



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar

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### Course

Field of study

Chemical Technology

Area of study (specialization)

Polymer Technology

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

II/3

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

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### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

30

### Number of credit points

3

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### Lecturers

Responsible for the course/lecturer:

PhD, DSc, Eng. Sławomir Borysiak, Associate  
Professor

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Faculty of Chemical Technology

ul. Berdychowo 4, 60-965 Poznań

Responsible for the course/lecturer:

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### Prerequisites



The students have a knowledge based on theory, covering key issues in the field of polymer chemistry, and processing of plastics.

Students can obtain information from literature, databases and other sources related to the chemical sciences, can interpret obtained data, and formulate conclusions and their own opinions.

Student understands the need for further education and improving the personal competences.

### Course objective

The aim of the course is enable students to get the knowledge and skills for appropriate preparation their Master thesis in the field of methodological correctness, suitable edition of the thesis, and the selection and using the bibliography. Additionally, students can extend the skills associated with preparing, presenting, and participation in technical discussions. The aim of the course is also enable students obtaining a number of social competence related to the profile of graduate degree.

### Course-related learning outcomes

#### Knowledge

1. Has expanded and in-depth knowledge in the field of polymers chemistry and physicochemistry and other related areas of science, allowing to formulate and solve complex tasks related to polymer technology. [K\_W2]
2. Has knowledge of complex polymer technology, including the appropriate selection of materials, raw materials, methods, techniques, apparatus and equipment for the implementation of technology processes and characterization of the obtained products. [K\_W3]
3. Has extended knowledge in the field of the latest technologies of polymer processing and recycling, including technologies of advanced materials and nanomaterials. [K\_W4]
4. Has expanded knowledge of environmental problems related to plastics technology. [K\_W8]
5. Has well-established and expanded knowledge of the selected specialty. [K\_W11]
6. Has extended knowledge of advanced devices and apparatus used in polymer technology and processing and recycling od plastics [K\_W13]

#### Skills

1. Has the ability to obtain and critically evaluate information from literature, databases and other sources, and formulate opinions and reports on this basis. [K\_U1]
2. Has the ability to communicate with specialists and non-specialists in the field of polymer technology and related fields. [K\_U4]
3. Is able to independently determine the directions of further education and implement self-education. [K\_U5]



4. Has the ability to professionally present research results in the form of a presentation. [K\_U7]
5. Is able to properly formulate and verify hypotheses related to engineering problems in polymer technology. [K\_U14]
6. Is able to critically assess the practical usefulness of using new achievements in polymer technology. [K\_U17]
7. Has the ability to use the knowledge acquired under the specialty course in professional activity. [K\_U23]

#### Social competences

1. Is aware of the need for lifelong learning and professional development. [K\_K1]
2. Is aware of the limitations of science and technology related to polymer technology, including environmental protection. [K\_K2]
3. Professionally recognizes problems and makes the right choices related to the profession, in accordance with the principles of ethics. [K\_K3]
4. Can think and act in a creative way. [K\_K6]
5. Understands the need to provide the public with information on the current state and directions of development of polymer technology, on the principles of use and handling of polymer, about the risks associated with the acquisition and distribution of raw materials in the polymer industry. [K\_K7]

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Completion of the course is based on the prepared presentations of the results and scientific literature connected with diploma thesis, and additionally on the participation of individual students in discussing issues and problems related to the subject of dissertations.

Completion of the course is based on the prepared presentations regarding the analysis of the state of knowledge in the context of formulating a hypothesis and formulating the aim of the thesis, research methodology, as well as the obtained results. Additionally, the students' participation in the discussion of issues related to the subject of dissertations will be assessed.

In the case of classes carried out in the form of remote presentation and the discussion will take place on-line using the university infrastructure.

#### Programme content

1. The opportunities of searching necessary information in the field of diploma thesis, the using the source materials and their presentation in thesis.



2. The structure of the thesis - the most common formal and substantive mistakes.
3. Principles of analysis of the current state of knowledge in the context of hypothesis and formulation of the aim of the work.
4. Principles of research methodology planning.
5. Verification of the research hypothesis in theses.
6. Discussion about appropriate preparation and presentation of obtained results.
7. Presentation the results of the diploma thesis.
8. Scientific discussion: ability to formulate questions, answers to questions asked.
9. Discussion of the problem of plagiarism and scientific fraud. Giving information to students on a uniform anti-plagiarism system (JSA).
10. Preparation and submission of the thesis.

### Teaching methods

Scientific discussions within the seminar group with an active participation of all students.

### Bibliography

Basic

Recommended by the thesis supervisor.

Additional

Recommended by the thesis supervisor.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	45	1,8
Student's own work (literature studies, preparation for seminar classes) <sup>1</sup>	30	1,2

<sup>1</sup> delete or add other activities as appropriate