

Course description

Course abbreviation:	KIP/7VYDA	Page:	1 / 3
Course name:	Web and database applications in PHP		
Academic Year:	2019/2020	Printed:	22.08.2019 14:02

Department/Unit /	KIP / 7VYDA			Academic Year	2019/2020
Title	Web and database applications in PHP			Type of completion	Pre-Exam Credit
Long Title	Web and database applications in PHP				
Accredited/Credits	Yes, 4 Cred.			Type of completion	Combined
Number of hours	Lecture 1 [Hours/Week] Tutorial 2 [Hours/Week]				
Occ/max	Status A	Status B	Status C	Course credit prior to	NO
Summer semester	0 / -	0 / -	0 / -	Counted into average	NO
Winter semester	0 / 0	0 / -	0 / 5	Min. (B+C) students	not determined
Timetable	Yes			Repeated registration	NO
Language of instruction	Czech, English			Semester taught	Winter semester
Optional course	Yes			Internship duration	0
Evaluation scale	S N				
Hrs. in comb. stud.					
Auto acc. of credit	No				
Periodicity					
Substituted course	KIP/VYDAP				
Preclusive courses	N/A				
Prerequisite courses	N/A				
Informally recommended courses	N/A				
Courses depending on this Course	N/A				

Course objectives:

Beginning of course is aimed on introduction to HTTP protocol and forms in HTML. Further, the course is aimed to creation of web applications in PHP language with connection to MySQL database. Student should be able to create web applications in PHP independently. Students will get to know PHP frameworks in the end of semester.

Requirements on student

The subject pass is granted to student consistently with valid Study Regulations of University of Ostrava. Student will create one semester project. The topic of project is creation of web application in PHP language. Created application must cooperate with database and must include signing in of users. There must be two user views at least. Student can get maximum 50 points for created application. For presentation of application student can get maximum 30 points. Student can get 20 points for attendance on lectures. The subject pass is granted to student which gain 51 points overall.

Content

1. HTTP protocol and its features. Forms in HTML language, including HTML5.
2. Web server Apache and PHP language. Basic settings, modules of language. Introduction of PHP language, its history and use.
3. Work with variables and constants in PHP, processing of data from web forms, superglobal variables.
4. Basic statements in PHP language. Conditions and cycles in PHP. Work with text files in PHP - reading from file, writing to file. Work with directories.
5. Work with date and time - setting of date and time, formatting of date and time. Work with array.
6. Work with text strings, introduction with functions for string processing. Sessions in PHP.
7. Object oriented programming in PHP, class definition, creation of object, static variables and methods.
8. MySQL database, introduction with important features of this database. Connection of PHP and MySQL. Work with MySQL database.
9. Work with XML in PHP.
10. XSLT transformation in PHP, Xpath language, generation of HTML page from XML.
11. PHP frameworks

Fields of study

Guarantors and lecturers

- **Guarantors:** doc. Ing. František Huňka, CSc.
- **Lecturer:** doc. Ing. František Huňka, CSc., RNDr. Rostislav Miarka, Ph.D.
- **Tutorial lecturer:** RNDr. Rostislav Miarka, Ph.D.

Literature

- **Basic:** Ponkrác M. *PHP a MySQL bez předchozích znalostí Průvodce pro samouky*. Computer press, 2007. ISBN 978-80-251-1758-3.
- **Basic:** Welling L., Thomson L. *PHP and MySQL Web Development (5th Edition) (Developer's Library)*. USA, 2017. ISBN 978-0-321-83389-1.
- **Basic:** Kofler M., Öggel B. *PHP 5 a MySQL 5 Průvodce webového programátora*. Computer press, 2007. ISBN 978-80-251-1813-9.
- **Basic:** Miarka, R. *Webové a databázové aplikace v PHP*.
- **Extending:** Castro E. *HTML, XHTML a CSS Názorný průvodce tvorbou WWW stránek*. Computer Press, 2007. ISBN 978-80-251-1531-2.
- **Extending:** Croft J., Lloyd I., Rubin D. *Mistrovství v CSS Pokročilé techniky pro webové designéry a vývojáře*. Computer Press, 2007. ISBN 978-80-251-1705-7.
- **Extending:** Kofler M. *Mistrovství v MySQL 5 Kompletní průvodce webového vývojáře*. Computer Press, 2007. ISBN 978-80-251-1502-2.
- **Extending:** Welling L., Thomson L. *MySQL Průvodce základy databázového systému*. Computer Press, 2005. ISBN 80-251-0671-3.
- **Extending:** Holzner S. *XSLT Příručka internetového vývojáře*. Computer Press, 2002. ISBN 8072266004.
- **Recommended:** Welling L., Thomson L. *Mistrovství - PHP a MySQL*. Computer Press, ČR, 2017. ISBN 9788025148921.
- **Recommended:** Gutmans A., Bakken S. S., Rethans D. *Mistrovství v PHP 5*. Computer Press, 2007.
- **Recommended:** Nixon R. *PHP for the Web: Visual QuickStart Guide (5th Edition)*. San Francisco, USA, 2016. ISBN 978-0-134-29125-3.
- **Recommended:** Lacko L. *PHP 5 a MySQL 5..*. Computer Press, 2005. ISBN 978-80-251-1695-1.
- **Recommended:** Kolektiv autorů. *PHP5, MySQL, Apache Vytváříme webové aplikace*. Computer press, 2006. ISBN 80-251-1073-7.

Time requirements

All forms of study

Activities	Time requirements for activity [h]
Being present in classes	39
Consultation of work with the teacher/tutor (incl. electronic)	20
Defence (of works, projects, etc.)	1
Semestral work	40
Self-tutoring	20
Total:	120

assessment methods

Knowledge - knowledge achieved by taking this course are verified by the following means:

- Satisfactory completion of course, no grade
- Point system

prerequisite

Competences - students are expected to possess the following competences before the course commences to finish it successfully:

Knowledge of programming and algorithms - work with variables, conditions, cycles, creations of user-defined methods.

Knowledge of object oriented programming - class, object, instance, inheritance etc.

Knowledge of SQL language - statements for creation of database, statements for manipulation with data and querying (SELECT statement).

teaching methods

Knowledge - the following training methods are used to achieve the required knowledge:

Computer-based tutoring

E-learning (tutorial, electronic study materials)

Monologic (explanation, lecture, briefing)

learning outcomes

Knowledge - knowledge resulting from the course:

Knowledge of HTML forms, knowledge of HTTP protocol.

Knowledge of language PHP and its connection with selected database system.

Skills - skills resulting from the course:

Creation of HTML forms. Creation of web application in PHP language, which cooperates with selected database system.

Course is included in study programmes:

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Applied Information Science	Bachelor	Full-time	Softwarové systémy	1	2018	2019	Povinně volitelné předměty	B	2	ZS
Applied Information Science	Bachelor	Full-time	Information Science and Computer Technology - Applied Information Science	1	2017	2019	Povinně volitelné předměty	B	2	ZS

