

PHARMACY SERVICES COURSE STRUCTURE

PRINCIPLES OF ATATÜRK AND HISTORY OF REVOLUTIONS I ATA103

(2+0) ECTS: 2

Revolution, evolution, rebellion, coup and reform. The characteristics of the Turkish Revolution. Industrial Revolution, The French Revolution/
The reasons of collapse of the Ottoman Empire (19th Century)
Reforms (Tanzimat and Islahat), Constitutional monarchy (First and Second)
The Balkan Wars. First World War and input to war Ottoman Empire. The fronts that Ottoman Empire fought and the results of the war.
Mondros Armistice Agreement and occupations on the Ottoman Empire. National Independence War. The occupation of Izmir and effects of this occupation. The preparation period of National Independence War.
The movement of Mustafa Kemal to Samsun and to be started the organization of Anadolu Revolution.
Amasya Circular, Erzurum and Sivas Congresses, to be founded of the Deputation.
Opening of the TBMM. Rebellions against the TBMM. Sevres Treaty. To be founded "Kuva-yı Milliye" and national army.
Construction of national army; human, money and equipment resources
I. II. İnönü, Kütahya-Eskişehir ve Sakarya Meydan Muharebeleri ile Büyük Taarruz East front, West Front: I. İnönü War I and Conference of London, Moscow Treaty. First constitution of the Turkish Grand National Assembly, İnönü War II, Battles of Kütahya and Eskişehir, Sakarya War and the conclusions; Ankara Treaty
Ideological differentiation in the the Turkish Grand National Assembly, The Great offensive, Mudanya cease-fire agreement
Peace Treaty of Lausanne
Abolishment of the Saltanate

TURKISH LANGUAGE I TURK103

(2+0) ECTS: 2

What is Language? Place and historical development of Turkish Language among
Problems of Turkish Language by using the up-to-date texts.
Writing conjunctions of "de", "ki" and "mi" by using the up-to-date texts.
Problems about writing Turkish vocabularies by using compiled texts.
To examine a text: Examining a scientific text.
Applications about spelling rules and punctuation rules
To examine a text: Examining a column text.
Applications about Expression corruption, language mistakes.
Turkish Language as a scientific language by using sample texts
Oral presentation applications

ENGLISH I INGU103

(2+0) ECTS: 2

Grammar: articles, singular/plural nouns, There is/There are, countable/uncountable nouns, quantifiers
Grammar: Simple Present Tense, Adverbs of frequency
Grammar: have got/has got, object pronouns; possessive adjectives
Grammar: can/can't, must/mustn't

Grammar: was/were, Simple Past Tense
Present Continuous Tense
Conjunctions (and-but-so-because)
Comparative and superlative

MEDICINAL HERBAL PRODUCTS ECZ113

(2+0) ECTS: 6

Historical review of medicinal plants and their usage, Basic Concepts of Medicinal Herbal Product, Herbal Products and related problems + Legal Practices on Herbal Products"

Classification of medicinal plants, herbal drugs and nomenclature of herbal drugs

Usage and dosage of herbal drugs, powder (pulveres), pills (pilule) infusion (infusa), decoction (decocta), ointments (unguenta), the medicated oil (oleato medicata), scented oil (olea aromatica), a tincture (tincturae), extract (extrata), Pharmacopoeia and medicinal plants, Methods of obtaining active substances from herbal drugs (Distillation, extraction ...), Introduction to pharmacognosy, phytotherapy, homeopathy, aromatherapy, Herbal tea: The factors to be considered in the use of herbal tea, herbal tea preparation methods, examples of medical uses

Functions and importance of secondary metabolites of plants, An overview of secondary metabolites of plants: alkaloids, terpenes/terpenoids, phenolic compounds, Classification of medicinal plants according to their pharmacological activities

BASIC MICROBIOLOGY MIK101

(2+0) ECTS: 2

Introduction to Medical Microbiology / Medical Bacteriology and Morphological Characteristics of the Bacteria / Bacterial Metabolism and Reproduction / Bacterial Genetics / Bacterial Virulence Factors / Antimicrobial Agents / Medical Bacteriology / Medical Virology / Medical Parasitology / Medical Mycology / Interaction within the Microorganisms and Relation Microorganism with Human Sterilization, disinfection and antiseptics / Basic Immunology / General Principles of the Laboratory Diagnosis

BASIC ANATOMY AND PHYSIOLOGY MYO101

(3+0) ECTS: 4

Introduction to anatomy and physiology and short terminology, axes, planes, terms indicating location and direction; general information, cell theory, structural features, cell organelles, cell division; substance exchange, metabolism, locomotor system anatomy and physiology- osteology, locomotor system; arthrology; general information, joint types, movements. myology; anatomy, contraction mechanism, striated muscles, cardiac muscle, smooth muscle physiology, respiratory system anatomy and physiology. nose, paranasal sinuses, larynx, trachea, lungs. physiology of respiration, ventilation, diffusion, perfusion, respiratory regulation, cardiovascular system anatomy and physiology. blood: functions, components, shaped elements of blood, blood groups. metabolism of the heart, heart sounds. Heart chambers, vessels, digestive system Anatomy and Physiology: Mouth anatomy, masticatory muscles, Pharynx, esophagus, stomach, small-large intestines, liver. gallbladder, pancreas, digestive glands, digestion in mouth, stomach, digestion in small-large intestines. liver. functions, CHO digestion, digestion of fats and proteins. vitamin-mineral-electrolyte functions, urinary system Anatomy and Physiology. Kidney function, nephron, urine formation, fluid-electrolyte balance. Water distribution in the body, electrolytes-anion-base balance. renin-angiotensin system, genital organs-reproductive physiology. female and male genital organs. hormonal control of the reproductive system, hypothalamus, pituitary, gonadotropin hormones. ovarian hormones, reproductive cycle, endocrine system anatomy and physiology. Endocrine glands, their functions. Physiological functions of hormones, their classification. Hormones and target cells, Anatomy and Physiology of the Nervous System. Development of nervous tissue, neuron, types of

neurons, their functions, synapse, neuroglia cells. CNS and PNS, Sense organs, Anatomy and Physiology. Visual pathways, hearing and balance pathways.

BASIC PHARMACOLOGY FAR105

(2+0) ECTS: 3

Introduction to Pharmacology and Toxicology, Definition and General Principles , Drug Administration Routes , Toxic Effects of Medicines , Pharmacokinetics and Pharmacodynamics , Central Nervous System Medications I-II, Cardiovascular System Medications , Anti-Inflammatory and Analgesic Medicines , Respiratory System Medications ,Gastrointestinal System Medications, Endocrine System and Diabetes Medications , Rational Use of Medicines

UNIVERSITY CULTURE I RKUL103

(0+2) ECTS: 4

Each semester includes following seminars, conferences, panels, workshops and interviews that will be held within the framework of a program made up of suggestions from the academic units, student council and student clubs at the university.

POSITIVE PSYCHOLOGY AND COMMUNICATION SKILLS RPSI209

(2+0) ECTS: 3

Learning the Definition and Basic Concepts of Positive Psychology, Learning the Theoretical Foundations of Positive Psychology, Learning the Brain Infrastructure of Social Behaviors, Emotional Intelligence, Emotional Intelligence in Adults, Children and Adolescents, Marriage and Business Life, Principles of Emotional Intelligence, Learning the Relationship of Emotional Intelligence with Personality Development, Marriage and Business Life, Learning the Concepts of Self-Recognition and Awareness, Learning the Concepts of Recognition of Others and Empathy, Learning Communication Skills, Learning Motivation and Planning Skills, Learning Problem-Solving Skills, Learning Anger Management Skills, Learning Relationship Management Skills, Learning the Concept of Persistence and Impulse Control Skills, Learning Healthy Decision-Making Skills, Learning the Concepts of Compromise

PRINCIPLES OF ATATÜRK AND HISTORY OF REVOLUTIONS II ATA104

(2+0) ECTS: 2

Peace Treaty of Lausanne, Periods of Lausanne Conference, Articles of Treaty of Lausanne and their evaluations,

Declarataion of Republic, Abolishment of Caliphate

Transition to multi-party political

Law Revolution

Revolutions in the social field

Revolutions in the fields of Education, Economy, Finance

Turkish foreign policy between the years of 1923-1938

Turkish foreign policy between the years of 1938-1950

The government of Democratic Party and the time of Adnan Menderes

The military coup of 1960 and the following political developments

Turkish internal politics between the years of 1980-2002.

The basic principles of Turkish Revolution.

Revolutions of Atatürk, Rationalism and Scientific Thought; Republicanism, Populism,

Nationalism and Etatism; Secularism and Revolutionarism.

TURKISH LANGUAGE II TURK104**(2+0) ECTS: 2**

What is Language? Place and historical development of Turkish Language among Problems of Turkish Language by using the up-to-date texts.

Writing conjunctions of “de”, “ki” and “mi” by using the up-to-date texts.

Problems about writing Turkish vocabularies by using compiled texts.

To examine a text: Examining a scientific text.

Midterm Exam I

Applications about spelling rules and punctuation rules

To examine a text: Examining a column text.

Applications about Expression corruption, language mistakes.

Turkish Language as a scientific language by using sample texts

Oral presentation applications

ENGLISH II INGU104**(2+0) ECTS: 2**

Demonstrative Pronouns, Possessive Pronouns

Past Continuous Tense

Exercise on Reading&Vocabulary(Simple Past Tense&Past Continuous Tense)

Preposition of Time and Place

Present Perfect Tense

Possessive”s”,Adverbs of manner

Future Tense

Making Suggestions&Requests

Gerunds - Infinitives

Modals (must,should,have to,don't have to,may)

DRUG FORMS TECHNOLOGY ECZ100**(2+0) ECTS: 6**

Introduction of Pharmaceutical Forms, Drug Administrations Routes , Liquid Dosge Forms ,

Semi-Solid Dosage Forms , Solid Dosage Forms , Aerosols

Oral Contraceptives and Birth Control Methods , Abbreviations and Exemplary Magistral Formulations

DRUG KNOWLEDGE IN PHARMACY SERVICES I ECZ110**(2+0) ECTS: 8**

Pharmaceutical forms specific to drug administration routes, Analgesics, autonomic nervous system drugs, central nervous system drugs, Anesthetics, cardiovascular system drugs, Respiratory system drugs, Gastrointestinal system drugs, Autacoids and the endocrine system drugs, Chemotherapeutics and Drug abuse and addiction

BIOCHEMISTRY BIK101**(2+0) ECTS: 2**

Subject of biochemistry, biomolecules, cell structure ,The properties of water and aqueous solutions , amino acids, peptides and proteins , Enzymes, enzyme kinetics, enzyme inhibition and regulation of enzyme activity , Carbohydrates , Proteins , Biological and lipid membranes , Nucleic acids , Vitamins

DISEASES INFORMATION TLT109**(2+0) ECTS: 3**

Health and Disease Definitions, Basic Concepts, respiratory System Diseases, Heart and Circulatory System Diseases, Blood Diseases, Digestive System Diseases, Urinary System Diseases, Nervous System Diseases, Movement System Diseases, Skin Diseases, Endocrine System Diseases, Infectious Diseases

FIRST AID ILK101**(2+0) ECTS:3**

General First Aid Information , Human Body, Patient/Injured and Crime Scene Evaluation , Basic Life Support (Basic Life Support in Adults) , Basic Life Support (Basic Life Support in Children and Infants), First Aid in Respiratory Disease Congestion , Blood and First Aid , First Aid Injury , First Aid in Burns, Freezing and Warming , First Aid in Awareness Disorders , First Aid for Poisoning , first Aid in Animal Bites, First Aid in Outbreaks of the Eye, Ear and Burdock, First Aid in Drowning, First Aid for Fractures, Dislocations and Sprains , Patient / Wound Transportation Techniques

UNIVERSITY CULTURE II RKUL104**(0+2) ECTS: 4**

Each semester includes following seminars, conferences, panels, workshops and interviews that will be held within the framework of a program made up of suggestions from the academic units, student council and student clubs at the university.

BASIC PHARMACY PRACTICES I ECZ217**(0+8) ECTS: 14**

A field practice course in free pharmacies or hospital pharmacies. Students learn about prescription applications in pharmacies, sales of pharmaceutical and non-pharmaceutical products.

DRUG KNOWLEDGE IN PHARMACY SERVICES II ECZ219**(2+0) ECTS: 6**

Drugs affecting the central nervous system, drugs used in the treatment of pain and inflammation, drugs affecting the endocrine and reproductive system, urinary system drugs, eye drugs, ear, nose, oropharynx drugs, vitamins, vaccines, intravenous supplements, skin drugs, wound care and support products used in other situations are examined.

MEDICAL PRODUCTS ECZ215**(2+0) ECTS: 4**

The professional definition and historical development of medical devices and medical products, their status in our country, areas of application, purpose and necessity, general medical supplies, wound and patient care products, diagnostic products, sugar measuring devices, blood pressure monitors, stethoscopes and thermometers, examination tools and equipment, personal care tools and equipment, medical equipment used in hospitals, oral and dental health products, equipment used in dentistry, medical materials used in physical therapy, walking tools and equipment, orthopedic products, first aid supplies and work safety supplies, mother and baby health and sterilization disinfection products, products used in gynecology, internal medicine, children, respiratory dialysis and surgery will be examined.

PRESCRIPTION INFORMATION ECZ205**(2+0) ECTS: 4**

Prescription Information Introduction Course , Diagnoses and Abbreviations on Prescriptions , Majistrals, Common Errors in Prescriptions , OTC Products , Practice Course, Cold Chain System, Compulsory Medicines in Pharmacies , SUT System , Rational Use of Medicines, Practice Course

SOCIAL RESPONSIBILITY PROJECT MYO015**(2+0) ECTS:2**

Introduction to the course, basic concepts, the concept of social responsibility and an overview of social responsibility campaigns. Recognition of non-governmental organisations and their activities. Determination of project topics (children, the elderly, women, environmental problems, education and learning problems, patients and health problems, etc.), project preparation and presentation.

BASIC CALCULATIONS IN PHARMACY ECZ216**(2+0) ECTS: 5**

Measurement Systems (weight and volume criteria used in metric systems), Concentration and Related Concepts Solubility control, Basic concepts of solubility , Measurement tools, properties and usage , Dilutions, Alcohol dilutions , Dose calculations, Calculation Examples, Practical calculations

BASIC PHARMACY PRACTICE II ECZ200**(0+8) ECTS:14**

A field practice course in free pharmacies or hospital pharmacies. Students learn about prescription applications in pharmacies, sales of pharmaceutical and non-pharmaceutical products.

PHARMACY RECORDS AND INVENTORY METHODS ECZ218**(2+0) ECTS:4**

Stock concept and types. Duties and responsibilities of pharmacy technicians in stock management and record keeping, Stock Control Methods and Stock Costs, What is inventory?, Pharmacy activity and inventory methods, Effective stock management in pharmacies, Inventory Turnover, Inventory Days and Safety Stock Calculation, Ordering Techniques and issues to be considered when ordering, Inventory Control Models; Deterministic and Stochastic Stock Models, Hospital Stock Management and Hospital pharmacy applications, Pharmacy records and Legislation, Stock valuation methods: FIFO, LIFO, actual, standard and average cost methods, Problem analyses related to stock control

TOXICOLOGY ECZ214**(2+0) ECTS:5**

Introduction to Toxicology, Ways of entry of poisons into the body, Herbal Poisons, Animal Poisons, Substance Abuse, Alcohol Poisoning, Forensic Toxicology, Pharmacovigilance, Drug Poisoning, Food Poisoning, Mycotoxins, Food additives

PROFESSIONAL ETHICS MET101**(2+0) ECTS:2**

What is Ethics / An Overview of Ethical Theories / Basic Concepts: Responsibility, Accountability and Obligation / Ethical Analysis, Society and Information Ethics: Two-way Relationship between Society and Technology Effects of Information Technologies; Optimistic, Pessimistic, Contextualist Views Why Information Ethics? Task of Information Ethics, Addiction, Health Problems, Unemployment, Social

Relations, Security, Abuse and Cybercrimes, Human rights and Patient rights, Hospital ethics committees, Medical professional ethics principles and deontology, Ethical case analysis, Deontology in Pharmacy, Good Pharmacy Practices, Ethical Problems Encountered in Pharmacy Services, Pharmacy Technician and Pharmacist Ethical Relationships