

**DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY**

SUPERVISOR CONDUCTING COURSE: prof. dr hab. Piotr Dobryzycski  
Faculty of Chemistry/ DEPARTMENT Biochemistry, Molecular Biology and Biotechnology

**COURSE CARD**

**Course name in Polish:** BioChemBiot –problemy z pogranicza współczesnej biologii, chemii i biotechnologii

Course name in English: BioChemBiot –on the border of biology, chemistry and biotechnology

**Course language:** polish

**University-wide general course type\*:**

specialized science course (mathematics, physics, chemistry, computer science or other) :  
biochemistry, biospectroscopy

**Specialized courses for PhD students receiving education in discipline\*:**

- interdisciplinary course in the field of several disciplines

**Subject code:** CIQ100178W

\* delete as applicable

|  | Lecture | Foreign language course | Seminar | Mixed forms |
|--|---------|-------------------------|---------|-------------|
| Number of hours of organized classes in university (ZZU) | 30      |                         |         |             |
| Grading  | Exam    |                         |         |             |

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

Fundamental knowledge in chemistry and biology

**COURSE OBJECTIVES**

C1. To familiarize PhD students with trends in the development of sciences on the borderline of biology, chemistry and technology

C2. Presentation of ethical and moral problems brought by the development of science

C3. Understanding the impact of the development of basic science on the development of technology

**PROGRAMME CONTENT**

| <b>Form of classes - lecture</b> |   | Number of hours |
|----------------------------------|---|-----------------|
| Lec 1                            | Lectures conducted alternately by leading faculty scientists related to biomolecular research. The lecturers' pool changes every year | 14x2            |
| Lec15                            | Exam  |                 |
| <b>Total hours</b>               |   | <b>30</b>       |

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| <b>ACHIEVED SUBJECT LEARNING OUTCOMES</b> |  |  |   |
|---|--|--|---|
| Type of learning outcome                  | Code of learning outcome                 | Student knows and understands:   | Method of evaluation:   |
| Knowledge                                 | <b>P8U_W</b>                             | - the world's scientific and creative heritage and its implications for practice   | - student competently quotes other authors in articles published and prepared for publication in peer-reviewed scientific journals, peer-reviewed materials from international scientific conferences and in book editions preceding the preparation of a doctoral dissertation   |
| Knowledge                                 | <b>P8S_WG</b>                            | - to such an extent that it is possible to revise existing paradigms – world heritage, including theoretical foundations, general issues and selected specific issues – specific to a scientific or artistic discipline<br>- the main trends in the development of the scientific or artistic disciplines covered in the curricula<br>- research methodology<br>- the rules for the dissemination of scientific results, including in open access mode | - student has a sound knowledge of basic subjects such as chemistry and biology<br>- has an advanced knowledge fundamental to a field relevant to his/her research, including the most advanced methods of research and verification of results achieved in biochemistry and biotechnology<br>- has advanced knowledge of directional subjects in biotechnology<br>- has knowledge at an advanced level of chemistry and subject matter relevant to the field of biotechnology, including the most recent research findings and scientific achievements |
|   | <b>Code of the descriptive component</b> | <b>Student is able to:</b>   | <b>The method of evaluation:</b>  |
| <b>SKILLS</b>                             | <b>P8U_U</b>                             | - analyse and creatively synthesise scientific and creative achievements in order to identify and solve research, innovation and creative problems; create new elements of this achievements   | - is able to classify scientific publishers, including scientific journals, and scientific achievements according to accepted rules for:<br>- journals included in international databases Scopus and Web of Science<br>- impact factor (if),<br>- quoting,<br>- Hirsch index,<br>- have knowledge of current specification of active scientific journals in Scopus and Web of Science databases and their associated disciplines, as defined in the new classification of fields and disciplines   |

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TECHNOLOGY**

**PRIMARY AND SECONDARY LITERATURE**

**PRIMARY LITERATURE:**

Scientific articles on the subject of lectures on contemporary topics „**biochemistry-chemistry-biotechnology**”

**SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)**

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