

<b>Module title</b>		<b>Abbreviation</b>
Biomaterials (Lecture and Practical Course / Seminar)		03-FU-BM-152-m01
<b>Module coordinator</b>		<b>Module offered by</b>
holder of the Chair of Functional Materials in Medicine and Dentistry		Faculty of Medicine
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
7	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	undergraduate	--
<b>Contents</b>		
Fundamental and specific knowledge about biomaterials out of metals, ceramics and polymers with surface modification and characterisation. Fabrication as well as examples for application will be addressed. Modern approaches in biomaterial research including hydrogels, additive manufacturing, 3D cell scaffolds and materials for tissue engineering will also be discussed.		
<b>Intended learning outcomes</b>		
Students acquire fundamental knowledge in the field of biomaterials, their use in clinics as well as methods for biomaterial fabrication.		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
V (4) + P (2)		
<b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
a) assessment and b) Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical assignments (2 to 4 random examinations) Assessment offered: Once a year, summer semester Language of assessment: German and/or English creditable for bonus		
<b>Allocation of places</b>		
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<b>Additional information</b>		
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<b>Workload</b>		
210 h		
<b>Teaching cycle</b>		
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<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
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<b>Module appears in</b>		
Bachelor' degree (1 major) Functional Materials (2015) Bachelor' degree (1 major) Functional Materials (2021)		