

## Subject card

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          |                                         |                                     |                                                                                                                                                |            |     |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|
| Subject name and code                       | Degree seminar, PG_00081841                                                                                                                                                                                                                                                                                                                                                                             |                                                          |                                         |                                     |                                                                                                                                                |            |     |
| Field of study                              | Chemistry                                                                                                                                                                                                                                                                                                                                                                                               |                                                          |                                         |                                     |                                                                                                                                                |            |     |
| Date of commencement of studies             | October 2026                                                                                                                                                                                                                                                                                                                                                                                            |                                                          | Academic year of realisation of subject |                                     | 2028/2029                                                                                                                                      |            |     |
| Education level                             | Bachelor's studies                                                                                                                                                                                                                                                                                                                                                                                      |                                                          | Subject group                           |                                     | Obligatory subject group in the field of study<br>Optional subject group<br>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                               | 3                                                                                                                                                                                                                                                                                                                                                                                                       |                                                          | Language of instruction                 |                                     | Polish                                                                                                                                         |            |     |
| Semester of study                           | 6                                                                                                                                                                                                                                                                                                                                                                                                       |                                                          | ECTS credits                            |                                     | 3.0                                                                                                                                            |            |     |
| Learning profile                            | academic                                                                                                                                                                                                                                                                                                                                                                                                |                                                          | Assessment form                         |                                     | credit                                                                                                                                         |            |     |
| Conducting unit                             | Faculty of Chemistry -> Rector                                                                                                                                                                                                                                                                                                                                                                          |                                                          |                                         |                                     |                                                                                                                                                |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor                                                                                                                                                                                                                                                                                                                                                                                      |                                                          | dr hab. Joanna Makowska                 |                                     |                                                                                                                                                |            |     |
|                                             | Teachers                                                                                                                                                                                                                                                                                                                                                                                                |                                                          |                                         |                                     |                                                                                                                                                |            |     |
| Lesson types                                | Lesson type                                                                                                                                                                                                                                                                                                                                                                                             | Lecture                                                  | Tutorial                                | Laboratory                          | Project                                                                                                                                        | Seminar    | SUM |
|                                             | Number of study hours                                                                                                                                                                                                                                                                                                                                                                                   | 0.0                                                      | 0.0                                     | 0.0                                 | 0.0                                                                                                                                            | 30.0       | 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                          | substantive preparation of students for the diploma project and diploma exam<br>supporting and monitoring the implementation of the diploma project<br>developing the ability to understand scientific texts in the field of chemistry at the basic level in Polish and English<br>developing the skills of independent selection of scientific sources and searching for necessary information in them |                                                          |                                         |                                     |                                                                                                                                                |            |     |

| Learning outcomes | Course outcome                                                                                                                                                                                      | Subject outcome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Method of verification                  |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
|                   | [CHEML3_K07] Appreciates the need for understandable presentation of selected chemical issues to the public.                                                                                        | - Student is able to develop communicative skills in translating complex topics into clear and understandable language.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | [SK2] presentation/project/paper/report |
|                   | [CHEML3_U06] Uses basic application software packages to solve problems from the field of science.                                                                                                  | Student: <ul style="list-style-type: none"> <li>• independently uses literature databases and critically selects source texts for given or selected topic</li> <li>• reads with understanding, analyzes and evaluates simple scientific texts in Polish and English</li> <li>• prepares a study presenting a specific problem in the field of the scientific discipline being studied and the selected specialty</li> <li>• has the ability to prepare an oral presentation on a given topic in Polish</li> <li>• discusses in a substantive manner the subject presented during his or her own presentation</li> </ul> | [SU5] implementation of a problem task  |
|                   | [CHEML3_W13] Enumerates and describes the basic legal and ethical aspects related to scientific, research and didactic work.                                                                        | Student: <ul style="list-style-type: none"> <li>• lists the most important bibliographic databases in the field of exact and natural sciences</li> <li>• describes the rules for preparing and delivering papers at a popular science level</li> <li>• describes the basic principles of preparing scientific papers in the field of exact sciences</li> </ul>                                                                                                                                                                                                                                                          | [SW4] test/exam - oral or written       |
|                   | [CHEML3_U10] Prepares papers on various fields of chemistry in Polish and English, using acquired knowledge and skills as well as various sources of scientific information.                        | - Students preparing a written paper correctly argue their conclusions in the field of chemistry, interpret and analyze related information with basic chemical and economic laws.<br>- By reading scientific texts, the student learns to analyze and synthesize information, extract key concepts and understand complex issues.                                                                                                                                                                                                                                                                                      | [SU3] text preparation/written work     |
|                   | [CHEML3_U11] Prepares and presents oral presentations in various fields of chemistry in Polish and English, using acquired knowledge and skills as well as basic sources of scientific information. | - Student is able to prepare a written work (paper, report, description) both in Polish and English, correctly arguing his/her conclusions in the field of chemistry. At work, he knows how to correctly interpret and analyze related information with basic chemical laws.<br>- By reading scientific texts, the student learns to analyze and synthesize information, isolate key concepts, and understand complex issues                                                                                                                                                                                            | [SU2] presentation/project/paper/report |
|                   | [CHEML3_K04] Respects and appreciates the importance of intellectual property in her/his actions and in the actions of others; acts ethically.                                                      | Student: <ul style="list-style-type: none"> <li>• maintains criticism in expressing opinions and is open to the views of co-effectors</li> <li>• shows activity in deepening knowledge and appreciates the need for continuous education</li> </ul>                                                                                                                                                                                                                                                                                                                                                                     | [SK2] presentation/project/paper/report |

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
|                                                          | Course outcome                                                                                                                                                                                                                                                                                                                                                                                                                               | Subject outcome                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Method of verification                        |
|                                                          | [CHEML3_U12] Reads with understanding scientific and popular science chemical texts in English.                                                                                                                                                                                                                                                                                                                                              | Student develops the ability to recognize and understand specialized terms in the field of chemistry, such as names of chemical compounds, reactions, functional groups, etc. By reading scientific texts, the student learns to analyze and synthesize information, extract key concepts, and understand complex chemical issues. The student develops the ability to think critically and assess the quality of information regarding the context of research and evaluation of results | [SU5] implementation of a problem task        |
|                                                          | [CHEML3_W14] Recalls and explains the basic concepts and principles in the field of intellectual and industrial property protection, copyright and patent law.                                                                                                                                                                                                                                                                               | - Student knows the basic concepts and principles related to the protection of intellectual property. - Knows the assumptions of copyright law, patent law, trademark law, industrial design law, trade secret law.                                                                                                                                                                                                                                                                       | [SW1] oral statement/ conversation/discussion |
| Subject contents                                         | 1) Rules for proper preparation and edition of diploma theses in the field of exact and natural sciences<br>2) Bibliographic databases on exact and natural sciences and ways of using them<br>3) Methods of searching information in literature sources<br>4) Analysis of scientific texts on the example of publications in a foreign language proposed by the teacher<br>5) Rules for preparing and presenting public speaking            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| Prerequisites and co-requisites                          | Completed courses of obligatory subjects provided for in the program of studies in the field of Chemistry (University of Gdańsk) in semesters from one to five.<br><br>Knowledge of the basics of organic and physical chemistry and biochemistry at the first cycle of academic education; ability to use basic software packages (including word processors and tools for preparing multimedia presentations), basic knowledge of English. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| Assessment methods and criteria                          | Subject passing criteria                                                                                                                                                                                                                                                                                                                                                                                                                     | Passing threshold                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Percentage of the final grade                 |
|                                                          | Preparation and presentation of several presentations on the research problem                                                                                                                                                                                                                                                                                                                                                                | 100.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 100.0%                                        |
| Recommended reading                                      | Basic literature                                                                                                                                                                                                                                                                                                                                                                                                                             | A.1. Literature used during classes<br>Books and scientific articles related to the selected specialty and / or the topic of the diploma project<br><br>A.2. Literature for individual studies<br>Books and scientific articles related to the selected specialty and / or subject of the diploma project                                                                                                                                                                                 |                                               |
|                                                          | Supplementary literature                                                                                                                                                                                                                                                                                                                                                                                                                     | Extracurricular readings<br><br>Books and scientific articles related to the selected specialty and / or subject of the diploma project                                                                                                                                                                                                                                                                                                                                                   |                                               |
|                                                          | eResources addresses                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| Example issues/ example questions/ tasks being completed |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |
| Work placement                                           | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |

Document generated electronically. Does not require a seal or signature.