



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Computer Science

Course

Field of study

Logistics

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

1/1

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

15

Tutorials

Laboratory classes

15

Projects/seminars

Other (e.g. online)

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

dr inż. Aleksander Jurga

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Wydział Inżynierii Zarządzania

ul. Jacka Rychlewskiego 2, 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

1. Knowledge: Basic knowledge of secondary school in the field of computer science and science.
2. Skills: Basic computer skills and office packages.



3. Social competencies: Able to work in computer laboratory group.

Course objective

Students should be proficient in using a spreadsheet in the field of engineering calculations, including selected optimization issues. They need to master the complex formatting of documents in a word processor. They should be able to create technical or scientific websites. They should understand the idea of separating the definition of the logical structure of content from determining their appearance. Understand the structure of an HTML document.

Course-related learning outcomes

Knowledge

1. They should be able to describe the means of defining the logical structure of a document in an office editor, in HTML and XML documents. [P6S_WK_07]
2. They should understand and properly use the terminology related to the construction and use of websites. [P6S_WK_07]
3. Knows the methods of data representation used in programming planning and optimization issues important for logistics. [P6S_WG_04]
4. Is able to indicate fields of computer science especially important for applications in logistics and operational research. [P6S_WG_04]
5. Knows the basic management issues specific to logistics and supply chain management. [P6S_WG_08]
6. Knows the basic relations between the technical and economic sphere characteristic of logistics and supply chain management. [P6S_WK_01]

Skills

1. They can make a website that is a technical or scientific report. [P6S_UO_02]
2. They can solve a wide range of tasks needed to process results from other subjects of their field of study in a spreadsheet. [P6S_UO_02]
3. Is able to apply appropriate information and communication techniques in the field of logistics and its specific issues, as well as supply chain management. [P6S_UW_03]
4. Is able to apply appropriate experimental and measuring techniques to solve the problem within the studied subject, including computer simulation in logistics and its specific issues, and supply chain management. [P6S_UW_03]
5. Is able to identify and formulate a design (engineering) task of a practical nature, characteristic for logistics. [P6S_UO_01]

Social competences

1. They understand the importance of caring for computer data security. They understand the importance of caring for computer data security. [P6S_KR_01]



2. They understand the risks to third-party interests of lack of imagination and diligence in the process of designing computer applications and documents. [P6S_KR_01]
3. Is aware of the recognition of the importance of knowledge in the field of logistics and supply chain management in solving cognitive and practical problems. [P6S_KK_02]
4. Is aware of initiating activities related to the formulation and transfer of information and cooperation in society in the field of logistics. [P6S_KO_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

- a) In the field of lectures: Scored written tests (closed questions) or on the eMoodle platform at the end of individual thematic blocks of lectures. Passing threshold min. 50 points. Each lecture ends with control questions as help to solve tests.
- b) In the field of laboratory classes: implementation of exercises, practical test on a komputer.

Summary:

- a) In the field of lectures: assessment based on the sum of accumulated test points.
- b) In the field of laboratory classes: average grade from obtained grades of conducted exercises and test results in this area.

Programme content

Lectures:

Basic concepts: Information technology ... and IT. Data and information (functions, features). Information society (pros, cons),... information gap. Information security (cryptography, methods, digital signature). Components and structure of a computer network (typologie). Internet (construction, types of services). Basic structure of a website (basic principles of its design). HTML and XML (fundamental differences and their comparative structure).

Laboratories:

Graphical user interface objects. Event-driven applications. Introduction to object-oriented programming with the help of tools for rapid application generation (Visual Studio).

Teaching methods

Information lecture: multimedia presentation, illustrated with examples on the board.

Work with a book.

Demonstration method.



Laboratory method: multimedia presentation illustrated with examples given on a blackboard and performance of tasks given by the teacher - practical exercises.

Bibliography

Basic

1. Jurga A., Sławińska M., Wybrane aspekty projektowania systemów informacyjnych wspomagających procesy logistyczne, [w:] Gospodarka Magazynowa i Logistyka, 2011.
2. Stallings W., Organizacja i architektura systemu komputerowego, WNT, Warszawa, 2000.
3. Harel D., Rzecz o istocie informatyki. Algorytmika, WNT, Warszawa, 2000.
4. Reichel W., Visual Basic dla studentów : podstawy programowania w Visual Basic 2010, Witkom (Salma Press), Warszawa 2011.
5. Jan Bielecki J., Visual Basic do Windows : programowanie zdarzeniowe, Wyd. PLJ, Warszawa 1991.

Additional

1. Samolej S. i inni, Wprowadzenie do informatyki : skrypt dla studentów kierunków nieinformatycznych na uczelniach technicznych. 1, Architektura komputerów, algorytmika, paradygmaty i języki programowania, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów, 2014.
2. Avery J., [tł. Garbacz B, Kaczmarek D.], 100 sposobów na Visual Studio, Helion, Gliwice, 2005.

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2
Classes requiring direct contact with the teacher	30	1
Student's own work (literature studies, preparation for laboratory classes / preparation for colloquium (lecture), implementation of exercises as part of laboratory classes.) ¹	20	1

¹ delete or add other activities as appropriate