#### card of course

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| Subject name | Seminar and preparation of the diploma thesis part 1 |

1. The placement of the subject in the study system

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| 1.1. Field of study | Computer science |
| 1.2. Form and path of study | Full-time/Part-time |
| 1.3. Level of education | First-cycle studies |
| 1.4. Study profile | Practical |

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| 1. 5. Specialty | - |
| 1.6. Subject Coordinator | Supervisors of diploma theses |

2. General characteristics of the subject

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| 2.1. Belonging to a subject group | Directional/Elective |
| 2.2. Number of ECTS | 6 |
| 2.3. Language of lectures | Polish |
| 2.4. Semesters in which the subject is taught | VI |
| 2.5.Criteria for selecting course participants | - |

1. Learning outcomes and course delivery
   1. Subject Objectives

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| No. | Subject Objectives |
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| C1 | To familiarize students with the specifics of a diploma thesis in the field of Computer Science.  Realization of the engineering diploma thesis topic in accordance with the stated goal and scope of work based on the collected literature. |
| C2 | Preparation of an engineering diploma thesis in accordance with the formal guidelines indicated by WSPA. |
| C3 | Preparing the graduate to present the results of his or her work and discuss them publicly. |
| C4 | Preliminary development of the practical part of the engineering work. |

* 1. Subject-specific learning outcomes, divided into knowledge , skills and competences , with reference to the directional learning outcomes

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| No. | Description of subject  learning outcomes | Reference to  directional effects  learning (symbols) | Method of implementation (mark "X") | | | |
| ST | | NST | |
| Classes at the University | Activities on  the platform | Classes at the University | Activities on  the platform |
| After passing the course, the student knows and understands **the knowledge** | | | | | | |
| W1 | the importance and methodology of conducting practical work and the possibilities of its application in the preparation of engineering work. | INF\_W01  INF\_W15  INF\_W16 | X |  | X |  |
| W2 | formal requirements for engineering work in the field of Computer Science, concepts and principles of intellectual property protection and copyright, and the need to manage intellectual property resources | X |  | X |  |
| W3 | ways of presenting research results and the consequences of these results for practical applications | X |  | X |  |
| W4 | Has knowledge in the field of computer science, thematically related to the diploma thesis being prepared |  | X |  | X |  |
| After passing the course, the student is **able** to: | | | | | | |
| U1 | access literature and sources of knowledge in the field of science and scientific disciplines relevant to the field of study of Computer Science and the topic of the thesis, integrate and use them, as well as acquire facts about Computer Science | INF\_U01 INF\_U02 INF\_U07 INF\_U08 INF\_U10  INF\_U11  INF\_U13 | X |  | X |  |
| U2 | Analyze and interpret phenomena and processes using appropriate tools and methods (e.g. analytical, simulation and experimental) | X |  | X |  |
| U3 | formulate design problems, as well as plan and control the implementation of projects, including the use of new technologies | X |  | X |  |
| U4 | properly implement the set goal of the engineering work in accordance with the prepared work plan. | X |  | X |  |
| After completing the course, the student is ready to take part in **social competences.** | | | | | | |
| K1 | constantly improving your professional qualifications and engaging in the learning and self-development process | INF\_K04  INF\_K05 | X |  | X |  |
| K2 | consistent implementation of specific personal and organizational goals with the awareness of responsibility for the decisions made | X |  | X |  |
| K3 | applying legal and ethical principles when preparing your own studies | X |  | X |  |

3.3. Forms of teaching and their number of hours - Full-time studies (ST), Part-time studies (NST)

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| Path | Lecture | Exercises | Design | Workshop | Laboratory | Seminar | Lecturer | Classes conducted using distance learning methods and techniques in the form of ………………. | Other | **ECTS points** |
| **ST** |  |  |  |  |  | 15 |  |  |  | 6 |
| **NST** |  |  |  |  |  | 15 |  |  |  | 6 |

3.4. Content of education (separately for each form of classes: (W, ĆW, PROJ, WAR, LAB, LEK, OTHER). It should be marked (X) how the given content will be implemented (classes at the university or classes on the e-learning platform conducted using distance learning methods and techniques)

TYPE OF CLASS: SEMINAR

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| --- | --- | --- | --- | --- | --- | --- |
| No. | Content of the course | Reference to subject-specific learning outcomes | Method of implementation (mark "X") | | | |
| ST | | NST | |
| **Classes at the University** | **Activities on  the platform** | **Classes at the University** | **Activities on  the platform** |
| 1. | Establishing rules of cooperation and communication. | W3, U6, K1 | X |  | X |  |
| 2. | Defining formal requirements for the preparation of a diploma (engineer's) thesis. | W1, W2, K3 | X |  | X |  |
| 3. | Discussion of ideas related to the theses on the forum, attempt to determine the target scope of the work, presentation of ideas. | W1, W4, U1, U3, K2 | X |  | X |  |
| 4. | Students present their progress on their diploma thesis to the group forum. | W3, W4, U1, U4, K1 | X |  | X |  |
| 5. | Summary of the first part of the seminar. | W1, U2, U4, K2 | X |  | X |  |

3.5. Methods of verifying learning outcomes (indication and description of methods of conducting classes and verification of achievement of learning outcomes and method of documentation)

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| Subject Effects | Teaching methods | Methods of verifying learning outcomes | Documentation methods |
| KNOWLEDGE | | | |
| W1-W4 | Presentation, review of works | Presentation of the results of your work - determining and accepting the topic of your engineering work, preparing a work plan and a preliminary description of the practical part of the work | Archiving on the PUW platform |
| SKILLS | | | |
| U1-U4 | Presentation, review of work, pointing out errors, developing a framework work plan | Presentation of the results of your work - determining and accepting the topic of your engineering work, preparing a work plan and a preliminary description of the practical part of the work | Archiving on the PUW platform |
| SOCIAL COMPETENCES | | | |
| K1-K3 | Joint discussion on the progress of work | Presentation of the results of your work - determining and accepting the topic of your engineering work, preparing a work plan and a preliminary description of the practical part of the work | Archiving on the PUW platform |

3.6. Assessment criteria for the achieved learning outcomes

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| Learning effect | For a grade of 3 or "pass."  the student knows and understands/is able to/is ready to | For a grade of 3.5, the student knows and understands/is able to/is ready to | For a grade of 4, the student knows and understands/is able to/is ready to | For a grade of 4.5, the student knows and understands/is able to/is ready to | For a grade of 5, the student knows and understands/is able to/is ready to |
| W | 51-60% of knowledge indicated in learning outcomes | 61-70% of knowledge indicated in learning outcomes | 71-80% of knowledge indicated in learning outcomes | 81-90% of knowledge indicated in learning outcomes | 91-100% of knowledge indicated in learning outcomes |
| U | 51-60% of skills indicated in learning outcomes | 61-70% of skills indicated in learning outcomes | 71-80% of skills indicated in learning outcomes | 81-90% of skills indicated in learning outcomes | 91-100% of skills indicated in learning outcomes |
| K | 51-60% of skills indicated in learning outcomes | 61-70% of skills indicated in learning outcomes | 71-80% of skills indicated in learning outcomes | 81-90% of skills indicated in learning outcomes | 91-100% of skills indicated in learning outcomes |

3.7. Literature

**Basic**

Literature appropriate to the topic of a given thesis.

**Supplementary**

Literature appropriate to the topic of a given thesis.

4. Student workload - ECTS points balance

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| **Types of student activity** | **Student Load** | |
| **ST** | **NST** |
| **Classes requiring direct contact between the student and the academic teacher at the university premises** | **15** | **15** |
| Classes included in the study plan | 15 | 15 |
| **Student's own work** | **135** | **135** |
| Ongoing preparation for classes, preparation of project work/presentations/etc. | 65 | 65 |
| Preparation for passing classes | 70 | 70 |
| **TOTAL STUDENT HOURLY LOAD** | **150** | **150** |
| **Number of ECTS points** | **6** | **6** |

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| Last change date | 30/09/2024 |
| The changes were introduced | INF Education Quality Team |
| The changes were approved | Arkadiusz Gwarda, M.A. |