

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Technology of Plastics		Code 1010705221010720429
Field of study Chemical Technology	Profile of study (general academic, practical) (brak)	Year /Semester 1 / 2
Elective path/specialty General Chemical Technology	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: Second-cycle studies	Form of study (full-time, part-time) part-time	
No. of hours Lecture: 20 Classes: - Laboratory: 30 Project/seminars: 30		No. of credits 6
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 6 100% 6 100%
Responsible for subject / lecturer: dr inż. Jerzy Jęczalik email: jerzy.jeczalik@put.poznan.pl tel. +48 61 6653669 Faculty of Chemical Technology ul. Piotrowo 3 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Knowledge of the basic principles of general, organic, physical, and polymer chemistry.
2	Skills	Student knows and applies good practices of laboratory work, is able to operate the scientific equipment. He or she is able to search for information in scientific literature, databases and other properly chosen sources.
3	Social competencies	He or she is conscious of the effects of engineering activity.
Assumptions and objectives of the course: Gaining of knowledge in the area of production and processing of polymers and polymeric materials.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Student knows the basic technical processes of polimer synthesis, plastics compounding and processing. - [K_W02]		
2. Student knows the basic machinery for polymers production, plastics compounding and processing. - [K_W11]		
Skills:		
1. Student has the ability of information finding in scientific literature, preparing and presenting papers on polymer technology subjects. - [K_U01]		
2. Student has the ability of analysing and interpreting of the results of experiments. - [K_U06]		
3. Student has the ability of adoption of the knowledge of plastics technology to solve the real problems in industry - [K_U11]		
Social competencies:		
1. Student is conscious of limitation of his knowledge and understands the need of further continuous education in area of polymer technology. - [K_K01]		
2. Students can work in a team and are aware of their responsibility for their work and responsibility for the results of the teamwork. - [K_K04]		
Assessment methods of study outcomes		

-Written exam in the subject presented at lectures, evaluation of laboratory exercises and reports, evaluation of content of design project or presentation from the area of polymeric materials.		
Course description		
<p>-Outline of chemistry and technology of polymeric materials. Areas of application of polymeric materials. Carbochemical and petrochemical raw materials for polymers production. Industrial methods of polymer synthesis. Separation and purification of polymers after synthesis. Preparation of polymers for processing. Industrial methods of preparation of polymeric compounds. Processing of polymeric compounds ? injection moulding, extrusion, calendaring, thermoforming, production of polymeric laminates, etc. Recycling of polymeric materials.</p>		
Basic bibliography:		
<p>1. Z. Wirpsza, Technologia ogólna polimerów, Politechnika Radomska 1997. 2. Pr. zbior. Pod red. K. Wilczyńskiego, Przetwórstwo tworzyw sztucznych, Ofic. Wyd. Pol. Warszawskiej 2000.</p>		
Additional bibliography:		
<p>1. J. Pielichowski, A. Puszyński, Technologia tworzyw sztucznych, WNT Warszawa 1994. 2. B. Łączyński, Metody przetwórstwa tworzyw sztucznych, WNT Warszawa.</p>		
Result of average student's workload		
Activity	Time (working hours)	
1. Lectures	20	
2. Laboratories	30	
3. Project exercises	30	
4. Preparation for exam, exam	20	
5. Preparation for laboratories	15	
6. Preparation of laboratory reports	15	
7. Preparation of project or presentation	0	
Student's workload		
Source of workload	hours	ECTS
Total workload	150	6
Contact hours	80	6
Practical activities	45	2