Course title	ECTS code
Chemia praktyczna / Chemistry in practice	13.3.0753

Name of unit administrating study
Faculty of Chemistry

Studies			
Field of study	**Type**	**Form**	
Chemical business	Bachelor / Engineer	Full-time studies	

Teaching staff
Janusz Madaj, PhD, DSc

Forms of classes, the realization and number of hours	ECTS credits 2
A. Forms of classes, in accordance with the UG Rector's regulations lecture, auditorium classes **B. The realization of activities** in-class learning **C. Number of hours** 30 h (15 lecture, 15 auditorium classes)	classes - 30 h tutorial classes – 5 h student's own work – 15 h Total: 50 h - 2 ECTS

The academic cycle
2020/21 summer semester

Type of course	Language of instruction
obligatory	Polish

Teaching methods	Form and method of assessment and basic criteria for evaluation or examination requirements
15 h Auditorium classes 15 h lecture with multimedia presentation	**A. Final evaluation, in accordance with the UG study regulations** course completion (with a grade)
	B. Assessment methods written test with open-ended questions, oral exam
	C. The basic criteria for evaluation or exam requirements • positive assessment of the written exam consisting of 5-10 open questions covering issues mentioned in the course contents of the subject; answers to the questions will require solving tasks related to the saved learning outcomes; the grading scale will be adapted to the rules of the study regulations; • for students who have obtained a written exam from 50 to 30% of correct answers - an oral exam - a positive assessment of the answers to 3 questions ; • the condition to take the exam is to get credits from the auditorium classes **Auditorium classes**: • presentation of 1-2 presentations prepared on the basis of selected literature material, active participation in the group's work and discussion of the presented problems

Required courses and introductory requirements
Basic knowledge in the field of general and organic chemistry

Aims of education
• familiarize students with the issues mentioned in the lecture's program,
• acquainting students with the basic economic principles of the functioning of the chemical industry,
• developing the skills of critical evaluation and interpretation of the presented news and analysis of source texts.

Course contents

During the classes, students will be introduced to selected aspects of the chemical industry. Among them, they will be inform about the dyeing, food and biochemical industries. There will be known about technological processes and engineering techniques used in various branches of the chemical industry (various types of fermentations, techniques used in the metallurgical, electronic and biomedical industries). The economic issues of the chemical industry and its importance in the operation of the country's economy will be presented and discussed.

Bibliography of literature
   A. **Literature required to pass the course**
      Ali El Ali Speight, Handbook of Industrial Chemistry – Organic Chemicals
   B. **Extracurricular readings**

Knowledge
1. defines and presents selected chemical processes and engineering methods in the chemical industry
2. describes and illustrates selected industrial processes using chemical reactions
3. understands the relationships and dependencies between the economy and the functioning of the chemical industry

Skills
1. uses chemical terminology to the extent necessary to present (in written and oral form) the content of the subject
2. predicts the course of selected industrial chemical reactions and the products of these transformations
3. uses the basic analytical techniques used in the analysis of industrial products
4. can indicate engineering techniques important in the chemical industry
5. can indicate significant economic aspects of the chemical industry

Social competence
1. understands the need for continuous learning,
2. is aware of the need for a critical analysis of own work
3. shows cautious criticism in receiving information, especially available in the mass media
4. is aware of the need for honest and reliable work