



National University of Science and Technology POLITEHNICA Bucharest

**Faculty of Medical Engineering**  
**Smart Biomaterials and Applications**

Second cycle degree – 2 years Master Programme (4 semesters, 120 ECTS);

**COURSE AND LABORATORY DIAGRAM**



<b>First Year – First Semester</b>	<b>Second Year – First Semester</b>
<ul style="list-style-type: none"><li><input type="checkbox"/> Smart Biomaterials</li><li><input type="checkbox"/> Smart and Biomimetic Biomaterials</li><li><input type="checkbox"/> Active nanobiostructured surfaces and interfaces engineering</li><li><input type="checkbox"/> Settings of Biomaterials</li><li><input type="checkbox"/> Dental Cements</li><li><input type="checkbox"/> Scientific Research I</li> <li><input type="checkbox"/> Proiectarea și managementul programelor educaționale*</li></ul>	<ul style="list-style-type: none"><li><input type="checkbox"/> Advanced bioceramics</li><li><input type="checkbox"/> Protein engineering</li><li><input type="checkbox"/> (Bio)Functionalized polymers-scaffolds for regenerative and personalized medicine</li><li><input type="checkbox"/> Advanced technologies for biomaterials processing – 2</li><li><input type="checkbox"/> Ethics and academic integrity</li><li><input type="checkbox"/> Scientific research III</li> <li><input type="checkbox"/> Didactica domeniului și dezvoltării în didactica specializării (învățământ liceal, postliceal)*</li><li><input type="checkbox"/> Sociologia educației / educație interculturală*</li></ul>
<b>First Year – Second Semester</b>	<b>Second Year – Second Semester</b>
<ul style="list-style-type: none"><li><input type="checkbox"/> Artificial tissues and organs</li><li><input type="checkbox"/> Radiation interactions with nanobiomaterials and living tissue</li><li><input type="checkbox"/> Advanced technologies for biomaterials processing - 1</li><li><input type="checkbox"/> Carbon-based polymeric biomaterials for bioengineering</li><li><input type="checkbox"/> Tissue regeneration engineering with stem cells</li><li><input type="checkbox"/> Scientific Research II</li> <li><input type="checkbox"/> Psihopedagogia adolescenților, tinerilor și adulților*</li><li><input type="checkbox"/> Multimedia în educație*</li></ul>	<ul style="list-style-type: none"><li><input type="checkbox"/> Scientific research, research practice and elaboration of dissertation</li> <li><input type="checkbox"/> Practică pedagogică de specialitate în învățământul preuniversitar (învățământ liceal, postliceal)*</li><li><input type="checkbox"/> Examen de absolvire: Nivelul II*</li></ul>