


**KAPITAŁ LUDZKI**  
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez  
 Unię Europejską w ramach  
 Europejskiego Funduszu  
 Społecznego

**UNIA EUROPEJSKA**  
 EUROPEJSKI  
 FUNDUSZ SPOŁECZNY


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|---|-----------------------|--|---|
| <b>Course title</b>   |                       | <b>ECTS code</b>   |   |
| B.Sc. laboratory class  |                       | 13.3.0460  |   |
| <b>Name of unit administrating study</b>  |                       |  |   |
| null  |                       |  |   |
| <b>Studies</b>  |                       |  |   |
| <b>faculty</b>  | <b>field of study</b> | <b>type</b>  | pierwszego stopnia  |
| Wydział Chemii  | Chemia                | <b>form</b>  | stacjonarne   |
|   |                       | <b>specjalty</b>   | chemia biomedyczna, chemia kosmetyków, analityka i diagnostyka chemiczna, chemia żywności |
|   |                       | <b>specialization</b>  | wszystkie   |
| <b>Teaching staff</b>   |                       |  |   |
| <p>dr hab. Jolanta Kumirska, profesor uczelni; dr hab. inż. Ewelina Grabowska-Musiał; dr hab. Aleksandra Dąbrowska, profesor uczelni; prof. UG, dr hab. Monika Paszkiewicz; dr hab. Agnieszka Żylicz-Stachula, profesor uczelni; dr Samanta Romanowska; dr hab. Łukasz Haliński; dr hab. Anna Łęgowska, profesor uczelni; dr Natalia Gruba; dr inż. Karolina Jagiełło; dr hab. Zbigniew Kaczyński, profesor uczelni; dr inż. Anna Malankowska; dr hab. Jarosław Ruczyński; dr Grzegorz Olszewski; dr hab. Anna Białk-Bielińska, profesor uczelni; dr hab. Dagmara Strumińska-Parulska, profesor uczelni; prof. dr hab. Mariusz Makowski; dr Ewa Mulkiewicz; prof. dr hab. Adam Lesner; dr hab. Magdalena Wysocka, profesor uczelni; dr hab. Leszek Rolbiecki; dr inż. Anna Gołąbiewska; dr inż. Patrycja Jutrzenka Trzebiatowska; dr hab. Beata Grobelna, profesor uczelni; dr Ewa Wiczerzak; prof. dr hab. Adam Prahł; dr hab. Marek Gołębiowski, profesor uczelni; dr Joanna Drzeżdżon; dr hab. Alicja Boryło, profesor uczelni; prof. UG, dr hab. Agnieszka Chylewska; prof. dr hab. Piotr Stepnowski; dr Grzegorz Olszewski; dr Dorota Zarzeczńska; prof. dr hab. Piotr Skowron; dr Jaromir Kira; dr Agnieszka Gajewicz-Skrętna; prof. dr hab. Krzysztof Rolka; dr hab. Andrzej Nowacki</p> |                       |  |   |
| <b>Forms of classes, the realization and number of hours</b>  |                       | <b>ECTS credits</b>  |   |
| <b>Forms of classes</b>   |                       | 4  |   |
| Laboratory classes  |                       | classes 60 h   |   |
| <b>The realization of activities</b>  |                       | tutorial classes 5 h   |   |
| classroom instruction   |                       | student's own work 35 h  |   |
| <b>Number of hours</b>  |                       | TOTAL: 100 h - 4 ECTS  |   |
| Laboratory classes: 60 hours  |                       |  |   |
| <b>The academic cycle</b>   |                       |  |   |
| 2024/2025 summer semester   |                       |  |   |
| <b>Type of course</b>   |                       | <b>Language of instruction</b>   |   |
| obligatory  |                       | polish   |   |
| <b>Teaching methods</b>   |                       | <b>Form and method of assessment and basic criteria for evaluation or examination requirements</b>   |   |
| conducting experiments  |                       | <b>Final evaluation</b>  |   |
|   |                       | Graded credit  |   |
|   |                       | <b>Assessment methods</b>  |   |
|   |                       | ssignment work – conducting research and presenting results  |   |
|   |                       | <b>The basic criteria for evaluation</b>   |   |
|   |                       | According to the UG Study Regulatory;  |   |
|   |                       | <ul style="list-style-type: none"> <li>• Conditions to obtain a positive grade: min. 51% of possible points, including the preparation of diploma project</li> <li>• Negative grade could be improved based on the preparation and presentation of additional work.</li> </ul> |   |
| <b>Method of verifying required learning outcomes</b>   |                       |  |   |
| <b>Required courses and introductory requirements</b>   |                       |  |   |
| <b>A. Formal requirements</b>   |                       |  |   |
| none  |                       |  |   |

|   |  |
|---|--|
| <b>B. Prerequisites</b>   |  |
| Knowledge of basic issues in the field of chemistry and / or related scientific fields  |  |
| <b>Aims of education</b>  |  |
| <p>To gain competences of correct performing of research in the field of selected specialization and / or topic of the diploma</p> <p>Acquainting with the basic aspects of the construction and operating principle of the used research equipment</p> <p>To gain knowledge in the field of the basic computational methods in the field of selected specialization and / or topic of the diploma</p> <p>Acquiring the ability of critical interpretation of the obtained results.</p> <p>Developing the skills of correct preparation of the diploma project.</p> |  |
| <b>Course contents</b>  |  |
| The program contents are varied and adapted to the scope of the chosen specialization and/ or and / or topic of the diploma   |  |
| <b>Bibliography of literature</b>   |  |
| <p>A. Literature required to pass the course :</p> <p>A.1. Literature used during classes:</p> <p>Books and scientific articles are related to the selected speciality mode and / or to the topic of diploma project</p> <p>A.2. Literature for individual studies:</p> <p>Books and scientific articles are related to the selected speciality mode and / or to the topic of diploma project</p> <p>B. Extracurricular readings</p> <p>Books and scientific articles are related to the selected speciality mode and / or to the topic of diploma project</p>      |  |
| <b>The learning outcomes (for the field of study and specialization)</b>  | <b>Knowledge</b>   |
|   | <b>Skills</b>  |
|   | <b>Social competence</b>   |
|   | <p>identifies the level of his/her knowledge and skills and understands the need for further education</p> <p>correctly identifies and resolves dilemmas related to this profession</p> <p>shows creativity in independent acting, can work in a team performing different roles taking into account the priorities for achieving the intended aims</p> <p>shows responsibility for the safety of own and other work and the workplace, complies with the rules conducted in emergencies</p> |
| <b>Contact</b>  |  |
| jolanta.kumirska@ug.edu.pl  |  |