

Course title Surowce w przemyśle chemicznym / Raw materials for chemical industries		ECTS code 13.3.0900	
Name of unit administrating study Faculty of Chemistry			
Studies			
Field of study	Type	Form	
Chemical Business	Bachelor / Engineer	Full-time studies	
Teaching staff Prof. dr hab. Adam Lesner			
Forms of classes, the realization and number of hours		ECTS credits 1	
A. Forms of classes, in accordance with the UG Rector's regulations lecture		classes - 15 h tutorial classes – 5 h student's own work – 10 h	
B. The realization of activities in-class learning		Total: 25 h - 1 ECTS	
C. Number of hours 15 h lecture			
The academic cycle Third year, summer semester			
Type of course obligatory		Language of instruction Polish	
Teaching methods Lecture with multimedia support		Form and method of assessment and basic criteria for evaluation or examination requirements	
		A. Final evaluation, in accordance with the UG study regulations course completion (with a grade)	
		B. Assessment methods Exam with open questions Oral presentation	
		C. The basic criteria for evaluation or exam requirements <ul style="list-style-type: none"> • Positive mark on final written exam. Examination reflect all lecture's topics. The grade scale is in accordance with UG study regulations. • oral exam – additional evaluation for students with 40-50% points obtained during written exam 	
Required courses and introductory requirements Basis of general chemistry Selected informations from Inorganic and organic courses			
Aims of education All topics from course content			
Course contents Classification of raw materials Classification and characterization of main nonrenewable fossils raw materials Classification and characterization of main renewable raw materials Raw materials for energetic and petrochemical industries Raw materials for artificial fertilizers industry Raw materials for plastics industry Raw materials for paints and enamels production Pharmaceutical industry raw materials Surowce dla przemysłu środków ochrony roślin Raw materials for construction industry Ceramic industry resources Wood and wood related resources			

Biomass recycling
Marine resources

Bibliography of literature

A. Literature required to pass the course

Monographic works provided by assistants leading classes

B. Extracurricular readings

Knowledge

1. Able to characterised the resources for chemical industry
2. Describes the purification of selected materials
3. Able to design the recycling paths for particular proces/resoureces.

Skills

1. Usage of minimal chemical terminology to present the lecture content in oral and written form.
2. Ability to assess the usefulness and functioning of existing engineering and technical solutions as well as research methods in the chemical industry

Social competence

1. Understands the need for continuous learning
2. Shows responsibility for the timely execution of scheduled tasks