#### card of course

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| Subject name | Seminar and preparation of the diploma thesis part 2 |

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 | VII |
| 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 | Continuing the implementation of the topic of the engineering diploma thesis, in accordance with the set goal and scope of the work, based on the collected literature. |
| C2 | Preparation of an engineering diploma thesis in accordance with the formal guidelines provided on the WSPA website – continuation. |
| C3 | Preparing students of Computer Science for the diploma examination. |

* 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 student has knowledge of the formal requirements related to the preparation of an engineering diploma thesis in the field of Computer Science. | INF\_W 01  INF\_W15 | X |  | X |  |
| W2 | The student has extended knowledge of Computer Science in the area indicated by the topic of the engineering thesis. | X |  | X |  |
| After passing the course, the student is **able** to: | | | | | | |
| U1 | The student is able to properly implement and argue the stated goal of the engineering thesis in accordance with the prepared work plan and formal requirements for an engineering thesis in the field of Computer Science. | INF\_U01 INF\_U02 INF\_U03 INF\_U07 INF\_U08 INF\_U09  INF\_U10  INF\_U11  INF\_U13  INF\_U22  INF\_U31 | X |  | X |  |
| U2 | The student is able to properly use literature and other appropriately selected sources to prepare an engineering diploma thesis. | X |  | X |  |
| U3 | prepare a multimedia presentation related to the implementation of an engineering diploma thesis and communicate on specialist topics in the field of computer science | X |  | X |  |
| U4 | The student is able to analyze and evaluate processes at various scales using appropriate analytical, simulation and experimental tools and methods. | X |  | X |  |
| After completing the course, the student is ready to take part in **social competences.** | | | | | | |
| K1 | The student has the ability to self-present in a group forum. | INF\_K03 | X |  | X |  |
| K2 | Is ready to independently and creatively use his/her knowledge and skills in developing a solution to a specific problem | X |  | X |  |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 the work flow. | W1, U1 | X |  | X |  |
| 2. | Discussion of ideas and continuous development of the practical part of engineering work. | W2, U1, U4, K2 | X |  | X |  |
| 3. | Presentation and joint discussion of the written part of the work. | W1, U2, K1, K2 | X |  | X |  |
| 4. | Presentation of the final results of the diploma thesis by students in the group forum, | W2, U3, K1, K2 | X |  | X |  |
| 5. | Preparation for the diploma exam and passing the subject | W1, U3, K1 | X |  | X |  |
| 6. | Summary of classes. |  | 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 | Reviewing work, presenting progress, developing exam questions | Submission of completed engineering work | WSPA Archives |
| SKILLS | | | |
| U1-U4 | Reviewing work, presenting progress, developing exam questions | Submission of completed engineering work | WSPA Archives |
| SOCIAL COMPETENCES | | | |
| K1-K2 | Reviewing work, presenting progress, developing exam questions | Submission of completed engineering work | WSPA Archives |

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. | 75 | 75 |
| Preparation for passing classes | 60 | 60 |
| **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. |