



## Subject card

|  |  |   |                                     |            |  |         |     |
|--|--|---|-------------------------------------|------------|--|---------|-----|
| Subject name and code  | PRODUCT QUALITY, PG_00044281   |   |                                     |            |  |         |     |
| Field of study   | Engineering Management   |   |                                     |            |  |         |     |
| Date of commencement of studies  | October 2021   | Academic year of realisation of subject   |                                     |            | 2022/2023  |         |     |
| Education level  | first-cycle studies  | Subject group   |                                     |            | Obligatory subject group in the field of study<br>Subject group related to scientific research in the field of study |         |     |
| Mode of study  | Part-time studies  | Mode of delivery  |                                     |            | at the university  |         |     |
| Year of study  | 2  | Language of instruction   |                                     |            | Polish   |         |     |
| Semester of study  | 4  | ECTS credits  |                                     |            | 4.0  |         |     |
| Learning profile   | general academic profile   | Assessment form   |                                     |            | assessment   |         |     |
| Conducting unit  | Department of Quality Management and Commodity Science -> Faculty of Management and Economics  |   |                                     |            |  |         |     |
| Name and surname of lecturer (lecturers)   | Subject supervisor   | prof. dr hab. inż. Maria Szpakowska   |                                     |            |  |         |     |
|  | Teachers   | dr inż. Ewa Marjańska<br>mgr Anna Wendt<br>prof. dr hab. inż. Maria Szpakowska          |                                     |            |  |         |     |
| Lesson types and methods of instruction  | Lesson type  | Lecture   | Tutorial                            | Laboratory | Project  | Seminar | SUM |
|  | Number of study hours  | 16.0  | 0.0                                 | 16.0       | 0.0  | 0.0     | 32  |
|  | E-learning hours included: 0.0   |   |                                     |            |  |         |     |
| Jakość Produktu NSTAC. 2022/23 - Moodle ID: 25301<br><a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=25301">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=25301</a> |  |   |                                     |            |  |         |     |
| 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  | 32  | 6.0                                 | 62.0       | 100  |         |     |
| Subject objectives   | Getting to know the methods of testing the quality of selected products. Self-assessment of the quality of selected products.  |   |                                     |            |  |         |     |
| Learning outcomes  | Course outcome   | Subject outcome   |                                     |            | Method of verification   |         |     |
|  | [K6_W07] knows the basic conditions concerning norms and standards covering particular areas of the organization's functioning, including in particular those concerning technical resources and processes | Defines basic commodity concepts and analyzes various norms                             |                                     |            | [SW3] Assessment of knowledge contained in written work and projects   |         |     |
|  | [K6_W11] has the basic knowledge of mathematics, physics and chemistry necessary to solve technical problems   | combines knowledge in the field of chemistry, physics, commodity science and economics; |                                     |            | [SW3] Assessment of knowledge contained in written work and projects   |         |     |
|  | [K6_U08] analyses engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects, as well as safety of work processes                    | Wyniki tłumaczenia<br>Assesses the quality of selected goods                            |                                     |            | [SU4] Assessment of ability to use methods and tools   |         |     |

| Subject contents   | <p><b>LECTURE:</b> Types of commodity science and its history; Commodity, product, good; Classification and systematization of goods; Commodity coding rules; Polish codes and code systems in other countries; Coding rules for consumer and shipping units; Quality, quality characteristics and types of goods inspection; Factors influencing the quality; Quality measurement, quality control; Tasks and goals of consumer organizations; Organization, goals, tasks of standardization; Polish, factory and European standards; Harmonization of standards; Testing and assessing the quality of food products using organoleptic methods; Certification in the EU and Poland; Quality assurance systems and HACCP; Packaging as an integral part of the goods; Labeling rules; Transportation of goods; Storage of goods; Selected properties of goods.</p> <p><b>LABORATORY:</b> Examination of selected physicochemical properties of some metals, alloys and precious stones; Testing the acidity of selected products; Testing the water content in selected fat products; Determination of the quality of selected products of the fermentation industry, dairy products and bread; Quality evaluation and classification of paper products;</p> |   |  |                          |                   |                               |           |       |       |              |       |       |
|--|---|---|--|--------------------------|-------------------|-------------------------------|-----------|-------|-------|--------------|-------|-------|
| Prerequisites and co-requisites                          | Knowledge of the subject: Applied Chemistry   |   |  |                          |                   |                               |           |       |       |              |       |       |
| Assessment methods and criteria                          | <table border="1"> <thead> <tr> <th data-bbox="456 819 794 853">Subject passing criteria</th> <th data-bbox="799 819 1137 853">Passing threshold</th> <th data-bbox="1142 819 1481 853">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="456 860 794 893">Exercises</td> <td data-bbox="799 860 1137 893">60.0%</td> <td data-bbox="1142 860 1481 893">60.0%</td> </tr> <tr> <td data-bbox="456 900 794 934">Written exam</td> <td data-bbox="799 900 1137 934">60.0%</td> <td data-bbox="1142 900 1481 934">40.0%</td> </tr> </tbody> </table>  |   |  | Subject passing criteria | Passing threshold | Percentage of the final grade | Exercises | 60.0% | 60.0% | Written exam | 60.0% | 40.0% |
| Subject passing criteria                                 | Passing threshold   | Percentage of the final grade   |  |                          |                   |                               |           |       |       |              |       |       |
| Exercises  | 60.0%   | 60.0%   |  |                          |                   |                               |           |       |       |              |       |       |
| Written exam   | 60.0%   | 40.0%   |  |                          |                   |                               |           |       |       |              |       |       |
| Recommended reading                                      | Basic literature  | <ol style="list-style-type: none"> <li>Praca zbiorowa pod redakcją Laboratorium z towaroznawstwa wybranych artykułów spożywczych i nieżywnościowych, wydanie drugie rozszerzone, Gdańsk 2007,</li> <li>W. Nalepa, Towaroznawstwo artykuły przemysłowe, PWE Warszawa, 1986;</li> <li>A. Korzeniowski, Towaroznawstwo artykułów przemysłowych, Badanie jakości wyrobów, część I, AE Poznań, 1999;</li> <li>M. Małecka, B. Pacholek, Ocena jakości wybranych produktów spożywczych i wody, AE Poznań, 2001.</li> </ol> |  |                          |                   |                               |           |       |       |              |       |       |
|  | Supplementary literature  | H. Całus, Podstawy obliczeń chemicznych, Wydawnictwa Naukowo-Techniczne, Warszawa 1987  |  |                          |                   |                               |           |       |       |              |       |       |
|  | eResources addresses  |   |  |                          |                   |                               |           |       |       |              |       |       |
| Example issues/ example questions/ tasks being completed |   |   |  |                          |                   |                               |           |       |       |              |       |       |
| Work placement   | Not applicable  |   |  |                          |                   |                               |           |       |       |              |       |       |