FACULTY OF MANAGEMENT

SUBJECT CARD
Name of subject in Polish Usługi chmurowe dla biznesu
Name of subject in English Cloud computing services for business
Main field of study (if applicable): Business Engineering
Specialization (if applicable): Project Management
Profile: academic
Level and form of studies: 2nd level, full-time
Kind of subject: obligatory
Subject code IZZ2014
Group of courses YES

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)			**15**		**15**
Number of hours of total student workload (CNPS)			**60**		**60**
Form of crediting					**crediting with grade**
For group of courses mark (X) final course					**X**
Number of ECTS points					**4**
including number of ECTS points for practical classes (P)					**4**
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					**2,1**

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES
1. Basic understanding of multi-tier architecture and Internet applications.

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SUBJECT OBJECTIVES
C1 Acquire knowledge of the capabilities and applications of modern cloud technologies in management, supporting the functioning of organizations and in the work of the engineer-manager.
C2 Acquire skills in selecting and configuring cloud services, with a focus on big data and business intelligence applications.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:
PEU_W01 Has knowledge of the operation and functionality of cloud technologies and
         services.
PEU_W02 Has knowledge of the applications of cloud services in management, supporting the
         operations of organizations and in the work of engineers/managers.
relating to skills:

PEU_U01 Can acquire the information necessary to identify modern cloud technologies and services, can compare offerings in the vendor market and match them to the organization's needs.
PEU_U02 Can identify features, advantages, disadvantages and applications of existing cloud technologies and can critically evaluate them.
PEU_U03 Can implement selected solutions to support the operations of organizations and the work of engineers/managers, especially in the areas of big data and business intelligence.

PROGRAMME CONTENT

Laboratory	Number of hours
Lab 1 Discussing the safety rules, class regulations and scoring/grading policy.	1
Lab 2 Task 1A: creating user accounts, identifying applications, installing and testing a CMS application.	2
Lab 3 Task 1A: presentation, grading, and discussion of results. Task 1B: identifying features of the cloud service.	2
Lab 4 Task 2A: installing a designated web application, data entry, testing.	2
Lab 5 Task 2A: presentation, grading, and discussion of results. Task 2B: identifying and testing other cloud applications of the same type.	2
Lab 6 Task 3A: individual or team project on designated cloud services.	2
Lab 7 Task 3A: presentation, grading, and discussion of results. Task 3B: identifying and testing other cloud services of the same type.	2
Lab 8 Extra task and crediting.	2
Total hours	15

Seminar	Number of hours
Sem 1 Introduction to the seminar. Discussing the class rules and the scoring/grading policy. Allocation of topics to be presented.	1
Sem 2 Types of clouds and models of cloud services. The benefits of cloud computing.	2
Sem 3 Basic file storage and synchronization services.	2
Sem 4 Cloud solutions offered by leading global providers such as Microsoft, Amazon, Google, IBM, Oracle.	2
Sem 5 Cloud solutions offered by Polish and EU companies, such as Octawave, Beyond.	2
Sem 6 Applications of the cloud in various areas of business activity.	2
Sem 7 Component selection and migration to the cloud. Reliability, security and legal aspects.	2
Sem 8 Challenges of the future and directions of cloud services development. Summary of the topics discussed throughout the semester.	2
Total hours	15

TEACHING TOOLS USED
N1. Resources published in the university ePortal course website. N2. Lab assignment lists and seminar topics. N3. Google, Microsoft, Amazon and Oracle cloud web services. N4. Scientific elaboration of topics based on literature analysis. N5. Presentation of issues at the seminar - slideshow or software, and discussion. N6. Group discussion.

EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02	Evaluation of the content and presentation of the seminar essay and participation in the discussion.
F2	PEU_U01, PEU_U02, PEU_U03	Evaluation of the lab assignments and reports.
P = 0,5*F1 + 0,5*F2. Passing scores of both F1 and F2 required.		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

[1]   Aktualne artykuły, odnośniki i instrukcje na stronie kursu w ePortalu.
[2]   Toroman M., Chmura Azure, Helion 2020.
[3]   Chatterjee S., Google Cloud Certified Professional Cloud Architect. Wprowadzenie do platformy, Helion 2020.
[4]   Wilkins M., Amazon Web Services. Podstawy korzystania z chmury AWS. Helion 2020.

SECONDARY LITERATURE:

[1]   Hunter T., Building Google Cloud Platform Solutions: Develop scalable applications from scratch and make them globally available in almost any language, Packt Publishing, 2019.
[2]   Toroman M., Azure Networking Cookbook: Practical recipes for secure network infrastructure, global application delivery, and accessible connectivity in Azure, Packt Publishing, 2021.
[3]   Wittig A., Wittig M., Amazon Web Services w akcji. Wydanie II. Helion 2020.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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