COURSE DESCRIPTION CARD - SYLLABUS

Course name
Designing Management Information Systems [N2IZarz1-ZPP>PSIZ]

Course

Field of study
Engineering Management

Year/Semester
1/1

Area of study (specialization)
Managing Enterprise of the Future

Profile of study
general academic

Level of study
second-cycle

Course offered in
polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
10

Laboratory classes
0

Other (e.g. online)
0

Tutorials
0

Projects/seminars
12

Number of credit points

3,00

Coordinators

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Lecturers

Prerequisites

The student has knowledge of the foundations of management, organization and the basics of computer science. In addition, he can integrate knowledge acquired in other subjects as well as interact and work in a team.

Course objective

The aim of the course is to present the important role of information management and to provide students with knowledge in the design and modeling of information and decision making processes in an enterprise

Course-related learning outcomes

Knowledge:
The student accurately defines the essence and dynamics of management systems and explains the differences between data and information in the context of generating valuable information for the enterprise, using specific examples [P7S_WG_02].
The student delineates and identifies advanced methods and tools for modeling information and decision-making processes in organizations, taking into account standards and notations such as EPC and BPMN, and demonstrates their application in practice [P7S_WG_05].

The student characterizes the stages of development of management information systems (IS), describes their resource structure, functions in information processes, and evaluates the criteria for their implementation in the enterprise, showing specific examples and applications [P7S_WG_06].

Skills:
The student uses reengineering techniques to map processes and design effective management information systems, optimizing business processes [P7S_UW_02].
The student applies IS modeling and design tools such as ARIS Toolset and/or Adonis, adapting these skills to the specifics and needs of the enterprise [P7S_UW_03].
The student analyzes the requirements of information systems and critically evaluates their effectiveness and usefulness in achieving business objectives [P7S_UW_04].
The student analyzes and interprets the influence of social factors on the design of management information systems, and formulates and empirically tests hypotheses for optimizing these systems in different organizational contexts [P7S_UW_07].

Social competences:
The student develops the ability to work in interdisciplinary project teams, combining knowledge of management, computer science and business analysis to create innovative IS solutions [P7S_KK_01].
The student analyzes and presents use cases, demonstrating the ability to identify cause-and-effect relationships in information systems and their impact on achieving enterprise goals. The student also develops plans and strategies for the implementation and development of IS systems, taking into account the specific needs and business objectives of the enterprise [P7S_KK_02].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge acquired during the lecture is verified by a test carried out after the last lecture. The tests consist of 20 closed questions. Assessment threshold: 50% of the points (satisfactory).
Knowledge acquired under the project is verified on the basis of solving individual tasks covered by subsequent project stages. The student receives points for each task. Assessment threshold: 50% of the points (satisfactory).

Programme content

Lecture: Basic concepts (design, management, system). The essence of the management system. Management system in static and dynamic terms. Reengineering. Data and information (information, its functions and important features). The concept and structure of MIS (resource structure, functions of MIS implemented in information processes, goals of implementing MIS in the enterprise, requirements and stages of creating MIS). MIS a IT system (information gap). IT systems supporting SI. Modeling of information and decision-making processes in an enterprise (the essence and scope of modeling). Standards (notations) and modeling tools. Designing management information systems (ARIS Toolset and / or Adonis) in EPC and / or BPMN notation.
Design: Designing and modeling management information systems using the ARIS Toolset and / or Adonis.

Teaching methods

Information lecture in the form of a multimedia presentation, with elements of a conversational lecture.
Project: problem and activating methods: solving case study using the ARIS Toolset and / or Adonis.

Bibliography

Basic:
1. Spałek S. (2020). Systemy informacyjne i zarządzanie wiedzą: wybrane zagadnienia, CeDeWu, Warszawa
2. Jelonek D. (2018). Systemy informacyjne zarządzania przedsiębiorstwem : perspektywy strategii i tworzenia wartości, Polskie Wydawnictwo Ekonomiczne
3. Adamczyk M., Jurga A., Kałkowska J, Pawłowski E., Włodarkiewicz-Klimek H. (2010). Projektowanie systemów informacyjnych zarządzania, Wydawnictwo Politechniki Poznańskiej, Poznań,
4. Grudzewski W.M., Metody projektowania systemów zarządzania, Difin, Warszawa 2004
5. Klonowski Z., Systemy informatyczne zarządzania przedsiębiorstwem, Modele rozwoju i właściwości

funkcjonalne, Wydawnictwo Politechniki Wrocławskiej, Wrocław, 2004
6. Gabryelczyk R., ARIS w modelowaniu procesów biznesu, Difin, Warszawa, 2006

Additional:
1. Jurga A., ARIS platform jako narzędzie modelowania procesów biznesowych. Notacja EPC a BPMN, Zeszyty Naukowe nr 702. Ekonomiczne problemy usług nr 87. Gospodarka elektroniczna. Wyzwania rozwojowe. Tom 1, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2012
2. Jurga A., Wybrane aspekty modelowania procesów biznesowych, Zeszyty Naukowe nr 762. Ekonomiczne Problemy Usług nr 104. Europejska przestrzeń komunikacji elektronicznej. T. 1, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2013, 207-217
3. Drejewicz Sz., Zrozumieć BPMN. Modelowanie procesów biznesowych, Wyd. Helion, Gliwice 2012
4. Jurga A., Technologia teleinformatyczna w organizacji wirtualnej, Wydawnictwo Politechniki Poznańskiej, Poznań 2010

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	25	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	50	2,00