



## Subject card

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| Subject name and code                       | Professional Practice, PG_00038162                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                          |                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                                                                       |            |     |
| Field of study                              | Electrical Engineering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          |                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                                                                       |            |     |
| 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                                                                                                                                                                                |            |     |
| 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                                                                                                                                                                                                                                                            |                                     | 6.0                                                                                                                                                                                                   |            |     |
| Learning profile                            | general academic profile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                          | Assessment form                                                                                                                                                                                                                                                         |                                     | assessment                                                                                                                                                                                            |            |     |
| Conducting unit                             | Katedra Elektrotechniki i Inżynierii Wysokich Napięć -> Faculty of Electrical and Control Engineering                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                          |                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                                                                       |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                          | dr inż. Daniel Kowalak                                                                                                                                                                                                                                                  |                                     |                                                                                                                                                                                                       |            |     |
|                                             | Teachers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                          |                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                                                                       |            |     |
| Lesson types and methods of instruction     | Lesson type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Lecture                                                  | Tutorial                                                                                                                                                                                                                                                                | Laboratory                          | Project                                                                                                                                                                                               | Seminar    | SUM |
|                                             | Number of study hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.0                                                      | 0.0                                                                                                                                                                                                                                                                     | 0.0                                 | 0.0                                                                                                                                                                                                   | 0.0        | 0   |
|                                             | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0                                                        |                                                                                                                                                                                                                                                                         | 0.0                                 |                                                                                                                                                                                                       | 160.0      | 160 |
| Subject objectives                          | The professional practices make possible extension captured knowledge about practical skills used in industrial conditions. The practices permit students to check captured theoretical knowledge in practical situations. The practices make possible to get to know the future employers of requirement and to adapt the competence and knowledge of student to technical problems of institution. The practices help in choice of further individual interests and the future directions of deepening of theoretical knowledge. |                                                          |                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                                                                       |            |     |
| Learning outcomes                           | Course outcome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                          | Subject outcome                                                                                                                                                                                                                                                         |                                     | Method of verification                                                                                                                                                                                |            |     |
|                                             | [K6_U81] is able to communicate appropriately in foreign language at B2 level of the Common European Framework of Reference for Languages (CEFR) in everyday life, in academic and professional environments                                                                                                                                                                                                                                                                                                                       |                                                          | The student is able to find his/her own place of professional practice, arranges the necessary legal formalities resulting from the study regulations, understands the consequences of not applying legal requirements.                                                 |                                     | [SU2] Assessment of ability to analyse information                                                                                                                                                    |            |     |
|                                             | K6_K01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          | The student is able to organize the training materials necessary to solve the engineering problems. He is aware of legal responsibility in case of using illegal sources.                                                                                               |                                     | [SK3] Assessment of ability to organize work<br>[SK1] Assessment of group work skills<br>[SK2] Assessment of progress of work<br>[SK5] Assessment of ability to solve problems that arise in practice |            |     |
|                                             | K6_W12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          | The student, on the basis of the knowledge gained during the course of the program of study, is familiar with the norms in the field of design and operational safety of electrical equipment. He actively transfers the acquired knowledge into practical application. |                                     | [SW1] Assessment of factual knowledge                                                                                                                                                                 |            |     |
|                                             | K6_U01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          | The student is able to effectively solve engineering problems on the basis of provided design requirements according to the applicable legal regulations.                                                                                                               |                                     | [SU4] Assessment of ability to use methods and tools<br>[SU2] Assessment of ability to analyse information                                                                                            |            |     |

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| Subject contents                                               | The practical training must include design, workshop and operational work in the field of electrical engineering.<br><br>I. General technical issues<br><br>1. Familiarizing oneself with the structure of the company and organization of work in the company.<br>2. Getting to know the technical processes carried out in the plant, their final products.<br>3. Getting to know the technological installations in the plant including the problems of power supply, control, reliability, diagnostics and environmental protection.<br><br>II. Maintenance and workshop works (only under the supervision of authorized people)<br><br>1. Auxiliary works in the operation, control, repair, installation and start-up of electrical or electric power devices.<br>2. Auxiliary work on periodic inspections and operational measurements of electrical and power installations.<br>3. Auxiliary work on the maintenance, repair or replacement of electrical apparatus and devices in the following installations: electronic, heating, pneumatic, hydraulic, etc.<br><br>III. Work project - design<br><br>1. Familiarise oneself with and understand the available technical documentation and operating manuals of subassemblies and devices of technological installations: electrical, power, electronic, etc.<br>2. Familiarise oneself with the computer systems, equipment and software used in the plant and their functions.<br>3. Participate in designing industrial electrical installations as well as in selecting electrical equipment in other installations. |                                                                                                          |                               |
| Prerequisites and co-requisites                                | Basic knowledge of electrical engineering and electronics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                          |                               |
| Assessment methods and criteria                                | Subject passing criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Passing threshold                                                                                        | Percentage of the final grade |
|                                                                | The signed report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 60.0%                                                                                                    | 100.0%                        |
| Recommended reading                                            | Basic literature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Industrial sectors of the monthly Drives and Controls <a href="http://www.nis.com.pl">www.nis.com.pl</a> |                               |
|                                                                | Supplementary literature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | None                                                                                                     |                               |
|                                                                | eResources addresses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Adresy na platformie eNauczanie:                                                                         |                               |
| Example issues/<br>example questions/<br>tasks being completed | 1. Describe the basic structure and organization of work at the factory.<br>2. Explain the structure of electrical power and control systems in a production plant.<br>3. Rules for safe performance of work in the plant under the supervision of authorized persons.<br>4. Describe the procedures for performing work on the repair and commissioning of electrical power devices.<br>5. Explain the principles of carrying out technical documentation and instructions for electrical power devices.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                          |                               |
| Work placement                                                 | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                          |                               |