# POZNAN UNIVERSITY OF TECHNOLOGY



EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

# **COURSE DESCRIPTION CARD - SYLLABUS**

#### Course name

Technological processes in practical aspects [S2TCh2>PTwAP]

| Course                                                          |                        |                                  |                          |  |
|-----------------------------------------------------------------|------------------------|----------------------------------|--------------------------|--|
| Field of study<br>Chemical Technology                           |                        | Year/Semester<br>1/2             |                          |  |
|                                                                 |                        |                                  |                          |  |
| Area of study (specialization)<br>Applied Electrochemistry      |                        | Profile of study general academi | с                        |  |
| Level of study<br>second-cycle                                  |                        | Course offered ir polish         | 1                        |  |
| Form of study<br>full-time                                      |                        | Requirements<br>elective         |                          |  |
| Number of hours                                                 |                        |                                  |                          |  |
| Lecture<br>15                                                   | Laboratory classe<br>0 | es                               | Other (e.g. online)<br>0 |  |
| Tutorials<br>0                                                  | Projects/seminar<br>0  | S                                |                          |  |
| Number of credit points 1,00                                    |                        |                                  |                          |  |
| Coordinators                                                    |                        | Lecturers                        |                          |  |
| dr inż. Magdalena Emmons-Bur<br>magdalena.emmons-burzynska      |                        |                                  |                          |  |
| dr hab. inż. Magdalena Regel-R<br>magdalena.regel-rosocka@put.j |                        |                                  |                          |  |

# **Prerequisites**

Basic, ordered, theoretically founded, systematic knowledge in the field of chemical technology, also covering key issues regarding natural and synthetic raw materials, products and processes used in chemical technology, as well as methods for assessing product quality. The ability to assess the technological suitability of raw materials and the selection of the technological process in relation to the product quality requirements, the ability to obtain information from literature, databases and other sources also in English, as well as interpret the obtained data, draw conclusions, and formulate and justify opinions.

## **Course objective**

Expanding knowledge in the field of chemical technology and related fields and product quality assessment, the basics of production management enabling students to link their theoretical knowledge with the experience of practitioners passed on during lectures. Deepening students' knowledge of how to conduct real technological processes, problems arising during the implementation of such processes, how to respond and solve them.

# Course-related learning outcomes

#### Knowledge:

1. Expanded and in-depth knowledge in the field of chemical technology and other related areas of science, allowing to formulate and solve complex problems related to chemical technology. [K\_W03] 2. Knowledge of complex chemical processes, including the appropriate selection of materials, raw materials, methods, techniques, apparatus and equipment for carrying out chemical processes and characterizing the products obtained. [K\_W04]

Skills:

The ability to obtain and critically evaluate information from literature, databases and other sources, and formulate opinions and reports on this basis. [K\_U01]

Social competences:

 Awareness of the need for lifelong learning and professional development. [K\_K01]
Awareness of the limitations of science and technology related to chemical technology, including environmental protection. [K K02]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Test on a e-learning platform (3 questions to each lecture).

Points scored Grade > 10 insufficient 2.0 10 ÷ 11 sufficient 3.0 12 ÷ 13 sufficient plus 3.5 14 ÷ 15 good 4.0 16 ÷ 17 good plus 4.5 18 very good 5.0

# **Programme content**

Lectures cover a variety of topics related to chemical technology in various industries (food, pharmaceutical, fertilizers), product quality assessment, production management, environmental protection regulations. Each lecture is conducted by various practitioners, representatives of companies from Poznań and Greater Poland.

Technological processes in practical aspects - the lectures cover the subject of soft skills - production efficiency management, personal development and technological problems, for example, in the pharmaceutical, food and fertilizer industries.

## **Teaching methods**

Lecture, discussion

## Bibliography

Basic: Determined directly by the lecturer.

Additional: Determined directly by the lecturer.

## Breakdown of average student's workload

|                                                                                                                                            | Hours | ECTS |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------|------|
| Total workload                                                                                                                             | 25    | 1,00 |
| Classes requiring direct contact with the teacher                                                                                          | 15    | 0,50 |
| Student's own work (literature studies, preparation for laboratory classes/<br>tutorials, preparation for tests/exam, project preparation) | 10    | 0,50 |