DIALYSIS PROGRAM 2024-2025 COURSE CONTENTS

I.SEMESTER

MYO101 BASIC ANATOMY and PHYSIOLOG (3+0), AKTS: 4

1. Introduction to anatomy and physiology and brief terminology, axes, planes, terms indicating location and direction; general information
2. Cell theory, structural features, cell organelles, cell division; substance exchange, metabolism
3. Locomotor system anatomy and physiology- osteology
4. Locomotor System; arthrology; general information, joint types, movements. myology; anatomy, contraction mechanism, striated muscles, heart muscle, smooth muscles physiology.
5. Anatomy and physiology of the respiratory system. Nose, paranasal sinuses, larynx, trachea, lungs. Physiology of respiration, ventilation, diffusion, perfusion, respiratory regulation.
6. Anatomy and physiology of the cardiovascular system. Blood: functions, components, shaped elements of blood, blood groups. Metabolism of the heart, heart sounds. Heart cavities, vessels.
7. Anatomy and physiology of the digestive system I. Anatomy of the mouth, masticatory muscles, pharynx, oesophagus, stomach, small and large intestines, cc. Gall bladder, pancreas, digestive glands.
8. Digestive system ii. Digestion in the mouth, stomach, digestion in the small and large intestines. functions, cho digestion, digestion of fats and proteins. Vitamin-mineral-electrolyte functions.
9. Anatomy and Physiology of the Urinary System I Function of the kidneys, nephron, urine formation, fluid-electrolyte balance. Distribution of water in the organism, Electrolytes- excess-base balance. Renin-angiotensin system.
10. Anatomy and physiology of the urinary system, function of the kidneys, nephron, urine formation, fluid-electrolyte balance. Distribution of water in the organism, electrolytes- excess-base balance. Renin-angiotensin system.
11. Genital organs-reproductive physiology. Male and female genital organs. Hormonal control of the reproductive system, hypothalamus, pituitary, gonodotropic hormones. Ovary hormones, reproductive cycle.
12. Endocrine system anatomy and physiology. Glands of internal secretion, their functions. Physiological functions of hormones, classification. Hormones and target cells.
13. Anatomy and Physiology of the nervous system. Development of nervous tissue, neuron, neuron types, functions, synapse, neuroglia cells.
14. Sensory organs, anatomy and physiology. Visual pathways, hearing and balance pathways

MIK101 BASIC MICROBIOLOGY (BSEÇ) (2+0), AKTS: 2

1. Introduction to Medical Microbiology
2. Medical Bacteriology and Morphological Characteristics of Bacteria
3. Bacterial Metabolism and Reproduction
4. Bacterial Genetics

5. Bacterial Virulence Factors
6. Antimicrobial Agents
7. Medical Bacteriology
8. Medical Virology
9. Medical Parasitology
10. Medical Mycology
11. Relationships between Microorganisms and Microorganism-Human Relationship
12. Sterilization, Disinfection and Antisepsis
13. Basic Immunology
14. General Principles of Laboratory Diagnosis

DYL105 PATIENT CARE PRINCIPLES (BZSEÇ) (2+2), AKTS: 7

1. Basic Concepts in Patient Care
2. Concepts of Health and Disease, Safe Hospital Environment
3. Vital Signs; Follow-up of Fever, Pulse, Arterial Blood Pressure, Respiration and Vital Signs (LAB. UYG.)
4. Vital Signs; Follow-up of Fever, Pulse, Arterial Blood Pressure, Respiration and Vital Signs (LAB. UYG.)
5. Hot-Cold Applications
6. Hospital Infections, Individual hygiene and care
7. Isolation-Asepsis-Antisepsis-Sterilization-Disinfection
8. Occurrence and Treatment of Decibute (Bed/Pressure Wound)
9. Blood Sugar Definition, Measurement and Diabetes (LAB. UYG.)
10. Excretory System and Problems
11. Drug Application Methods and Drug Preparation (LAB. UYG.)
12. Parenteral Drug Administration (LAB. UYG.)
13. Intravenous Fluid Therapy
14. Care of the Chronically Ill and Terminal Patient

FAR105 BASIC PHARMACOLOGY (2+0), AKTS: 3

1. Introduction to pharmacology and toxicology, definition and general concepts
2. Drug administration routes
3. Toxic effects of drugs
4. Pharmacokinetics and pharmacodynamics
5. Central Nervous System Drugs I
6. Central Nervous System Drugs II
7. Midterm exam
8. Cardiovascular system medicines
9. Drugs acting on the central nervous system
10. Anti-inflammatory and Analgesic Drugs
11. Respiratory System Drugs
12. Gastrointestinal System medicines
13. Endocrine System and Diabetes Drugs
14. Rational Drug Use

RPSI209 POSITIVE PSYCHOLOGY AND COMMUNICATION SKILLS (ÜZSEÇ) (2+0), AKTS:3

1. Definition of Positive Psychology and Learning Basic Concepts

2. Learning the Theoretical Foundations of Positive Psychology
3. Learning the Brain Substrate of Social Behavior
4. Emotional Intelligence, Emotional Intelligence in Adults, Children and Young People, Marriage and Business Life, Principles of Emotional Intelligence, Learning the Relationship of Emotional Intelligence with Personality Development, Marriage and Business Life
5. Learning Concepts Related to Self-Knowledge and Awareness
6. Learning the Concepts of Recognizing Others and Empathy
7. Learning Communication Skills
8. Learning Motivation and Planning Skills
9. Learning Problem Solving Skills
10. Learning anger management 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 Conciliation

TURK103 TURKISH LANGUAGE I (2+0), AKTS:2

1. Learns the necessity of the connection between language and culture.
2. Have knowledge about the historical course of the Turkish language.
3. Learns the rules of spelling and punctuation, their necessity and their 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 in a correct and effective way.

INGU103 ENGLISH I (2+0), AKTS: 2

1. Introductions, verb to be, subject pronouns
2. Demonstrative pronouns, countable/uncountable nouns, quantifiers
3. Simple present tense, adverbs of frequency
4. Object pronouns, possessive adjectives, have got/has got
5. should, must (must/mustn't), can, can't (can/can't)
6. Past tense (Simple Past Tense)
7. Understands and comments on what he/she listens at the relevant level.
8. Increases vocabulary knowledge through various reading passages.
9. Present tense
10. Conjunctions (and-but-therefore-because)
11. Comparisons
12. Gain the ability to understand a variety of reading passages in English at lower intermediate level.

ATA103 ATATURK'S PRINCIPLES AND HISTORY OF THE REVOLUTION I (2+0), AKTS: 2

1. Concepts, definitions, course methods and description of resources
2. Industrial Revolution and French Revolution
3. Disintegration of the Ottoman Empire (XIXth Century)
4. Tanzimat and Reform Edict, Constitutional Monarchy I and II

5. World War I, Tripoli and Balkan Wars
6. Armistice of Mudros, 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. Establishment of the Grand National Assembly of Turkey and Internal Revolts
10. Law on the Constitution of Organization, Establishment of the Regular Army
11. I. - II. İnönü, Kütahya-Eskişehir and Sakarya Battles and the Great Offensive
12. Treaties during the War of Independence
13. Lausanne Peace Treaty
14. Abolition of the Sultanate

RKUL103 UNIVERSITY CULTURE I (ÜSEÇ) (0+2), AKTS:4

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

II. SEMESTER

BIK101 BIOCHEMISTRY (2+0), AKTS:2

1. Definition and Field of Interest of Biochemistry
2. Cell and its Biochemical Organization
3. Cell and its Biochemical Organization
4. Water, Acid Base Concept and Buffer Systems
5. Water, Acid Base Concept and Buffer Systems
6. Water, Acid Base Concept and Buffer Systems
7. Protein and Amino Acids
8. Protein and Amino Acids
9. Nucleic Acids and Their Components
10. Carbohydrates
11. Lipids
12. Lipids
13. Enzymes
14. Vitamins and Coenzymes

DYL116 USE AND MAINTENANCE OF DIALYSIS EQUIPMENT (BSEÇ) (2+2), AKTS: 6

1. THEORY AND PRACTICE: What is hemodialysis?
2. Demonstration of hemodialysis and equipment on the machine in the laboratory. Uyg: equipment is examined.
3. Peritoneal dialysis.

4. How the hemodialysis machine works and auxiliary elements. Practical: trotters are taught on the machine.
5. Hemodialysis set and types. Uyg: sets and types are taught to the student practically.
6. Dialyzers used in hemodialysis. Application: The dialyzer is shown to the student, working principles are taught.
7. Learning the setting process on the dialysis machine
8. Hemodialysis solution
9. Connections of the dialysis machine
10. Na and UF profiles 1 Lesson: Learning the profiles on the machine
11. Na and UF profiles 2
12. Dialysis machine disinfection systems 1
13. Dialysis machine disinfection systems 2
14. Water treatment system

DYL118 DIALYSIS I (2+2), AKTS:6

1. Sharing the course syllabus, explaining the duties, powers and responsibilities of the dialysis technician and sharing the application directive
2. Kidney health
3. Kidneys and dialysis
4. Fluid-Electrolyte Balance/Imbalance
5. Acid-Base Balance/Imbalance
6. Introduction to acute-chronic renal failure
7. Introduction to acute-chronic renal failure
8. Overview and physiological principles of renal replacement therapies
9. Hepatitis and aids in dialysis patients
10. The role of anticoagulation in dialysis treatment
11. Dry Weight Concept
12. Vascular Access Routes
13. Hemodialysis vascular access lobarotomy
14. Hemodialysis vascular access lobarotomy

DYL102 NEUROLOGY (3+0), AKTS:5

1. Anatomy and physiology of the kidneys - role of the kidney in a healthy body
2. Renal function assessment methods and their use in daily life
3. How to assess the kidneys and in which situations a kidney patient will present
4. Definition, causes, diagnosis, pathophysiology and prevention of acute renal failure (AKI)
5. Development, clinic, diagnosis and treatment of glomerular diseases
6. Definition of chronic renal failure (CRF), causes, diagnostic methods, complications, treatment and preventive approach strategy
7. Patient communication, anamnesis and physical examination features for the solution of nephrological problems
8. Normal composition of urine and how to assess abnormalities
9. Body acid-base balance and fluid-electrolyte levels
10. Link between blood potassium levels and kidney disease
11. Cardiovascular problems and infectious diseases in CRF
12. Hematologic, neurologic and other system abnormalities in CRF

13. Renal replacement therapies
14. Kidney transplantation and dialysis

MET101 PROFESSIONAL ETHICS (BSEÇ) (2+0), AKTS: 2

1. What is Ethics / An Overview of Ethical Theories / Basic Concepts: Responsibility, Accountability and Obligation / Ethical Analysis
2. Society and Information Ethics: The Two-Way Relationship between Society and Technology The Impact of Information Technologies; Optimistic, Pessimistic, Contextualist Views Why Information Ethics? The Role of Information Ethics
3. Addiction, Health Problems, Unemployment, Social Relations
4. Security, Misuse and Cybercrime
5. Human rights and Patient rights
6. Hospital ethics committees
7. Principles of medical professional ethics and deontology
8. Principles of medical professional ethics and deontology - presentation
9. Ethical case analysis - student presentation
10. Importance of Teamwork and Necessary Conditions
11. Ethical Approach in Terminal Period Patient Care
12. Principles of ethical behavior
13. Ethical Principles in Organ Donation and Transplantation
14. Ethical Dilemmas in Hemodialysis Centers

TURK104 TURKISH LANGUAGE II (2+0), AKTS: 2

1. In order to gain the ability to use the mother tongue correctly and to improve the abilities of the students who have gained this skill and come to the university in this field; punctuation marks and spelling rules, composition rules, writing types are discussed with examples and writing exercises related to them are carried out.
2. In addition, various novels, poetry books and theater works are read and analyzed. Reading theater is performed in the classroom and various diction techniques and applied emphasis and intonation lessons are given.

INGU104 ENGLISH II (3+0), AKTS: 2

1. Tenses: Present tense, Present simple, Past simple
2. Future tense structures; Modals: Might, Could, Can, Must, May
3. Adverbs: Adverbs of Place, Direction, Purpose, State
4. Adjectives: Order of adjectives, Comparison, Superlatives
5. Passive voice: Passive voice in Present, Simple, Past, Past, Future tense
6. Conditional Clauses, Adjective Phrases, Transfer Sentences
7. Verb Structures: TO, -ING
8. Noun Clauses, Adverbial Clauses
9. Comparative Structures

ATA104 ATATURK'S PRINCIPLES AND HISTORY OF THE REVOLUTION II (2+0), AKTS: 2

Events, ideas and principles in the process of birth and development of modern Turkey; Turkish Foreign Policy in Atatürk's Era, Atatürk's Revolutions, Atatürk's Principles.

RKUL104 UNIVERSITY CULTURE II (ÜZSEÇ) (2+2), AKTS: 4

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

III. SEMESTER

DYL211 DIALYSIS II (2+0), AKTS: 8

1. Acute-Chronic Renal Failure
2. General Renal Replacement Therapies and the Place of Dialysis
3. Patient and Family Education
4. Patient and Family Education-student presentation
5. Defining the Hemodialysis Procedure
6. Devices Used in Hemodialysis
7. Water Systems in Hemodialysis
8. Vascular Access Routes in Hemodialysis
9. Acute Complications in Hemodialysis-1
10. Acute Complications in Hemodialysis-2
11. Chronic Complications in Hemodialysis-1
12. Chronic Complications of Hemodialysis-2
13. Description of the Peritoneal Dialysis Procedure
14. Acute Complications in Peritoneal Dialysis

DYL215 DIALYSIS APPLICATIONS I (0+8), AKTS: 15

This course, covers the 14-week application process in which the students can reinforce the theoretical knowledge they have learned and the courses continue for 16 hours each week.

ILK101 FIRST AID (BSEÇ) (2+0), AKTS: 3

1. Basic principles of first aid
2. Human body
3. Patient/injured and scene assessment
4. Basic life support
5. First aid for respiratory obstruction
6. First aid in bleeding, shock, injuries
7. First aid for burns, frostbite and heat stroke
8. First aid in disorders of consciousness
9. First aid in poisoning
10. First aid for animal bites

11. First aid in case of foreign body in the eye, ear, nose
12. First aid in drowning u
13. First aid in fractures, dislocations and sprains
14. Techniques for transporting the sick and injured

SAH101 HEALTH LAW (BSEÇ) (2+0), AKTS: 3

1. Introduction to health law
2. Basic concepts and institutions of health law
3. Patient rights and concepts
4. Physician rights and concepts
5. Privacy in medical interventions
6. Disclosure and consent
7. Midterm exam
8. Unlawfulness of the medical intervention
9. Interventions without medical indication
10. Relations between the hospital and the patient and their legal nature
11. The legal nature of the relationship between private hospitals and patients
12. The legal nature of the relationship between public hospitals and patients
13. Medical malpractice and compensation issues
14. End of semester exam

IV. SEMESTER

DYL208 REHABILITATION IN DIALYSIS PATIENTS (2+0), AKTS: 8

1. Concepts of human, health and disease
2. Stress and ways to cope
3. Basic mental health problems in dialysis patients
4. Mood disorders and psychosocial approach
5. Anxiety disorders and psychosocial approach
6. Somatoform disorders and psychosocial approach
7. Traumatic life experiences and psychosocial approach
8. Effective communication with dialysis patients and their relatives
9. Kidney transplantation process and its psychological effects
10. Reactions of the individual to the disease, approach to the patient and adaptation process
11. Reactions of the individual to the disease, approach to the patient and adaptation process
12. Patient psychology in chronic diseases
13. Bereavement psychology and rehabilitation
14. Approach to patients with various characteristics

BES101 NUTRITION PRINCIPLES (2+0), AKTS: 3

1. Introduction to Nutrition
2. Nutrition Problems and Causes in Society
3. Nutrients - Carbohydrates
4. Nutrients - Proteins
5. Nutrients - Fats

6. Nutrients - Vitamins
7. Nutrients - Minerals
8. General Summary
9. Food Groups
10. Functional Foods
11. Cooking and Storage Methods
12. Energy Requirement and Energy Imbalance Problems
13. Nutrition in Special Situations
14. General Review and Discussion

TLT109 KNOWLEDGE OF DISEASES (2+0), AKTS: 3

1. Basic Concepts of Health and Disease
2. General Introduction to Human Body Systems
3. Respiratory System Diseases
4. Movement System Diseases
5. Nervous System Diseases
6. Excretory System Diseases 1
7. Excretory System Diseases 2
8. Circulatory System Diseases 1
9. Circulatory System Diseases 2
10. Genital System Diseases
11. Endocrine System Diseases
12. Skin diseases
13. Blood and joint diseases
14. Sensory Organ Diseases

DYL200 DIALYSIS APPLICATIONS II (0+8), AKTS: 15

This course, covers the 14-week application process in which the students can reinforce the theoretical knowledge they have learned and the courses continue for 16 hours each week.