

**T.C.
FIRAT ÜNİVERSİTESİ
KEBAN MESLEK YÜKSEKOKULU MÜDÜRLÜĞÜ**



**OCCUPATIONAL HEALTH AND SAFETY
PROGRAM
COURSE PLANS AND COURSE CONTENTS**

**Keban
ELAZIĞ**

T.R.
FIRAT UNIVERSITY
KEBAN VOCATIONAL SCHOOL
PROPERTY PROTECTION AND SECURITY DEPARTMENT
OCCUPATIONAL HEALTH AND SAFETY PROGRAM

COURSE PLANS

1ST CLASS FALL SEMESTER						
Course Code	Course Name	O*/E*	T*	P*	C*	ECTS*
TRD109	TURKISH LANGUAGE I	O	2	0	2	2
YDİ107	ENGLISH I	O	2	0	2	2
FU101	INTRODUCTION OF UNIVERSITY LIFE	O	2	0	2	2
KİM101	GENERAL CHEMISTRY	O	2	0	2	3
MAT103	GENERAL MATHEMATICS	O	2	0	2	3
ENF101	USING OF BASIC INFORMATION TECHNOLOGIES	O	2	2	3	4
KİG101	INTRODUCTION TO OCCUPATIONAL HEALTH AND SAFETY	O	2	0	2	4
KİG103	LABOR LAW	O	3	0	3	4
KİG105	MACHINERY AND EQUIPMENT	O	2	0	2	3
KİG107	FIRST AID	O	2	0	2	3
Total			21	2	22	30

*O: Obligatory, E: Elective, T: Theoretical, P: Practice, C: Credit, ECTS: European Credit Transfer System.

1ST CLASS SPRING SEMESTER						
Course Code	Course Name	O*/E*	T*	P*	C*	ECTS*
TRD110	TURKISH LANGUAGE II	O	2	0	2	2
YDİ108	ENGLISH II	O	2	0	2	2
KİG102	DISASTER AND EMERGENCY MANAGEMENT	O	3	0	3	5
KİG104	FIRE AND FIRE PROTECTION METHODS	O	3	0	3	5
KİG106	OCCUPATIONAL HEALTH AND SAFETY LEGISLATION	O	2	0	2	3
KİG108	CHEMICAL RISK FACTORS	O	2	0	2	2
KİG110	PHYSICAL RISK FACTORS	O	3	0	3	5
	ELECTIVE COURSES I (*)	E	2	0	2	3
	ELECTIVE COURSES II (*)	E	2	0	2	3
Total			21	0	21	30
ELECTIVE COURSES (*)						
KİG112	DANGEROUS GOODS TRANSPORTATION AND OCCUPATIONAL SAFETY	E	2	0	2	3
KİG114	OCCUPATIONAL SAFETY ORGANIZATION	E	2	0	2	3
KİG116	ENTREPRENEURSHIP	E	2	0	2	3

* It is obligatory to choose two of the elective courses.

2ND CLASS FALL SEMESTER						
Course Code	Course Name	O*/E*	T*	P*	C*	ECTS*
AİT209	ATATURK'S PRINCIPLES AND HISTORY OF REVOLUTION I	O	2	0	2	2
KİG201	VOCATIONAL PRACTICE	O	0	2	1	6
KİG203	RISK MANAGEMENT AND ASSESSMENT	O	3	0	3	4
KİG205	ERGONOMICS	O	3	0	3	4
KİG207	WORKER HEALTH AND OCCUPATIONAL DISEASES	O	2	0	2	2
KİG209	OCCUPATIONAL HEALTH AND SAFETY IN ELECTRICAL WORK	O	3	0	3	4
KİG211	SAFETY SIGNS AND STANDARDS	O	2	0	2	2
	ELECTIVE COURSES I (*)	E	2	0	2	3
	ELECTIVE COURSES II (*)	E	2	0	2	3
Total			19	2	20	30
ELECTIVE COURSES (*)						
KİG213	WORK ACCIDENTS AND REPORTING	E	2	0	2	3
KİG215	WORKPLACE BUILDINGS AND ADDITIONS	E	2	0	2	3
KİG217	OCCUPATIONAL HEALTH AND SAFETY IN WORKING WITH PRESSURE VESSELS	E	2	0	2	3

* It is obligatory to choose two of the elective courses.

2ND CLASS SPRING SEMESTER						
Course Code	Course Name	O*/E*	T*	P*	C*	ECTS*
AİT210	ATATURK'S PRINCIPLES AND HISTORY OF REVOLUTION II	O	2	0	2	2
KİG202	OCCUPATIONAL HEALTH AND SAFETY IN MINES	O	3	0	3	4
KİG204	PROTECTIVE EQUIPMENT	O	2	0	2	4
KİG206	WORKING ENVIRONMENT AND SUPERVISION	O	3	0	3	4
KİG208	OCCUPATIONAL HEALTH AND SAFETY IN CONSTRUCTION WORKS	O	3	0	3	4
KİG210	OCCUPATIONAL HEALTH AND SAFETY SERVICES	O	2	0	2	3
KİG212	OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS	O	2	0	2	3
	ELECTIVE COURSES I (*)	E	2	0	2	3
	ELECTIVE COURSES II (*)	E	2	0	2	3
Total			21	0	21	30
ELECTIVE COURSES (*)						
KİG214	BIOLOGICAL RISK FACTORS AND OCCUPATIONAL HYGIENE	E	2	0	2	3
KİG216	HEAVY AND DANGEROUS WORK	E	2	0	2	3
KİG218	PROTECTION POLICIES	E	2	0	2	3

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COURSE CONTENTS

COURSES (TERM I)	O/E	T	P	C	ECTS
TRD109 Turkish Language I	0	2	0	2	2
Language, languages, Turkish Language, grammar, phonetic features of Turkish, phonetic and structural features of Turkish, structural features of Turkish, sentence knowledge, spelling rules and punctuation marks, application of spelling rules, application of punctuation marks.					
YDİ107 English I	0	2	0	2	2
Verb Be, statements and questions, countries and nationalities, present simple tense, statements, verbs for daily routines, present simple questions, free time activities, verb Have / Has, family tree, there is / there are, places in a town, present continuous tense, rooms and furniture, can / can't, months of the year, present simple tense, present continuous tense, jobs.					
KİM101 General Chemistry	0	2	0	2	3
Substance, distinctive properties of the substance, mixtures, phase change, mixtures and separation methods, the basic rules of chemistry, the structure of the atom and the periodic table, mole concept, atomic masses and determination of chemical formulas, chemical bonds, chemical reactions, calculations related to chemical reaction equations, radioactivity, qualitative and quantitative analysis, solutions, solutions and concentration, dilution of solutions, titration, acids-bases and pH, gas rules.					
KİG101 Introduction To Occupational Health And Safety	0	2	0	2	4
Historical development of occupational health and safety, general information, concept of occupational safety, definition of occupational accidents, their causes and prevention methods, the importance of occupational safety studies in terms of workforce productivity, the economic importance of occupational safety studies, occurrence and classification of occupational accidents, hazards and types of hazards. Methods and solutions in accident investigations, contemporary occupational health and safety development stages, work and health relations, contemporary occupational health and safety application principles, appropriate job placement, evaluation of workplace environment factors, evaluation and control of occupational health and safety risks, intermittent control examination.					
KİG103 Labor Law	0	3	0	3	4
Current legal regulations regarding occupational health and safety in our country. Basic principles in the legislation regarding occupational health and safety in our country, basic principles in the statutes and regulations regarding occupational health and safety, labor law no. 4857, social insurance and general health insurance law no. 5510 and regulations.					
KİG105 Machinery And Equipment	0	2	0	2	3
Mechanical science, manufacturing technology, cutting tools, machining, tools and machines used in workshops, occupational safety in electrical and non-electrical tools, general safety precautions to be taken during work.					
KİG107 First Aid	0	2	0	2	3
Basic applications of first aid, first and second evaluation, basic life support in adults, basic life support in children and babies, first aid in respiratory tract obstruction, external and internal bleeding, wound and wound types, first aid in regional injuries, upper extremity fractures, dislocations and sprains. , first aid in diseases requiring urgent care, emergency transportation techniques, fast transportation techniques in short distances, carrying the sick or injured by creating a stretcher.					
FU101 Introduction Of University Life	0	2	0	2	2
Areas of responsibility, city and campus promotion, student societies and movements, career center, departments, life on campus, career planning and time management, personal care and hygiene, healthy life and sports, disaster and emergencies and management, first aid, written and verbal communication, traffic and environmental awareness, academic title ranking and consultancy, domestic and international higher education and student mobility, quality policies, college activities, project information, student projects, student affairs automation, distance education, continuing education center, disciplinary affairs, regulations, directives and senate decisions, grading system, course passing, mobile technologies, short film techniques.					
MAT103 General Mathematics	0	2	0	2	3
Ability to perform arithmetic and algebraic operations; calculate the exponent and root of a real number; solutions of radical and fractional equations and quadratic equations, real and complex numbers, quadratic equations with one unknown; root coefficient relations and solution of inequalities in quadratic equations; solution of equations and inequalities, trigonometric ratios, complex numbers, solution of determinant and linear equations, equation of a straight line in the plane, vectors, logarithm.					
ENF101 Using Of Basic Information Technologies	0	2	2	3	4
Computer architecture, motherboard, processor, monitor, keyboard, RAM, ROM, hard disk, printer, serial-parallel port, usb. CD-ROM, sound card, floppy, software concept and types; programming languages; operating systems. Ability to perform basic functions in Windows and Linux operating systems. Ability to use office programs at a basic level, Use of electronic mail management and electronic commerce. Installing, updating, deleting programs. Ability to write technical articles and draw graphics. Ability to use office devices and convert formats between them. Scanner, document scanner, network camera, etc. using photos, documents, etc. Ability to create shapes like. Ability to recognize modems, printers, ethernet and SSCI cards, sound cards and TV cards. Ability to create a new computer by combining all the hardware of the computer. Computer networks and communications Database creation. Creating an e-mail address, sending and receiving e-mail. Preparing a personal website.					
COURSES (TERM II)	O/E	T	P	C	ECTS
TRD110 Turkish Language II	0	2	0	2	2
Reading with comprehension and pleasure, acquiring the habit of reading, evaluating the text read, written expression, limiting a subject, making plans on this subject, writing sentences as paragraphs, written expression techniques and their application, introduction and application of written expression types, preparation of scientific review articles, verbal expression, ways to be successful in oral expression, forms and application of oral expression, types and application of oral expression.					
YDİ108 English II	0	2	0	2	2

Past simple, verb BE, events and places to go, past simple actions, school subjects, past simple questions, parts of the body, future tense, be + going to, travel, countable and uncountable nouns, foods, clothes, weather, adjectives, comparatives adjectives, superlatives adjectives, geographical features					
KİG102 Disaster And Emergency Management	0	3	0	3	5
Definition of hazard and risk concepts and general concepts, disaster-risk management processes, preparation and prevention, intervention and reconstruction, early warning and prevention techniques, risk management, disaster and industrial accident situations, fire, earthquake, flood and other disasters, causes of accidents , emergency management, action plans in case of disasters and industrial accidents. general principles of search and rescue, search organization, search methods, first aid information, map compass information, radio information, making seat belts, making stretchers from rope, pulley systems, evacuation methods, rescue techniques, tools, materials, equipment and protective equipment selection, use, preparation, disasters and risk management in Turkey, disasters and risk management in the world.					
KİG104 Fire And Fire Protection Methods	0	3	0	3	5
Basic concepts of combustion and overview of fire chemistry, fire protection, classification of fires, extinguishing principles according to fire classes, fire risk assessment, safety during fire, modern fire detection and alarm systems in closed areas and their features. fire extinguishing devices and systems, fire intervention and rescue team, fire and environment relationship, relevant legislation.					
KİG106 Occupational Health And Safety Legislation	0	2	0	2	3
Current legal regulations regarding occupational health and safety in our country. Basic principles in the legislation regarding occupational health and safety in our country, basic principles in the statutes and regulations regarding occupational health and safety, labor law no. 4857, occupational health and safety law no. 6331, social insurance and general health insurance law no. 5510 and regulations.					
KİG108 Chemical Risk Factors	0	2	0	2	2
Health and safety precautions when working with chemical substances, employer's liability, properties of chemicals (chemical hazards), material safety data sheet, storage and labeling of chemical wastes, production, transportation, storage and control of chemicals, presence of various chemical substances in the working environment and maximum permissible concentrations, Process control and detection equipment in the production of chemicals, carcinogenic, mutagenic and toxic substances, flammable, explosive, dangerous and harmful chemical substances, acute and chronic health risks, relevant legislation.					
KİG110 Physical Risk Factors	0	3	0	3	5
General categorization of risk factors, identification of physical risk factors, physical risk factors that negatively affect the health of employees in workplaces, noise-vibration, thermal comfort, lighting, ionized and non-ionized rays, low and high pressure) values allowed in national and international standards. Business lines where exposure to physical risk factors is high in our country and in the world, control of physical risk factors in the workplace and the duties of the occupational safety specialist in this regard, relevant legislation.					
KİG112 Dangerous Goods Transportation And Occupational Safety	E	2	0	2	3
Occupational health and safety during the transportation of dangerous goods on the road. Labeling, packaging, filling degree, tunnel codes, fire and fire protection during transportation, storage, stacking, exemptions, providing necessary training, security plan, accident report. Relevant legislation.					
KİG114 Occupational Safety Organization	E	2	0	2	3
Controls to be carried out in the workplace in terms of occupational safety, documents to be prepared regarding the controls to be carried out in the workplace in terms of occupational safety, documentation studies, keeping and storing records regarding the training to be given in the workplace.					
KİG116 Entrepreneurship	E	2	0	2	3
Information on entrepreneurship, self-knowledge of the entrepreneur, testing of entrepreneurial characteristics, innovation and invention, business idea development and creativity exercises, (brainstorming), starting a business, business plan concept and elements (market research, marketing plan, marketing techniques, making promotions with the right tools, production plan, management plan, financial plan), studies to consolidate the business plan elements (market research, marketing plan, production plan, management plan, financial plan), points to be considered in writing and presenting the business plan, filling out KOSGEB documents.					
COURSES (TERM III)	O/E	T	P	C	ECTS
AİT209 Atatürk's Principles And History Of Revolution I	0	2	0	2	2
Definitions of the terms revolution and history, world revolutions and the place of the Turkish revolution within them, characteristics of the Turkish revolution, Armenians under the Ottoman Empire, The Ottoman Empire in I. World War and the results of the war, the Armistice of Mudros and the occupation of the Empire, the beginning of the War of Independence, Atatürk's place and goal in the War of Independence, the Amasya circular, National congresses, Istanbul-Anatolia relations, the opening and first works of the Turkish Grand National Assembly, internal rebellions prevention, wars on the Eastern front, national fronts (Kuvayı milliye), Western front, the first international agreements made by the Turkish Grand National Assembly, the Lausanne Peace Treaty.					
KİG201 Vocational Practice	0	0	2	1	6
Preparing and presenting a presentation about the internship, examining the prepared internship notebook and evaluating it with questions.					
KİG203 Risk Management And Assessment	0	3	0	3	4
Basic concepts, risk assessment process, basis and necessity of risk assessment, risk assessment methods, risks in workplaces, risk management and general management. Hazard and risk concepts, hazard sources and the risks they create, risk assessment methods as a part of risk management, risk assessment team and documentation, employee participation, risk assessment evaluation application using the risk analysis matrix.					
KİG205 Ergonomics	0	3	0	3	4
Ergonomics and basic concepts, Effects of ergonomic risks, Studies on preventing the effects of ergonomic risks. Working life and ergonomics, Work physiology and biomechanics, Anthropometry and work environment design, Ergonomic regulations based on information technology, Ergonomic regulations based on safety techniques, Office ergonomics. Relevant legislation.					
KİG207 Worker Health And Occupational Diseases	0	2	0	2	2
Basic concepts of health surveillance and occupational diseases. Types of occupational diseases and diagnostic methods, Prevention methods from occupational diseases, Statistics of occupational diseases, Concept and implementation of health surveillance. Concept of occupational disease, types and causes of occupational diseases, protection from occupational diseases, occupational disease statistics, relevant legislation.					
KİG209 Occupational Health And Safety in Electrical Work	0	3	0	3	4
Risk factors related to electricity, controls required for health and safety, precautions to be taken when working with electricity. Safety in electrical installations, maintenance and repair in electrical works, relevant legislation.					
KİG211 Safety Signs And Standards	0	2	0	2	2
Minimum general requirements regarding health and safety signs used in the workplace, Importance of signs and warning signs, Crane Operator guidance signs, Special marking and labeling methods of Protective Equipment and Equipment in terms of Quality, Chemical, Physical, Health, Calibration, Training and application conditions, Computer Coding and barcode systems in the environment					

KİG213 Work Accidents And Reporting	E	2	0	2	3
Unsafe situations and actions, accident cause theories, work accident models, factors that cause work accidents, special approaches explaining accident occurrence, accident investigation and reporting, safety performance, accident cost calculation model, socio-economic dimension of work accidents.					
KİG215 Workplace Buildings And Additions	E	2	0	2	3
Possible dangers in workplace buildings and extensions, General risks that may arise depending on the nature of the work performed, Minimum health and safety measures to be applied in workplaces. Relevant legislation.					
KİG217 Occupational Health And Safety in Working With Pressure Vessels	E	2	0	2	3
Types and classification of pressure vessels, dangers posed by pressure vessels and protection measures, safety in boilers, safety in compressors, pressure tanks and tubes, periodic checks and testing techniques of pressure vessels, responsibilities of manufacturers. Relevant legislation.					
COURSES (TERM IV)	O/S	T	P	C	ECTS
AİT210 Atatürk's Principles And History Of Revolution II	O	2	0	2	2
Declaration of the Republic, the first constitution, Atatürk's principles and revolutions (revolutions in social, economic, administrative, cultural and other fields), Turkey and the world states during the period of single-party governments, the Republican period, internal rebellions, the foreign policy of the Government of the Republic of Turkey, treaties, the Orient and the Armenian issue, attempts at transition to the multi-party era, Atatürk's death, II. World War and Türkiye, developments in Türkiye's foreign policy, the Middle East and the Republic of Türkiye, Türkiye's principles and goals in the period of rapid progress.					
KİG202 Occupational Health And Safety In Mines	O	3	0	3	4
Work in surface mines, firedamp and dust explosions, drilling, blasting, cave-ins in mines, landslides and floods, machines used in mining operations and their features, occupational health and safety in underground, aboveground and drilling mining operations, underground, aboveground and drilling mining operations risks that may be encountered and precautions to be taken, relevant legislation.					
KİG204 Protective Equipment	O	2	0	2	4
Minimum general requirements regarding health and safety signs used in the workplace, the importance of signs and warning signs, crane operator guidance signs, protective equipment and equipment, special marking and labeling methods in terms of quality, chemical, physical and health, calibration, training and application conditions, computer coding and barcode systems in the environment, definition and characteristics of personal protective equipment, types of personal protective equipment, selection and use of personal protective equipment, types of personal protective equipment, areas of use and features, suitability of personal protective equipment, correct use of personal protective equipment, market surveillance and control , relevant legislation and applications.					
KİG206 Working Environment And Supervision	O	3	0	3	4
Planning and controlling the implementation of periodic maintenance, controls and measurements that need to be done in terms of occupational health and safety, monitoring the working environment, identifying risk factors in the working environment and measuring methods of risk factors, monitoring studies and practices in accordance with the legislation to prevent accidents, fires or explosions against risk factors. , preparation of emergency plans, characteristics of ambient air, general principles of ventilation, ventilation and air need, natural, local and general ventilation, air conditioning in workplaces, precautions and measurement methods to be taken when working in dusty environments, relevant legislation.					
KİG208 Occupational Health And Safety in Construction Works	O	3	0	3	4
Risks that may be encountered in construction works, occupational health and safety measures that should be taken according to the risks that may be encountered in construction works. Construction works and projects, Health and safety plan, Minimum health and safety conditions for construction areas, Excavation works, Formwork works, Piers, Road, tunnel, dam, building, bridge construction, Shipbuilding and ship dismantling works, relevant legislation.					
KİG210 Occupational Health And Safety Services	O	2	0	2	3
Establishment of İSGB, OSGB and TSM, their functioning, employees and issues specified in the relevant regulations, Legal regulations on occupational medicine and occupational safety expertise, The importance of teamwork in occupational health and safety services. Occupational safety expertise document classes, training and examinations of occupational safety specialists and workplace physicians, occupational health and safety services, legislation regarding occupational physicians and occupational safety experts. Issues regarding outsourcing of occupational health and safety services outside the workplace.					
KİG212 Occupational Health And Safety Management Systems	O	2	0	2	3
Establishing, implementing and maintaining management systems. ILO OHS 2001, TS OHSAS 18001, TS ISO EN 9000, TS ISO EN 14001. Policy determination and planning, Control and corrective-preventive activities, recording and inspection.					
KİG214 Biological Risk Factors And Occupational Hygiene	E	2	0	2	3
Definition of biological risk, Biological risk factors that may be encountered as risk factors in the working environment, bacteria, viruses, fungi and parasites and the characteristics of microorganisms, Methods of protection from biological risk factors, hygiene in work environments, personal hygiene, industrial hygiene and precautions to be taken, chemical hazards, physical hazards, biological hazards, ergonomic hazards, relevant legislation.					
KİG216 Heavy And Dangerous Work	E	2	0	2	3
As personal factors, the person's age, gender, genetic characteristics, nutritional status, smoking, alcohol, etc. the effects of his habits and some factors in his environment on his working conditions. Necessary health examinations for employees in these jobs, Necessary vocational training programs. Relevant legislation.					
KİG218 Protection Policies	E	2	0	2	3
Special protection of groups such as women, children, disabled, young, elderly and immigrant workers in working life. Reasons why people in this group are at risk. Principles of employment of child and young workers. Light jobs where child workers can be employed. Jobs where young workers can be employed. Works in which child and young workers cannot be employed. Relevant legislation.					

NOTE: A 30-day internship is required during the spring semester summer term of the first year.