

#### 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 Year/Semester

Chemical Technology 1/2

Area of study (specialization) Profile of study

Technological Processes and Bioprocesses general academic

Course offered in Level of study

second-cycle Polish

Form of study Requirements

full-time elective

Number of hours

Lecture Laboratory classes Other 0

15

**Tutorials** Projects/seminars

0

Number of credit points

1.00

Coordinators Lecturers

dr inż. Magdalena Emmons-Burzyńska magdalena.emmons-burzynska@put.poznan.pl

dr hab. inż. Magdalena Regel-Rosocka prof. PP magdalena.regel-rosocka@put.poznan.pl

### **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:

- 1. Awareness of the need for lifelong learning and professional development. [K K01]
- 2. 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

 $14 \div 15 \mod 4.0$ 

16 ÷ 17 good plus 4.5

18 very good 5.0

### Programme content

Issues 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 and concerning ways of conducting real technological processes, problems arising during the implementation of such processes, how to respond and solve them.

#### Course topics

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/ tutorials, preparation for tests/exam, project preparation)	10	0,50