

Energy and Environment

**Balkan-Mediterranean Centre
 for Entrepreneurship and innovation**

Energy and Environment

This module introduces the concepts of impact of energy issues on society, sources of energy, role of fossil fuels and issues of oil import

Topic 1: Energy Overview

Topic 2: Energy Sources

Topic 3: Energy Conversion

Topic 4: Electric Power Technologies

Topic 5: Alternative Fueled Cars and Other Energy Issues

Energy Future

This module is designed to introduce the issues of energy in the 21st century – including food and fuels – which are inseparably linked – and will discuss energy production and utilization from the biology, engineering, economics, climate science, and social science perspectives.

Topic 1: Future of Physical Energy Sources
 Topic 2: Biological Energy Sources
 Topic 3: Biofuel Production and Downstream Processing
 Topic 4: Social Issues, Economics, and Politics
 Topic 5: Climate Change

Global Energy Business

Learn about diverse and integrated markets for primary energy, and the essential considerations driving business leaders and policy makers in development of global energy resources.

Topic 1: Demand for Energy
 Topic 2: Energy Supplies and Market Allocations
 Topic 3: Key Capabilities for Energy Business - Fossil Fuels
 Topic 4: Key Capabilities for Energy Business - Alternative Resources
 Topic 5: Stakeholders and Political Considerations in the Energy Business

Air: Rational use, environmental pollution, risk management

Aims to provide general information for basics: emission sources, policy and limit values for some of the air pollutions. The implementation of newest and effective methodologies for calculation and determination of the air pollution concentrations and health risk.

Topic 1: Emission sources and air pollutants in the atmosphere
 Topic 2: Air Quality Index Evaluations
 Topic 3: Estimation of air pollutions in the atmosphere

Water: Rational use, environmental pollution, risk management

Learn about characteristics of water resources and their use in the economic activity and the people's lifestyle. Topics of the course include important aspects as the functioning of geosystems and characteristics of water as a natural component.

Topic 1: Water as a component of the nature and resource
 Topic 2: Water in the economy and households
 Topic 3: Human impact on water resources
 Topic 4: Key Capabilities for Energy Business - Alternative Resources
 Topic 5: Water legislation

Soils - Rational use, environmental pollution, risk management

Aims to provide general information on soil as a natural resource, and the implementation of new low-cost and effective methodologies for identification and characterization of two major soil threats - pollution and erosion.

Topic 1: Soils as natural resource
 Topic 2: Heavy metals in soils
 Topic 3: Iron oxides in soils and their relevance to the geophysical methods applied in soil pollution and erosion studies
 Topic 4: Principles and application of magnetometry for mapping soil heavy metal pollution
 Topic 5: Estimation of soil erosion and re-distribution using magnetometry