



## Subject card

|                                                                |                                                                                                                                   |                                                          |                                         |                                     |                                                                                              |            |     |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------|------------|-----|
| Subject name and code                                          | Physics from Symmetry, PG_00069208                                                                                                |                                                          |                                         |                                     |                                                                                              |            |     |
| Field of study                                                 | Wyprowadzenie prawie całej fizyki z reguł symetrii                                                                                |                                                          |                                         |                                     |                                                                                              |            |     |
| Date of commencement of studies                                | October 2022                                                                                                                      |                                                          | Academic year of realisation of subject |                                     | 2025/2026                                                                                    |            |     |
| Education level                                                | first-cycle studies                                                                                                               |                                                          | Subject group                           |                                     | Optional subject group<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                                                  | 4                                                                                                                                 |                                                          | Language of instruction                 |                                     | Polish                                                                                       |            |     |
| Semester of study                                              | 7                                                                                                                                 |                                                          | ECTS credits                            |                                     | 1.0                                                                                          |            |     |
| Learning profile                                               | general academic profile                                                                                                          |                                                          | Assessment form                         |                                     | assessment                                                                                   |            |     |
| Conducting unit                                                | Institute of Physics and Applied Computer Science -> Faculty of Applied Physics and Mathematics -> Wydział Politechniki Gdańskiej |                                                          |                                         |                                     |                                                                                              |            |     |
| Name and surname of lecturer (lecturers)                       | Subject supervisor                                                                                                                |                                                          | dr hab. inż. arch. Jan Kozicki          |                                     |                                                                                              |            |     |
|                                                                | Teachers                                                                                                                          |                                                          | dr hab. inż. arch. Jan Kozicki          |                                     |                                                                                              |            |     |
| Lesson types                                                   | Lesson type                                                                                                                       | Lecture                                                  | Tutorial                                | Laboratory                          | Project                                                                                      | Seminar    | SUM |
|                                                                | Number of study hours                                                                                                             | 15.0                                                     | 0.0                                     | 0.0                                 | 0.0                                                                                          | 0.0        | 15  |
|                                                                | 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                                                                                                             | 15                                                       |                                         | 2.0                                 |                                                                                              | 8.0        | 25  |
| Subject objectives                                             | -                                                                                                                                 |                                                          |                                         |                                     |                                                                                              |            |     |
| Learning outcomes                                              | Course outcome                                                                                                                    |                                                          | Subject outcome                         |                                     | Method of verification                                                                       |            |     |
|                                                                | K6_W02                                                                                                                            |                                                          | -                                       |                                     | [SW1] Ocena wiedzy faktograficznej                                                           |            |     |
|                                                                | K6_K05                                                                                                                            |                                                          | -                                       |                                     | [SK1] Ocena umiejętności pracy w grupie                                                      |            |     |
|                                                                | K6_U10                                                                                                                            |                                                          | -                                       |                                     | [SU2] Ocena umiejętności analizy informacji                                                  |            |     |
|                                                                | K6_U07                                                                                                                            |                                                          | -                                       |                                     | [SU3] Ocena umiejętności wykorzystania wiedzy uzyskanej w ramach przedmiotu                  |            |     |
|                                                                | K6_U08                                                                                                                            |                                                          | -                                       |                                     | [SU1] Ocena realizacji zadania                                                               |            |     |
| Subject contents                                               | Course content – lecture<br>-                                                                                                     |                                                          |                                         |                                     |                                                                                              |            |     |
| Prerequisites and co-requisites                                | -                                                                                                                                 |                                                          |                                         |                                     |                                                                                              |            |     |
| Assessment methods and criteria                                | Subject passing criteria                                                                                                          |                                                          | Passing threshold                       |                                     | Percentage of the final grade                                                                |            |     |
|                                                                | -                                                                                                                                 |                                                          | 50.0%                                   |                                     | 100.0%                                                                                       |            |     |
| Recommended reading                                            | Basic literature                                                                                                                  |                                                          | -                                       |                                     |                                                                                              |            |     |
|                                                                | Supplementary literature                                                                                                          |                                                          | -                                       |                                     |                                                                                              |            |     |
|                                                                | eResources addresses                                                                                                              |                                                          |                                         |                                     |                                                                                              |            |     |
| Example issues/<br>example questions/<br>tasks being completed | -                                                                                                                                 |                                                          |                                         |                                     |                                                                                              |            |     |
| Practical activities within the subject                        | Not applicable                                                                                                                    |                                                          |                                         |                                     |                                                                                              |            |     |

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