

**School of Medicine University of Mostar**

**course: Medical biology**

**course leader: Prof. Katarina Vukojević**

**academic year 2024/25**

**course teachers**

Prof. Katarina Vukojević (KV)

Prof. Sandra Kostić (SK)

Prof. Violeta Šoljić (VŠ)

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Prof Una Glamočlija (UG)

Senior assistant Maja Barbarić (MB)

Assistant Martina Vukoja (MV)

**exam terms:**

1. exam term 29.11.2024. at 9am

2. exam term 26.2.2025.

3. exam term TBD

4. exam term TBD

5. exam term TBD

**Lectures (42 hours), seminars (38 hours), exercise (30 hours)**

L1 - Cell -evolution prokaryotes vs. eukaryotes, cell compartments, inner membrane, cytoplasm

L2 - cell structure, the cell chemistry, macromolecules, enzymes

L3 - Cell membrane

L4 - Nucleic Acids, gens, eukaryotic organisms, DNA

L5 - Nucleus, transport, organization, nucleolus

L6 - cytoskelet - microfilaments, intermediar filamets, microtubuls

L7 - extracellular matrix and organization, cell surface, cellular interactions

L8 - Cell research methods and microscopy

L9 - Introduction to molecular biology - DNA replication and telomeres

L10 - maintainance and DNA recombination, DNA repair

L11 - synthesis and RNA transcription, transcription factors

L12 - synthesis and RNA transcription, RNA trafficking

L13 - genomic DNA, recombination

L14 - synthesis of proteins, translation, protein sorting and transport

L15 - Bioenergetics and metabolism, mitochondria and peroxisomes

L16 - transport and protein sorting - ER, Golgy apparatus

L17 - protein transport - vesicular transport, lysosome

L18 - Cell signaling - signal molecules and action of cell surface receptors

L19 - Cell signaling - intracellular signal transduction, cytoskelet and signaling network

L20 - cell cycle - cell cycle checkpoints, cell cycle regulation, mitosis and meiosis

L21 - Meiosis

L22 - Programed cell death

L23 - Stem cells

L24 - Cancer - development and causes, tumor viruses, onkogenes

S1 - cell structure, the cell chemistry, macromolecules, enzymes

S2 - cell membrane - micro and macro molecules transport

S3 - Nucleus, DNA

S4 - extracellular matrix and cytoskeleton

S5 - DNA analysis

S6 - protein analysis

S7 - cell genome, DNA replication

S8 - transcription, transcription regulation, transport and processing of RNA

S9 - translation and translational regulation

S10 - ER and Golgi apparatus

S11 - Bioenergetics and metabolism, mitochondria and peroxisomes

S12 - Cell signalling

S13 - cell cycle

S14 - Stem cells and programmed cell death

S15 - Cancer

S16 - repetition and knowledge testing

E1 (10 hours) - DNA analysis

E2 (4 hours) - Methods of cell investigation. Microscope and microscopy 1

E3 (4 hours) - Methods of cell investigation. Microscope and microscopy 1

E4 (2 hours) - Repetition. Microscope and microscopy

E5 (10 hours) - Protein analysis

Day	Monday		Tuesday		Wednesday		Thursday		Friday	
Date	21.10.2024.		22.10.2024.		23.10.2024.		24.10.2024.		25.10.2024.	
lecture	all students		all students		all students		all students		all students	
exercise	A	B	A	B	A	B	A	B	A	B
seminar	all students		all students		all students		all students		all students	
08.00-12.55										
13.00-13.45										
13.50-14.35										
14.35-15.20			SK - L1		SK - L4		SK - S1		SK - S4	
15.25-16.10			SK - L2		SK - L5		SK - S2		SK - L7	
16.15-17.00			SK - L3		SK - L6		SK - S3		SK - L8	
17.05-17.50										
17.55-18.40										
18.45-19.30										

lectures
  seminars
  exercise
  no teaching

Day	Monday		Tuesday		Wednesday		Thursday		Friday	
Date	28.10.2024.		29.10.2024.		30.10.2024.		31.10.2024.		01.11.2024.	
lecture	all students		all students		all students		all students		all students	
exercise	A	B	A	B	A	B	A	B	A	B
seminar	all students		all students		all students		all students		all students	
09.40-10.25										
10.30-11.15			MV - E1	MB - E1			MB - E3			
11.20-12.05										
12.05-12.55										
13.00-13.45										
13.50-14.35							MB - E3			
14.35-15.20	UG - L9		SM - L12		MB - E2	MV - E2				
15.25-16.10			SM - L13							
16.15-17.00	UG - L10									
17.05-17.50										
17.55-18.40	UG - L11									
18.45-19.30										

lectures
  seminars
  exercise
  no teaching

Day	Monday		Tuesday		Wednesday		Thursday		Friday	
Date	04.11.2024.		05.11.2024.		06.11.2024.		07.11.2024.		08.11.2024.	
lecture	all students		all students		all students		all students		all students	
exercise	A	B	A	B	A	B	A	B	A	B
seminar	all students		all students		all students		all students		all students	
08.50-									MV - E5	VŠ - E5
12.05-										
13.00-										
13.50-										
14.35-	SM - S5		SM - S7		MB -E4		UG- L14			
15.25-			SM - S8		MB - S9		UG- L15			
16.15-	SM - S6									
17.05-										
17.55-						MB -E4	UG- L16			
18.40										
18.45-										

lectures
  seminars
  exercise
  no teaching

Day	Monday		Tuesday		Wednesday		Thursday		Friday		
Date	11.11.2024.		12.11.2024.		13.11.2024.		14.11.2024.		15.11.2024.		
lecture	all students		all students		all students		all students		all students		
exercise	A	B	A	B	A	B	A	B	A	B	
seminar	all students		all students		all students		all students		all students		
08.50-											
12.05-											
13.00-	SM- L17								MB - S13		
13.50-											
14.35-	SM- L18		SM - S11						MB- L24		
15.25-					KV - L20						
16.15-	SM- L19							KV - L21			
17.05-								KV - L22			
17.55-	SM - S10		SM - S12		KV - L23						
18.45-											

lectures
  seminars
  exercise
  no teaching

Day	Monday		Tuesday		Wednesday		Thursday		Friday	
Date	18.11.2024.		19.11.2024.		20.11.2024.		21.11.2024.		22.11.2024.	
lecture	all students		all students		all students		all students		all students	
exercise	A	B	A	B	A	B	A	B	A	B
seminar	all students		all students		all students		all students		all students	
08.50-	no teaching						no teaching		no teaching	
12.05-										
13.00-										
13.50-										
14.35-			MB - S14		MB - S16					
15.25-			MB - S15							
16.15-										
17.05-										
17.55-										
18.45-										

lectures
  seminars
  exercise
  no teaching