#### **SYLLABUS OF A MODULE**

Polish name of a module	Programowanie stron internetowych
English name of a module	Programming of web pages
ISCED classification - Code	0613
ISCED classification - Field of study	Software and applications development and analysis
Languages of instruction	English
Level of qualification:	1 – BSc (EQF 6)
Number of ECTS credit points	5 ECTS
Examination:	A - assignment
Available in semester:	S – Spring only

# Number of hours per semester:

Lecture	Tutorials	Laboratory	Seminar	E-learning	Project
30	-	30	-	-	-

## **MODULE DESCRIPTION**

#### **MODULE OBJECTIVES**

- O1. Acquainting the student with basic methods of programming of web pages.
- O2. Obtaining by the students the practical skills in construction of web pages.

#### PRELIMINARY REQUIREMENTS FOR KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. The basic knowledge in high-level programming languages and techniques used in the Internet.
- 2. The skills of the practical use of the Internet.
- 3. The skills of using different sources of information including instructions and technical documentation.
- 4. The skills of working alone and in the group.

#### **LEARNING OUTCOMES**

- LO 1 The student knows and is able to use basic tools to create and test websites.
- LO 2 The student knows the basics of HTML and cascading style sheets, and is able to use them create a user interface running in a web browser.
- LO 3 The student knows the basics of JavaScript.
- LO 4 The student is familiar with the basics of Dynamic Object Model and is able to use it to create a dynamic user interface running in a web browser.

- LO 5 The student is able to use JavaScript libraries e.g. JQuery.
- LO 6 The student knows the mode of action of the asynchronous data transfer and is able to program it in the web browser.

## **MODULE CONTENT**

	Number
Type of classes – lecture	of
	hours
Lec 1 – Introduction to web programming.	2
Lec 2-3 – HTML.	4
Lec 4-5 – CSS .	4
Lec 6 – JavaScript.	2
Lec 7 – HTML DOM.	2
Lec 8 – Object oriented programming in JavaScript.	2
Lec 9 – jQuery.	2
Lec 10 – Asynchronous JavaScript.	2
Lec 11 – AJAX.	2
Lec 12 – Bootstrap.	2
Lec 13 – W3.CSS.	2
Lec 14-15 – Selected JavaScript frameworks.	4
Sum	30
Type of classes- laboratory.	
Lab 1 – Introduction to web programming.	2
<b>Lab 2-3</b> – HTML.	4
<b>Lab 4-5</b> – CSS .	4
Lab 6 – JavaScript.	2
Lab 7 – HTML DOM.	2
Lab 8 – Object oriented programming in JavaScript.	2
Lab 9 – jQuery.	2
Lab 10 – Asynchronous JavaScript.	2
<b>Lab 11</b> – AJAX.	2
Lab 12 – Bootstrap.	2
Lab 13 – W3.CSS.	2
Lab 14-15 – Selected JavaScript frameworks.	4
Sum	30

## **TEACHING TOOLS**

1 Lectures using multimedia presentations	
2 Laboratory on computer stations	
3 Laboratory guides	
4 Software for programming and testing websites	

## WAYS OF ASSESSMENT (F-FORMATIVE, S-SUMMATIVE)

- **F1.** assessment of preparation for laboratory exercises
- F2. assessment of the ability to apply the acquired knowledge while doing the exercises
- F3. evaluation of reports on the implementation of exercises covered by the curriculum
- F4. assessment of activity during classes
- **S1.** assessment of the ability to solve the problems posed and the manner of presentation obtained results pass mark \*
- **S2.** assessment of mastery of the teaching material being the subject of the lecture pass mark

#### STUDENT'S WORKLOAD

L.p.	Forms of activity	Average number of hours required for realization of activity					
1	1. Contact hours with teacher						
1.1	Lectures	30					
1.2	Tutorials	-					
1.3	Laboratory	30					
1.4	Seminar	-					
1.5	Project	-					
1.6	Examination	-					
	Total number of contact hours with teacher:	60					
2	. Student's individual work						
2.1	Preparation for tutorials and tests	15					
2.2	Preparation for laboratory exercises, writing reports on laboratories	15					
2.3	Preparation of project	-					
2.4	Preparation for final lecture assessment	15					
2.5	Preparation for examination	-					
2.6	Individual study of literature	20					
	Total number of hours of student's individual work:	65					
Overall student's workload:		125					
Overall number of ECTS credits for the module		5 ECTS					
Number of ECTS points that student receives in classes requiring teacher's supervision:		2,4 ECTS					
Number of <b>ECTS</b> credits acquired during practical classes including laboratory exercises and projects:		2,6 ECTS					

<sup>\*)</sup> 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.

#### **BASIC AND SUPPLEMENTARY RESOURCE MATERIALS**

- 1. J. Duckett, HTML and CSS: Design and Build Websites, John Wiley & Sons, 2011.
- 2. B. Frain, Responsive Web Design with HTML5 and CSS: Develop future-proof responsive websites using the latest HTML5 and CSS techniques, Packt Publishing, 2020.
- 3. J. Duckett, JavaScript and JQuery: Interactive Front-End Web Development, John Wiley & Sons, 2014.
- 4. J. Lett, Bootstrap Quick Start, BootstrapCreative, 2018.

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

dr hab. inż. Marcin Zalasiński, prof. PCz, marcin.zalasinski@pcz.pl