

COURSE GUIDE

<u>Subject name</u>	Technical application of databases
<u>Course of study</u>	Quality and Production Management
<u>The form of study</u>	Full-time
<u>Level of qualification</u>	First
<u>Year</u>	II
<u>Semester</u>	III
<u>The implementing entity</u>	Department of Management Information Systems
<u>The person responsible for preparing</u>	dr inż. Paweł Kobis
<u>Profile</u>	General Academic
<u>ECTS points</u>	4

TYPE OF TEACHING – NUMBER OF HOURS PER SEMESTER

LECTURE	CLASS	LABORATORY	PROJECT	SEMINAR
15E		30	-	-

COURSE AIMS

- C1. Presentation of database systems that are applied in websites and web applications.
- C2. Developing an ability of practical application of selected database types.

ENTRY REQUIREMENTS FOR KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student possesses basic knowledge in the scope of using a computer and operating system.
- 2. Student possesses an ability to use in practice knowledge acquired during lectures.

LEARNING OUTCOMES

- EU1. Student can create a virtual internet account to create websites.
- EU2. Student can work in the application environment for databases creation.
- EU3. Student can create simple web applications based on the database environment MySQL and PHP programming language.
- EU4. Student can use a MySQL database with the use of PHP language.

COURSE CONTENT

Type of teaching – LECTURE	Number of hours
W1. General terms concerning databases.	1
W2. Relational databases.	1
W3. MySQL database environment.	1
W4. Creating databases in the remote environment and basic language commands of MySQL.	1
W5. PHP language - basic information.	1
W6. PHP language - elements of programming and using a database.	1
W7. Integration of PHP language and MySQL database.	1
W8. Sample uses of PHP and MySQL.	1
W9,W10. Non-relational databases in dispersed systems.	2
W11,W12. Databases in so-called „officesystems”.	2
W13. Creating databases in cloudcomputing model.	1
W14. Types of databases used in CMS systems and production systems.	1
W15. Database systems in ERP class systems.	1
Type of teaching - LABORATORY	Number of hours
L1,L2. Classes introducing the problem domain, principles of carrying out laboratory classes and their evaluation, statute of the computer workshop.	2

L3. Setting up a hosting account and domain. Defining safe access passwords.	1
L4. Work in the PHP My Admin environment.	1
L5-L8. Creating simple scripts in PHP language.	4
L9-L14. Creating a coherent database environment with the use of MySQL - creating database, tables and records. Operations on the database with the use of SQL language.	6
L15-L18. Integration of PHP and MySQL - creating scripts cooperating with the MySQL database.	4
L19-L28. Creating a website on the basis of PHP and MySQL - an IT project - independent work.	10
L29,L30. Assessment of the website and granting credits.	2

TEACHING TOOLS

1. Scripts, electronic documentation of the application.
2. Computer equipment.
3. Internet applications, PHP programming environment, MySQL database system.

WAYS OF ASSESSMENT (F – FORMATIVE, P – SUMMATIVE)

- F1. Presentation of practical abilities of using PHP and MySQL.
P1. Assessment of the IT project.

STUDENT WORKLOAD

Form of activity		Average number of hours to complete the activity		
		[h]	ECTS	ECTS
Contact hours with the teacher	Lecture	15	0.6	1.32
Preparation to the exam		15	0.6	
Exam		3	0.12	
Contact hours with the teacher	Class	30	1.2	2.0
Preparing to laboratory		20	0.8	
Getting acquainted with the indicated literature		10	0.4	0.4
Consultation		7	0.28	0.28
TOTAL NUMBER OF HOURS / ECTS CREDITS FOR THE COURSE		100	4	

BASIC AND SUPPLEMENTARY RESOURCE MATERIALS

Basic resources

1. iCode Academy. PHP for Beginners: Your Guide to Easily Learn PHP Programming In 7 Days, 2017.
2. Nixon R. Learning PHP. MySQL&JavaScript. O'Reilly Media, Sebastopol 2015

Supplementary resources

1. Welling L., Thomson L. PHP and MySQL Web Development. Fifth Edition. Addison- Wesley 2017.
2. Marty M. PHP and MySQL Web Development: A Beginner's Guide. McGraw-Hill Education 2015.
3. Kobis P., Pypłacz P. Systemy zarządzania treścią - synergia technologii tworzenia wizerunku w sieci internet. [in:] L. Kiełtyka (eds.) Wykorzystanie wybranych technologii komunikacji w zarządzaniu wartością organizacji. Częstochowa, 2012, pp. 183-197.

TEACHERS (NAME, SURNAME, E-MAIL ADDRESS)

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MATRIX OF LEARNING OUTCOMES REALISATION

Learning outcome	Reference of given outcome to outcomes defined for whole program (PRK)	Course aims	Course content	Teaching tools	Ways of assessment
EU1	K_W08, K_U07, K_U8, K_K01	C1, C2	W1-W4, W9-W15, L3	1,2,3	F1, P1
EU2	K_W08, K_U07, K_K01	C2	W3, W4, L4, L9-L14	1,2,3	F1, P1
EU3	K_W08, K_U07, K_K01	C2	W3-W8, L3 - L28	1,2,3	F1, P1
EU4	K_W08, K_U07, K_K01	C2	W3-W8, L3 - L28	1,2,3	F1, P1

FORM OF ASSESSMENT - DETAILS

	grade 2	grade 3	grade 4	grade 5
EU1	Student cannot create a virtual internet account to create websites.	Student knows selected steps indispensable to create a virtual internet account to create websites.	Student can create a virtual internet account to create websites with a little help of the teacher.	Student can create a virtual internet account to create websites.
EU2	Student cannot operate the application environment for creating databases.	Student knows basic functions of the application environment for creating databases.	Student knows majority of the functions of the application environment for creating databases.	Student can operate the application environment for creating databases.
EU3	Student cannot create simple web applications on the website based on database MySQL environment and PHP programming language.	Student can create fragments of elementary web applications on the website based on database MySQL environment and PHP programming language.	Student can create elementary web applications on the website based on database MySQL environment and PHP programming language.	Student can create simple web applications on the website based on database MySQL environment and PHP programming language.
EU4	Student cannot use a MySQL database with the use of PHP language.	Student can use selected orders of a MySQL database with the use of PHP language.	Student can use most of orders of a MySQL database with the use of PHP language.	Student can use a MySQL database with the use of PHP language.

ADDITIONAL USEFUL INFORMATION ABOUT THE COURSE

1. Information where presentation of classes, instruction, subjects of seminars can be found, etc. - presented to students during first classes, if required by the formula classes are sent electronically to the e-mail addresses of individual dean groups.
2. Information about the place of classes - Information can be found on the website of the Faculty of Management.
3. Information about the timing of classes (day of the week / time) - Information can be found on the website of the Faculty of Management.
4. Information about the consultation (time + place) - Information can be found on the website of the Faculty of Management.