

HEALTH SERVICES VOCATIONAL SCHOOL

Pathology Laboratory Techniques Program

2020-2021

CLASS 1 FALL

I.SEMESTER

MYO101 BASIC ANATOMY AND PHYSIOLOGY

1-Introduction to Anatomy and Physiology and short terminology, Axes, planes, Terminology and direction terms; general information

2-Cell Theory, Structural features, Cell organelles, Cell division; Information on item exchange

3-Locomotor System Anatomy and Physiology- Osteology

4-Locomotor System; The Arthrology; General information, joint types, movements. The Myology; Anatomy, Contraction mechanism, Striped muscles, heart muscle, smooth muscles physiology.

5-Respiratory system Anatomy and Physiology. Nose, Paranasal sinuses, Larynx, trachea, Lungs. Physiology of breathing, ventilation, diffusion, perfusion, breathing regulation.

6-Anatomy and Physiology of the Heart-Circulatory System. Blood: tasks, components, shaped elements of blood, blood groups. Metabolism of the heart, heart sounds. Cardiac spaces, Vessels.

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. KCl. functions, CHO digestion, Digestion of fat-proteins. Vitamin-Mineral-Electrolyte functions.

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

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

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

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

13-Sense organs, Anatomy and Physiology. Ways of seeing, ways of hearing and balance.

PAT105 HISTOLOGY

1-Comprehend the definition of histology and the process of preparing histological materials

2-Will be able to define cell, tissue and organ

- 3-Learn about connective tissue and epithelial tissue and comprehend the properties of tissues
- 4-Recognize the systems in the human body and comprehend its features
- 5-Will have information about bone and cartilage tissue
- 6-Will have information about adipose tissue
- 7- Will have information about leather texture
- 8-Understand brain tissue and its properties
- 9-Have information about muscle tissue and its properties

PAT109 BASIC CONCEPTS IN PATHOLOGY

- 1-Have information about cellular injury and adaptation
- 2-Have information about immune system diseases
- 3-Have information about bone and joint pathologies
- 4-Have information about soft tissue pathologies
- 5-have information about pathology of peripheral nervous system
- 6-Have information about hemodynamic disorders
- 8- Have information about tumor nomenclature
- 9-Have information about benign and malignant neoplasms

PAT101 GENERAL CHEMISTRY

Learning the basic concepts in chemistry

- 2-To learn about the atom and its structure
- 3-To apply the basic laws and theories of chemistry to chemical events
- 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 calculate the calorie value of any nutrient

RPSI209 POSITIVE PSYCHOLOGY AND COMMUNICATION SKILLS (ÜZSEÇ)

- 1-Definition of Positive Psychology and Learning Basic Concepts
- 2-Learning the Theoretical Bases of Positive Psychology

3-Learning the Brain Infrastructure of Social Behaviors

4-Learning Emotional Intelligence, Emotional Intelligence in Adults, Children and Young People, Marriage and Business Life, Principles of Emotional Intelligence, Relationship between Emotional Intelligence, Marriage and Work Life

5 - Learning Concepts Related to Self-Awareness and Awareness

6-Learning Of The Concept Of Recognizing Others And 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 Conviction and Impulse Control Skills

13-Learning Healthy Decision Making Skills

14- Learning Concepts of Mediation

TURK101 TURKISH LANGUAGE I

1-Learns the necessity of the connection between language and culture.

2-Have information about the historical course of the Turkish language.

3-Learns the rules of spelling and punctuation, need and contribution to life success.

4-Learns the use of words in the most appropriate place in oral and written expression.

5-Learn to use their ideas and feelings correctly and effectively.

INGU101 ENGLISH I

1-Meet, to be verb, subject pronouns

2-Sign pronouns, countable / uncountable nouns, quantitative expressions

3-Wide time (Simple present tense), frequency envelopes

4-Object pronouns, possessive adjectives, have got / has got

5 - should, should, (must / mustn t) can, can (can / can t)

6-Past Time (Simple Past Tense)

7-Understands and comments on listening at the relevant level.

8-Increases vocabulary with various reading texts.

9-Present time

10-Conjunctions (and-but-so-because)

11. Comparisons

12-Intermediate level gains the ability to understand various English reading.

ATA101 ATATÜRK PRINCIPLES AND REVOLUTION HISTORY I

1-Defines concepts, lesson methods and definition of resources

2-Industrial Revolution and French Revolution

3-The Disintegration of the Ottoman State (XIX. Century)

4-Tanzimat and Reform Edict, I. and II. Constitutionalism

5-I. World, Tripoli and Balkan Wars

6-Mondros Armistice Treaty, Wilson Principles, Paris Conference

7-M. The Arrival of Kemal to Samsun and the Situation in Anatolia

8-Amasya Circular, National Congresses, Opening of the Mebusan Assembly

9-Establishment of the Turkish Grand National Assembly and Internal Revolts

10-Organizational Law, Establishment of Regular Army

11-I. II. Great Attack with İnönü, Kütahya-Eskişehir and Sakarya Square Battles

12-Treaties during the War of Independence

13-Lausanne Peace Treaty

14-Abolition of the Sultanate

RKUL101 UNIVERSITY CULTURE I (ÜZSEÇ)

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

PAT107 DISEASES KNOWLEDGE (BZSEÇ)

- 1-Will have information about protecting health
- 2-Describe the terms related to diseases and general features of diseases
- 3-Apply disease prevention methods and comprehend immune status
- 4-learn the treatment methods of diseases according to the systems
- Knows the systems in the human body
- 6-Learns the symptoms and treatment methods of the systems in the human body

1. CLASS

II.SEMESTER

PAT 104 GENERAL HISTOTECHNOLOGY

- 1- Counts and defines the workflow in the pathology laboratory, respectively.
- 2- The way biopsies are taken and biopsies are named according to organs.
- 3- Defines and performs the fixation processes of tissues from the pathology laboratory.
- 4- Performs tissue follow-up and preparation preparations.
- 5-Performs painting operations.
- 6- Learns the methods of preparing fixation
- 7- Knows the purpose and stages of tissue tracking
- 8- Can eliminate the negativities that occur as a result of staining
- 9- Performs decalcification procedures of hard tissues

PAT106 PATHOLOGY LABORATORY SAFETY

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

PAT 108 DEVICE AND MAINTENANCE USED IN PATHOLOGY LABORATORY

- 1-Knows the working principle of pathology laboratories
- 2-Recognizes the glass materials used in the pathology laboratory
- 3-Have information about the devices used in the pathology laboratory
- 4-Have information about the maintenance of devices used in the pathology laboratory
- 5-Have information about the use and maintenance of the microscope
- 6- Have information about the maintenance and use of the microtome device
- 7-Have information about the maintenance and use of tissue tracking device
- 8-Have information about the maintenance and use of frozen device

MIK 101 MICROBIOLOGY

- 1-Acquires basic information about microorganisms and microbiology
- 2-Learns the general devices and tools used in microbiology and the use of the microscope
- 3-Learns sterilization and disinfection
- 4-Learns the basic materials required for microorganism culture
- 5-Have information about the production of microorganism
- 6-Have information about viruses, staphylococci, streptococci, pneumococci and bacilli, fungi
- 7-Antimicrobial agents-learn antigen and antibody reactions
- 8-Learns Flora and sampling techniques
- 9-Learns microbiology diagnostic methods

INGU2 ENGLISH II

- 1- Gains the ability to understand various English reading passages at intermediate level
- 2-Improves vocabulary with various reading texts
- 3-Understand and comment on the relevant level

TURK102 TURKISH LANGUAGE II

- 1-Learns the necessity of cultural connection with language
- 2-Have information about the historical course of the Turkish language
- 3-Learns the rules of spelling and punctuation, need and contribution to life success

4-Learn the use of words in the most appropriate place in oral and written expression.

5-Learns how to use ideas and feelings correctly and effectively

ATA102 Atatürk's Principles and History of Turkish Revolution II

1-To know the sources about Ataturk's principles

2-By descending to the roots of the Turkish revolution, Atatürk has consciously the reforms.

3-Knowing his country, homeland and nation, has a consciousness that produces policies appropriate to 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-Transfer the knowledge gained from different disciplines into his life

PAT 999 Summer Practice

It performs the application steps of the process until the microscopic examination of histological and cytological materials coming to the pathology laboratory.

2. CLASS

III. SEMESTER

PAT 205 CYTOTECHNOLOGY I

1- Has information about routine cytological techniques

2-Have information about the stage of preparation of cytological materials and apply them

3-Learns the acceptance and rejection criteria of cytological materials

4-Learns and applies the staining stages of cytological materials

5-Know the bedside assessment practices and technique

MET 101 PROFESSIONAL ETHICS

1-Have information about ethical and moral concepts, ethical rules and systems

2-Have knowledge about the ethical society relationship

3-Have information about social corruption and professional corruption

- 4-Have information 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-Knowing the staining properties and dyes of connective tissue can apply
- 2-Understands and applies the coloring properties and techniques of carbohydrates
- 3-To learn the paint properties, paints and painting techniques of special structures in tissues.
- 4-Immunohistochemical methods know the antibody-antigen concepts
- 5-Understand reaction properties of antibodies according to tumors
- 6-Understand and apply immunohistochemical techniques

PAT 207 MACROSCOPIC DISSECTION

- 1-Understands basic information about macroscopic dissection techniques
- 2-Learns the basic concepts of the subject
- 3-Learns the steps of the macroscopy process
- 4-Learns the application of macroscopic dissection techniques
- 5-Learns and applies organ and tissue macroscopes

PAT 201 PATHOLOGY LABORATORY TECHNIQUES APPLICATION I

In order to consolidate and apply the theoretical knowledge he has learned in two terms, he applies it in private pathology laboratories or pathology laboratory departments of public hospitals.

2. CLASS

IV. SEMESTER

PAT 202 MOLECULAR PATHOLOGY TECHNIQUES

- 1-Define the relationship between routine pathology and molecular pathology
- 2-Have information about molecular techniques applied in pathology laboratory.

3-Have information about FISH method

4-Have information about HPV type methods

PAT 206 CYTOTECHNOLOGY II

1-At the end of this course, the student learns to apply 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 techniques

5-Learns to examine and apply thyroid-salivary gland cytology

6-Bos, sputum, urine cytology learns to examine and apply

FIRST 101 FIRST AID

1-Learns and applies the basic principles of First Aid

2-Learns to provide basic life support

3-Learns methods of carrying patients and injured

4-Learns and applies first aid in respiratory obstruction.

5-Learns first aid techniques in consciousness disorders

PAT 210 FORENSIC PATHOLOGY

1-evaluate the basic concepts of forensic medicine

2-Define death in medical and legal dimensions

3-Gain knowledge and skills related to dead examination

4-Have information about crime scene investigation, cause of death, location and time of death

5-Have information about the autopsy technique

PAT 204 PATHOLOGY LABORATORY TECHNIQUES APPLICATION II

In order to consolidate and apply the theoretical knowledge learned during the period, it applies in private pathology laboratories or in the pathology laboratory departments of hospitals.