COURSE DESCRIPTION CARD - SYLLABUS

Course name
Computer Programming 2

Course

Field of study
Engineering Management
Area of study (specialization)

Level of study
First-cycle studies
Form of study
full-time

Year/Semester
2/3
Profile of study
general academic
Course offered in
polish
Requirements
compulsory

Number of hours

Lecture
30
Laboratory classes
45
Other (e.g. online)

Tutorials
Projects/seminars

Number of credit points

5

Lecturers

Responsible for the course/lecturer:
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ul. J. Rychlewskiego 2, 60-965 Poznan

Responsible for the course/lecturer:

Prerequisites

Knowledge and skills acquired from the classes in the Programming subject 1. The ability to efficiently use a computer and the use of MS Office. Ability to work in a project team.

Course objective

The aim of the course is to provide students with knowledge of database design used in information management systems.

Course-related learning outcomes

Knowledge

Knows methods and tools for data collection, processing and selection and distribution of information in the context of programming (P6S_WG_08)
Has basic knowledge of software life cycle (P6S_WG_15)
Knows the basic methods, techniques, tools and materials used to solve simple engineering tasks in the field of programming (P6S_WG_16)
Has basic knowledge necessary to understand the non-technical conditions of engineering activities; knows the basic principles of health and safety at work in programming (P6S_WG_18)

Skills

Is able to plan and carry out programming experiments, including computer measurements and simulations, interpret obtained results and draw conclusions (P6S_UW_09)
Is able to bear responsibility for own work and jointly implemented tasks and is ready to comply with the rules of work in the programming team (P6S_UO_01)

Social competences

Is able to see cause-and-effect relationships in achieving the set goals and rank the importance of alternative or competitive tasks in the context of programming (P6S_KK_02)

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The lecture grade is based on the percentage of the colloquium. Questions and tasks checking understanding of the issues. Passing threshold - 50%.
The grade from the laboratory is given as an average of the grades of individual tasks performed during classes. The assessment takes into account the correctness and completeness of the results obtained.

Programme content

Computer science tasks in management. Information system structure in management. Database systems, types of databases. Relational database management system. BD Systems Architecture. Distributed systems. Basics of programming in VBA.
Graphical user interface objects. Introduction to object-oriented programming, introduction to databases, creating a database structure in a selected environment. Basics of data management.

Teaching methods

Lectures: informative lecture, problem lecture, seminar lecture, case method.
Laboratories: laboratory (experiment) method, workshop method.

Bibliography

Basic

Jurga A., Rozwój systemów informatycznych. [w]: Adamczyk M. i inni, Projektowanie systemów informacyjnych zarządzania, Wyd. Politechniki Poznańskiej, Poznań, 2010.

Connoly T., Begg C., Systemy baz danych, praktyczne metody projektowania, implementacji i zarządzania, Wydawnictwo RM, 2006

Kopertowska M., Sikorski W., Bazy danych. Poziom zaawansowany, PWN, Warszawa, 2006

Reichel W., Visual Basic dla studentów: podstawy programowania w Visual Basic 2010, Witkom (Salma Press), Warszawa 2011.

Mendrala D., Szeliga M., Access 2013 PL: bazy danych? Z programem MS Access to nic trudnego!, Wydawnictwo, Helion, Gliwice 2013.

Additional

Bałachowski L., Krzysztof Stencel K., Systemy zarządzania bazami danych, Wyd. Polsko-Japońskiej Wyższej Szkoły Technik Komputerowych, Warszawa, 2007

Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,0
Classes requiring direct contact with the teacher	75	3,0
Student's own work (literature studies, preparation for laboratory classes, preparation for tests) [1]	50	2,0

1 delete or add other activities as appropriate