

Title Environmental Chemistry	Code 1010101211010100326
Field Environmental Engineering First-cycle Studies	Year / Semester 1 / 1
Specialty -	Course core
Hours Lectures: 2 Classes: 1 Laboratory: - Projects / seminars: -	Number of credits 4
	Language polish

Lecturer:

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Status of the course in the study program:

-Basic 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):

-Atoms and elements, the periodic table of elements. Chemical properties of groups of elements. Chemical bonding, molecules, chemical compounds and reactions, rates of reaction. Liquids and solids. Phase changes and equilibria. Thermodynamics and chemical kinetic. Chemical equilibrium, ionics equilibria, dissociation constant, dissociation ratio, hydrolysis, buffers, solubility, concentration of solutions.

Introductory courses and the required pre-knowledge:

-Chemistry of high school program.

Courses form and teaching methods:

-Lectures.

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

-Colloquium on the end of I semester and examination - test on the end of 2-ed semester

Basic Bibliography:

1. Pajdowski L. Chemia ogólna. Wyd. PWN Warszawa 1999
2. Pazdro K.M. Podstawy chemii. Oficyna edukacyjna K. Pazdro Warszawa 1993
3. Sienko M.J., Plane R.A. Chemia - Podstawy i zastosowanie Wyd. Naukowo-Techniczne PWN Warszawa 1993
4. O'Neill P Chemia środowiska Wyd. Naukowe PWN Warszawa 1997
5. Barycka I., Skudlarski K. Podstawy chemii Oficyna Wyd. Pol. Wrocławskiej Wrocław 2001
6. Pigoń K., Ruziewicz K. Chemia fizyczna Wyd. Naukowe PWN Warszawa 2009

Additional Bibliography: