

Course title: Environmental chemistry

Basic data of the subject	
Academic Unit:	Faculty of Civil Engineering
Course title:	Environmental chemistry
Level:	Bsc
Course status:	Mandatory
Study year/Semester:	1 st year, second semester
Number of hours per week:	2 + 2
Credit value – ECTS:	6
Time / location:	Thursday
Lecturer:	Prof. Dr. Ismet Hashani
Contact details:	Tel: 044964670
Course description	The course of environmental chemistry is necessary for students of environmental engineering, because it is the necessary basics in the environment to pursue a job in environmental engineering. This is a basic university level course in environmental chemistry, which has entered environmental chemistry, atmospheric chemistry and air pollution, hydrosphere chemistry, water chemistry and water pollution, biosphere chemistry, climate change and energy, typical pollutants and their fate in the environment, toxic organic compounds and metals, soil chemistry, soil, sediments, and debris.
Course objectives:	The main purpose of the environmental chemistry course is to prepare students to continue their studies in subjects close to the field of environmental chemistry important for environmental engineering which will be held in the following semesters. This is an introductory course in environmental chemistry for environmental engineers, which means that we have a basic knowledge of this subject in advance. The lectures aim to develop basic knowledge of the basic principles of environmental chemistry that affect environmental processes such as water and waste water treatment, air pollution control and waste management.
Learning outcomes:	Upon the completion of this course, students will be able to: <ul style="list-style-type: none"> • Understand the basics of environmental chemistry; • Understand the chemistry of soil, air and water; <ul style="list-style-type: none"> • Understand the mechanism by which pollutants can influence the quality of soil, air and water; • Understand the connections between earth, air and water, as well as the movement of elements between them; • Understand the main sources of environmental impact of each of them.

Contribution on student load (must correspond with learning outcomes)			
Activity	Hours	week	Total /hours
Lectures	2	15	30
Exercise theoretical/laboratory	2	15	30
Contact with lecturer/consultations	1	15	15
Field exercises	0	0	0
Mid-terms, seminars	2	2	4
Homework	1	15	15
Individual time spent studying (at the library or home)	3	15	45
Final preparation for the exam	1	5	5
Time spent in evaluation (tests, quiz, final exam)	1	2	2
Projects, presentations, etc.	2	2	4
Total			150
Teaching methods	Teaching methodology is based on: lectures, exercises, seminars and debates, consultations, independent tasks, home work, colloquiums, exams.		
Evaluation methods	First midterm evaluation: 25% Second midterm evaluation: 25% Homework and seminars: 10% Regular attendance: 5% Final exam: 35% Total 100%		
Literature:			
Basic Literature:	<ul style="list-style-type: none"> - Çullaj, Environmental Chemistry, Tirana, 2012. - As the basic literature of the course to do all the lectures authorized by the teachers. 		
Additional Literature	<ul style="list-style-type: none"> - Manahan, Environmental Chemistry, 5th Edition, 1991. - R. M. Harrison, An Introduction to Environmental Chemistry and Pollution, London, 1994. - O. Nill, Environmental Chemistry, See. Ed. London, 1993 		
Designed study plan - Lecture:			
Week	Lectures which will be held		
First week:	Introduction to environmental chemistry		
Second week:	Atmospheric chemistry and air pollution		
Third week:	Hydrosphere chemistry		
Fourth week:	Water chemistry and water pollution		
Fifth week:	Water monitoring and chemical analysis		
Sixth week:	Biosphere Chemistry,		
Seventh week:	Climate change and energy,		
Eighth week:	Typical pollutants and their fate in the environment,		

Ninth week:	Toxic organic compounds and metals,
Tenth week:	Soil chemistry,
Eleventh week:	Soil and sediments
Twelfth week:	Wastes
Thirteenth week:	Waste management
Fourteenth week:	Environmental chemistry of hazardous waste
Fifteenth week:	Health effects of chemical pollution

Academic policies and rules of conduct:

We start and finish class on time.
 Tools used during class must be cleaned and stored away at the end of class.
 Mobile/smart phones, and other electronic devices (e.g. iPods) must be turned off (or on vibrate) and hidden from view during class time.
 Laptop and tablet computers are allowed for quiet use only; other activities such as checking personal e-mail or browsing the Internet are prohibited

Note | If a student has more than 3 class assignments evaluated below 50% he/she loses the right on taking the final exam. Evaluation is done from 0-100 %.

