

86S1-OCH2

CHEMICAL CALCULATIONS II

ECTS: 2.0

HOURS PER SEMESTER/WEEK: LECTURES: -/-; CLASSES: 30/2

FIELD OF THE STUDY: Chemistry

Level of study: First-cycle (Bachelor's degree) program

Course status: obligatory *

Year of the study: I

COURSE CONTENTS

LECTURES: -

CLASSES: Polyprotic acids and bases, mixtures of acids and bases, solubility product, complex compounds.

EDUCATIONAL PURPOSE: Familiarization with equilibria occurring in solutions containing various components and forms, development of the ability to analyze the interdependence between the components of the solution, development of the mathematical description of equilibria in solutions.

LEARNING OUTCOMES

Knowledge. Student knows the principles of the analysis of interdependence between the components of solutions.

Skills. The student is able to mathematically describe the equilibria occurring in solutions.

Social competences. The student is able to cooperate in a group while solving tasks. He understands the need to develop his knowledge and skills.

TEACHING FORMS AND METHODS

Lectures. -

Classes. Auditorium exercises.

FORM AND CONDITIONS FOR VERIFICATION OF LEARNING OUTCOMES

Lectures. -

Classes. Solving tasks based on the processed material. Obtaining at least 50% of the maximum number of points.

BASIC LITERATURE

1) Galus Z. 2019. Ćwiczenia rachunkowe z chemii analitycznej. Wydawnictwo Naukowe PWN

ADDITIONAL LITERATURE

1) Śliwa A. 1982. Obliczenia chemiczne: zbiór zadań z chemii ogólnej i analitycznej nieorganicznej. Wydawnictwo Naukowe PWN

THE TEACHER/TEACHERS CONDUCTING THE CLASSES:

dr hab. Sławomir KALINOWSKI, prof. UWM kalinow@uwm.edu.pl

Department of Chemistry, Plac Łódzki 4, 10-721 Olsztyn, POLAND