

SYLLABUS OF A MODULE

Polish name of a module	Języki skryptowe w aplikacjach internetowych
English name of a module	Scripting languages in web applications
ISCED classification - Code	0613
ISCED classification - Field of study	<i>Software and applications development and analysis</i>
Languages of instruction	<i>English</i>
Level of qualification	<i>1 - BSc (EQF 6)</i>
Number of ECTS credit points	3
Examination	A
Available in semester	S – Spring only

Number of hours per semester:

Lecture	Tutorial	Laboratory	Seminar	Project	Others
15	0	30	0	0	0

MODULE DESCRIPTION

Module objectives

- O1. To familiarize students with programming web applications in scripting languages.
- O2. Students acquire practical skills in programming websites in scripting languages.

PRELIMINARY REQUIREMENTS FOR KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. pass a subject Creating web applications or Website programming or Internet technologies

LEARNING OUTCOMES

LO 1 – Student has knowledge about programming websites using scripting languages.

LO 2 – Student has ability to create highly scalable web applications and to use large volumes of data, including NoSQL type.

LO 3 – Student has competencies in the field of scripting highly scalable web applications.

MODULE CONTENT

Type of classes – lectures	Number of hours
W 1 - Introduction	2
W 2 - Introduction to NoSQL databases	2
W 3 - Creating NoSQL databases	2
W 4 - Querying and modifying data in NoSQL databases	2
W 5 - Creating simple web applications in PHP	2
W 6 - Object-oriented programming in PHP	2
W 7 - Access to data from the PHP language level	4
W 8 - The use of frameworks that facilitate the creation of applications in PHP	2

W 9 - Introduction to Node.js	4
W 10 - Creating simple web applications in Node.js	2
W 11 - Creating Node.js internet applications providing access to data	2
W 12 - Securing Node.js and PHP applications	2
W 13 - Machine Learning Libraries in Javascript	2
Type of classes– laboratories	Number of hours
L 1 - Introduction	2
L 2 - Introduction to NoSQL databases	2
L 3 - Creating NoSQL databases	2
L 4 - Querying and modifying data in NoSQL databases	2
L 5 - Creating simple web applications in PHP	2
L 6 - Object-oriented programming in PHP	2
L 7 - Access to data from the PHP language level	4
L 8 - The use of frameworks that facilitate the creation of applications in PHP	2
L 9 - Introduction to Node.js	4
L 10 - Creating simple web applications in Node.js	2
L 11 - Creating Node.js internet applications providing access to data	2
L 12 - Securing Node.js and PHP applications	2
L 13 - Machine Learning Libraries in Javascript	2

TEACHING TOOLS

1. – lecture using multimedia presentations
2. – laboratory exercises instructions

WAYS OF ASSESSMENT (F – FORMATIVE, S – SUMMATIVE

F1. – F1. - assessment of the ability to formulate conclusions during laboratory exercises based on previous lectures
F2. – assessment of activity during the lecture
S1. – assessment of mastery of the teaching material - passing the subject - final test

*) in order to receive a credit for the module, the student is obliged to attain a passing grade in all laboratory classes as well as in achievement tests.

STUDENT'S WORKLOAD

L.p.	Forms of activity	Average number of hours required for realization of activity
1. Contact hours with teacher		
1.1	Lectures	15
1.2	Tutorials	
1.3	Laboratory	30
1.4	Seminar	
1.5	Project	
1.6	Consulting teacher during their duty hours	
1.7	Examination	
Total number of contact hours with teacher:		45
2. Student's individual work		

2.1	Preparation for tutorials and tests	
2.2	Prreparation for laboratory exercises, writing reports on laboratories	24
2.3	Preparation of project	
2.4	Preparation for final lecture assessment	5
2.5	Preparation for examination	
2.6	Individual study of literature	1
Total numer of hours of student's individual work:		30
Overall student's workload:		75
Overall number of ECTS credits for the module		3
Number of ECTS points that student receives in classes requiring teacher's supervision:		1,8
Number of ECTS credits acquired during practical classes including laboratory exercises and projects :		2,2

BASIC AND SUPPLEMENTARY RESOURCE MATERIALS

S. Powers. Learning Node. Moving to the Server-Side. O'REILLY 2016
D. Howard. Node.js for PHP Developers. Porting PHP to Node.js. OJREILLY 2012
LJ. Mitchell. PHP Web Services. APIs for the Modern Web. O'REILLY 2016
D. Sklar. Learning PHP. A Gentle Introduction to the Web's Most Popular Language O'REILLY 2015
S. Francia. MongoDB and PHP. Document-Oriented Data for Web Developers. OJREILLY 2012

MODULE COORDINATOR (NAME, SURNAME, DEPARTMENT, E-MAIL ADDRESS)

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