GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	CHEMISTRY AND TECHNOLOGY OF POLYMERS, PG_00049358		
Field of study	Chemical Technology		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2022/2023
Education level	first-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Polymers Technology -> Faculty of Chemistry		
Name and surname of lecturer (lecturers)	Subject supervisor		
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	15.0	0.0	0.0	30

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	30	5.0	40.0	75

Subject objectives

The aim of the course is to familiarize students with the basic knowledge of macromolecular compounds,methods of their preparation, testing, properties and application.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_U07	The student is able to select a processing method for a group of polymers	[SU5] Assessment of ability to present the results of task
K6_W09	The student is able to list which types of polyreation can be used to obtain a polymer and from which monomers	[SW1] Assessment of factual knowledge

Subject contents

Basic terms: mer, monomer, oligomer, polymer, dispersibility, types of bonds in the main chain, macromolecular compounds and polymers, thermo resins and chemoplasts. Classification of monomers and polyreactions. Radical polyaddition, polyaddition, polycondensation, anionic, cationic and coordination polymerization stages. Copolymerization and types of copolymers: statistical, block, graft, dendrimers, starry copolymer etc. Characteristics and examples of practical applications of thermoplastics, thermo and chemically hardenable compounds, elastomers, rubbers, rubbers, - technologies of their preparation. Parameters and methods characterizing their properties.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
lecture	60.0%	60.0%
laboratory	60.0%	40.0%

Recommended reading

Basic literature	1. Łączyński B.: Tworzywa wielkocząsteczkowe, WNT 19832. Florjańczyk Z , Chemia zw. wielkocząsteczkowych,W-wa 19953. Stevens P., M.: Wprowadzenie do chemii polimerów, PWN 1983
Supplementary literature	1. Przygocki, Metody fizyczne badań polimerów, PWN 1994
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Give examples of unsaturated monomers and polymers obtained from them.Division of monomers. give all the stages of obtaining polystyrene, polyvinyl chloride and other unsaturated monomers.Examples of obtaining polyethers, polyesters, etc.

Work placement

Not applicable