



Subject card

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|--|---|---|----------|-------------------------------------|--|------------|-----|
| 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 polyreaction 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 1983. 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 | | | | | | |