

Module title		Abbreviation
Biochemistry 1		o8-BC1-152-m01
Module coordinator		Module offered by
holder of the Chair of Biochemistry		Chair of Biochemistry
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
<p>Comprising lectures and exercises, this module acquaints students with the fundamental principles of biochemistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, secondary, tertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (glycolysis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta oxidation, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module also discusses the structure of the DNA and the central dogma of molecular biology.</p>		
Intended learning outcomes		
<p>Students have become familiar with the fundamental principles of the topics in biochemistry that were discussed in the module. They are able to describe the key biochemical processes in cellular systems.</p>		
Courses (type, number of weekly contact hours, language – if other than German)		
V (2) + Ü (1)		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
written examination (approx. 60 to 90 minutes)		
Allocation of places		
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Additional information		
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Workload		
150 h		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
§ 42 I Nr. 2 § 62 I Nr. 2		
Module appears in		
<p>Bachelor' degree (1 major) Biochemistry (2015) Bachelor' degree (1 major) Biology (2015) Bachelor' degree (1 major) Chemistry (2015) Bachelor' degree (1 major) Food Chemistry (2015) Bachelor' degree (1 major) Functional Materials (2015) First state examination for the teaching degree Grundschule Chemistry (2015) First state examination for the teaching degree Realschule Chemistry (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Mittelschule Chemistry (2015) Bachelor' degree (1 major) Food Chemistry (2016) Bachelor' degree (1 major) Biology (2017) Bachelor' degree (1 major) Biochemistry (2017) Bachelor' degree (1 major) Chemistry (2017) Bachelor' degree (1 major) Food Chemistry (2019)</p>		

First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015))
Bachelor' degree (1 major) Biology (2021)
Bachelor' degree (1 major) Functional Materials (2021)
Bachelor' degree (1 major) Food Chemistry (2021)
Bachelor' degree (1 major) Biochemistry (2022)
Bachelor' degree (1 major) Biology (2022)