Information sheet for the course: Environmental Engineering

University: Alexander Dubček Universit	y of Trenčín				
Faculty: Faculty of Industrial Technologies in Púchov					
Course unit code: MI-I-P-6	Course unit title: Environmental Engineering				
Type, scope and method of educational activities:					
Types of education: Lecture / Seminar / Laboratory practical					
Recommended duration of education (in hours):					
Per week: 2 / 1 / 0 For the whole period of study: 24 / 12 / 0					
Study method: combined					
Number of credits: 3					
Recommended semester/trimester of study: 1.					
Degree of study: II.					
Prerequisites:					
Conditions for the accomplishment of the course unit:					
Assessment during the semester:					
Summary assessment of work results during the semester $= 40$ points					
Active participation in seminars during the semester, elaboration and presentation of project					
from environmental engineering sphere.					
Final assessment:					
Assessment of exam results $= 60$ points					
written examination					
Grading scale:					
Grade A: 91 – 100 points					
Grade B: 81 – 90 points					
Grade C: 71 – 80 points					
Grade D: 61 – 70 points					
Grade E: 55 – 60 points					
Grade FX: less than 55 points					
Learning outcomes:					
The student has knowledge from sphere of global environmental problems, knows and					
understands a connection between anthropogenic activities and her influence on quality					
individual component of environment. He knows to characterize the main types of substances					
air pollutants, water, soil and controls	s environmental technological processes and their				
elimination and principle of work of con	cerned equipment. He has knowledge from problems				
of the nature protection, the most important international agreements and the basic protection					

of the environment legislation.

Brief course unit content:

The basic terms - Environmental, environmental engineering like science discipline The current problems of the environmental protection

The global warming - the greenhouse effect, the greenhouse gases, the consequences of global warming, the possible solutions.

The depletion of the ozone layer - the ozone and ozone layer, the causes and consequences creation of the ozone hole, the possible solutions.

The acidic atmospheric deposition - the causes and consequences creation of the acidic rains, the possible solutions.

Threats to biodiversity - definition of the biodiversity, the causes of the threat, the threats areas, the reason for protecting environmental wealth of the Earth.

The international agreements -The Montreal Protocol, The Kyoto Protocol, Climate Change

conference in Nice.

The influence of anthropogenic activities on components of the biosphere – the atmosphere, the hydrosphere, the pedosphere, the lithosphere – function and properties of biospere components, the pollution, perspective solutions.

Protection of the nature - large surface area and small surface area of protected areas, types of endangered taxons.

REACH; BAT; BREF; IPKZ - definition, meaning.

Recommended Literature:

BLAŽEJ, A. a kol.: Chemické aspekty životného prostredia. Bratislava: Alfa, 1981.

PROUSEK, J., ČÍK, G.: Základy ekológie a environmentalistiky. Bratislava: STU, 2011. ISBN 978-80-227-3601-5.

HERČÍK, M.: Životní prostředí. Základy environmentalistiky. Ostrava: VŠB: Technická univerzita Ostrava, 2006. ISBN: 80-248-1073-5.

SCHWARZ, M.: Chémia životného prostredia. Zvolen: Technická univerzita vo Zvolene, 2016. ISBN: 978-80-228-2917-5.

ŠKÁRKA, B., POLÍVKA, Ľ., FENDRICH, E., HOSTÍN, S. LACUŠKA, M.: Environmentálna chémia. Bratislava: STU, 2003. ISBN 80-227-1973-0. E learning TRUAD

E-learning TnUAD.

Language which is necessary for accomplishment of the course unit: Slovak

Notes:

Course evaluation passed/failed

А	В	С	D	Е	FX	
0.0	0.0	0.0	0.0	0.0	0.0	

Teachers: Ing. Iveta Papučová, PhD.

Last modification date: 13.06.2022

Approved by: prof. RNDr. Mariana Pajtášová, PhD.