# Information sheet for the course Selected Chapters from Environmental Engineering

University: Alexander Dubček University of Trenčín

Faculty: Faculty of Industrial Technologies in Púchov

Course unit code: MI-I-PV-42 Course unit title: Selected Chapters from

Environmental Engineering

**Type of course unit:** optional

Planned types, learning activities and teaching methods:

State Examination Subject; face to face

Number of credits: 2

**Recommended semester:** 4<sup>th</sup> semester in the 2<sup>nd</sup> year full-time

6<sup>th</sup> semester in the 3<sup>rd</sup> year part-time

**Degree of study:** the 2<sup>nd</sup> degree of study (Engineer's degree)

Course prerequisites: Completion of all compulsory and optional courses of the study plan,

including MI-I-P-6 Environmental Engineering.

**Assessment methods:** 

Successful completion of the state examination subject.

## Learning outcomes of the course unit:

Student will successfully complete the state examination subject.

#### **Course contents:**

- 1. The basic terms Environmental, environmental engineering like science discipline.
- 2. The current problems of the environmental protection the main global problems, the problems with far reaching consequences, the most serious problems.
- 3. The global warming the greenhouse effect, the greenhouse gases, the consequences of global warming, the possible solutions.
- 4. The depletion of the ozone layer the ozone and ozone layer, the causes and consequences creation of the ozone hole, the possible solutions.
- 5. The acidic atmospheric deposition the causes and consequences creation of the acidic rains, the possible solutions.
- 6. Threats to biodiversity definition of the biodiversity, the causes of the threat, the threats areas, the reason for protecting environmental wealth of the Earth.
- 7. The international agreements -The Montreal Protocol, The Kyoto Protocol, Climate Change conference in Nice.
- 8. The influence of anthropogenic activities on components of the biosphere the atmosphere composition, properties and function of the atmosphere. The pollution of the atmosphere nature LZO, LZO anthropogenic origin, harmful substances in air, perspective solutions.
- 9. The influence of anthropogenic activities on components of the biosphere the hydrospheric function, properties and types of water. The pollution of the hydrospheric the pollution of the water, types of the sewage, perspective solutions.
- 10. The influence of anthropogenic activities on components of the biosphere the pedosphere, the lithosphere properties and function of the soil. The soil degradation the contamination, the erosion. Types of contaminants in soil. Perspective solutions.
- 11. Protection of the nature large surface area and small surface area of protected areas, types of endangered taxons.
- 12. REACH; BAT; BREF; IPKZ definition, meaning.

### **Recommended of required reading:**

- 1. BLAŽEJ, A. A KOL: CHEMICKÉ ASPEKTY ŽIVOTNÉHO PROSTREDIA. BRATISLAVA/PRAHA, ALFA/SNTL, 1981.
- 2. HOSTIN, S. ŠILHÁR, S. SOLDÁN, M. LACUŠKA, M.: ENVIRONMENTÁLNE INŽINIERSTVO I. BRATISLAVA, STU, 2004. ISBN 80-227-2013-5
- 3. TÖLGYESSY, J. PIATRIK, M. ČÍK, G. HARANGOZÓ, M.: TECHNOLÓGIA ŽIVOTNÉHO PROSTREDIA. BRATISLAVA, STU, 1998. ISBN 80-227-1048-2
- 4. ŠKÁRKA, B. POLÍVKA, Ľ. FENDRICH, E. HOSTÍN, S. LACUŠKA, M.: ENVIRONMENÁLNA CHÉMIA. BRATISLAVA, STU, 2003. ISBN 80-227-1973-0
- 5. PROUSEK, J. ČÍK, G.: ZÁKLADY EKOLÓGIE A ENVIRONMENTALISTIKY. BRATISLAVA, STU, 2004. ISBN 80-227-2097-6
- 6. HERČÍK M.: ŽIVOTNÍ PROSTŘEDÍ. ZÁKLADY ENVIRONMENTALISTIKY. TU OSTRAVA, 2007.
- 7. KUDRNA K. A KOL.: BIOSFÉRA A LIDSTVO. ACADEMIA, PRAHA, 1988.

Language: Slovak

#### **Remarks:**

**Evaluation history:** The total number of evaluated students: 0

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A	В	С	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Lecturers: Ing. Darina Ondrušová, PhD.

Last modification: 31.03.2014

Supervisor: prof. Ing. Darina Ondrušová, PhD.