**"APPROVED"**

**Dean of the International**

**Faculty Nurkhodjaev S.N.**\_\_\_\_\_\_\_\_

**«\_\_\_» \_\_\_\_\_\_\_\_\_\_\_\_\_ 2020 г.**

**CALENDAR PLAN OF LECTURAL AND PRACTICAL LESSONS IN BIOLOGICAL CHEMISTRY FOR THE 2020-2021 ACADEMIC YEAR FOR STUDENTS**

**2 COURSES OF THE INTERNATIONAL FACULTY**

**III semester**

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| **№** | **Lecture content Time** | **Time** |
| 1. | Metabolism and functions of lipids. | 2 h. |
| 2. | Exchange of simple proteins. | 2 h. |
| 3. | Exchange of complex proteins. Exchange of nucleoproteins. | 2 h. |
| 4. | Blood biochemistry. | 2 h. |
| 5. | Biochemistry of the liver. | 2 h. |
| 6. | Hormonal regulation of metabolism and functions -1. | 2 h. |
| 7. | Hormonal regulation of metabolism and functions -2. | 2 ч. |
| 8 | Biochemistry of connective tissue. | 2 ч. |
| 9. | Biochemistry of muscles. | 2 ч. |
| **TOTAL:** | | **18 ч.** |

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| **№** | **The title of the topic of the workshop** | **Time** |
|  | Lipid metabolism. The main lipids of food and the human body, their structure and functions in the body | 3 |
|  | Lipid metabolism. Intermediate lipid metabolism. | 3 |
|  | Lipid metabolism. Exchange of complex lipids. | 3 |
|  | Lipid metabolism. Lipid metabolism disorders. | 3 |
|  | Protein metabolism, digestion and absorption of proteins. | 3 |
|  | The exchange of amino acids. General ways of amino acid metabolism. | 3 |
|  | Laboratory work. Method for determining the activity of aspartate aminotransferase and alanine aminotransferase in blood serum. | 3 |
|  | Exchange of individual amino acids. | 3 |
|  | Ways to neutralize ammonia. Urea synthesis (ornithine cycle) | 3 |
|  | Laboratory work: Quantitative determination of urea in blood serum and urine by the enzymatic method | 3 |
|  | Exchange of nucleoproteins. Digestion and absorption of nucleoproteins. | 3 |
|  | Functional biochemistry. Blood biochemistry. | 3 |
|  | Determination of hemoglobin by photometric hemiglobincyanide method. | 3 |
|  | Biochemistry of the liver. Neutralization of toxic substances in the body. | 3 |
|  | Determination of bilirubin in blood serum. | 3 |
|  | Regulation of metabolism and functions by hormones -1. | 3 |
|  | Regulation of metabolism and functions by hormones -2. | 3 |
|  | Biochemistry of muscles and connective tissue. | 3 |
| **TOTAL:** | | **54 h.** |

**Head of the department, prof. N.M. Yuldashev**