

Subject	Biochemistry of exercise		
Type	Type	Semester	ECTS
	MANDATORY (M)	I	3
Lecturer	Dr.Sc. Kujtim Thaçi		
Goals and objectives	The course aims to provide an advanced understanding of the core principles and topics of Biochemistry and their experimental basis, and to enable students to acquire a specialised knowledge and understanding of selected aspects by means of a stem/branch lecture series Through problem sets, exams, and seminars and quizzes, students will demonstrate the ability to engage in scientific as well as quantitative and qualitative reasoning. Students will also demonstrate the ability to communicate science in writing.		
Learning outcomes	<p>After successful completion of the course, student will know:</p> <ul style="list-style-type: none"> ✓ Knowledge and understanding of basic principles of biochemistry ✓ Cognitive skills (thinking and analysis) Thinking and analysis will be developed through solving case studies and problems ✓ Communication skills (personal and academic) Through experiment work within a group ✓ Practical and subject specific skills (Transferable Skills). Practical skills will be developed through experimentation work. ✓ Exhibit a knowledge about differences of body chemistry levels under normal and unnormal conditions ✓ Accurately record and report results, indicating normal and abnormal values. 		
Content	Java	Topics	
	1	Syllabus Presentation	
	2	Modern clinical biochemistry laboratory	
	3	Structure and metabolism of carbohydrates	
	4	Glukose metabolism and the pathophysiology of diabetes mellitus	
	5	Structure and metabolism of proteins	
	6	Structures and metabolism of lipids	
	7	Structure and metabolism of hormones	
	8	Mid-exam – 1	
	9	Enzymes	
	10	Vitamins 10	
	11	Water and electrolytes	
	12	Metabolism of ethanol	
	13	Structure of nucleic acids	
	14	Biology of Cancer-Types of cancer	
15	Mid-exam – 2		
Teaching/learning methods	Activity		Weight (%)
	Lectures		30%
	Laboratory		20%
	Research		20%
	Independent and group learning		30%
Methods of Evaluation	Methods of evaluation:		%
	Participation		10%
	a) Medium-term exam-1		40%
	b) Medium term exam - 2		40%
	Course design (developing a training program for a certain group with disabilities)		10%
Sources	Sources		Number
	Lectures		1
	Presantations		1
	Web of Science		1
	PubMed		1

	Scopus		1
ECTS Workload	Activity	Weekly hours	Workload
	Lectures	2	24
	Lab	1	12
	Course project	n/a	14
	Independent work	n/a	25
Literature	1. [Peter_Rae]_Clinical_Biochemistry_Lecture_Notes 2018 2. William J.Marshall. Clinical biochemistry Metabolic and clinical aspects . Third edition 2014 Materiali i nevojshëm për kurs/Librat tjera për lexim Recommended Course Material(s)/Reading(s)/Other 1. (Allan Gaw, Michael J.Murphy).Clinical biochemistry AN ILLUSTRATED COLOUR TEKST.Fifth edition 2013(Përkthim shqip)		
Ethical standards	This course follows the UBT College Code of Ethics, requiring all students to behave accordingly. Any instance of academic misconduct, including but not limited to fraud, plagiarism, or other forms of dishonesty, will lead to significant penalties like failure of specific assessment or the entire course, as well as further disciplinary measures in line with UBT College's academic integrity policies.		
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