



Subject card

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| Subject name and code | , PG_00052088 | | | | | | |
| Field of study | Nanotechnology | | | | | | |
| Date of commencement of studies | October 2022 | Academic year of realisation of subject | | | 2024/2025 | | |
| Education level | first-cycle studies | Subject group | | | Optional subject group Subject group related to scientific research in the field of study | | |
| Mode of study | Full-time studies | Mode of delivery | | | at the university | | |
| Year of study | 3 | Language of instruction | | | Polish | | |
| Semester of study | 6 | ECTS credits | | | 4.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Institute of Nanotechnology and Materials Engineering -> Faculty of Applied Physics and Mathematics | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr hab. inż. Agnieszka Witkowska | | | | | |
| | Teachers | dr hab. inż. Agnieszka Witkowska dr inż. Marek Augustyniak | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 0.0 | 0.0 | 0.0 | 45.0 | 0.0 | 45 |
| | E-learning hours included: 0.0 | | | | | | |
| Learning activity and number of study hours | Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | | Self-study | SUM | |
| | Number of study hours | 45 | 5.0 | | 50.0 | 100 | |
| Subject objectives | The aim of the course is: 1. preparing students to complete an engineering diploma project, including: engineering and non-engineering aspects, proper and critical selection of source materials, literature review, planning and implementing the experimental or numerical-simulation part of an engineering project; 2. presenting students the diploma examination procedure and preparing them for an oral presentation of the results of the diploma project. | | | | | | |

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| Learning outcomes | Course outcome | Subject outcome | Method of verification |
| | K6_K05 | The student has the ability to prepare and orally present the results of their work and participate in discussions, in Polish, on the issues analyzed in the discussed diploma projects. He is able to constructively evaluate his own results and the results of others. | [SK4] Assessment of communication skills, including language correctness |
| | K6_U07 | After analyzing a simple research/technical problem (including the engineering project selected for implementation), the student is able to perform a preliminary economic analysis of planned experiments and activities aimed at solving the problem. | [SU3] Assessment of ability to use knowledge gained from the subject |
| | K6_U11 | The student has the ability to prepare the proper structure of a scientific work and write its introductory part, and is able to prepare a professional presentation template for an oral presentation (in Polish), presenting issues from the diploma project. | [SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment |
| | K6_U04 | After getting acquainted with the research problem, the student has the ability to plan an experiment and select the appropriate experimental tools, analyse research results and conduct a critical discussion. | [SU2] Assessment of ability to analyse information |
| Subject contents | <p>Part 1.</p> <ul style="list-style-type: none"> • Engineering project topic selection, work schedule development; • Diploma procedure; • Introduction to issues related to writing a diploma thesis general guidelines and principles for preparing scientific papers. <p>Part 2.</p> <ul style="list-style-type: none"> • Literature databases and other sources: tools for searching databases and creating a literature list, preliminary preparation of a literature review; • Effective and critical searching of Internet resources; • Selected tools supporting the preparation of a diploma thesis; • Artificial intelligence in text editing and information searching; • Development of examination issues. <p>Part 3.</p> <ul style="list-style-type: none"> • Diploma presentation: elements of the presentation, the way of presenting the content and scientific results; • Preparation of a presentation template; • Oral presentation training: presentation and discussion of the preliminary results of the diploma project. | | |
| Prerequisites and co-requisites | | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | P1. Consultation with supervisors, project schedule preparation; P2. Literature review; implementation of assigned mini-tasks; P3. Seminar preparation and presentation | 50.0% | 100.0% |
| Recommended reading | Basic literature | Hugh G. Gauch Jr., Scientific Methods in Brief, Cambridge University Press, 2012 | |
| | Supplementary literature | PN-ISO 690, 2012 "Information and documentation - Guidelines of bibliographic footnotes and references to information resources" Scientific literature and specialist reports related to the diploma project. | |

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| | eResources addresses | Adresy na platformie eNauczenie: Projekt dyplomowy inżynierski I - NT 2025 - Moodle ID: 44060 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=44060 |
| Example issues/ example questions/ tasks being completed | Preparation of detailed schedule for implementation of engineering project. Present your project/idea in the most attractive form for the "investor". Find the original source of requested information and determine if and what is fake news | |
| Work placement | Not applicable | |

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