

MEDICAL BIOCHEMISTRY 2
2nd COURSE
Academic year 2025/2026 (Summer semester)

LECTURES

WEEK	DATE	TOPIC
1.	17. 02. 2026	A. AMINO ACID AND PROTEIN METABOLISM Protein metabolism – digestion, absorption, amino acids in tissue
	19. 02. 2026	Ammonia transport, urea synthesis, glutamine metabolism
2.	24. 02. 2026	Metabolism of individual amino acids, specialized products and inherited disorders
	26. 02. 2026	B. ORGAN AND TISSUE BIOCHEMISTRY Metabolism of haem and bilirubin, bile pigments, jaundice
3.	03. 03. 2026	Liver biochemistry: the central organ of metabolism and xenobiotic biotransformation
	05. 03. 2026	Integration of nutrient metabolism, hormonal regulation
4.	10. 03. 2026	Metabolism during fasting, stress, pregnancy, lactation and physical exercise
	12. 03. 2026	Kidney biochemistry, urine formation, glomerular filtration
5.	17. 03. 2026	Acid–base balance, buffer systems, acid–base disorders
	19. 03. 2026	Extracellular matrix and connective tissue: mechanical and signalling functions in tissues
6.	24. 03. 2026	Bone and adipose tissue – metabolically active connective tissues
	26. 03. 2026	Muscle biochemistry
7.	31. 03. 2026	1 st CREDIT TEST (lecture 11 of winter semester, lectures 1 – 7 of summer semester)
	02. 04. 2026	Dean's Day
8.	07. 04. 2026	Dean's Day
	09. 04. 2026	C. HOMEOSTASIS AND HORMONAL REGULATION Reactive oxygen species, antioxidant systems and redox balance 1 st retake of the 1. CREDIT TEST
9.	14. 04. 2026	Mineral metabolism, trace elements, ionic balance
	16. 04. 2026	Signal transduction – receptors, second messengers, signalling pathways
10.	21. 04. 2026	Biochemistry of nervous tissue
	23. 04. 2026	Metabolically significant hormones 1
11.	28. 04. 2026	Metabolically significant hormones 2
	30. 04. 2026	D. SPECIAL FUNCTIONAL SYSTEMS Blood biochemistry
12.	05. 05. 2026	2 nd CREDIT TEST (lectures 8 – 15 of summer semester)
	07. 05. 2026	Vitamins and nutritional biochemistry
13.	12. 05. 2026	Diseases of civilization 1: diabetes mellitus, atherosclerosis
	14. 05. 2026	Diseases of civilization 2: oncological disorders