

# Module Human Biochemistry

Module Name: Human Biochemistry

Module Number	<b>X4M 2320</b>	Level	Master	Short HB Name
Responsible Lecturers	Prof. Dr.-Ing. Ralf Moll			
Department, Facility	THL, Applied Natural Sciences			
Course of Studies	Biomedical Engineering, Master			
Compulsory/elective	Elective	ECTS Credit Points	4	
Semester of Studies	2	Semester Hours per Week	4	
Length (semesters)	1	Workload (hours)	120	
Frequency	SuSe	Presence Hours	50	
Teaching Language	English	Self-Study Hours	70	
Consideration of Gender and Diversity Issues	<input checked="" type="checkbox"/> Use of gender-neutral language (THL standard) <input type="checkbox"/> Target group specific adjustment of didactic methods <input type="checkbox"/> Making subject diversity visible (female researchers, cultures etc.)			
Applicability	Biomedical Engineering			
Remarks	None			

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### Course 1: Human Biochemistry Lecture

Course Number		Short Name	HBL
Course Type	Lecture	Form of Learning	Presence
Mandatory Attendance	<input type="checkbox"/>	ECTS Credit Points	2
Participation Limit	16	Semester Hours per Week	2
Group Size (practical training, exercises, ...)	None	Workload (hours)	60
Teaching Language	English	Presence Hours	25
Study Achievements („Studienleistung“, SL)	None	Self-Study Hours	35
SL Length (minutes)	n. a.	SL Grading System	n. a.
Exam Type	Written Exam	Exam Language	English
Exam Length (minutes)	90	Exam Grading System	One-third Grades
Learning Outcomes	Biochemistry with related aspects of actual medical applications (Medical Biotechnology), Molecular aspects of In Vitro Diagnostics.		
Participation Prerequisites	Introductory Biochemistry and cell biology		
Contents	Basic / Advanced Biochemistry lectures		
Literature	Not fixed: journal articles, human metabolism: textbooks		
Remarks	Lectures using presentations and board, student's talks/open discussions, interactive teamwork with lecturer/feedback		

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### Course 2: Human Biochemistry Lab

Course Number		Short Name	HBL
Course Type	Lab	Form of Learning	Presence
Mandatory Attendance	<input checked="" type="checkbox"/>	ECTS Credit Points	2
Participation Limit	16	Semester Hours per Week	2
Group Size (practical training, exercises, ...)	n. a.	Workload (hours)	60
Teaching Language	English	Presence Hours	25
Study Achievements („Studienleistung“, SL)	Graded lab report	Self-Study Hours	35
SL Length (minutes)	n. a.	SL Grading System	One-third Grades
Exam Type	n. a.	Exam Language	n. a.
Exam Length (minutes)	n. a.	Exam Grading System	n. a.
Learning Outcomes	Lab work organization, important biochemical methods		
Participation Prerequisites	Introductory lab work in Chemistry and/or Biochemistry courses as bachelor		
Contents	Handling of micropipettes/analytical balance, buffer production, acid/base titration, ELISA, DNA methods, electrophoresis		
Literature	Lab script		
Remarks	Description/performance of lab experiments		