiophotonics. <i>Partner universities:</i> Claude Bernard University of Lyon, Technical University of Aachen, University of Padua, University of Würzburg and the National University of Distance Learning of Madrid, all within the Erasmus programme.
Purposes of the Programme	The program provides a basic training in theoretical and experimental physics and biophysics, bionanostructures, medical equipment used in diagnosis and treatment, imaging, polymers and composite materials.
Specialization / Area of Expertise	The curriculum of this program provides basic training in an area of great interest, both theoretical and especially practical, namely, the field of medical physics and biophysics.
Extra Peculiarities	-
Practical Training	Throughout the course students are required to undertake one semester of research work at Babeş-Bolyai University or abroad.

Final Examinations	Research master thesis
Gained Abilities and Skills	<ul style="list-style-type: none"> <li>- Acquiring main physical methods used in medical diagnostics and treatment</li> <li>- Knowledge of important issues of anatomical, clinical and pharmaceutical nature</li> <li>- Deep knowledge of medical electronics and equipment</li> <li>- Becoming familiar with some aspects of modern diagnosis and treatment used in nuclear medicine, radiology, oncology, medical imaging</li> <li>- Specific concepts ensuring good collaboration between physicists, doctors, biologists and chemists involved in the medical act</li> <li>- Skills of theoretical modeling and complex biomedical systems analysis, interpretation of their properties, obtained by different spectroscopic methods</li> </ul>
Job Placement, Potential Field of Professional Activity	<p>The course is designed to equip students with the basic skills required for a career in research (industry, hospitals and laboratories) and in medical biophysics-related professions, such as medical physicist in hospitals, clinics and various companies that produce and market medical devices.</p>