

Department of Environmental Health 2019-2020 Course Contents

I. SEMESTER

ATA 101 Principles of Atatürk and History of Revolutions I

The basic concepts, Reasons for the collapse of the Ottoman State, Modernization movements in Turkey, First World War, National Independence War.

CEV 109 Environmental Policies and Legislation

This course examines the causes of environmental problems and prevention policies, national and international environmental protection policies, sustainable development and environmental issues. The reasons for the emergence of environmental problems, the historical development of environmental law, the concept of environmental law, Turkish Environmental Legislation, Laws, Regulations, International Conventions, EU Environmental Policies, EU Environmental Directives.

CEV 121 Environmental Microbiology

Introduction of tools and equipment used in the laboratory, general information about microorganisms, cell and chemical structure, microbiological diversity of the cell, microbial metabolism, microbial growth and proliferation kinetics, algae, fungi, protozoa, vectors and arthropods. It includes water, wastewater and solid waste microbiology, diseases and microbiology.

LBT 103 General Biology

The living world includes the chemical substances, cell information and metabolism that make up the structure of living things, the protein synthesis and the physiological state of the cell, cell reproduction.

INGU 101 English I

This is an elementary English course designed for beginners of English language. The learners are expected to develop four basic language skills; listening, speaking, reading and writing through various kinds of teaching techniques and practices. The learners are exposed to basic language structures and vocabulary with the help of authentic materials within real life context.

TURK 101 Turkish Language I

The course will help students to gain consciousness of language; inclination and habit of reading; proper usage of fundamental spelling and punctuation; and to gain a larger vocabulary set utilization.

MYO101 Basic Anatomy and Physiology

Anatomy and Physiology Introduction to cell theory, cell organelles, substance exchange, the cell metabolism, locomotor system Anatomy and bone, joint and muscle Physiology, Respiratory System Anatomy and Physiology, Circulatory System Anatomy and Physiology, Digestive, Urinary, Reproductive System, endocrine system, nervous system, sense organs Anatomy and Physiology.

GKM 101 General Chemistry

Atom: Atomic models, Proton, Neutron, Electron, Electromagnetic radiation, Bohr atom theory, Periodic table, Quantum numbers, Atom, Atoms, Chemical bond: Ionic and covalent bonds, Exceptions to the octet rule, Chemical bonding theories, As-base concept, Solubilisers, Buffer solvers, food calorie calculation

RKUL 101 University Culture I

Each semester includes seminars, conferences, panels, workshops and speeches that will be held for 14 weeks within the framework of a program consisting of academic units, student council and student clubs at the university.

II. SEMESTER

ATA 102 Principles of Atatürk and History of Revolutions II

Events in the genesis and development of modern Turkey, ideas and principles; Turkish Foreign Policy in Atatürk Era, Ataturk's Revolutions, The Basic principles of Turkish Revolution.

CEV 102 Environmental Chemistry

Principles of working and sampling in the laboratory, Solution preparation, Volumetric and gravimetric analysis, instrumental analysis, pH, acidity, alkalinity, hardness in water, solids, conductivity, iron, manganese, chlorine types and chloride, fluoride, sulfur types, analysis of these parameters and scope of application. Organic Materials: Total Carbon, Total Organic Carbon, Total Inorganic Carbon, Dissolved Oxygen, Biological Oxygen Requirement, Chemical Oxygen Requirement, Nitrogen Parameters: Kjeldahl Nitrogen, Ammonia Nitrogen, Nitrate Nitrogen, Nitrite Nitrogen, Phosphorus Parameters: Total Phosphorus, Dissolved Phosphorus, Condensed Phosphorus, Organic Phosphorus, Surfactants, Oil and grease, Essential Fatty Acids, Gas Analysis, Trace Pollutants

CEV 118 Air Pollution and Control

Introduction to air pollution, definitions and atmosphere structure, air pollutant sources and classification of pollutants, formation processes of air pollutants and their effects on the environment, pollution transformations in the atmosphere and dangerous air pollutants, air pollution chemistry, toxic gases and their effects on environmental health, indoor air pollutants and their effects on health On-site control of air pollutants, Legal legislation on air pollution. General definitions about precipitation, measurement and expression of precipitation, characteristics of precipitation, geographical distribution of precipitation. Properties of isobar and isobar, the definition of meteorology and its relationship with other sciences, meteorological parameters, heat temperature concepts, distribution of temperature on earth.

CEV 122 Ecology

Ecology, Basic Ecological Concepts, Ecosystem and Properties, Investigation of Ecosystems, Matter and Energy Cycles in Ecosystems, Food Chains and Food Networks, Environmental Pollution and Effects on Ecosystems

CEV 124 Environmental Impact Assessment

Methods Used in Determining Environmental Impacts, Criteria in Determining Environmental Impacts, Planning Required Technical Information, EIA Regulation and Applications

CEV 126 Environmental Toxicology

Basic principles of environmental toxicology and their application in the application, showing information about the importance and finding of environmental pollutants, Environmental quality, community and animal health, sustainable and edible environmental conditions in terms of investigation.

INGU 102 English II

This is an elementary English course designed for beginners of English language. The learners are expected to develop four basic language skills; listening, speaking, reading and writing through various kinds of teaching techniques and practices. The learners are exposed to basic language structures and vocabulary with the help of authentic materials within real life context.

TURK 102 Turkish Language II

The course will help students to gain consciousness of language; inclination and habit of reading; proper usage of fundamental spelling and punctuation; and to gain a larger vocabulary set utilization.

RKUL 102 University Culture II

Each semester includes seminars, conferences, panels, workshops and speeches that will be held for 14 weeks within the framework of a program consisting of academic units, student council and student clubs at the university.

RPSI 209 Positive Psychology and Communication Skills

Learning objectives of the course is to teach students positive psychology and its practices and to help them improve positive point of view by improving their self awareness.

III. SEMESTER**CEV 219 Water Quality and Treatment**

Physical Chemical Biological and Advanced Treatment Principles, Surface and Groundwater Treatment Principles, Ventilation Systems, Coagulation-Softening Sedimentation Sand Filters in Water Treatment, Water Quality Improvement Methods. Water Quality Criteria and Standards, hydrologic cycle, watershed concept, contaminants in surface and underground water environment, water pollution types and sources, water quality classification, river pollution, lake pollution, the availability of water resources in Turkey, Water Quality Regulations and the EU Water Framework Directive contains information.

CEV 999 Summer Internship

Practice with theoretical information

CEV 223 Laboratory Applications in Environmental Health

Laboratory General and Personal Safety Measures, Materials and Devices Used, Cleaning of Materials, Measurement Methods, Sampling, Preparation of Samples for Analysis, General Analysis Methods, Calculation and Preparation of Solutions, General Tools-Instruments and Microscopes Used in Microbiology; Classification and general properties of microorganisms; Bacterial structure, dyes and staining methods

OSG 111 Occupational Health and Safety

Definition, importance and aim of occupational safety, basic principles of occupational safety, danger and endangering, occupational safety psychology, occupational safety organization, occupational accidents and occupational diseases.

CEV 221 Solid Waste

Definition and classification of solid waste, Solid waste properties, physical and chemical compositions, Accumulation, collection and disposal methods of urban waste, Solid waste management, Solid waste disposal methods, Definition and classification of hazardous waste, Hazardous waste criteria and lists, Hazardous waste management-collection, transportation and disposal methods, legal legislation in our country regarding solid wastes and hazardous wastes

ILK 101 First Aid

General Briefing Information, Human Body, Patient / Injured and Scene Assessment, Basic Life Support, Respiratory Cramps, Hemorrhages and Shocks, Injuries, Burns, Frosts, Hot Strike, Consciousness Disorders (Consciousness Losses, Remittances, Blood Sugar Loss, Pain, Poisonings, Animal Bites, Eye-Ear-Burina Obstacle Abduction, Drowning, Fractures, Dislocations, Buckles, Transportation Techniques.

MET 101 Professional Ethics

Professional ethics course on the basic concepts of ethics describes the moral rules and values system. Health care workers should have the virtues, values and defines ethical codes.

IV. SEMESTER**CEV 208 Biotechnology**

Definition and history of biotechnology, the importance of biotechnology in the world, advances in biotechnology, application areas of biotechnology, methods used in biotechnology (tissue cultures), methods used in biotechnology (molecular), Enzymes, Vectors, Genetically modified organisms and areas of use in agriculture, Environment and production-modified genetics benefits and risks and legal aspects.

CEV 228 Environmental Health Practices

Competencies regarding knowledge, skills, comprehension, application, analysis, synthesis, creativity and evaluation related to the program

CEV 226 Soil Information and Pollution

Soil terminology, soil formation, content, physical, chemical and biological properties, pollutant factors on soil, effects of air and water pollution on soil pollution and methods of improving soil pollution

EFH 102 Infectious Diseases

Introduction to microbiology and infectious diseases. Gastrointestinal diseases. foodborne illness, typhoid fever, dysentery, cholera, brucellosis. Airborne diseases: influenza, bronchitis, pneumonia, tuberculosis. Rabies, tetanos, meningitis, hepatitis, AIDS. Sexually transmitted diseases. Hospital-acquired diseases. Parasites, prevention of infectious diseases, immunology.

GTE 116 Food Hygiene and Sanitation

The relationship between microorganisms and food hygiene, food contamination sources, Personal hygiene, Cleaning agents and disinfectants, Sanitation applications of foods