UNIVERSITY
OF WARMIA AND MAZURY
IN OLSZTYN

Faculty of Technical Sciences

Course title: Chemistry

ECTS credit allocation (and other scores): 2

Semester: spring

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Natural sciences

Language: English

Number of hours per semester: 30

Course coordinator/ Department and e-mail: Wojciech Rejmer, Department of Machines and Materials Technology.

Type of classes: classes and lectures

Substantive content

CLASSES: Health and safety regulations, chemical reactions in water solutions, qualitative analysis of cations, qualitative analysis of anions, qualitative analysis of salts, red – ox reactions, electrochemical processes, titration and spectrophotometric quantitative analysis.

LECTURES: Atomic structures, chemical reactions and stoichiometry, concentration calculations, redox reactions and electrochemistry, spectrophotometry.

Learning purpose: Provide students with knowledge of chemical processes which occur in electronic and industriall systems.

On completion of the study programme the graduate will gain:

Knowledge: Knowledge of chemical processes in nature and industrial instalations

Skills: Ability to perform simple chemical experiments and select proper methods for material analysis.

Social Competencies: Ability to work in a team, awareness of health and safety regulations.

Basic literature: Peter William Atkins and J. A. Beran, General Chemistry; Peter Atkins , Julio de Paula,

Physical Chemistry;

Supplementary literature: Andrzej Bielański, General Chemistry;

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 30

Student's independent work: 20