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|  | **UNIVERSITY OF BANJA LUKA**  FACULTY OF MEDICINE  Department of Medical Biochemistry | C:\Users\Korisnik\Desktop\Logo MF\logo mF novi.jpg |

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| **School year** | **Subject** | **Subject code** | **Study program** | **Study cycle** | **Year of studies** | **Semester** | **Number of students** | **Number of groups** |
| 2024/2025 | Medical biochemistry and chemistry |  | Medicine | First | Second | III | 63 | 3 |

**CLASS SCHEDULE**

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| **Week** | **Lecture** | **Subject name** | **Day** | **Date** | **Time** | **Place** | **H** | **Teacher** |
| *CHEMISTRY COURSE* | | | | | | | | |
| VI | L6 | Protein structure and function  Structure-function relationship in proteins.  Regulation of the amount and protein/enzyme quality in the cell | Tuesday | 12.11.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| VII | L7 | Enzymes as catalysts-general aspects  Enzyme structure. The role of coenzymes in the enzyme-catalyzed reactions.  Mechanisms of enzyme catalysis | Tuesday | 19.11.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| VII | L8 | Regulation of enzyme activity  Enzyme kinetics.  Regulation of metabolic pathways: covalent and noncovalent mechanisms. | Tuesday | 26.11.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| IX | L9 | Diagnostic enzymology | Tuesday | 26.11.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| X | L10 | Cellular Bioenergetics: Adenosine triphosphate.  Basic aspects of metabolism. | Tuesday | 3.12.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| XI | L11 | Digestion and absorption of carbohydrates.  [The central role of glucose in the carbohydrate metabolism: Glycolysis.](https://www.google.com/search?sca_esv=ae598eb43b0ccdde&sxsrf=ADLYWIIwzQazQ3FUa4RG8EayiZG_GQqnmw:1731084736438&q=The+central+role+of+glucose+in+the+carbohydrate+metabolism:+Glycolysis.&spell=1&sa=X&ved=2ahUKEwjilKqWmc2JAxW2hf0HHTeiLG8QkeECKAB6BAgMEAE) | Tuesday | 10.12.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| XII | L12 | PDH complex.  The tricarboxylic acid cycle. | Tuesday | 17.12.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| XIII | L13 | The respiratory chain and oxidative phosphorylation | Tuesday | 24.12.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| XIV | L14 | Gluconeogenesis.  Glycogen metabolism. | Tuesday | 31.12.2024. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |
| XV | L15 | Hexose-monophosphate pathway.  Metabolism of fructose, galactose, lactose and complex carbohydrates. | Tuesday | 17.1.2025. | 12.30-14.45 | Amphitheatre, Faculty of Political Sciences | 3 | Žana Radić Savić,MD-PhD.  Assistant professor |

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| **Week** | **Practical** | **Type of practical** | **Subject name** |
| *CHEMISTRY COURSE* | | | |
| VI | P6 | PT | Introduction to Biochemistry:  *Biological material*  [*Sampling of specimens*](#_bookmark5)  [*Interpretation of laboratory tests*](#_bookmark6)  [*Clinical assessment of diagnostic tests*](#_bookmark7) |
| VII | P7 | PE | General properties of enzymes:  1. *Determination substrate specificity of salivary α‐amylase*  *2. Determination apsolute substrate specificity of urease* |
| VIII | P8 | PE | Regulation of enzyme activity:   1. *Effect of temperature on salivary amylase activity* |
| IX | P9 | PE | Regulation of enzyme activity:   1. *Effect of pH on salivary amylase activity* |
| X | P10 | PE | Enzyme kinetics:   1. *Effect of inhibitors* 2. *Lineweaver–Burk plot* |
| XI | P11 | PE | Diagnostic enzymology.  1. *Determination of alpha-amylase activity in serum (Wohlgemuth’s method)* |
| XII | P12 | PE | Digestion.   1. *Pepsin activity* 2. *Hymosine activity* 3. *Trypsin activity* 4. *Lipase activity* |
| XIII | P13 | PT | Basics of spectrophotometry. |
| XIV | P14 | PE | Carbohydrates: glucose.  1. *Quantitative determination of glucose in serum* |

**Teacher:**

***Žana Radić Savić, M.D., PhD.***

***Assistant Professor***