

## Subject card

| Subject name and code                       | Organic chemistry, PG_00035972  |  |   |                                     |  |   |               |               |  |
|---|---|--|---|-------------------------------------|--|---|---------------|---------------|--|
| Field of study                              | Chemical Technology   |  |   |                                     |  |   |               |               |  |
| Date of commencement of studies             | October 2021  |  | Academic year of realisation of subject   |                                     |  | 2023/2024   |               |               |  |
| Education level                             | first-cycle studies   |  | Subject group   |                                     |  |   |               |               |  |
| Mode of study                               | Full-time studies   |  | Mode of delivery  |                                     |  | at the university   |               |               |  |
| Year of study                               | 3   |  | Language of instruction   |                                     |  | Polish  |               |               |  |
| Semester of study                           | 5   |  | ECTS credits  |                                     |  | 3.0   |               |               |  |
| Learning profile                            | general academic profile  |  | Assessment form   |                                     |  | assessment  |               |               |  |
| Conducting unit                             | Department of Organ   |  |   |                                     |  |   |               |               |  |
| Name and surname                            | Subject supervisor  | dr inż. Monika Gensicka-Kowalewska   |   |                                     |  |   |               |               |  |
| of lecturer (lecturers)                     | Teachers  |  |   |                                     |  |   |               |               |  |
| Lesson types and methods                    | Lesson type   | Lecture  | Tutorial  | Laboratory                          | Projec   | t   | Seminar       | SUM           |  |
| of instruction                              | Number of study hours   | 0.0  | 0.0   | 60.0                                | 0.0  |   | 0.0           | 60            |  |
|   | E-learning hours included: 0.0  |  |   |                                     |  |   |               |               |  |
| Learning activity and number of study hours | Learning activity Participation in did classes included i plan  |  |   | Participation in consultation hours |  | Self-study  |               | SUM           |  |
|   | Number of study hours 5.0   |  |   | 10.0                                |  | 75  |               |               |  |
| Subject objectives                          | Learning the basics of organic preparation.   |  |   |                                     |  |   |               |               |  |
| Learning outcomes                           | Course out  | Subject outcome  |   |                                     | Method of verification   |   |               |               |  |
|   | K6_U03  |  | The student is able to independently plan and carry out the synthesis of an organic compound, and also uses appropriate techniques for purification of compounds. |                                     |  | [SU4] Assessment of ability to<br>use methods and tools<br>[SU1] Assessment of task<br>fulfilment |               |               |  |
|   | K6_W02  | The student knows laboratory techniques such as crystallization, distillation, sublimation. The student knows the properties of the basic groups of organic compounds. |   |                                     | [SW3] Assessment of knowledge contained in written work and projects |   |               |               |  |
| Subject contents                            | Organic preparation techniques, methods for purifying organic compounds, conducting reactions under anhydrous or anaerobic conditions.Practical knowledge of the properties of the main groups of organic compounds.Identification of compounds based on physico-chemical properties. |  |   |                                     |  |   |               |               |  |
| Prerequisites and co-requisites             | Passed subject: Organic Chemistry, semesters IV and V,Organic chemistry, PG_00035963 and Organic chemistry, PG_00035967   |  |   |                                     |  |   |               |               |  |
| Assessment methods                          | Subject passin  | g criteria   | Pass  | ing threshold                       |  | Per   | centage of th | e final grade |  |
| and criteria                                | Entrance tests and s individual preparation   | cores for  | 60.0%   |                                     |  | 100.0%  |               | <u> </u>      |  |

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| Recommended reading  | Basic literature   | R. T. Morison; R. N. Boyd; Chemia Organiczna, Wydawnictwo naukowe PWN, Warszawa 1996.  J. McMurry Chemia Organiczna, Wydawnictwo naukowe PWN, Warszawa 2000.  J. D. Caserio, M. C. Roberts, CHEMIA ORGANICZNA, PWN Warszawa, 1969.  K. Dzierzbicka, G. Cholewiński, J. Rachoń, Chemia Organiczna dla Opornych, Wydawnictwo PG, Gdańsk 2013  |  |  |  |
|--|--|---|--|--|--|
|  | Supplementary literature   | J. March Chemia Organiczna- reakcje , mechanizmy , budowa. Wydawnictwo Naukowo Techniczne , Warszawa 1975.  J. Gawroński, K. Gawrońska, K. Kacprzak, M. Kwit WSPÓŁCZESNA SYNTEZA ORGANICZNA, WN PWN Warszawa 2004.  J. March CHEMIA ORGANICZNA - Reakcje, mechanizmy, budowa, WNT Warszawa 1975.  H. O. House NOWOCZESNE REAKCJE SYNTEZY ORGANICZNEJ, PWN Warszawa 1979.  T. W. G. Solomons ORGANIC CHEMISTRY - 6th ed, John Wiley & Sons, Inc. New York, 1996. |  |  |  |
|  | eResources addresses   | Adresy na platformie eNauczanie:  |  |  |  |
| Example issues/<br>example questions/<br>tasks being completed | Health and safety regulations in a chemical laboratory. Stoichiometric calculations of chemical reactions, conversion of concentrations, preparation of solutions. Crystallization, distillation, extraction. Acid-base properties of organic and inorganic compounds. Chemical properties of basic groups of organic compounds. Techniques for conducting chemical reactions. |   |  |  |  |
| Work placement   | Not applicable   |   |  |  |  |

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