

Title Enviromental Chemistry	Code 1010101221010100336
Field Environmental Engineering First-cycle Studies	Year / Semester 1 / 2
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 3
	Language polish

Lecturer:

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Status of the course in the study program:

-Core course.

Assumptions and objectives of the course:

-The ability of understanding of processes, phenomenons and interactions in environment and in purification processes ; skill of forecasting and planning chemical processes in environment protection and purification.

Contents of the course (course description):

-Energy and chemical processes, Thermochemistry, spontaneity of reaction. Surface phenomena, adsorption, surfactants, suspension foams, ion exchange, emulsions; corrosion of metals. An introduction to organic chemistry: nature of organic substances: alkanes, alkenes, alkynes, dienes. Aromatic and polycyclic hydrocarbons, alcohols and phenols, ethers, aldehydes and ketones, acids, esters, halogen acids, hydroxyl acids, amino acids, proteins, enzymes, saccharides.

Introductory courses and the required pre-knowledge:

-The ability of understanding of processes, phenomenons and interactions in environment and in purification processes ; skill of forecasting and planning chemical processes in environment protection and purification.

Courses form and teaching methods:

-Lectures and laboratory.

Form and terms of complete the course - requirements and assessment methods:

-Examination - test on the end of Iled semester and colloquium from laboratory on the last week of Iled semester.

Basic Bibliography:

1. Pajdowski L. Chemia ogólna. Wyd. PWN W-wa 1999.
2. Pazdro K.M. Podstawy chemii. Oficyna edukacyjna K. Pazdro. W-wa 1993.
3. Gomółka E., A. Szaynok A. Chemia wody i powietrza Politechnika Wroclawska Wroclaw. 1982

4. Gomółkowie B. i E. Ćwiczenia laboratoryjne z chemii wody Politechnika Wrocławska, Wrocław . 1992
5. Pigoń K., Ruziewicz K. Chemia fizyczna Wyd. Naukowe PWN Warszawa 2009
6. Barycka I., Skudlarski K. Podstawy chemii Oficyna Wyd. Pol. Wrocławskiej Wrocław 2001

Additional Bibliography: