

SAĞLIK HİZMETLERİ MESLEK YÜKSEKOKULU
Patoloji Laboratuvar Teknikleri Programı

2022-2023

CLASS 1 FALL

SEMESTER I

MYO101 BASIC ANATOMY AND PHYSIOLOGY

1-Introduction to Anatomy and Physiology and short terminology, Axes, planes, Terms indicating location and direction; general information

2-Cell Theory, Structural features, Cell organelles, Cell division; Information on the provision of substance exchange

3-Locomotor System Anatomy and Physiology- Osteology

4-Locomotor System; arthrology; General information, joint types, movements. myology; Anatomy, Contraction mechanism, Striated muscles, cardiac muscle, physiology of smooth muscles.

5-Respiratory system Anatomy and Physiology. Nose, Paranasal sinuses, Larynx, trachea, Lungs. Physiology of Respiratory, ventilation, diffusion, Perfusion, Respiratory Regulation.

6-Cardiocirculatory system Anatomy and Physiology. Blood: functions, components, formed elements of blood, Blood groups. Metabolism of the heart, heart sounds. Heart cavities, Veins.

7-Digestive system Anatomy and Physiology I. Oral anatomy, Chewing muscles, Pharynx, Oesophagus, Stomach, Small-large intestines, Kc. Gallbladder, Pancreas, Digestive glands.

8-Digestive System II. Digestion in the mouth, stomach, digestion in the small and large intestines. KC. functions, CHO digestion, Digestion of fat-proteins. Vitamin-Mineral-Electrolyte functions.

9-Urinary System Anatomy and Physiology. Function of kidneys, nephron, urin formation, fluid-electrolyte balance. Distribution of water in the organism, Electrolytes-acid-base balance. Renin-angiotensin system.

10-Genital organs-reproductive physiology. Female and male genital organs. Hormonal control of the reproductive system, hypothalamus, pituitary, gonadotropic hormones. Ovarian hormones, reproductive cycle.

11-Endocrine system anatomy and physiology. Endocrine glands, their functions. Physiological functions of hormones, classification. Hormones and target cells.

12-Nervous system Anatomy and Physiology. Development of nervous tissue, neuron types, functions, synapse, neuroglia cells. FAQ and PSS

PAT105 HISTOLOGY

1-Will be able to comprehend the definition of histology and the histological material preparation process.

2-Will be able to define cells, tissues and organs.

3-Will have information about connective tissue and epithelial tissue and will be able to comprehend the properties of tissues.

4-will be able to recognize the systems in the human body and comprehend their features.

5-Will have information about bone and cartilage tissue

6-Will have information about adipose tissue

7- Will have information about skin texture

8-Will be able to comprehend brain tissue and its features

9-Will be able to have information about muscle tissue and its features

AT109 BASIC CONCEPTS IN PATHOLOGY

1-What is pathology, will have information about the procedures applied in the pathology laboratory

2- Gain knowledge about cellular injury and adaptation

3-Learn about cell death and its types

4- Gain knowledge about infectious agents

5- Gain knowledge about bone and joint pathologies

6-Knows about soft tissue pathologies

6-Knows about Hemodynamic Disorders

8- Gains knowledge about Tumor Nomenclature

9-Knows about benign and malignant neoplasms

PAT101 GENERAL CHEMISTRY

1-Learning the basic concepts in chemistry

2-To learn about the atom and its structure

3- Applying the basic laws and theories of chemistry to chemical phenomena

4-To be able to apply chemical analysis and purification methods

5-To gain knowledge about chemical bonds and bonding theories.

6-To gain knowledge about the structure and states of matter

7-To be able to calculate the calorie value of any nutrient

RPSI209 POSITIVE PSYCHOLOGY AND COMMUNICATION SKILLS (UZSEÇ)

- 1-Definition of Positive Psychology and Learning the Basic Concepts
- 2 -Learning The Theoretical Fundamentals Of Positive Psychology
- 3 -Learning the Brain Infrastructure of Social Behaviors
- 4 -Emotional Intelligence, Emotional Intelligence in Adults, Children and Youth, Marriage and Business Life, Principles of Emotional Intelligence, Learning the Relationship of Emotional Intelligence with Personality Development, Marriage and Business Life
- 5 -Learning the Concepts Related to Self-Knowledge and Awareness
- 6 - Recognizing Others and Learning the Concepts of Empathy
- 7 -Learning Communication Skills
- 8 -Learning Motivation and Planning Skills
- 9 -Learning Problem Solving Skills
- 10-Learning Anger Control Skills
- 11 -Learning Relationship Management Skills
- 12 -Learning the Concept of Persistence and Impulse Control Skills
- 13 -Learning Healthy Decision Making Skills
- 14 -Learning the Concepts of Compromise

INGU101 ENGLISH I

- 1- Meet, verb to be, subject pronouns
- 2- Demonstrative pronouns, countable/uncountable nouns, quantitative expressions
- 3- Simple present tense, adverbs of frequency
- 4-Object pronouns, possessive adjectives, have got/has got
- 5--must,-must,(must/mustn t)-can,-can(can/can t)
- 6-Past Tense (Simple Past Tense)
- 7 - Understands what he/she listens at the relevant level and makes comments.
- 8-Increases vocabulary with various reading passages.
- 9-Present tense
- 10-Conjunctions (and-but-that's why-because)
- 11-Comparisons
- 12-Gains the ability to understand various English reading passages at intermediate level.

ATA101 PRINCIPLES OF ATATURK AND HISTORY OF REVOLUTION I

- 1-Concepts, definitions, lesson methods and definitions of resources
- 2-Industrial Revolution and the French Revolution
- 3-Disintegration of the Ottoman Empire (XIX. Century)
- 4-Tanzimat and Reform Edict, I. and II. Constitutionalism
- 5-I. World, Tripoli and Balkan Wars
- 6-Mondros Armistice Agreement, Wilson Principles, Paris Conference
- 7-M. Kemal's Departure to Samsun and the Situation in Anatolia
- 8-Amasya Circular, National Congresses, Opening of the Parliamentary Assembly
- 9-The Establishment of the Parliament and Internal Revolts
- 10-Teskilat-ı Esasi Law, Establishment of the Regular Army
- 11-I. II. Great Offensive with İnönü, Kütahya-Eskişehir and Sakarya Pitched Battles
- 12-The treaties during the War of Independence
- 13- Lausanne Peace Treaty
- 14-Abolishing the Sultanate

RKUL101 UNIVERSITY CULTURE I (UZSEÇ)

Each semester includes seminars, conferences, panels, workshops and talks to be held for 14 weeks within the framework of a program consisting of suggestions from academic units, student council and student clubs at the university.

PAT107 DISEASES INFORMATION (BZSEÇ)

- 1-Will have knowledge about protecting health
- 2-Will be able to define the terms related to diseases and general characteristics of diseases.
- 3-will be able to apply the methods of protection from diseases and comprehend the immune status
- 4- Will be able to learn the treatment methods of diseases according to the systems.
- 5-Knows the systems in the human body
- 6-Learns the symptoms and treatment methods of diseases of the systems in the human body.

ST CLASS

SEMESTER II

PAT 104 GENERAL HISTOTECHNOLOGY

- 1- Counts and defines the workflow in the pathology laboratory, in order
- 2- Biopsies are named according to the way the biopsies are taken and the organs.
- 3- Identifies and performs the fixation processes of tissues coming from the pathology laboratory.
- 4- Performs tissue follow-up and preparation preparation
- 5- Performs sectioning and routine tissue staining in microtome.
- 6- Learns fixation preparation methods
- 7- Knows the purpose and stages of tissue tracking
- 8- It can eliminate the negativities that occur as a result of dyeing
- 9- Performs decalcification processes of hard tissues

PAT106 PATHOLOGY LABORATORY SAFETY

- 1-Learn the risks of devices and tools used in pathology
- 2-Recognize the consumables, formol, xylene and dyes used in the pathology laboratory and learn the risks
- 3-Learn personal protection methods in the pathology laboratory
- 4-Learns waste control in pathology laboratory
- 5-Learn the safety measures against chemical and biological substances
- 6-Learns the subject of first aid in laboratory accidents
- 7-Learns the hazard classes, warning signs and precautions
- 8-Learns ergonomics, stress, noise overwork
- 9-Learns quality management in Pathology Laboratory

DEVICE AND MAINTENANCE USED IN PAT 108 PATHOLOGY LABORATORY

- 1-Knows the working principle of pathology laboratories
- 2-Recognize the glass materials used in the pathology laboratory.
- 3- Have information about the devices used in the pathology laboratory.
- 4- Gain knowledge about the maintenance of devices used in the pathology laboratory.

- 5- Gain knowledge about the use and maintenance of the microscope
- 6- Have knowledge about the maintenance and use of the microtome device
- 7-Get information about the maintenance and use of tissue tracking device.
- 8-Has information about the maintenance and use of the frozen device.

PAT 100 PATHOLOGY LABORATORY APPLICATION

- 1-Knows the features to be considered in material acceptance
- 2-Applies the protocol numbering and registration processes
- 3-Applies tissue sampling and tapering stages in macroscopy stage
- 4-Knows and applies fixative preparation methods
- 5-Applies texture tracking and backtracking
- 6-Applies the sectioning process in the microtome
- 7-Applies the stages of Hematoxylin&Eosine dye
- 8-Applies cytological material preparation and PAP staining.

MIK 101 MICROBIOLOGY

- 1-Get basic information about microorganisms and microbiology.
- 2-Learns the general devices-tools used in microbiology and the use of the microscope.
- 3-Learns sterilization and disinfection
- 4-Learn the basic materials required for microorganism culture
- 5- Gain knowledge about the production of microorganisms
- 6-Will have information about viruses, staphylococci, streptococci, pneumococci and bacilli, fungi.
- 7-Learns antimicrobial substances-antigen and antibody reactions
- 8-Learns flora and sampling techniques
- 9-Learns microbiology diagnostic methods

INGU2 ENGLISH II

- 1- Gain the ability to understand various English reading passages at lower intermediate level.
- 2-Increases vocabulary with various reading passages
- 3- Understands what he/she listens to at the relevant level and makes comments.

TURK102 TURKISH LANGUAGE II

- 1-Learns the necessity of language and culture connection
- 2- Have information about the historical course of the Turkish language.
- 3-Learns the rules of spelling and punctuation, its necessity and its contribution to success in life.
- 4-Learns the use of words in the most appropriate place in oral and written expression
- 5-Learns to use ideas and feelings correctly and effectively.

ATA102 Atatürk's Principles and History of Revolution II

- 1-To know the sources related to Atatürk's principles
- 2- By getting down to the roots of the Turkish revolution, he consciously owns Atatürk's reforms.
- 3- Having a consciousness that recognizes his country, homeland and nation and produces policies suitable for them

RKUL 102 University Culture II

- 1-Improves general cultural knowledge
- 2-Uses critical thinking, questioning and research skills
- 3-Develops alternative solutions for different problems
- 4-Understand the importance and meaning of lifelong learning
- 5-Transfers the knowledge gained from different disciplines to his/her life

BIK 101 BIOCHEMISTRY

Cell, Amino Acids, Peptides, Proteins, Enzymes, Nucleic Acids, Carbohydrates,
Lipids and Membranes, Fats, Vitamins

2. CLASS

III. SEMESTER

PAT 205 CYTOTECHNOLOGY I

- 1- Have knowledge about routine cytological techniques
- 2- Gains knowledge about the preparation phase of cytological materials and applies them.
- 3-Learn the criteria of acceptance and rejection of cytological materials
- 4-Learns and applies the staining stages of cytological materials

5-Knows bedside assessment practices and techniques

MET 101 PROFESSIONAL ETHICS

1- Gain knowledge about the concepts of ethics and morality, ethical rules and systems

2- Gain knowledge about the ethical society relationship

3- Gain knowledge about social and professional corruption.

4- Gain knowledge about the concept of professional ethics

5-Examines ethical and unethical issues in business life

6- Have information about patient rights and organ donation.

PAT 203 IMMUNOHISTOCHEMISTRY

1-Recognizing the staining properties and dyes of the connective tissue and applying it

2- Comprehends and applies the dyeing properties and techniques of carbohydrates.

3- They can learn and apply the staining properties, dyes and painting techniques of the special structures in the tissues.

4-Knows immunohistochemical methods, antibody-antigen concepts

5-Comprehends the reaction properties of antibodies according to tumors.

6-Comprehends and applies immunohistochemical techniques

PAT 207 MACROSCOPIC DISSECTION

1-Comprehends basic information about macroscopic dissection techniques

2-Learn the basic concepts related to the subject

3-Learn the stages of macroscopy process

4-Learns the application of macroscopic dissection techniques

5-Learns and applies organ and tissue macroscopy

PAT 201 APPLICATION OF PATHOLOGY LABORATORY TECHNIQUES I

He practices in private pathology laboratories or in the pathology laboratory departments of public hospitals in order to consolidate and apply the theoretical knowledge he has learned in two semesters.

2. CLASS

IV. SEMESTER

PAT 202 MOLECULAR PATHOLOGY TECHNIQUES

- 1-Defines the relationship between routine pathology and molecular pathology
- 2- Gain knowledge about molecular techniques applied in the pathology laboratory.
- 3- Gain knowledge about FISH method
- 4-Has knowledge about HPV type methods

PAT 206 CYTOTECHNOLOGY II

- 1-At the end of this course, the student learns the application of cytological techniques.
- 2-Identifies the cells seen in cytological preparations.
- 3-Learns the Bethesda System in reporting cytological materials
- 4-Learns breast cytology, gastrointestinal system examination and applies its techniques
- 5-Learns the examination and application of thyroid-salivary gland cytology
- 6-Learns the examination and application of Bos, sputum and urine cytology.

FIRST 101 FIRST AID

- 1-Learn and apply the basic principles of first aid
- 2-Learn to provide basic life support
- 3-Learn the methods of transporting the sick and injured.
- 4-Learns and applies first aid in respiratory tract obstructions
- 5-Learns first aid techniques in unconsciousness

PAT 210 FORENSIC PATHOLOGY

- 1- Evaluate the basic concepts of forensic medicine
- 2-Defines death in medical and legal aspects
- 3- Gain knowledge and skills about the examination of the dead
- 4-Acquires information about crime scene investigation, cause of death, place and time of death.
- 5- Gain knowledge about autopsy technique

PAT 204 APPLICATION OF PATHOLOGY LABORATORY TECHNIQUES II

He practices in private pathology laboratories or in the pathology laboratory departments of hospitals in order to consolidate and apply the theoretical knowledge he has learned during the term.