

**OVERVIEW CHANGES OF THE STUDY DOCUMENTS MOLECULAR BIOENGINEERING**

Study documents of 10.12.2014

**Changes of 16 February 2022 - Change of module responsible via CMCB WR**

Old version	New version
Genomes and Evolution	
Prof. Francis Stewart	Prof. Henrik Bringmann
Biophysics	
Prof. Francis Stewart	Prof. Alf Honigmann
Genome and Stem Cell Engineering	
Prof. Francis Stewart	Prof. Konstantinos Anastassiadis
Lab Project	
Prof. Francis Stewart	Prof. Konstantinos Anastassiadis

**Changes of 16 February 2022 - Change of recommended literature via CMCB WR**

	New version
Biophysics	
	<ul style="list-style-type: none"> <li>o R. Cotterill: Biophysics</li> <li>o R. Glaser: Biophysics</li> <li>o H.C. Berg: Random Walks in Biology.</li> <li>o P.W. Atkins: Physical Chemistry</li> <li>o D.H. Boal: Mechanics of the Cell</li> </ul>
Genome and Stem Cell Engineering	
	<ul style="list-style-type: none"> <li>o Genome Editing and Engineering: From TALENs, ZFNs and CRISPRs to Molecular Surgery. (2018) Krishnarao Appasani ISBN-13: 978-1107170377</li> <li>o Developmental Biology (12th Edition – 2019) Englisch Ausgabe von Michael J. F. Barresi (Autor), Scott F. Gilbert (Autor) ISBN-13: 978-1605358222</li> <li>o Stem Cell Engineering: Principles and Practices (1st Edition - 2012), David Schaffer, Joseph D. Bronzino, Donald R. Peterson, ISBN-13: 978-1439872048</li> <li>o Handbook of Stem Cells (2nd Edition - 2013) Vol. I: Pluripotent stem cells Vol. II: Adult and Fetal stem cells Robert Lanza, Anthony Atala ISBN: 978-0-12-385942-6</li> <li>o Principles of Regenerative Medicine (2nd Edition – 2010), Anthony Atala ISBN-13: 978-0123694102</li> </ul>
Protein Networks and Protein Engineering	

	<ul style="list-style-type: none"> <li>o Molecular Biology of the Cell (Bruce Alberts et al.)</li> <li>o Biochemistry (John Tymoczko et al.)</li> <li>o Principles of Biochemistry (Lehninger et al.)</li> <li>o Bioanalytics (Lottspeich and Engels)</li> <li>o Synthetic Biology - A Primer (Baldwin et al.)</li> </ul>
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#### Changes of 21 April 2021 - Change of module responsible - via CMCB WR

Old version	New version
Introduction to Proteomics	
Prof. Bernard Hoflack	Prof. Simon Alberti
Protein Networks and Protein Engineering	
Prof. Bernard Hoflack	Prof. Simon Alberti
Biophysics	
Prof. Jochen Guck	Prof. Francis Stewart

#### Changes of 10 August 2018 - Study Regulations

Old version	New version
Chemistry with Biomolecules	
2 written examinations	1 written examination (120 min) 75%
1 lab protocol	1 lab protocol 25 %
Structural and computational biology	
	For the module to be passed, the written examination has to be evaluated with a min of sufficient (4.0)
Lab Project	
1 manuscript	1 manuscript 2/3 1 oral examination (15 min) 1/3
Study Regulations -overall in the text	
BIOTEC	CMCB

#### Changes of 10 August 2018 - Examination Regulations

Old version	New version
§ 12, Art. 1 -one sentence added	
	In individual cases that are defined in the module descriptions passing of the module requires passing individual exams or assignments.

<b>§ 16 - composition of the Examination Committee</b>	
4 professors, 1 scientific assistant and 2 students are members of the Examination committee.	3 professors, 1 scientific assistant and 1 student are members of the Examination committee.
<b>§ 19, Art. 10 - one sentence added</b>	
	A failed master's thesis can be repeated once within one year. After this deadline has elapsed, it is deemed as failed again. A 2nd repetition is possible until the next examination date; after this it's considered as definitively failed. Another repetition or a repetition of a passed master's thesis is not permitted.
<b>Examination Regulations -overall in the text</b>	
BIOTEC	CMCB

### Changes of 18 March 2018 - Examination Regulations

<b>Old version</b>	<b>New version</b>
<b>§ 11 Art. 5 added</b>	
	If the student declares to the examination office in written form that he renounces to take an examination, this examination is considered as failed (5,0) in this attempt. The renunciation is irrevocable and requires the admission according to §4.
<b>§ 12, Art 3 (2)</b>	
	deleted
<b>§ 14, Art 1 (4 to 6)</b>	
	deleted
<b>§ 24 Art 2 added</b>	
	The professional requirements, fulfilled due to renunciation according to § 11 (5), are considered as met if the Examination Committee approves them on basis on the student's application.

### Changes of 14 Feb 2017 - Study Regulations - valid as of 1 April 2017

<b>Old version</b>	<b>New version</b>
<b>Introduction to Proteomics</b>	
Oral examination	Oral examination (max. 15 students) or written examination (more than 15 students) 75% Lab protocol 25 %

Genome and Stem Cell Engineering	
Essay 40%, & Presentation 40% Lab protocol 20%	2 presentations, 40% each lab protocol 20 %
Protein Networks and Protein Engineering	
4 SWS lecture and 6 SWS lab classes 2 oral examinations, 50% each	4 SWS lecture and 3 lab classes 2 presentations, 40% each lab protocol 20%
8 ECTS	7 ECTS
Lab Project	
15 SWS	18 SWS
15 ECTS	16 ECTS