

Title Chemistry (Chemia)	Code 1010401211010710164
Field TECHNICAL PHYSICS	Year / Semester 1 / 1
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: - Projects / seminars: -	Number of credits 2
	Language polish

Lecturer:

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Status of the course in the study program:

Core course of the study for Technical Physics, Faculty of Technical Physics.

Assumptions and objectives of the course:

General aim of the course is knowledge of basic chemical rules such as: chemical equilibrium, energetic of chemical reaction, kinetics, basic electrochemistry and water purification.

Contents of the course (course description):

1. Energetics (thermodynamics) of chemical reaction Fuel. Synthetic fuels.
2. Colloids. Emulsions. Cleaning agents. Smoke, fog. Foam. Manufacture destruction.
3. Kinetics of chemical reactions. The speed of the process, the rate constant.
4. Explosion reactions
5. Catalysts. Homogeneous and heterogeneous catalysis. Supports for catalysts (powder and monolithic).
6. Basic electrochemistry.
7. Corrosion of metals. Stainless steel. 8. Water. Water purification. PH. Reverse osmosis (RO). The oxygen content. The basic parameters.

Introductory courses and the required pre-knowledge:

Basic knowledge of chemistry

Courses form and teaching methods:

Lectures with multimedia presentations

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

Score develop the theme of chemistry

Basic Bibliography:

1. L. Jones, P. Atkins, Chemia ogólna, PWN, W-wa 2006
2. Z. Sarbak, Kataliza w ochronie środowiska, UAM, Poznań 2004
3. P. Atkins, Podstawy Chemii Fizycznej, PWN, Warszawa 1999

Additional Bibliography:

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