### **Course Contents**

**SEMESTER I- FALL**

**AIT 101-ATATÜRK'S PRINCIPLES AND HISTORY OF TURKISH REVOLUTION I (2-0-2):** Until the time elapsed in the developing events until a new state's institutions from the Ottoman Empire's collapse, under the leadership of Ataturk, the reforms are carried out in accordance with his principles, Turkey's foreign policy in Ataturk and the postpartum period, multiparty life transition efforts, II. World War II period, II. In the new world order after World War Turkey's transition to multiparty era and the Democratic Party.

**AYAY 101-BASIC MEDICAL SCIENCES I (3-0-3**): To know the human organism, to be able to explain the structure and working principle of the cell, to know the terms related to human anatomy and physiology, to introduce medical terminology and readings, Skeletal system-bones, Muscular system, Central nervous system, Peripheral nervous system, Sense organs, Endocrine system, understanding the functions of the human organism, respiratory system, cardiovascular system, digestive system, nervous system, urogenital system, physiomotor system and providing information about the basic anatomy and sensory organs of the sensory organs.

**AYAY 103-INTRODUCTION TO EMERGENCY AID AND DISASTER MANAGEMENT (3-2-4):** Disaster management related basic concepts, Four-stage disaster management approach, expertise in emergency aid and disaster management, History, disaster management legislation, disaster management organizations in Turkey, Hazard assessment & Risk assessment, Risk reduction, Incident command system & Incident scene management, Preparation and Planning, Intervention, Improvement, Reconstruction, Public education, Exercise and exercises, Disaster management around the world, National and international organizations related to disasters, Some special topics in Emergency Aid & Disaster Management

**AYAY 105-BASIC FIRST AID (3-0-3):** General first aid information, evaluation of the patient-casualty and the scene, the first and second evaluation of the patient, basic life support, cardiopulmonary resuscitation (CPR), first aid in adult-child-infant airway obstruction, asthma attacks, epileptic seizures, emergency first aid in diabetics, First aid for allergic reactions, shock, bleeding, poisoning, burns, hot-cold strokes, bites and stings, cuts, bone and joint injuries, spinal cord injuries, head injuries and fractures. Provincial assistance in the presence of foreign bodies in the eye, ear and nose, and carrying techniques for the sick and injured.

**DİJ 111-DIGITAL LITERACY (2-0-2):** Basic concepts of the internet, The development process of the internet, Web browsers, Search engines, E-government

**ENF 101-BASIC INFORMATION TECHNOLOGIES (1-2-2):** Computer systems, application programs, operating systems and computer hardware are covered. The use of text processor, spreadsheet and presentation programs are covered. Internet settings and usage, e-mail and search engine usage are explained.

**TBM 101-GENERAL MATHEMATICS (2-2-3):** Definition of function and operations in functions, one-to-one, on to and inside function, inverse function, compositon of functions, concept of limit, limit calculations, derivative and integral.

**TRD 101-TURKISH LANGUAGE I (2-0-2):** The definition and functions of the language, giving information about the birth of languages; uncovering the differences between written language and spoken language; the place of Turkish in world languages; historical dialects of Turkish language, contemporary dialects, historical periods of Turkish language, works written in these periods; the alphabets used by the Turks throughout history.

**YDI 101-ENGLISH I (2-0-2):** Basic grammar, adjective, noun, pronoun, basic tenses, clips, reading, writing, speaking, listening skills, vocabulary.

**SEMESTER II- SPRING**

**AIT 102-ATATÜRK'S PRINCIPLES AND HISTORY OF TURKISH REVOLUTION II (2-0-2):** Until the time elapsed in the developing events until a new state's institutions from the Ottoman Empire's collapse, under the leadership of Ataturk, the reforms are carried out in accordance with his principles, Turkey's foreign policy in Ataturk and the postpartum period, multiparty life transition efforts, II. World War II period, II. In the new world order after World War Turkey's transition to multiparty era and the Democratic Party.

**AYAY 102-BASIC MEDICAL SCIENCES II (3-2-4):** Historical development of microbiology, Scientific Method, Classification of Living Beings and Microorganisms, Nutrition, Executive Molecules, Photosynthesis, Respiration, Reproduction, Causes of Microbial Diversity, Characteristics and diseases of microorganisms such as Virus, Archea, Bacteria, Parasitism, classification of parasites, Characteristics of one-celled parasites, their diagnosis, diseases they cause and ways of protection from these diseases, helminths, their traits and ways of protection from these diseases, parasites in their vectors and their diseases.

**AYAY 104-EPIDEMIOLOGY (2-0-2):** The definition of epidemiology, its historical development, epidemiological process, usage areas of epidemiological methods, epidemiological data sources and health criteria used in epidemiology, TDHS-2013, causality use, descriptive, analytical and experimental epidemiology, infectious diseases and diseases epidemiology and evidence medicine.

**AYAY 106-BASIC DISASTER INFORMATION (2-0-2):** Disaster and Types of Disasters, Earthquake, Hydro-Meteorological Disasters, Global Climate Change and Climate Risk Management, Mass Movements, Earthquake and Buildings, Technological Disasters, Integrated Disaster Management and Restructuring in Public Administration.

**AYAY 108-EMERGENCY MEDICAL RESPONSE TECHNIQUES (3-0-3):** The concept of diseases, emergency patient care and applications, body imbalances, triage, first aid in various situations, drug applications.

**AYAY 110-STATISTICS (2-0-2):** Sample space, Events, Random variables, Conditional probability, Some discrete and continuous distributions, Functions of random variables, Sampling distributions, Prediction and testing of hypotheses, Statistical package programs and real world applications

**TBK 101-GENERAL CHEMISTRY (2-2-3):** Properties and measurement of matter, atoms and atomic theory, chemical compounds, chemical reactions and calculations, properties of gases and gas laws, molecular motion and real gases, electronic structure of atoms, periodic table and some atomic properties, chemical bonds, introduction to aqueous solution reactions, solutions and physical properties, thermochemistry, liquids, solids and intermolecular forces, an overview of organic chemistry, hydrocarbons and functional groups.

**TRD 102-TURKISH LANGUAGE II (2-0-2):** Providing information about spelling rules and punctuation marks and reinforcing them with examples; giving information about correct and effective curriculum vitae and petition writing; to introduction oral expression types and giving characteristics of oral expression types; to more beautiful and impressive writing and speaking to make reading and writing applications.

**YDI 102-ENGLISH II (2-0-2):** Vocabulary, Grammar, Skills (Reading-Listening-Speaking, Writing)

**SEMESTER III- FALL**

**AYAY 201-EMERGENCY AID AND RESCUE STUDIES I (3-2-4):** Crime scene management, field triage practices, patient transport principles, patient transport in special cases, wounded transport techniques, wounded rescue in special situations such as fire-water-debris.

**AYAY 203-PHYSICAL EDUCATION AND BODY MECHANICS I (2-0-2):** Purpose, importance and benefits of physical education and sports lessons, team sports, free time education, getting students a healthier structure and maintaining it, olympism, educational games.

**AYAY 205-OCCUPATIONAL HEALTH AND SAFETY (2-0-2):** In this course, students will learn the basic concepts of occupational health and safety, the importance of occupational health and safety, its historical development, the definition of occupational accidents and diseases, work-related diseases, their causes and ways of protection, factors affecting increasing work efficiency, risk groups in employees, occupational health and safety. They are informed about laws and regulations regarding safety, risk management and ergonomics.

**AYAY 207-EMERGENCY PATIENT CARE (3-2-4):** respiratory system diseases (COPD, asthma), gastrointestinal bleeding, acute abdomen, foreign body penetration, fracture-dislocation-sprain, injuries, crush syndrome, penetrating-cutting device injuries, blunt traumas, mi (myocardial infarction).

**AYAY 209-DISASTER PSYCHOLOGY (2-0-2):** Trauma, psychology, Post-Traumatic Stress Disorder, emotional-cognitive-physical-behavioral responses, post-traumatic recovery periods, exposure stages, victim groups affected by disasters and traumatic life events, grief stages.

**AYAY 211-DISASTER MANAGEMENT AND ORGANIZATION (3-0-3):** Introduction to Management, Management Functions, Segmentation Systems and Job-Position Definitions in Organizations, Authority-Power and Delegation of Authority, Leadership, motivation, Institutional Structuring in Disaster Management in Turkey, Legal Dimensions of Disaster Management, Disaster Management and non-governmental organization, Disaster Management and Planning, Disaster Management and Information Sharing Between Institutions.

**AYAY 213-DISASTER TECHNOLOGY (2-0-2):** Communication systems, radios, satellite communications, sirens, drone use, cyber attack and security, search and rescue, early warning systems, GIS.

**AYAY 215-DISASTER LAW (2-0-2):** Regulations on Health Law, Emergency Aid and Disaster Management, Law No. 5902, Law No. 7269, Civil Defense Law, AFAD Organization and its duties, TAMP.

**SEMESTER IV- SPRING**

**AYAY 202-EMERGENCY AND RESCUE STUDIES II (3-2-4):** Planning, organization, technical skills, accident assessment phases, communication, technological developments, intervention techniques, responsible institutions, emergency plans, health problems and protection methods in Search and Rescue.

**AYAY 204-PHYSICAL EDUCATION AND BODY MECHANICS II (2-0-2):** Definition, history, basic postures, sequences, use of space, rhythmic bounces, jumps, turns, transition and connections, instrumental and toolless movements, knowledge of rules and teaching skills.

**AYAY 206-DISASTER SOCIOLOGY (2-0-2):** Basic concepts in disaster sociology; sociological approach to human and society; basic sociological theories, methods and issues; risk sociology; environmental sociology; effects of disasters on society; long-term social effects of disasters; organized response to disaster; disaster management and non-governmental organizations; social communication and organization in disasters; post-disaster evacuation and resettlement; disasters, family and children: social rehabilitation; social effects of disasters by age groups; disasters and social change.

**AYAY 208-RESCUE VEHICLES TRAINING (3-2-4):** Definition of search and rescue team (AKT), vehicles used in AKT, pioneer vehicle, equipment carrier, generator, hammer-drilling tools, cutter-separator tools, hydraulic separator and support tools, lighting equipment, airbags, tripod, pig roof, sledgehammer-crowbar - use of hammer.

**AYAY 210-LOGISTICS MANAGEMENT IN DISASTERS (3-0-3):** Understanding the Supply Chain, Supply Chain Performance and ensuring strategic alignment and coverage, Design of distribution networks, Network design in the Supply Chain, Disaster and Logistics Management, Responsibilities of Disaster Management and Logistics Unit, Disaster Logistics Processes, Logistics stages in the Disaster Preparedness process.

**AYAY 212-BASIC STRUCTURE AND BUILDING INFORMATION (3-0-3):** Concepts of building, architectural technology and building technology. Building and construction with a systems approach introduction of methods. User-environment-building system interaction and in this context environmental Introducing the factors and performance characteristics expected from the structure. Building subsystems introduction. Considering the building elements (wall, floor, roof, staircase, interior partition) as a system and revealing their structures and construction methods with examples.

**AYAY 214-SUMMER INTERNSHIP I (0-2-0):** Emergency health internship (in institutions such as hospital emergency services, 112 emergency medical services)

**SEMESTER V- FALL**

**AYAY 301-FIRE SAFETY AND CHEMISTRY (2-0-2):** Active passive security systems, fire hydrants and types, fire cabinets and types, fire detection systems, introduction to sprinkler systems, foam extinguishing systems, gas extinguishing systems, sample fire installation projects examination, mobile extinguishing systems, introduction of products used in forest fires, introduction of new products in the light of technological developments

**AYAY 303-CBRN (3-0-3):** Fuels and fuel types, solid, liquid, gas fuels and their properties, combustion, energy, heat, heat transfer types, conduction, convection, radiation, fire safety management, emergency planning, preparation of tools, materials and personnel, risk assessment, workplace organization, headquarters studies, notification (call) evaluation, organization of teams and job description, transportation planning, research, presence of a fire center, risk assessment, environmental safety, preparation for intervention, strategy, placement and organization of security teams, intervention techniques, entrance to the building, rescue, control, extinguishing, cooling, water supply, training and exercise planning

**AYAY 305-RISK AND CRISIS MANAGEMENT IN DISASTERS (3-0-3):** Legal regulations on disaster, risk and crisis management, risk analysis techniques and risk reduction, pre-disaster, disaster and post-disaster logistics activities and risks, risk and crisis in disasters corporate and organizational organizations in management, risk and crisis management examples in the world

**AYAY 307-GENERAL PHARMACOLOGY (2-0-2):** Basic concepts in pharmacology, definition of drugs, basic rules about drug administration, administration routes of drugs, pharmacodynamics, pharmacokinetics, clinical pharmacology, prescription knowledge, antibiotics, antituberculosis drugs, aids drugs and antivirals, antiparasitic drugs, antiseptics, respiratory system drugs, pain and anesthetics, anticancer drugs, drugs used in immunotherapy and endocrine system disorders, hemostasis drugs, vitamins, digestive system drugs, antiallergic drugs, radiological contrast agents, drug abuse, drug addiction, acute poisoning

**AYAY 309-DISASTER SCENARIO AND DRILLINGS (2-2-3):** Introduction to disaster management scenario applications, goals and general concepts, what skills the scenario develops, triage practice, scenario studies, health organization in disasters-UMKE, scene management, search and rescue - evacuation and its applications, exercise

**SEMESTER VI- SPRING**

**AYAY 302-FIREFIGHTING AND ITS TECHNIQUES (3-2-4):** General information about the fire department, general information about some fires, fire extinguishing principles, fire prevention measures, definition and types of natural disasters

**AYAY 304-BASIC METEOROLOGY (2-0-2):** Climate, climatic elements, climate types, meteorological observations and weather conditions

**AYAY 306-LOCATION SELECTION IN DISASTERS (2-0-2):** The importance of location selection in disasters, the importance of geological factors in site selection, the importance of earth sciences in the choice of settlement, location selection for disaster station and assembly center, location selection for distribution center within the scope of disaster logistics, Mathematical models and solutions for location selection

**AYAY 308-DISASTER AND EMERGENCY LEGISLATION AND PLANNING (3-0-3):** Regulations for the functioning of institutions and organizations related to emergency aid and disaster management, Fire department regulation, EN54 standard, Regulation on the protection of employees from the dangers of explosive environments, Flammable, explosive, Regulation on working with dangerous and harmful substances, Material safety data sheet, explosion protection document, TS 13501-1 and 2 standards, TS 12845 and TS 12229 standards, TS 14520 standard, TS 862-EN-3-7 standard, Regulation on the protection of buildings from fire attachments

**AYAY 310-SUMMER INTERNSHIP II (0-2-0):** Disaster management, search and rescue, planning and organization internship (in institutions such as AFAD, Fire Department, UMKE)

**SEMESTER VII- FALL**

**AYAY 401-MAP INFORMATION AND GEOGRAPHICAL INFORMATION SYSTEMS (3-0-3):** Introduction to map information and geographical information systems, what is information system and GIS? History of GIS and GIS in daily life, maps, coordinate and projection systems, functions and components of GIS, how does GIS work? Geographical assets, data in GIS, data models in GIS, data collection types in GIS, data visualization, emergency aid and disaster management with GIS

**AYAY 403-EPIDEMIC DISEASES (2-0-2):** Disaster and infection, characteristics of disaster variables, infectious diseases occurring in disasters, tetanus, upper and lower respiratory tract infections, epidemic control before and after disasters, epidemic investigation and precautions in disasters, measures to be taken under control

**AYAY 405-PUBLIC RELATIONS AND BEHAVIORAL SCIENCES (2-0-2):** history and definition of public relations in the world and in Turkey, public relations, management science and public relations, total quality management and public relations, public relations in disaster management and crisis

**AYAY 407-HAZARDOUS MATERIAL MANAGEMENT (3-0-3):** Definition and classification of hazardous substances, explosive materials, gases, dusts, flammable liquids, flammable solids, oxidizing substances, toxic and disgusting substances, radioactive substances, caustic substances, other dangerous substances. materials, hazardous properties of substances, measures to be taken, methods of struggle, emergency first aid, selection, use, preparation of tools, equipment, materials, equipment and protective equipment

**AYAY 409-PUBLIC HEALTH (3-0-3):** Basic concepts of public health, history of public health definition of public health, public health goals and objectives, public health functions and responsibilities, maternal and child health, records and statistics, health and disease concepts health education, basic health services, during adolescence, health, family health, family planning, major chronic diseases and protection of home care in the community, early diagnosis community population issues, environmental health, Turkey's general health problems, health status measures of social services, community nutrition elderly health, schools health disability health, worker health, community mental health.

**AYAY 411-CYBER SECURITY (3-0-3):** This course; introduction to cyber security and basic concepts, historical development of computer security, physical security and cyber security, threat, vulnerability and attack concepts, network and internet security, cyber actors and attack methods, cyber defense methods, attack detection and response, kinetic warfare and It consists of cyber warfare, security in mobile and social media environments, personal and corporate data security management, critical information systems and homeland security, IT legislation and law dimension, the impact of cyber security on the economy, human factor and ethics in cyber security.

**SEMESTER VIII- SPRING**

**AYAY 402-PROFESSIONAL ETHICS (2-0-2):** Ethics and ethics, ethics in medicine, history of ethics, cancer and ethics, organ transplantation and ethics, euthanasia and ethics, ethics in emergency response, ethics in disaster management

**AYAY 404-EARTHQUAKES AND EARTHQUAKE SAFETY (3-0-3):** Associating earthquakes and earthquake risk with geological maps and elements, earthquake risk analysis, HAZMAT, earthquake loss estimation, earthquake damage reduction studies

**AYAY 406-SAFETY AND RESCUE IN WATER (1-2-2):** Having basic and theoretical knowledge about swimming sport; freestyle, backstroke and breaststroke techniques at least 25 m. To be able to swim, learn and apply with the teaching steps at the same time, the basics of water safety and first aid

**AYAY 408-PROFESSIONAL PRACTICE (0-8-4):** Disasters and their management, characteristics of disasters, organizations and disaster management, factors of crisis, planning-loss reduction, improvement and search and rescue studies, preparation and protection, crisis management processes