# T.C

# TRABZON UNIVERSITY

# ŞALPAZARI VOCATIONAL SCHOOL

# PROPERTY PROTECTION AND SECURITY DEPARTMENT CIVIL DEFENSE AND FIREFIGHTING PROGRAM

# COURSE CONTENTS FOR 2021-2022 EDUCATIONAL YEAR AND AFTER

	<b>国用商品</b>	I. TERM											
#	CODE	COURSE NAME	ТҮРЕ	Т	U	L	С	ECTS					
1	ŞSSI1001	Firefighting and Sport Training-I	C	0	2	0	1	3					
2	\$SSI1003	Introduction to Firefighting and Fire Safety	C	2	0	0	2	4					
3	ŞSSI1005	First Aid	C	2	1	0	2.5	4					
4	ŞSSI1007	Information of Combustion and Fire	C	2	2	0	3	5					
5	\$SSI1009	Information of Fire Department Equipment-I and Material-I	C	2	2	0	3	5					
6	\$SSI1011	Occupational Health and Safety	C	2	0	0	2	3					
7	-	Atatürk's Principles and History of Turkish Revolution - I	C	2	0	0	2	2					
8	TDB1001	Turkish Language - I	C	2	0	0	2	2					
9		Foreign Language-I	C	2	0	0	2	2					
10	KAR1001	Career Planning	C	1	0	0	0	0					
	-		Sum	17	7	0	19.5	30					
II. TERM													
#	CODE	COURSE NAME	TYPE	T	U	L	C	ECTS					
1	AITB1000	Atatürk's Principles and History of Turkish Revolution – II	С	2	0	0	2	2					
2		Foreign Language-II	C	2	0	0	2	2					
3		Turkish Language - II	C	2	0	0	2	2					
4		Firefighting and Sport Training-II	C	0	2	0	1	3					
5		Disaster Management	С	2	0	0	2	4					
6		Information of Fire Departmant Equipment and Material-II	C	2	2	0	3	5					
7		Fire Equipment and Project Information	C	2	0	0	2	4					
8	\$SSI1010	Fire Department Legislaton and Standards	C	2	0	0	2	4					
9	Group -1	Optional Courses-1		2	0	0	2	2					
10	Group-1	Optional Courses-2		2	0	0	2	2					
			Sum	18	4	0	20	30					
		III. TERM											
#	CODE	COURSE NAME	TYPE	T	U	L	C	ECTS					
1	\$SSI2001	Firefighting Professional Practice-I	C	0	8	0	4	4					
2	\$SSI2003	Hazardous Substances	C	2	0	0	2	3					
3		Professional Experience-I	C	0	2	0	1	4					
4		Fire Fighting Rules-I	C	2	2	0	3	4					
5	,	Search and Rescue Information-I	C	2	2	0	3	4					
6		Fire Safety-I	С	2	0	0	2	4					
7	,	CBRN	C	2	0	0	2	3					
8		Optional Courses-1		2	0	0	2	2					
9-	Group-2	Optional Courses-2		2	0	0	2	2					
			Sum	14	14	0	21	30					
		IV. TERM											
		COURSE NAME	TYPE	T	U	L	C	<b>ECTS</b>					
1		Professional Experience-II	С	0	2	0	1	4					
2		Fire Fighting Rules-II	С	2	2	0	3	4					
3		Search and Rescue Information-II	С	2	2	0	3	4					
4		Fire Safety-II	С	2	0	0	2	4					
5		Fire Criminology	С	2	0	0	2	3					
6		Disaster and Emergency Legislation	C	2	0	0	2	3					
7		Firefighting Professional Practice-II	С	0	8		1.4	4					
8		Optional Courses-1		2	0 //	. O.	=3.2	21					
0	Group-3	Optional Courses-2		2	0 [	30//	2.	· 2 1					
9	Group 5	optional courses I	Sum	14	14	· · · · ·	-21/	30.					

		Group-1 (Optional Co	urses)					
#	CODE	COURSE NAME	TYPE	T	U	L	C	ECTS
1		Civil Defense and Protection Information	Е	2	0	0	2	2
2	ŞSSIS1022	Emergency Management	E	2	0	0	2	2
3		Disaster and Emergency Psychology	Е	2	0	0	2	2
4		General and Technical Communication	Е	2	0	0	2	2
5		Disaster Education and Culture	Е	2	0	0	2	2
6	ŞSSIS1026	Professional Ethics	Е	2	0	0	2	2 .
		Group-2 (Optional Co	urses)					
#	CODE	COURSE NAME	TYPE	T	U	L	C	ECTS
1	ŞSSIS2021	Forest Fires	E	2	0	0	2	2
2	ŞSSIS2023	Industrial Fires	Е	2	0	0	2	2
3	ŞSSIS2025	Administration and Organization	E	2	0	0	2	2
4		Earthquake Information	Е	2	0	0	2	2
5		Leadership and Group Dynamics	Е	2	0	0	2	2
6	ŞSSIS2031	The Survival Technigues in Nature	Е	2	0	0	2	2
		Group-3 (Optional Co	urses)		19-19-19-1			400
#	CODE	COURSE NAME	TYPE	T	U	L	C	ECTS
1	ŞSSIS2020	Professional English	Е	2	0	0	2	2
2	ŞSSIS2022	Basic Electrical and Electronic Information	E	2	0	0	2	2
3	ŞSSIS2024	Building and Installation Information	E	2	0	0	2	2
4		Aircraft Fires	Е	2	0	0	2	2
5	ŞSSIS2028		E	2	0	0	2	2
6	ŞSSIS2030	Volunteering Studies	E	2	0	0	2	2



#### T.C

# TRABZON UNIVERSITY. ŞALPAZARI VOCATIONAL SCHOOL PROPERTY PROTECTION AND SECURITY DEPARTMENT

# CIVIL DEFENSE AND FIREFIGHTING PROGRAM COURSE CONTENTS FOR 2021-2022 EDUCATIONAL YEAR AND AFTER

# I. TERM (FIRST GRADE FALL SEMESTER)

#### ATATURK'S PRINCIPLES AND REVOLUTION HISTORY-I

The Disintegration of the Ottoman Empire (XIX Century). Reorganization and Reform Edict, I. and II. Constitutionalism, Trablous and Balkan Wars, War to and All Wars, Armistice of Moudros, Wilson's Principles, Paris Conference, M. Kemal's arrival in Samsun and the Situation in Anatolia, Amasya Circular, National Congresses, Opening of the Parliamentary Assembly, Establishment of Parliament and Internal Revolts, Organization-i Esasi Law, Establishment of the Regular Army, I. Inönü, Kütahya - Eskişehir, Sakarya Pitched Battle and the Great Attack, Treaties during the War of Independence, Lausanne Peace Treaty, Abolishment of the Sultanate.

# TURKISH LANGUAGE-I

Understanding the features of the language and the structure of the language, Turkish among the languages of the world; Differences between dialect dialect and dialect, Sound and structure features of Turkish, written and verbal expression, sentence information, groups of words, expression disorders, punctuation marks and spelling rules.

# FOREIGN LANGUAGE-I

Four basic language skills in specific grammatical structures such as the present progressive tense, present simple tense, future tense, and simple past tense, Wh- questions, modals, adjectives of comparison, adverbs of frequency; communication skills and strategies (introducing oneself, describing and giving directions to places, asking and answering personal questions); reading skills in different contexts; writing skills (writing text messages and e-mails, preparing a poster, filling out a form); listening skills.

# FIRST AID

First aid regulation, basic information about the body, general first aid information, evaluation of the sick-injured and the scene, basic life support, first aid in cases of bleeding and shock, first aid for injuries, First aid in fractures, dislocations and sprains, burns first aid for frostbite and heat stroke, first aid in poisoning, first aid for animal bites, First aid for foreign body intrusion into eyes and nose, first aid in suffocation, first aid in disorders of consciousness, transport techniques of sick casualties.

# OCCUPATIONAL HEALTH AND SAFETY

Occupational health and Safety, purpose, definition, basic principles, main principles, benefits of job security, introduction of regulations, labor law, occupational health promotion, dangers, precautions to be taken, dangers, employer's and employee's liability, the introduction and precautions of safety signs work accidents, occupational diseases, noise, vibration, personal protective equipment introduction and benefits, ergonomics definition and definition of risk and its evaluation.

# INFORMATION OF FIRE DEPARTMANT EQUIPMENT AND MATERIAL-I

Personal protective equipment used in fire brigade, Putting on personal protective equipment, Fire extinguishing agents, Hoses, Nozzle Aid equipment.

# FIREFIGHTING AND SPORT TRAINING-I

General information about firefighting sports, Preparing the body, fitness track, basic postures, Basic firefighting gymnastics movements, climbing wall crunches, rope climbing, firefighting sports and games, 100 meters hose opening.

# INTRODUCTION TO FIREFIGHTING AND FIRE SAFETY

Fire brigade history, The past situation of the fire brigade, The current situation, The situation of the fire brigade in the world countries, Fire security, Protection and prevention in fire safety, Extinguishing in fire safety, Duties of fire brigade and firefighter, Firefighting organizations, Introduction of working areas, Examination of laws and regulations.

#### INFORMATION OF COMBUSTION AND FIRE

Combustion and its conditions, natural heat sources, artificial heat sources, flammable substance according to its flammability, Flammable substance according to its nature, burning types, combustion products, gases released during combustion, terms related to combustion, fire, heat transfer, fire stages.

#### **CAREER PLANNING**

Career journey has started, first stop: Career center, Intelligence and Personality, Personal characteristics, k making a difference in career path: Skills, What is a Career?, How Do I Prepare for My Career?, Non-Governmental Organizations – National, Non-Governmental Organizations – International, Sector Days - P Sector, Sector Days - Private Sector, Industry Days- Academy, Sector Days- Entrepreneurship, Writing a R Course Evaluation.

# II. TERM (FIRST GRADE SPRING SEMESTER)

#### ATATURK'S PRINCIPLES AND REVOLOTION HISTORY-II

Revolutions in the political field, political parties and attempts to transition to multi-party political life, Revolutions in the field of law, regulation of social life, economic innovations, Turkish foreign policy in the period of 1923-1938, Turkish foreign policy after Atatürk, Principles of Turkish Revolution: (Republicanism, Populism, Secularism, Revolutionism, Statism, Nationalism). Integrative Principles.

#### TURKISH LANGUAGE- II

Academic language and features of writing; using definitions, concepts and terms in academic articles; objective and subjective expression; structure and types of academic texts (articles, reports and scientific abstracts etc.); writing a claim, proposition (verifying a thought, defense or opposition); formal features of scientific reports and articles; steps of writing a report; explanation, discussion, establishing intertextual relations, citing (citing and footnote, creating bibliography); writing headlines, summarizing, writing keywords; ethical principles to be considered in scientific writings; academic text writing practices.

#### FOREIGN LANGUAGE-II

Four basic language skills in specific grammatical structures such as the present progressive tense, present simple tense, future tense, and simple past tense, Wh- questions, modals, adjectives of comparison, adverbs of frequency; communication skills and strategies (introducing oneself, describing and giving directions to places, asking and answering personal questions); reading skills in different contexts; writing skills (writing text messages and e-mails, preparing a poster, filling out a form); listening skills.

# FIREFIGHTING AND SPORT TRAINING-II

General information about firefighting sports, Preparing the body, fitness track, basic postures, Basic firefighting gymnastics movements, climbing wall crunches, rope climbing, firefighting sports and games, 100 meters hose opening.

# DISASTER MANAGEMENT

Basic concepts of disaster management, Types of disasters, major disasters in the world and in Turkey, Disaster management systems in some countries, The history of disaster management in Turkey and legislation, Integrated disaster management and stages, Triage in disasters

# INFORMATION OF FIRE DEPARTMANT EQUIPMENT-I AND MATERIAL-II

The importance and classification of equipment use in firefighting, Overview of the types of fire trucks, Firefighting first responders, Features of ladder vehicles, Features of rescue vehicles, CBRN Tool and equipment, Features of water supply vehicles, Featured vehicles, Support tools Types and installation of airbags, characteristics and types of cutters, Spreader, cutter and rollers, crushers and drillers; characteristics and types, Jacks and ladders; properties and types, Generator, jumping pads and supports, Seismic acoustic listening devices and video search devices, Other materials used in rescue operations.

# FIRE EQUIPMENT AND PROJECT INFORMATION

Units of measure, To be able to read the project and understand its content, principles of preparing fire extinguishing and smoke evacuation projects, To be able to read the project and understand its content, Overview of fire installations in buildings, Water extinguishing systems, water tanks and resources, fire pumps, fixed piping and fire cabinets, hydrant system, sprinkler system, fire brigade connectors, Fixed Automatic Extinguishing Systems with Foam, Gas and Dry Powder, Smoke evacuation system, Pressurizing system.

# FIRE DEPARTMENT LEGISLATON AND STANDARDS

Law, Regulations, regulation and directive, Municipal law, Big city municipal law, Municipal fire regulations, Volunteer fire brigade regulations, Chimney regulation, I Workplace opening regulation, Regulations and annexes on the protection of buildings from fire, Firefighting occupational standards, Firefighting and fire safety standards.

#### **OPTIONAL-I**

It covers the selection of one of the six courses in the elective course pool.

#### **OPTIONAL-II**

It covers the selection of one of the six courses in the elective course pool.



#### **OPTIONAL COURSES**

# CIVIL DEFENSE AND PROTECTION INFORMATION

Definition and historical development of civil defense, Civil defense legislation, Mobilization activities, Evacuation and dilution, Sensitive areas and stages, Civil defense services, headquarters service, rescue service, first aid service, outreach service, safety traffic service, fire service, hospitals service, technical repair service, Preparing a civil defense plan, Preparing a civil defense plan, Protection from CBRN threats, Warning alarms and shelters, Fire protection, Education and application.

#### **EMERGENCY MANAGEMENT**

Emergency management basic concepts, Hazard hunting and risk analysis, emergency management legislation in Turkey, Disaster and emergency types, Emergency action plan, Incident management in emergency situations, Emergency communication, Evacuation plan, Field and desk application, Emergency management for individuals with special needs, Emergency psychology.

#### DISASTER AND EMERGENCY PSYCHOLOGY

Disaster Psychology and Basic Concepts, Basic principles in psychosocial practices, Stages of disasters and traumatic life events affecting the society, The impact of disaster and emergency on children and adolescents and intervention approaches, The impact of disaster and emergency on children and adolescents and intervention approaches, Effects of disasters on adults, Post-traumatic stress disorder and acute stress disorder, The psychology of grief and loss, Psychological soundness, Secondary traumatic stress symptoms and coping methods, Psychosocial intervention approaches, Psychology of civil defense and firefighters, Burnout syndrome, Disaster ethics

#### PROFESSIONAL ETHICS

The concept of ethics, The concept of ethics, morality, moral theories, moral decision making, Civil defense history and ethics, Firefighting history and ethics, Professional ethics, Rights of the victim, Rights of personnel in the field of civil defense and fire brigade, The consequences of professional corruption and unethical behavior, The concept of social responsibility, Disaster management and ethics, Case discussions in the field of civil defense and firefighting

#### GENERAL AND TECHNICAL COMMUNICATION

Basic contact information, communication types and barriers, communication in organizations, official, private and business articles, technical communication, communication with form editing and graphic communication information technologies, talking on the phone, personal relationships, Phobia activities, marketing, ego states, group discussions.

# DISASTER EDUCATION AND CULTURE

Basic concepts about disasters. Things to do before disasters; Dangers around us family disaster and emergency plan, meeting areas, emergency phones, disaster and emergency bag Correct behaviors to be done during disasters, Things to do after disasters; evacuation, volunteer activities, Risk and mitigation studies in disasters, Disaster preparedness studies, Disaster response studies, Improvement studies in disasters, From the flood and overflow From landslid, Avalanche, Earthquake, Fire Protection methods from CBRN effects

# III. TERM (SECOND GRADE FALL SEMESTER)

#### FIREFIGHTING PROFESSIONAL PRACTICE-I

Fitness track, Basic firefighting gymnastics movements, Climbing wall exercises, climbing with a rope, Basic life support, first aid in bleeding and injuries, first aid for burns and frostbite, Broken, first aid for dislocations and sprains, first aid in drowning, sick and injured transport techniques, Wearing personal protective equipment, Putting on and taking off fresh air breathing apparatus, Hose laying and lance connection, Simulation of fire phases and fire hazards, Airbags and hydraulic shear separation installation and use, Jack, stairs, generator, installation of jumping pads, Vehicle screed burning and environmental safety, Fire intervention in team, Search and rescue in indoor and smoky environment, Crime scene security studies in traffic accidents, Application

#### PROFESSIONAL EXPERIENCE-I

It is to offer students the opportunity to test their interests in the professional field before starting business life, to provide students with the opportunity to develop their skills in the professional field with the ability to apply the theoretical knowledge they have acquired, to contribute to the adaptation of students from the academic environment to the working environment and to increase students' understanding of responsibility.

#### FIRE FIGHTING RULES-I

Quenching methods; by cooling, suffocating, removing fuel, preventing, Extinguishing agents; water, foam, CO2, dry chemical powders, alternative gas extinguishers, Selection of extinguishing agent, choice of intervention with appropriate lance, water treatment methods, Referral organization and communication; notification, crime scene communication, information gathering, Crime scene security studies; vehicle bastions and correct placement, wearing personal protective equipment, vehicle material and environmental safety, Types of intervention; prepared intervention, unprepared intervention, rapid intervention, Types of intervention; side by side intervention, cascade intervention, independent intervention, Types of intervention (establishment of a 9-person team and duties of team personnel), Types of intervention (teamwork of 7 people and duties of team personnel), Types of intervention (internal interventions and forms of progress in closed areas), Types of intervention (internal interventions and forms of progress in closed areas), Types of intervention (internal interventions and forms of progress in closed areas), Hazards at the fire place.

#### SEARCH AND RESCUE INFORMATION-I

Search and rescue concepts, importance, team and tasks, Search and rescue in closed and smoky environments, Rescue in cases of being stuck in an elevator, Causes of traffic accidents, vehicle components and classification, Traffic accident intervention, crime scene security studies, Response to traffic accidents and rescue of victims, Equipment used in traffic accidents, Search and rescue building structures and building collapses in the urban area, Search and rescue team and tasks in the urban area, crime scene management, Search and rescue equipment and technical specifications in the urban area, Search and rescue casualty search and rescue methods in the urban area, Avalanche information, avalanche classification, Avalanche-inducing reasons, Avalanche search and rescue methods.



#### FIRE SAFETY-I

Fire safety and its importance, Duties of the fire brigade regarding fire safety, General provisions, use of buildings and hazard classification, Tasks, powers, responsibilities and prohibitions, Usage classes of buildings, hazard classification, General fire safety provisions for buildings, Fire compartment, wall, floor, facades and roofs, Escape routes Escape stairs, Special regulations according to building usage classes, Regulations regarding building parts and facilities; boiler rooms, fuel tanks, Regulations regarding building parts and facilities; kitchens, tea stoves, stoves and chimneys, shelters, parking lots, roofs, Regulations regarding building parts and facilities; elevators, lightning protection installation, transformer and generator

#### **CBRN**

CBRN entry and related legislation, History of chemical events, classification of chemical agents according to their physical state and volatility, Classification of chemical agents according to their toxicological properties, protection from chemical events, Biological threats, propagation ways of biological agents, history of biological events, biological agent properties, Classification of biological agents, Protection from biological events. History of radiological events, types of radiation, the effect of radiation on human health and protection, Introduction to nuclear threats, history of nuclear events, the sudden effects of nuclear weapons, Residual effects of nuclear weapons, protection from nuclear threats, Suspicious mail and packages, Warning and alarm, shelters, CBRN personal protective equipment and standards, Detection and diagnostic technologies, CBRN crime scene management, Decontamination

#### HAZARDOUS SUBSTANCES

Dangerous materials, usage areas, Dangerous goods classification, Current regulations on chemicals and dangerous substances in our country, Explosives, dangerous gases, Flammable liquids, flammable solids, Oxidizing agents and organic peroxides, radioactive materials, Corrosive substances, other dangerous substances, Dangerous goods symbols and plates, ADR (HIN) danger numbers, NFPA 704 coding, EAC coding Storage of dangerous goods and label reading, Hazardous substance identification guide use

#### **OPTIONAL-I**

It covers the selection of one of the six courses in the elective course pool.

#### **OPTIONAL-II**

It covers the selection of one of the six courses in the elective course pool.

#### **OPTIONAL COURSES**

#### **FOREST FIRES**

Definitions and concepts, forest fire statistics, Activities of the General Directorate of Forestry and fire meteorology stations, Classification of forest fires, main problems of fire hazard rates, Sources using fire hazard indexes, The course and spread of forest fires, Regulation of flammable material in eliminating large forest fires, Fire protection principles and methods, Fighting forest fires and the importance of protective equipment, Forest fires and fire seasons in our country, The main principles and methods of management and administration in extinguishing large forest fires, Factors affecting the selection of hand tools used in fire extinguishing and remedies to reduce energy consumption, The shipment of living and non-living assets recovered after fire, Legal obligations in response to forest fires

#### **INDUSTRIAL FIRES**

Principles of fire safety, Fire hazard terminology, Properties of hydrocarbons, properties during combustion, Engineering and technical characteristics of petroleum products, Fire and explosion technical characteristics of frequently used chemicals, Environmental effects and possible precautions, Relevant laws and regulations, Case studies

# ADMINISTRATION AND ORGANIZATION

Definition and characteristics of management and manager, Decision making, decision types, Decision-making stages, Definition of planning, plan and plan types, Description of the organization, Principles of the organization, Organization charts, Executive, Human Resources Management, Career planning, Performance enhancement and evaluation, Employee training and selection, Control and control types, Organization culture, Definition and principles of total quality management.

# EARTHQUAKE INFORMATION

Earthquake definition and basic concepts, Earthquake magnitude, determination of earthquake intensity and focal point, The seismicity of our country, Major earthquakes in the world, Classification of structures, Earthquake safety in buildings, Earthquake resistant designs, Earthquake safety, Earthquake first aid and first aid, Legal regulations.

# LEADERSHIP AND GROUP DYNAMICS

Leadership and concepts and definitions related to leadership, Basic features and principles required for leadership, Leadership formation, leadership theories, Leadership and group, Group communication structure, Leadership functions, Major leadership concepts, Leadership models, Leadership practices in terms of management, Leadership in their activities, group management, Leaders' responsibilities, Current problems and solution suggestions of leadership in sports events.

#### THE SURVIVAL TECHNIGUES IN NATURE

Survival supplies, How to light a fire, camp Fire, types and preparation of tinder, Fishing and methods, species of fish, feed and cooking, Building and shelter types, Edible seeds and fruits, poisonous plants, Desert types, desert travel and appropriate clothing, Life in life Edible invertebrates, poisonous invertebrates, First aid for injuries, Establishing a safe camping area, Adobe house made of grass, log hut, tent installation, Disruption of the camping area, Water in nature; sources, treatment, where to search, diseases, Search and rescue signs; aircraft management, morse code, use of marker, How to cross the creek, how to make a bridge, raft construction.

#### IV. TERM (SECOND GRADE SPRING SEMESTER)

# FIREFIGHTING PROFESSIONAL PRACTICE-II

Putting on and taking off CBRN personal protective equipment, Personnel decontamination exercise, Use of hazardous substance identification guide, Hazard hunting and risk analysis in living areas, Setting up a tent, Examining various living areas according to the regulation on the protection of buildings from fire, Examining various living areas according to the regulation on the protection of buildings from fire, Examining various living areas according to the regulation on the protection of buildings from fire, Nodes, landing from high, Climbing methods, well recovery, Stretcher binding and carrying, Victim download methods, fire evacuation application, earthquake application, Preparing a fire report with case examples

# PROFESSIONAL EXPERIENCE-II

It is to offer students the opportunity to test their interests in the professional field before starting business life, to provide students with the opportunity to develop their skills in the professional field with the ability to apply the theoretical knowledge they have acquired, to contribute to the adaptation of students from the academic environment to the working environment and to increase students' understanding of responsibility.

#### FIRE FIGHTING RULES-II

Operation and functioning of the notification center in the fire department, establishment and duties of teams, Determining fire fighting methods, deployment of fire trucks, crime scene organization and information retrieval, communication techniques and radio use at the scene, rescue techniques in indoor and smoky environments, water supply sources and methods, post-fire inspection, returning to the fire station and making an evaluation, preparation of post-fire report.

# SEARCH AND RESCUE INFORMATION-II

The importance of search and rescue in rural areas, personal protective equipment, ropes, nodes, various equipment and features, high landing methods, climbing methods, search and rescue methods in wells, stretcher binding and carrying methods, casualty download methods, surface search and rescue principles, surface search and rescue methods, surface search and rescue equipment and technical specifications.

#### FIRE SAFETY-II

Emergency lighting and guidance, fire detection and warning systems, fire detection and warning systems, smoke control systems, pressurization system, fire extinguishing systems, Fixed automatic extinguishing systems with foam, gas and dry powder, portable extinguishers, storage and use of dangerous substances, flammable and explosive gases, flammable and flammable liquids, active fire safety measures, establishment of emergency teams, duties and training of emergency teams, application.

#### FIRE CRIMINOLOGY

Criminology definition, criminal investigations, definition of the evidence, material and moral evidence, crime scene investigation methods are random, spiral, circular and grid method, where evidence can be found, private and commercial expressions, causes of fire and sabotage, vandalism, fires caused by revenge, terror and commercial concerns, crime scene Investigation, collecting evidence, packaging and labeling, accelerators and retardants, signs of use and the evidence and findings they left behind, investigating automobile fires, investigating residential fires, investigating factory fires.

#### DISASTER AND EMERGENCY LEGISLATION

Social order rules and legal rules, source and classification of legal rules, constitutional principles and fundamental rights and responsibilities, private law and public law, branch, norms, hierarchy, Basic legal regulations regarding emergency and disaster management, laws on emergency and disaster management, regulations on emergency and disaster management, Statutory decrees, ministerial decrees and regulations on emergency and disaster management.

#### **OPTIONAL-I**

It covers the selection of one of the six courses in the elective course pool.

#### **OPTIONAL-II**

It covers the selection of one of the six courses in the elective course pool.



#### **OPTIONAL COURSES**

#### PROFESSIONAL ENGLISH

English equivalents of the basic concepts of fire brigade, acquiring firefighting terminology, terms of fireburning knowledge, Learning not only the terms related to the profession, but also the technological developments through literature review to develop the presentation skill and to make guiding studies in determining the working areas of the students in the professional life.

# BASIC ELECTRICAL AND ELECTRONIC INFORMATION

The importance of electrical energy, effects of electric current, electrical circuit values and units, measuring current and voltage, resistance and calculation of a conductor, Ohm's law resistance connections, Kirsoff's laws, direct current, alternating current and current sources, work and power in electrical circuits, first aid in electric shocks, precautions against electrical burns, effects of electric current on human, precautions against electrical fires.

# **BUILDING AND INSTALLATION INFORMATION**

Definition and classification of the structure, application (implementation of the plan on the ground), introduction of building materials (concrete-wood-steel-brick, sand-gravel, cement, etc.), defining the building floor, fundamentals, columns, beams, floors, walls, dilatation joints, concrete components, reinforced concrete structures, steel structures, wooden structures, prefabricated structures, other types of structures, chimneys, vertical circulation devices (stairs, elevators, etc.), roofs, tin works in building, joinery, plasters, wall and floor coverings, whitewashes, dyes, insulations, installations, stairs, project definition and types.

#### AIRCRAFT FIRES

Aircraft types, passenger planes, cargo planes, military aircraft, fumigation and sports aircraft, helicopter, helicopter landing aircraft, fuel tanks, fuel types, aircraft accidents (lightly damaged accidents, heavily damaged accidents, crash crash sites, approach procedures, jump pad), developing the fire brigade and approaching the plane (the structure of the terrain, escaping passengers, wind direction, explosions, the position of the plane, missiles and bombs, radar, color coding in military aircraft, canopy, ways to open the canopy, disabling the batteries, ejection seat, pilot out extraction), collecting information in aircraft fires, response method in aircraft fires, potential hazards in aircraft fires.

#### FIRES AT SEA

Basic fire prevention and fire fighting training (fire fighting organization on board, locations of fire fighting devices and emergency escape routes, elements of fire and explosion (fire triangle), ignition types and sources, flammable substances, fire hazards and fire spread, the need for constant attention and alertness to fire, Things to do against fire on board, fire and smoke investigation and automatic alarm systems, Extinguishing agents suitable for classification and use of fire, firefighting equipment and its location on the ship, things to learn, fixed facilities, fire fighting equipment (fireman equipment), personal equipment, fire fighting vehicles and equipment, fire fighting methods, fire extinguishing agents, fire fighting procedures and procedures, use of breathing apparatus for fire fighting and effective rescue.

#### **VOLUNTEERING STUDIES**

Management and organization concepts, the concept of volunteering and volunteer management, passe areas of volunteering, Project development related to volunteer work and participation in volunteer work in the field, ethics in volunteer work, moral, religious, traditional values and principles, public institutions, Participation in voluntary work in local governments and non-governmental organizations, risk groups and volunteering in the community, immigrants and volunteering.

#### **OUTPUTS PROGRAM**

- 1) Has basic legal knowledge about civil defense, fire brigade, disasters, emergencies and occupational health and safety, and can use the principles of basic laws and regulations in the relevant field.
- 2) They can follow the structures and building technologies produced according to the developing technology, and learn to examine them in terms of fire and seismicity.
- 3) Have knowledge about dangerous chemicals in Civil Defense and Firefighting and can participate in response organizations against these substances.
- 4) They can participate in response organizations in civil defense and firefighting incidents, and can save lives and property by learning search and rescue methods.
- 5) They can apply their knowledge and skills in the field of civil defense and firefighting.
- 6) Personnel working in civil defense and firefighting can perform the stages of post-intervention incident investigation, investigation, damage detection and reporting.
- 7) In case of emergency and disaster, he can apply basic first aid and techniques and correctly manage the psychological situations in which he will be confused.
- 8) By using a foreign language (English), he can follow the information related to his field and communicate with his colleagues.
- 9) Behavior according to general moral and professional ethical values.
- 10) They can gain the physical competence required in civil defense and firefighting, work collaboratively within the group, use interpersonal communication effectively and lead the group when necessary.
- 11) Have knowledge about the properties of tools and materials used in civil defense, firefighting and occupational health and safety. Have the skills to use in operations and maintain the materials. Be able to follow technological developments in related fields.
- 12) Has fire prevention competence in firefighting and can conduct exercises and training in the relevant field.

