

JOHN WESLEY THEOLOGICAL COLLEGE COURSE TEMATICS



Course: ENVIROMENTAL CHEMISTRY	Course type: seminar	Credits:	Course ID: KTAK111
Course responsible: tárgyfelelős neve	Programme type: full time	Hours/Semester : 8+2	Assessment: exam

Course objectives:

Course objectives: Environmental chemistry is the branch of science which deals with the chemical changes in the environment. Thus the major component in our environment is air, water, soil, and sunlight, which present in our surroundings.

We study broadly our environment contain mainly three main components which are

- 1. Abiotic components of our environment: Any non-living component which used or present in our ecosystem is known as abiotic components. Thus sunlight, oxygen, nitrogen, temperature, pH, and water is the non-living components present in our environment. These nonliving components present in the lithosphere or atmosphere.
- 2. Biotic components of environment Biotic components are the living component in our environment. Thus plants, animals including man are the abiotic components present in our environment
- 3. Energy components of the environment Energy components are globally leading end-to-end

Competencies to be improved:

Knowledge: T8 Ability: K4, K5, K8

Attitude:

Autonomy and responsibility: F3

Compalsory literature:

Recommended literature:

-http://www.nyf.hu/others/htmlI/kornyezettud/környkemI/nyitolap.htm https://www.researchgate.net/publication/325361381_An_introduction_to_Environmental_Chemistry

Course content:

The concept, object and task of environmental chemistry. Environmental chemistry of macronutrients that make up living organisms.

General characterization of hydrogen.

Hydrogen powered internal combustion engines.

Hydrogen as an energy carrier, fusion power plant, fuel cell.

General characterization and circulation of oxygen

Stratospheric and tropospheric ozone.

The ozone hole as an environmental problem.

General characterization and circulation of water.

Water contaminants and their effects.

Use and preparation of water.

Sewage treatment. General characteristics and cycling of carbon. The greenhouse effect and global warming.

Course requirements:



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Grading scale: >91 excellent, 81-90 good, 70-80 satisfactory, 6069%:pass

Course Programme:	Semester:	Lecturers:		
WJLF ENVIRONMENTAL	2022_2023_2	Lilla Strobel		
SCIENCE				