**NECMETTIN ERBAKAN UNIVERSITY MERAM VOCATIONAL SCHOOL**

**PROPERTY PROTECTION AND SECURITY DIVISION CIVIL DEFENSE AND FIREFIGHTING PROGRAM LESSON CONTENTS**

**1st SEMESTER**

**Atatürk's Principles and History of Revolution-I**

The preparation period of the Turkish revolution and the Turkish war of independence, the principles of Atatürk and the aim of reading the Revolution History course and the revolution

Concept, a collective view of the causes that prepared the Ottoman Empire's fall and Turkish revolution, Mondros Ceasefire Treaty, the disintegration of the Ottoman Empire, the state of the country in the face of occupations and Mustafa Kemal Pasha's reaction, Mustafa Kemal Pasha's departure to Samsun, the first step for the national struggle, organization through congresses, Kuvayı Milliye And Misak-ı Milli, the opening of the Turkish Grand National Assembly, the administration of the Turkish Grand National Assembly's War of Independence. Until the victory of Sakarya, the First and Second Battles of İnönü, Eskişehir and Kütahya, Sakarya, the Great Offensive and Dumluplnar wars, national struggle in education and culture, national struggle in social and economic fields, from Mudanya Lausanne, a, Ataturk's revolutions, the strategy of Turkish revolution, two great revolutions in the political field. The period of peace, Turkish law revolution, education and culture revolution, economic policy, the attempt to implement a multi-party system and Western domestic political events, revolution in social structure and health, foreign policy of the Turkish republic, geopolitics and Turkey's geopolitical situation threatened psychological action against university youth. The Purpose of reading Atatürk's principles and revolution history course and the concept of revolution, The concept of revolution, Atatürk's view on the revolution, Overview of the reasons that prepared the fall of the Ottoman empire and the Turkish revolution, Internal reasons, External reasons, The disintegration of the Ottoman empire, The Ottoman state fragmentation projects. The armistice of mudros, The situation of the country against the occupations and the reaction of Mustafa kemal Pasha, The opening of the Turkish grand national assembly, The national struggle until the sakarya victory, The battle of sakarya and the great offensive, from mudanya to lausanne.

**Turkish Language-I**

What is language ? The place and importance of language as a social institution in the life of the nation, The birth of languages; Language-culture connection, Turkish language the new among the world languages, the development and historical periods of the Turkish language, the current state of the Turkish language and its spread areas, Sounds in Turkish and the classification of sounds, sound properties of Turkish and rules about phonetics, Spelling rules, Punctuation marks and applications, General information about composition, Plan and application to be used in composition application, and the way of expression in the composition.

**English-I**

Proficiency exam, subject pronouns- the verb "to be" - lndefinite article a/an, have got- can, plurals- this/ these- that/ those- some/ any- a/ an- prep. of place, subject/ object personal pronouns- possessives/, the possessive case who/ whosethe imperative\_present simple, adverbs of frequency, prepositions of time; at, on, in, questions- lrregular plurals, present continuous, present simple,plurats-countable/uncountab- how much/how many-a few/a liftle,some/any, revision for the final examination.

**General Mathematics**

Number systems such as decimal, octal, decimal numbers, rooted numbers. exponential numbers and operations. root numbers and operations. algebraic and arithmetic systems. operations with functions and properties. graphs of functions and reading graphs. quadratic equations and their solutions. graphs of quadratic equations. trigonometry. solution of trigonometric equations. complex numbers. calculation of powers and roots of complex numbers. logarithm.

**General Chemistry**

Basic concepts, atomic structure, writing compound formulas, naming and mole concept, chemical reactions and calculations, gases, chemical bonds, solutions, radioactivity, acids and bases, oxidation and reduction reactions, organic chemistry. hydrocarbons and hetero-atomic compounds.

**Fire Vehicle and Material Information-I**

Fire brigade first aid equipment, technical assistance equipment, hazardous substance response equipment, fire trucks, response vehicles, rescue vehicles, support vehicles.

**Physical Education-I**

To provide students with a team understanding by playing in basketball, volleyball and football teams for healthy body development and its maintenance, and to teach the rules of the games.

**Usage Of Basic Information Technologies-I**

Introduction of computer, memory and memory types, virus and anti-virus programs, basic concepts of computer hardware and software, general information about communication systems in PCs (DOS 6.22 operating system, internal and external commands of DOS 6.22 system, Windows' 95/98/2000 or XP Vista operating system and commands), general information about the internet**.**

**Introduction to Fire Management and Fire Safety**

What is fire safety? (protection, precaution, extinguishing), history of fire brigade (past situation, current situation, situation in world countries), fire brigade organization (local, volunteer, military, ındustry, forest, marine) fire brigade and firefighter duties, work areas, and motivation.

**Scientific Principles of Technology**

Scientific knowledge, technology, matter, properties of matter, greek alphabet, physical quantities and conversion factors, international unit standards, fundamental constants of physics and errors, vectors, Newton's laws, mechanical properties of matter (density, elasticity), magnetic properties of matter, structure of light ( energy, frequency, time and wavelength conversions) and laser and electromagnetic wave spectrum, thermal properties of matter, types of pendulums, period formula, electric current and its properties.

**Introduction to University Life**

To introduce our university, school, academic units, department and student clubs. to introduce the services of the administrative units of our university and the opportunities offered by our university. to teach academic rights and responsibilities (exam regulations, discipline regulations, etc. related regulations).

**Recreative Activities-I**

Introduction to recreation, carrying out free time activities, engaging in social and cultural activities in free time other than duty.

**Body Building**

General fitness movements, maximal strength exercises. to provide strength and continuity exercises for the lower and upper extremities.

**Basic Electrical and Electronic Knowledge-I**

Principles of electricity, structure of atom (electron flow, matter, element) 2. static electricity, dynamic electricity 3. types of electrical currents (direct (dc) current, alternating (ac) current 4. conductor, insulator, semiconductor materials 5. electricity methods of obtaining current 6. effects of electric current (chemical effect, heat and light effect) b. electrical measurement units 1. volt 2 ampere 3. ohm 4. watt c. ohm's law d. electrical measuring instruments 1. voltmeter 2. ampermeter 3. ohmmeter 4. avometer 5. multimeter 6. on-wire ampermeter e. electrical circuits 1. electrical circuit elements 2. series circuit 3. parallel circuit 4. mixed circuit f. voltage drop in electrical circuits, magnetism and its principles 1. magnetic definition and properties of the field 2. the magnetic effect of the electric field (electromagnetism) 3. electromagnets.

**Fire Management Education**

Fire behavior, fire basics, fire development, fire safety, fire brigade duties and responsibilities, organization, legislation, professional ethics.

**2nd SEMESTER**

**Atatürk's Principles and History of Revolution-II**

Atatürk's principles, the principle of the republic, the principle of nationalism, the principle of populism, the principle of secularism, the principle of statism, the principle of revolutionism, a general assessment of turkey and the threats to kemalist thought, kemalism, introduction to atatürk's ideology, atatürk and his state life, atatürk and his intellectual life, atatürk, economics and secularism.

**Turkish Language-II**

Turkish construction and inflectional affixes and their application, expression and sentence disorders and their correction, the rules to be followed in the preparation of scientific writings and daily writings, the development of the student's ability to speak and write correctly and beautifully based on sample texts selected from Turkish and world literatures and the history of thought and related issues, rhetorical applications.

**English-II**

Prepositions of place, was/were – had-could, past simple – linking words, a / an / the – will, prepositions of movement, adjectives and adverbs – quite / very / too, revision, comparisons, be going to- will- present continuous, ıt will be / there will be, should / shouldn’t, can / can’t / could / couldn’t, present perfect tense.

**Fire Vehicle and Material Information-II**

Historical development of tools and materials used in firefighting, general material ınformation, personnel protective equipment, extinguishing equipment, rescue equipment, first aid equipment, technical assistance equipment, hazardous material response equipment, firefighting vehicles, response vehicles, rescue vehicles, support vehicles.

**Physical Education-II**

For healthy body development and its maintenance, students are given a team understanding by playing in basketball, volleyball and football teams, and teaching the rules of sports.

**Usage Of Basic Information Technologies-II**

Introducing the MS Word program, creating the document and document, saving and opening the document, moving and copying the text, ındents, adjusting the page layout, indents, paragraphs, adding top and footnotes, storing the formatting as a format, applying the spelling check in the document and printing operations, table and graphic creation, adding and using objects on the document page, working on multiple files, advantages of word macros, recording and using macros, file, layout, view, ınsert, format, tools, table, window and help.

**Fluid Mechanics**

Basic concepts, unit systems, dimensions and dimensionless groups, dimensional analysis; fluids, properties and classification; hydrostatic; pressure concept; hydrodynamics; flow classification; ıncompressible and compressible flow; flow in pipe; pumping and mixing, measurement techniques and related equipment; hydraulic systems; technical principles, analysis and applications of hydraulic systems used in firefighting.

**Search and Rescue Techniques-I**

Search and rescue definition and general concepts; rescue in traffic accidents; rescue from the elevator; rescue from height; fire rescue; ınformation about wells and recovery; urban search and rescue; the principles of use of the listening device; creating support and support systems; disaster planning and implementation; underwater search and rescue.

**Building and Installation Information**

Definition of building and its types, elements that make up the building, carrier cover, installations, roofs and chimneys, stairs, project definition and types, architectural project sheets, site plan (sketch) drawing.

**Social Responsibility and Healthy Life**

Responsibility concept. ındividual responsibility. social responsibility. social responsibility projects. health. healthy living rules.healthy eating and exercise.

**Internship**

To provide students with the opportunity to test their professional interests before starting their business life, to enable students to develop their professional skills with the ability to apply the theoretical knowledge, to contribute to the adaptation of students to the working environment from the academic environment and to increase the sense of responsibility of the students.

**Recreative Activities-II**

Leisure philosophy and historical development, leisure theories, game concept, development and theories, definition and historical development of recreation, recreation theories, the place of sports within the scope of recreational activities, the development of recreation within the scope of people's needs, recreational areas and capacity, target groups in recreation, field includes activity alternatives and different application examples.

**Basic Electrical and Electronic Knowledge-II**

Electronic circuit elements (structure, features, functions, controls.) a. resistors b. diodes c. capacitors d. transistors e. transformers f. relays g. thyristors h. ıntegrated ı. relays structure, operation and control of various electronic circuits a. flasher circuit b. walking light circuit c. siren circuits d. parking sensor circuit e. reverse warning circuit f. timer ceiling lamp circuit g. alarm circuits h. regulator circuits (voltage stabilizer circuits).

**Orienteering**

To teach knowledge and skills about orienteering, to find direction with map and compass, to find any target in the field.

**3rd SEMESTER**

**Fire Management Sports Education-I**

Introduction to sports, body preparation runs, basic postures and paired movements (firefighter gymnastics basic movements), pull-ups, high jump, rope climbing, long jump, push-ups, sit-ups, using tools, firefighter heart health awareness and ways to stay fit.

**Fire Safety-I**

Scope, importance, purposes, structural measures (passive, active), risk assessment (workplace organization, electrical and mechanical installation, production process, chemical hazards, hot and hot processes, energy system, maintenance-repair, cleaning, warehouses, human).

**Search and Rescue Techniques-II**

What should be considered when approaching a crashed vehicle, determining the fuel type of the vehicle, setting up the teams, fixing the vehicle, installing and using cutters, separators and other hydraulic elements, and teaching practical methods to approach when rescuing the injured from a crashed vehicle.

**Fire Legislation**

Definition and scope of fire brigade legislation, place of fire brigade in municipalities law no. 1580, place of fire brigade in law no. 3030 on metropolitan municipalities, regulation on establishment principles of fire brigades no. 18851, Turkish fire protection regulation, Turkish penal code no. 765, other relevant laws, statutes and regulations, fire brigade problems and developments of organizations, standards by subject: product standards, test standards, application standards, definitions and dates, service standards.

**Emergency Management**

Definition of disaster-based emergencies; nature and human factor; fire caused emergency; earth-borne emergency; weather and climate emergency; waterborne emergency; man-made emergency; global warming and ıts consequences, measures to be taken; emergency ınspection and control; evaluation and risk analysis; preparation of risk analysis reports.

**Fire And Fire Information**

General concepts and definitions, three basic states and physical properties of matter, combustion and its conditions, heat and its effects; natural heat resources; artificial heat sources; combustion properties of solids, liquids and gases; ıgnition, flashing and explosion; combustible substances according to ignition properties; combustible substances according to their nature; lpg ınformation, natural gas ınformation, combustion types and combustion products; gases released during combustion; heat transfer; fire stages; fire classes and extinguishing agents; combustion experiments.

**Fire Extinguishing Technologies**

What is quenching? extinguishing principles, extinguishing agents, automatic water system, automatic gas system, technological developments.

**First Aid**

How to detect a life-threatening emergency? how and when should we appropriately activate the emergency medical system? how to make a difference after an emergency, how to provide basic life support, emergency response, survival chain. medical emergency, sudden disease signs and symptoms, emergency first aid techniques. anatomy, physiology, what are normal body functions, what are normal heart and lung functions, what are the risk factors for heart attack and/or stroke, first aid in heart attack and stroke, first aid in drowning, general triage principles.

**Industrial Fires**

Information gathering in factory fires, method of responding to factory fires, potential danger in factory fires.

**Fire Response Principles-I**

Fire response concept; headquarters studies (transportation planning and risk determination to the settlement, preparation of tools, equipment, materials and personnel, evaluation of the notification (call), creation of the teams and job description); power propulsion and transportation (movement to fire); crime scene studies (research, finding the fire center, risk assessment, environmental safety); response preparation (strategy, safety and fire location hazards, team placement, team organization); ıntervention techniques (entry into the building, rescue, control, extinguishing, cooling); water supply; fire response drills.

**Electrical Installation Information**

General concepts related to electricity; electrical installation; ınstallation regulations; protective materials; safety precautions and emergency in electrical works; elements used in electrical installations (switch, automatic ladder, fluorescent lamp, incandescent lamp, special lamps, socket installations, leakage current relay, over-low voltage relay, fuse, electricity meter); ınsulator connections, cable connections, grounding installation; ınsulation of conductor connection points and insulation test; lightning rod and antenna installations; lighting, power distribution, telephone, television, signaling boards; elevator electrical installation.

**Disaster Psychology**

Basic principles of human psychology. disaster psychology. pre-disaster psychology. psychology during studies. examining the causes of stress. post-study psychology. trauma psychology. effects of psychological trauma. stages of disaster life. post-traumatic stress symptoms. physical symptoms. therapy. disaster site characteristics and coordination. psychological assistance, guidance, motivation life coaching.

**Physical Activity and Nutrition**

Basic nutrition principles, the effect of physical activity on the organism, fluid consumption during physical activity, nutrition before, during and after physical activity. physical activity and ergogenic aids, nutrition and weight control, principles of exercise prescription for weight control.

**Aircraft Fire**

Aircraft types, passenger planes, cargo planes, military planes, spraying and sports planes, helicopter, helicopter landing planes, fuel tanks, fuel types, aircraft accidents (slightly damaged accidents, severely damaged accidents, crash sites, approach procedures, jumping pad), firefighting vehicle and approaching the aircraft (terrain structure, escaping passengers, wind direction, explosions, aircraft position, missiles and bombs, radar, color coding in military aircraft, canopy, ways to open canopy, deactivation of batteries, ejection seat) , taking the pilot out), ınformation gathering in aircraft fires, response method in aircraft fires, potential hazards in aircraft fires.

**4th SEMESTER**

**Fire Management Sports Education-II**

100m obstacle course, motopompla teamwork application, tower (climbing wall), 4x100m steeplechase, sports games.

**Fire Safety-II**

risk and harm reduction, fire safety management, emergency planning, training and exercise planning.

**Fire Response Principles-II**

Fire response concept; headquarters studies (planning of transportation to the settlement and risk determination, preparation of tools, equipment, materials and personnel, evaluation of notice (call), creation of teams and job description); power propulsion and transportation (movement to fire); crime scene studies (investigation, finding the fire center, risk assessment, environmental safety); response preparation (strategy, safety and fire location hazards, team placement, team organization); intervention techniques (entry into the building, rescue, control, extinguishing, cooling); water supply; fire response drills. definition of forest fire, forest fire extinguishing methods. sea fire definition, sea fire extinguishing methods.

**Geographical Information Systems In Disaster and Emergency Management**

Geographic ınformation system is an information technology that stores all data depending on the place they belong to and allows various spatial associations and analyzes to be made between them. The aim of the course is to reveal how to use information technologies in disaster management. In disaster management, it will be explained that geographic information systems technology can be planned and managed by establishing special information systems, and how disaster management is applied, especially with map-based systems.

**Occupational Health And Safety**

Occupational health and safety practice principles, risk prevention culture in the workplace, importance of safety culture and its place in daily life, establishing and maintaining a safety culture, establishment purpose and structure of İSGB, OSGB and TSM, employees qualifications and assignments of occupational safety specialists and workplace doctors, given authority and responsibilities.

**Fire Inspection**

Definition, history, characteristics of the fire investigator, classification of fire according to the causes of occurrence (natural causes, fires due to accident, negligence, negligence, ıntentional fires) determination of fire exit location, crime scene investigation, laboratory work, fatal fires, evaluation of information and findings, report writing.

**Forest Fires**

Definition of forest fire; forest fire and its damages; fire exit causes; types of forest fire; fire propagation model and combustion types; factors affecting forest fires; legislation on forest fires; meteorological factors in forest fires. forest fire extinguishing methods. radio communication in forest fires; use of aircraft and helicopters in forest fires; forest fire control and control tools.

**Civil Defense and Protection Knowledge**

Introduction to civil defense and protection course, shelters - blackout - food and storage operations, protection measures, preparation of civil defense plans, cbrn hazards and risks, cbrn response methods, cleaning and decontamination activities, crime scene management in cbrn incidents, special topic: experiences of experts from the ındustry evaluation.

**Labor and Social Security Law**

Concept of law, legal systems, branching of law. public law-private law distinction, sources of law. judicial systems and judicial branches. personality: real persons, legal persons relation, concept of ınheritance and heirs, responsibility of heirs. ownership concept. powers and duties arising from property rights, legal events, legal relationships, disability cases in legal transactions and consequences of ınjury. contracts, rights and types, acquisition and loss of rights, protection of rights, obligations, terms and consequences, types of lawsuits.

**Fire Safety Systems**

Definition of fire extinguishing systems, types, recognizing and using automatic and manual fire extinguishing systems according to existing risks. ıdentifying and identifying existing risks. calculating fire loads according to risks. to determine the passive measures, to design passive systems. calculate passive systems, solve problems. to determine the active measures to be taken. to design active systems. calculate active systems, solve problems. to recognize the certifications of materials and systems used in these systems.

**Earthquake Information and Rescue**

 What is an earthquake? the causes of the earthquake, earthquake types, tectonic, volcanic, collapse earthquakes, magnitude, severity, damage concepts, what to do before, during and after the earthquake.

**Industrial Fire Safety**

Fundamentals of fire safety, fire hazard terminology, properties of hydrocarbons, properties during combustion, engineering and technical properties of petroleum products, fire and explosion specifications of frequently used chemicals, environmental effects and possible precautions. relevant laws and regulations, case studies.

**Sea Fires**

Fire prevention and fire fighting basic training (organization of fire fighting on board, locations of fire fighting devices and emergency escape routes, elements of fire and explosion (fire triangle), types and sources of ignition, combustible materials, fire hazards and spread of fire, continuous attention to fire and alertness requirement, actions to be taken against fire on board fire and smoke investigation and automatic alarm systems, classification of fire and suitable fire extinguishing agents to use, fire fighting equipment and its location on the ship, things to learn fixed installations, firefighters' equipment (fireman's equipment), personal equipment, fire fighting tools and equipment, fire fighting methods, fire extinguishing agents, fire fighting procedures and procedures, use of breathing apparatus for fire fighting and effective rescue.

**Environmental Protection**

To gain knowledge and skills about environmental and human health protection rules, international health and safety warnings, occupational health and safety regulation, environmental regulation information.

**Fire Insurance**

General insurance information, ıntroduction of insurance types (life and non-life ınsurances), concepts and applications related to insurance, risk management, damage management, appraisal report preparation methods, fire and engineering insurance, special methods in fire insurance, insurance law (regulations and laws).

**Communication Technologies**

Giving knowledges about the latest developments in this sector, the concept of communication and communication models, the effects of technology on the social structure based on the basic dynamics of technological developments, the relationship between communication and technology, new media and its features, alternative media and communication technologies, internet and communication. The acceleration it brought, wireless communication technologies; bluetooth, GPRS, LAN, WLAN, WAP etc., television broadcasting technologies, satellite technology, video conferencing system, distance education, digital broadcasting, digital broadcasting and its products (CD, VCD, DAT, MD, DVD, Blue-ray, information technologies in education). Topics such as hologram (three-dimensional image technique), communication and nano technology, communication and future technologies.