GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

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|---|---|---|---|
| Subject name and code | Functional Materials II, PG_00039626 | | |
| Field of study | Materials Engineering, Materials Engineering | | |
| Date of commencement of studies | February 2024 | Academic year of realisation of subject | 2024/2025 |
| Education level | second-cycle studies | Subject group | Obligatory subject group in the field of study<br>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 | 1 | Language of instruction | Polish |
| Semester of study | 2 | ECTS credits | 3.0 |
| Learning profile | general academic profile | Assessment form | assessment |
| Conducting unit | Department Of Solid State Physics -> Faculty Of Applied Physics And Mathematics -> Wydziały Politechniki Gdańskiej | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | prof. dr hab. inż. Maria Gazda | |
| | Teachers | dr inż. Sebastian Wachowski<br>prof. dr hab. inż. Wojciech Sadowski<br>prof. dr hab. inż. Maria Gazda | |

Lesson types and methods of instruction

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 15.0 | 0.0 | 15.0 | 0.0 | 15.0 | 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 | 25.0 | 75 |

Subject objectives: New materials and technologies for energy conversion and date storage

Learning outcomes

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| K7_W03 | student has knowledge in physics chemistry and mathematics for solving problems in materials science | [SW1] Assessment of factual knowledge |
| [K7_K82] is equipped to participate actively in lectures, seminars and laboratory classes conducted in foreign language | is prepared for activities in English | [SK4] Assessment of communication skills, including language correctness |
| K7_W07 | student has knowledge about new trends in materials science | [SW2] Assessment of knowledge contained in presentation |
| K7_K01 | student understands necessity of permanent learning | [SK2] Assessment of progress of work |

Subject contents

Technologies and materials for photovoltaics

Technologies and materials for hydrogen - and other energy sources

Photonics

Technologies and materials for data storage

Prerequisites and co-requisites: no

| | | | |
|---|---|---|---|
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | seminar presenntation and presence | 51.0% | 20.0% |
| | lab assesment | 51.0% | 20.0% |
| | written test | 51.0% | 60.0% |
| Recommended reading | Basic literature | scientific papers | |
| | Supplementary literature | eny | |
| | eResources addresses | Adresy na platformie eNauczanie:<br>Materiały Funkcjonalne (2) - Moodle ID: 15185<br>https://enauczanie.pg.edu.pl/moodle/course/view.php?id=15185 | |
| Example issues/ example questions/ tasks being completed | antireflection materials<br><br>materials for hydrogen storage | | |
| Work placement | Not applicable | | |

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