#### card of course

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| Subject name | **Professional practice 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 | **Mgr Arkadiusz Gwarda** |

**2. General characteristics of the subject**

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| 2.1. Belonging to a subject group | **practical** |
| 2.2. Number of ECTS | **30** |
| 2.3. Language of lectures | **English** |
| 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** |
|
| C1 | Improving skills acquired during studies - Students will have the opportunity to apply and improve theoretical and practical knowledge acquired during their studies by working on real IT projects. |
| C2 | Developing professional problem-solving skills - Students will learn to diagnose, recognize and solve professional problems that they may encounter on a daily basis in their work as IT specialists, as well as to prioritize tasks. |
| C3 | Shaping responsibility for the work performed and decisions made - Students will be responsible for the implementation of the tasks assigned to them, which will influence the development of their independence, professional responsibility and making conscious and ethical decisions. |
| C4 | Development of social and personal competences - Students will develop characteristics such as responsibility, ethical behavior and communication skills, which are crucial in working in the IT industry. |
| C5 | Independent implementation of IT projects - Students will undertake independent implementation of more advanced tasks and projects, which will allow them to improve their technical competences and time management. |
| C6 | Preparation for the role of a professional IT specialist - Students will have the opportunity to prepare for their future professional role by gaining the knowledge and experience needed to function as a professional IT specialist in a variety of work environments. |

* 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)** |
|
| After passing the course, the student knows and understands **the knowledge** | | |
| W1 | The student knows the detailed regulations and rules governing the functioning of advanced IT systems in the enterprise/institution where he/she completes his/her internship. | INF\_W01  INF\_W03  INF\_W04  INF\_W05  INF\_W07  INF\_W08  INF\_W13  INF\_W14  INF\_W15  INF\_W22 |
| W2 | The student has knowledge of advanced life cycle processes of computer devices and systems and their implementation and maintenance. |
| W3 | The student knows detailed principles of data security and practical methods of protecting data against unauthorized access, including threats related to their storage and transmission. |
| W4 | The student has knowledge of the design and implementation of complex IT systems used in an enterprise/institution. |
| W5 | The student has knowledge of advanced database management and practical design of database structures in accordance with the needs of the enterprise/institution. |
| After passing the course, the student is **able** to: | | |
| U1 | The student is able to assess the suitability of advanced enterprise resources for implementing complex IT tasks and select appropriate tools and technologies. | INF\_U02  INF\_U07  INF\_U08  INF\_U09  INF\_U10  INF\_U12  INF\_U13  INF\_U21  INF\_U31 |
| U2 | The student is able to solve complex IT problems occurring in the enterprise, applying advanced theoretical and practical knowledge. |
| U3 | The student is able to plan and implement IT projects both individually and in a team, effectively managing time and resources, as well as developing a work schedule. |
| U4 | The student is able to identify and solve problems related to data protection and computer system security, proposing adequate solutions. |
| U5 | The student is able to cooperate and communicate effectively in a team, taking on various roles, and cooperate with contractors, clients and stakeholders. |
| U6 | The student is able to design and implement elements of IT systems, optimizing their performance and security, in accordance with industry requirements and standards. |
| After completing the course, the student is ready to take part in **social competences.** | | |
| K1 | The student demonstrates advanced activity and responsibility in the implementation of complex individual and team tasks, cares about the quality of the work performed. | INF\_K01  INF\_K02  INF\_K03  INF\_K05 |
| K2 | The student critically evaluates the results of his/her work, is open to constructive comments and ready to improve his/her skills. |
| K3 | The student understands non-technical aspects of IT activities, including the social and ethical consequences of professional decisions, and is ready to make responsible and ethical decisions. |
| K4 | The student is able to plan his/her professional development, using experience gained during the internship, and is aware of the need for continuous self-education and improvement of qualifications. |
| K5 | The student is aware of the importance of social responsibility, undertakes actions in accordance with the principles of professional ethics and follows good practices in the field of privacy and personal data protection. |

**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: Internships** | **ECTS points** |
| **ST** |  |  |  |  |  |  |  |  | 720 | 30 |
| **NST** |  |  |  |  |  |  |  |  | 720 | 30 |

**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 CLASSES: INTERNSHIP**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Content of the course** | **Reference to subject-specific learning outcomes** | **Method of implementation (mark "X")** | |
| **ST** | **NST** |
| Internship at the premises of the institution accepting the internship | |
| **1.** | **Advanced aspects of occupational health and safety and data protection**  Refreshing and expanding knowledge in the field of occupational health and safety, especially in the context of data protection and security of IT systems. Discussing the risks associated with data processing and transfer and methods of preventing these risks. | **W1, W3, U4, K1, K5** |  |  |
| **2.** | **Advanced Organizational Structures and Company Processes**  Learn the detailed processes of managing, controlling, and planning work in an enterprise. Students analyze more complex organizational structures and understand advanced tasks and competencies of entities within different departments. | **W2, W4, U3, K3** |  |  |
| **3.** | **Advanced Information Systems and Their Implementation**  Familiarization with advanced information systems and computer equipment used in the enterprise. Students learn to design, assemble, configure, and run advanced systems, including advanced operating systems, databases, and computer networks. | **W2, W4, W5, U1, U6** | **X** | **X** |
| **4.** | **Design and Implementation of Computer Networks**  Participation in the design and implementation of more advanced elements of a computer network, including ensuring an appropriate level of network security and performance. Students may participate in tasks related to network modernization and optimization. | **W4, U1, U6, K1** |  |  |
| **5.** | **Active participation in IT projects**  Engagement in advanced projects related to creating, testing, documenting and implementing software. Students work in teams, performing tasks at various stages of the IT project life cycle, from requirements analysis to system implementation. | **W4, U2, U3, U5, K2** |  |  |
| **6.** | **Testing and Optimization of Information Systems**  Familiarization with methods of testing and optimization of information systems that are designed or maintained in the enterprise. Students will learn methods of analyzing the performance of systems and techniques for introducing corrections and improvements. | **W2, U2, U6, K2** |  |  |
| **7.** | **Professional Ethics and Social Responsibility**  Discussion of professional ethics and social responsibility of IT professionals. Students discuss the importance of making ethical decisions, protecting data, and complying with laws and industry standards . | **K3, K4, K5** |  |  |

**3.5. Methods of verifying learning outcomes** (indicating and describing methods of conducting classes and verifying the achievement of learning outcomes, e.g. debate, case study, preparation and defense of a project, complex multimedia presentation, solving problem-solving tasks, situation simulations, study visit, simulation games + description of a given method):

Learning outcomes are verified on the basis of the internship journal and a written certificate of completion of the internship together with a written opinion from the internship supervisor.

**3.6. Assessment criteria for the achieved learning outcomes**

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| **Learning effect** | **On the " zal ."**  **the student knows and understands/is able to/is ready to** |
| W | 51-100% of knowledge indicated in learning outcomes |
| U | 51-100% of skills indicated in learning outcomes |
| K | 51-100% of skills indicated in learning outcomes |

**3.7. Literature**

- Consistent with the nature of the professional practice undertaken.

**4. Student workload - ECTS points balance**

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| **Types of student activity** | **Student Load** | |
| **ST** | **NST** |
| **PROFESSIONAL PRACTICE** | **720** | **720** |
| **STUDENT'S OWN WORK** | **30** | **30** |
| **TOTAL STUDENT HOURLY LOAD** | **750** | **750** |
| **Number of ECTS points** | **30** | **30** |

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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. |