

## **MEDICAL LABORATORY TECHNIQUES PR.**

### **1st Semester**

#### **TLT 111- Medical Laboratory Instruments and Chemistry 5 ECTS**

General information about the identification, useage and cleaning of materials used in laboratories and solution preparation.

#### **TLT 112- Medical Microbiology I 5 ECTS**

Recognition of the instruments and instruments used in the microbiology laboratory, observance in the laboratory, required rules, structure and properties of microorganisms, microbiological tests, sterilization techniques.

#### **TLT 113- Biochemistry I 4 ECTS**

With this course students will learn the features of basic biochemical mechanisms and by commenting on the problems they encounter in this area in their lives.

#### **TLT 114- General Biology 4 ECTS**

Through this lesson, students learn general biology mechanisms, understand at a certain level and learn about living science in general

#### **TLT 115- Medical Terminology 3 ECTS**

With this course, students will be able to understand the meanings, They will be able to easily understand and use these terms in their professional and everyday life.

#### **TLT 116- Occupational Ethics 3 ECTS**

This course will help students learn about the ethical concept and health professional ethics and find solutions to the problems they face in their professional life.

#### **ATA 111 - Ataturk's Principles and History of Turkish Revolution I 2 ECTS**

Teaching the military, political, economic and social events of the Ottoman Empire in the internal and external politics, the struggle for national liberation and the formation of the new Turkish Republic.

**ING 111 - English I (2 ECTS)**

Students will understand English effectively and use basic grammar of English Rules. Through this course, students will be able to interpret simple dialogues in English and use the new structures and words they have learned in their daily lives.

**TURK 111 - Turkish Language I (2 ECTS)**

To give information about language definition, role and importance in communication, verbal and written expression techniques in literary and scientific fields, writing rules and expression disorders.

**2nd Semester****TLT 121 - Laboratory Applications I (12 ECTS)**

To teach laboratory safety and rules and instruments , microbiological test techniques, sterilization techniques, biochemical and hematological test methods.

**TLT 122- Medical Microbiology II 4 ECTS**

Classification of microorganisms, definition and formation mechanisms of infections, diseases caused by microorganisms, laboratory diagnosis, treatment against infections, protection and control methods.

**TLT 123- Biochemistry II 4 ECTS**

Proteins, carbohydrates, diseases that can be seen as a result of metabolism disorders in lipids; Assessment of altered enzyme activities in various clinical situations such as impairment of porphyrin and hemoproteins, myocardial infarction, impaired liver function; Mechanisms of action of hormones and their linkages, Quality control and standardization in clinical biochemistry laboratory; Screening Tests; Teaching Patient Head Tests.

**TLT 124- Hematology 2 ECTS**

Introduction to hematology, blood cell structure and functions, general evaluation of blood diseases, blood collection, blood count, peripheral spread, analysis of blood proteins, coagulation tests, sedimentation determination, blood group analysis, blood banking and blood bank test techniques.

**TLT 125- Immunology 2 ECTS**

The students will be informed about the definition of the immune system, cells and organs involved in the immune system, the mechanism of the immune response, mechanisms of

natural acquired immune and acquired immune formation, strengthening immunity, use of clinical immunology methods.

### **ATA 121 - Ataturk's Principles and History of Turkish Revolution II (2 ECTS)**

This course examines Atatürk's principles and reforms and the political developments after the Ataturk with the establishment process of the Republic of Turkey.

### **ING 121 - English II 2 ECTS**

Students will be able to understand English, use it effectively and compare basic grammar rules of English. Through this course, students can comment on simple dialogues in English and use the new structures and words they have learned in their daily lives.

### **TURK 121 - Turkish Language II 2 ECTS**

Proper use of punctuation marks in writing, development of plain text writing skills, listening and reading skills are taught.

## **3rd Semester**

### **TLT 224- Molecular Biology Techniques 7 ECTS**

The course provides students with insight into ongoing research in molecular biology, and information about a variety of research techniques and their applications within this field.

### **TLT 214- First Aid 2 ECTS**

First aid entry and general characteristics, evaluation of basic life function, respiratory and circulatory system, first aid injury, bleeding in first aid, shock and first aid, burns and first aid, poisoning and first aid, fracture-dislocations and sprains first aid, basic life Support

### **TLT 216 - Laboratory Applications II 8 ECTS**

To teach molecular biology and microbiological test techniques, biochemical and hematological test methods.

### **TLT 215- Compulsory Internship 5 ECTS**

The professional knowledge gained at the school, students will receive internships during the thirty working days at the end of the 2nd semester to ensure that they acquire new practical and technical skills, to acquire business skills, and to communicate effectively with other disciplines and administrators.

### **Essential Pathology 4 ECTS**

In this course, the definition of Pathology and the methods and techniques used in pathology, and adaptation mechanisms of cellular injury, inflammation and wound healing, immunopathology, pathology of genetic diseases, neoplasia of bones, joints and soft tissues, peripheral nervous system and skeletal muscle abnormalities, central nervous system diseases.

### **Stress Management 3 ECTS**

To learn basic concepts about crisis and stress, what to do and how to do in crisis environment to teach that it should be managed, to give the awareness of controlling stress.

### **4th Semester**

#### **Diseases Information 5 ECTS**

The system of the body and the basic knowledge of the diseases which are related to these systems are transferred to the students.

### **TLT 213- Histology 6 ECTS**

The principal aim of the course is to provide a knowledge of tissue structure which is sufficient for the understanding of Physiology

### **TLT 212- Parasitology 6 ECTS**

Cerebrospinal fluid, urine and other body fluids on parasitologic examination, protozoan species of features, diagnostic methods comprise the general properties of interference.

### **Information And Communication Technology 4 ECTS**

In this course, communicate on the Internet, do business applications on the Internet, edit digital data, ready-made templates to prepare promotional material will be discussed.

### **Basic Professional Skills 5 ECTS**

During his education and professional life he / she was informed during treatment and care of healthy /apply basic skills

**Sign Language 3 ECTS**

To learn the sign language used by hearing impaired individuals and to teach and to use this language when needed in social life

**Vocational English 2 ECTS**

To address the basic concepts of professional English in the field of health, improve understanding skills, contribute to writing and speaking skills.