

## Environmental Protection and Dangerous Goods

Subject group: Economics and Humanities – Faculty of Engineering

Model curriculum number: 13

Code: MK3EPDGK04RX17-EN

ECTS Credit Points: 2

Evaluation: mid-semester grade

Year, Semester: 3<sup>rd</sup> year, 1<sup>st</sup> semester

Its prerequisite(s): -

Further courses are built on it: No

Number of teaching hours/week (lecture + practice): 0+2

### Topics:

According to the environment protection part of subject, the most important topics of environmental protection are introduced to the students. It includes the general knowledges and global issues of environmental protection and managements: air quality, water protection, soil protection, noise protection, and waste management side topics.

The environmental issues of air transport. Environmental policies of International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA). IATA goals to assist airlines in improving their environmental performance: alternative fuels, carbon offset program, environmental assessment, fuel and emission data, cargo sustainability.

Dangerous goods: It involves the basics of safety and transportation of dangerous goods (basics of dangerous goods, hazard and handling labels, etc.) ICAO Dangerous Panel and Dangerous Goods Regulations (DGR) of IATA: global reference for shipping dangerous goods by air, shipment features and documentation.

### Literature:

*Recommended:*

- Gilbert M. Masters, Wendell P. Ela: Introduction to Environmental Engineering and Science, Pearson New International Edition, 3/E, Pearson, 2013, ISBN:9781292025759
- Jerry A. Nathanson, Richard A. Schneider: Basic Environmental Technology, Pearson, 2015, ISBN:978-0-13-284014-9
- ICAO, IATA standards, manuals, and guidelines

### Schedule

1 <sup>st</sup> week Registration week	
<b>2<sup>nd</sup> week:</b> Basics of Environmental Protection and Environmental Management <b>Practice:</b> Introduction to environmental protection; Global issues on environmental protection, the environmental issues of air transport	<b>3<sup>rd</sup> week:</b> Air Quality and Air Quality Control <b>Practice:</b> Basics of air pollution control, processes in the atmosphere, greenhouse gases, ozone layer, smog, acid rain
<b>4<sup>th</sup> week: Water and Soil Protection</b> <b>Practice:</b> Water protection and quality, pollutants Protection of soil quality	<b>5<sup>th</sup> week:</b> Environmental Noise, Waste Management <b>Practice:</b> The basics of environmental noise, measuring devices and techniques Waste management, possibilities, disposal, techniques and hazardous waste

**6<sup>th</sup> week:** The environmental issues of air transport

**Practice:** Environmental policies of International Civil Aviation Organization (ICAO).

**8<sup>th</sup> week: 1<sup>st</sup> drawing week**

**9<sup>th</sup> week:** Air transport safety and security

**Practice:** Main goals of air transport safety and security

**11<sup>th</sup> week:** Transportation of dangerous goods

**Practice:** DG shipment features and documentation

**13<sup>th</sup> week:** Transportation of dangerous goods

**Practice:** IATA Dangerous Goods Regulations (DGR)

**7<sup>th</sup> week:** The environmental issues of air transport

**Practice:** Environmental policies of International Air Transport Association (IATA)

**10<sup>th</sup> week:** Transportation of dangerous goods

**Practice:** Transportation of dangerous goods (basics of dangerous goods, hazard and handling labels, etc.)

**12<sup>th</sup> week:** Transportation of dangerous goods

**Practice:** ICAO Dangerous Panel

**14<sup>th</sup> week:** Mid-semester TEST

**15<sup>th</sup> week: 2<sup>nd</sup> drawing week**

#### Requirements

##### A, for a signature:

Attendance to the practices (absence up to the permissible level)

##### B, for grade:

The final grade will be the average of the tests. Each test has to be at least 50%.