

Title of Course	Calculation Tasks in Physical Chemistry		
Semester	Autumn/Spring		
Teaching Hours per Course:	Total	- Lectures:	- Tutorials:
	30	-	30
ECTS Credits	2		
The content of education			
Aims of Course	The aim of the course is to obtain skills in the calculation of physicochemical properties of pure substances, calculating the thermodynamic functions of the reaction, calculating the composition of the reaction mixture in equilibrium, determining simple kinetic equations, interpretation of phase diagrams of pure and binary systems, using physicochemical tables.		
Program	Calculation of thermodynamic functions, work and heat for ideal gases and condensed phases. Calculation of standard thermodynamic functions of chemical reactions at different temperatures. Phase equilibria for pure compounds (evaporation and melting curve), dependence of enthalpy of evaporation on temperature. Calculation of the composition of the reaction mixture in equilibrium for gaseous and condensed phases. Chemical kinetics. Determination of the reaction order and reaction rate constant.		
Conditions of completion	Mark is the average from two tests, both tests must be passed.		
Teacher	Prof. Andrzej Marciniak		