

## Subject card

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                          |                                         |                                     |                                                                                                                                                |            |     |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|
| Subject name and code                       | Cosmetic industry in practice, PG_00081886                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                          |                                         |                                     |                                                                                                                                                |            |     |
| 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                            |                                     | 1.0                                                                                                                                            |            |     |
| Learning profile                            | academic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                          | Assessment form                         |                                     | credit                                                                                                                                         |            |     |
| Conducting unit                             | Faculty of Chemistry -> Rector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                          |                                         |                                     |                                                                                                                                                |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                          | Katarzyna Gruzewska                     |                                     |                                                                                                                                                |            |     |
|                                             | Teachers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                          |                                         |                                     |                                                                                                                                                |            |     |
| Lesson types                                | Lesson type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Lecture                                                  | Tutorial                                | Laboratory                          | Project                                                                                                                                        | Seminar    | SUM |
|                                             | Number of study hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 15.0                                                     | 0.0                                     | 0.0                                 | 0.0                                                                                                                                            | 0.0        | 15  |
|                                             | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 15                                                       |                                         | 2.0                                 |                                                                                                                                                | 8.0        | 25  |
| Subject objectives                          | Acquainting with the basic processes of cosmetics production<br>Acquainting with the technology of fluid production (tonics, micellar liquids, gels for body washing, gels for intimate hygiene)<br>Acquainting with emulsion production technology (face creams, body lotions)<br>Acquainting with the methods of work in the cosmetics technology laboratory<br>Acquainting with the methods of work in the cosmetics quality control laboratory and in the research and development laboratory of a cosmetics company<br>Getting to know the basic principles of GMP work<br>Acquainting with the basic knowledge of the apparatus used in the production of cosmetics |                                                          |                                         |                                     |                                                                                                                                                |            |     |

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| Learning outcomes               | Course outcome                                                                                                                                                                                                                                                                                                                | Subject outcome                                                                                                                                                                                                                                                                                                        | Method of verification            |
|                                 | [CHEML3_K09] Is familiar with the general principles of creating and operating forms of individual entrepreneurship.                                                                                                                                                                                                          | is active in deepening knowledge and understands the need for continuous training in the field of work in a cosmetic enterprise; The student is aware of the impact of the known methods of cosmetics production on the environment                                                                                    | [SK4] test/exam - oral or written |
|                                 | [CHEML3_W15] Enumerates general principles for creating and developing selected forms of individual entrepreneurship enabling the use of knowledge of chemistry, physics and mathematics.                                                                                                                                     | • Recognizes and explains the operation of the basic equipment used in the production of cosmetics • Selects the appropriate type of apparatus for the assumed technological process • Describes cosmetics production technologies • Can plan a large-scale cosmetic production procedure                              | [SW4] test/exam - oral or written |
|                                 | [CHEML3_K07] Appreciates the need for understandable presentation of selected chemical issues to the public.                                                                                                                                                                                                                  | understands the need for systematic familiarization with the latest chemical literature; Understands the need to become acquainted with scientific and popular scientific journals, basic in the field of peptide and protein chemistry used in cosmetic products, in order to broaden and deepen knowledge;           | [SK4] test/exam - oral or written |
| Subject contents                | Basic processes of cosmetics production. Apparatus used in the manufacture and control of cosmetics. Technology transfer laboratory scale - semi-technical scale - technical scale. Basic information in the field of cosmetics for liquid and semi-solid forms. GMP standard in a cosmetics factory. Environmental standard. |                                                                                                                                                                                                                                                                                                                        |                                   |
| Prerequisites and co-requisites | Completed courses in the field of cosmetics chemistry and applied cosmetics.<br><br>Knowledge of general and organic chemistry, knowledge of basic issues in the field of cosmetics chemistry, knowledge and use of terminology and cosmetic nomenclature.                                                                    |                                                                                                                                                                                                                                                                                                                        |                                   |
| Assessment methods and criteria | Subject passing criteria                                                                                                                                                                                                                                                                                                      | Passing threshold                                                                                                                                                                                                                                                                                                      | Percentage of the final grade     |
|                                 | test                                                                                                                                                                                                                                                                                                                          | 51.0%                                                                                                                                                                                                                                                                                                                  | 100.0%                            |
| Recommended reading             | Basic literature                                                                                                                                                                                                                                                                                                              | Brud W, Glinka R.Ł.: Technologia kosmetyków, Łódź 2001<br>Warych J., Aparatura chemiczna i procesowa. Oficyna Wyd. PW, Warszawa 1996<br>Marcinkiewicz-Salmonowiczowa J.: Zarys chemii i technologii kosmetyków, Pol. Gd. 1995<br>Koch R., Noworyta A., Procesy mechaniczne w inżynierii chemicznej, WNT, Warszawa 1992 |                                   |
|                                 | Supplementary literature                                                                                                                                                                                                                                                                                                      | Malinka W.: Zarys chemii kosmetycznej, Volumed 1999<br>Marzec A.: Chemia kosmetyków, Toruń 2001<br>Janicki S., Fiebig A.: Farmacja stosowana, PZWL 1996<br>Peters B.: Kosmetyka, Warszawa 2002<br>Jurkowska S.: Surowce kosmetyczne, Dąbrowa Górnicza 1999                                                             |                                   |
|                                 | eResources addresses                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                        |                                   |
|                                 | Example issues/<br>example questions/<br>tasks being completed                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                        |                                   |
| Work placement                  | Not applicable                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                        |                                   |

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