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|  | **UNIVERSITY OF BANJA LUKA**FACULTY OF MEDICINEDepartment 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 functionStructure-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 aspectsEnzyme 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 activityEnzyme 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*
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| IX | P9 | PE | Regulation of enzyme activity:1. *Effect of pH on salivary amylase activity*
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| 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*
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| 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***