

Module title		Abbreviation
Biomaterials		03-FU-BM-122-m01
Module coordinator		Module offered by
holder of the Chair of Functional Materials in Medicine and Dentistry		Faculty of Medicine
ECTS	Method of grading	Only after succ. compl. of module(s)
7	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
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.		
Intended learning outcomes		
Students have developed a deep knowledge in the field of biomaterials, their use in clinics as well as methods for biomaterial fabrication.		
Courses (type, number of weekly contact hours, language – if other than German)		
This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none"> • 03-FU-BM-1-122: V (no information on SWS (weekly contact hours) and course language available) • 03-FU-BM-2-122: P + P (no information on SWS (weekly contact hours) and course language available) 		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. <p>Assessment in module component 03-FU-BM-1-122: Biomaterials (Lecture)</p> <ul style="list-style-type: none"> • 5 ECTS, Method of grading: numerical grade • a) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) • Language of assessment: German, English if agreed upon with the examiner <p>Assessment in module component 03-FU-BM-2-122: Biomaterials (Practical course and seminar) Biomaterials (Practical course and seminar)</p> <ul style="list-style-type: none"> • 2 ECTS, Method of grading: (not) successfully completed • Vortestate (pre-experiment exams, approx. 15 minutes each) and logs (approx. 5 pages each) • Assessment offered: once a year, summer semester • Language of assessment: German, English if agreed upon with the examiner 		
Allocation of places		
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Additional information		
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Workload		
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Teaching cycle		
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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in

Bachelor' degree (1 major) Functional Materials (2012)