**"APPROVED"**

**Dean of the International**

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

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

**CALENDAR PLAN OF LECTURAL AND PRACTICAL CLASSES IN CLINICAL BIOCHEMISTRY 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 | Introduction to Clinical Biochemistry. Causes of diseases. Biological fluids: blood, urine, bile, cerebrospinal fluid, saliva, aspirates. Sampling. Reference levels. | 2 h. |
| 2 | Blood: composition, significance, possibilities of use in diagnostic  purposes. | 2 h. |
| 3 | Urine: composition, significance, possibilities of use in diagnostic  purposes. | 2 h. |
| 4 | Bile, cerebrospinal fluid, saliva: composition, significance, possibilities of use for diagnostic purposes. | 2 h. |
| 5 | Changes in blood biochemical parameters in various diseases. | 2 h. |
| 6 | Enzymology in clinical medicine. | 2 h. |
| **TOTAL:** | | **12 h.** |

**CONTENT OF PRACTICAL EXERCISES**

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| **№** | **Lesson topic title** | **Time** |
|  | Introduction to clinical biochemistry. Work safety in a chemical laboratory. | 2 h. |
|  | Body fluids. Familiarization with laboratory glassware and measuring liquids in them. | 2 h. |
|  | Blood: blood cells and fluid. | 2 h. |
|  | Familiarization with glass and automatic pipettes. | 2 h. |
|  | Blood: proteins, organic and inorganic substances. | 2 h. |
|  | Measuring equipment: scales and measurements on them. | 2 h. |
|  | Urine: education, composition. | 2 h. |
|  | Work on a pH meter. | 2 h. |
|  | Urine: normal and abnormal components. | 2 h. |
|  | PHAN strips | 2 h. |
|  | Bile: education, composition. | 2 h. |
|  | Photoelectric colorimeter operation. | 2 h. |
|  | Bile: pathological aspects. | 2 h. |
|  | The work of the spectrophotometer. | 2 h. |
|  | Cerebrospinal fluid, saliva: formation, composition. Qualitative determination of salivary amylase. | 2 h. |
|  | Acid-base balance. | 2 h. |
|  | Biochemical parameters of blood for various diseases | 2 h. |
|  | Offset | 2 h. |
| **TOTAL:** | | **36 ч.** |

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