Title of Course	**Physical Chemistry**		
Semester	**Autumn/Spring**		
Teaching Hours per Course:	**Total**	**- Lectures:**	**- Tutorials:**
	45	15	30
ECTS Credits	3		

The content of education	
Aims of Course	The aim of the course is to broaden the student's knowledge in the field of physical chemistry, in particular electrochemistry.
Program	Lectures: Electrochemistry: electrolysis, transfer numbers, ion mobility, Debye-Hückel theory, activity coefficients of electrolyte solutions, cells, batteries, types of electrodes, electromotive force. Thermodynamics of electrolytes, SEM measurements as a source of thermodynamic data. Methods of group contribution in physicochemical calculations. Estimation of thermal effects of reactions based on bond energy. Surface tension and related phenomena. Adsorption, adsorption isotherms. Capillary condensation phenomenon. Tutorials: As part of the tutorials, exemplary calculating tasks are solved in order to develop and consolidate the issues presented in the lecture.
Conditions of completion	Mark is the average from lectures (exam) and from tutorials (the average of three tests).
Teacher	Mariola Nowacka, PhD