



MODULE DESCRIPTION

Module code	full-time studies:	Z-ZIP1-E-722
	part-time studies:	Z-ZIPN1-E-722
Module name	Internet Technologies	
Module name in Polish	Technologie internetowe	
Valid from academic year	2019/2020	

MODULE PLACEMENT IN THE SYLLABUS

Field of study	MANAGEMENT AND PRODUCTION ENGINEERING
Level of education	1st degree
Studies profile	General
Form and method of conducting classes	Full-time and Part-time
Specialisation	Computer Science for Management and Modelling
Unit conducting the module	Department of Computer Science Technologies
Module co-ordinator	Damian Krzesimowski, PhD Michał Pajęcki, PhD
Approved by:	

MODULE OVERVIEW

Type of subject / group of subjects	Specialist subject
Module status	Non-compulsory
Language of conducting classes	English
Module placement in the syllabus - semester	Semester VII
Initial requirements	Information Technologies Fundamentals of Computer Science
Examination (YES/NO)	NO
Number of ECTS credit points	2

Method of conducting classes		Lecture	Classes	Laboratory	Project	Other
Per semester	full-time studies:	15		15		
	part-time studies:	9		9		

TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS

Category	Symbol	Learning outcomes	Assignations to the directional learning outcomes
Knowledge	W01	A student has knowledge of the most important modern technologies and standards used in the Internet.	ZIP1_W04
	W02	The student has knowledge of creating static websites (HTML5, CSS3).	ZIP1_W04 ZIP1_W05
	W03	A student has knowledge of creating websites using the selected CMS content management system (eg Word-Press).	ZIP1_W04 ZIP1_W05
Skills	U01	A student is able to independently create a simple, static website in HTML5 and format its appearance using cascading CSS3 style sheets.	ZIP1_U02 ZIP1_U07
	U02	A student is able to independently create a professional website, e.g. to present data in the field of production engineering, using a selected CMS content management system and publish it on the Internet.	ZIP1_U02 ZIP1_U07
Social competences	K01	A student is ready to work independently and in a group.	ZIP1_K04
	K02	A student understands the need for continuous updating of knowledge in the field of Internet technologies.	ZIP1_K01
	K03	A student understands that the Internet and the services it provides play a very important role in the modern world, allowing, for example, the presentation of understandable information on the area of production engineering.	ZIP1_K02 ZIP1_K06

TEACHING CONTENTS

Method of conducting classes	Teaching contents
Lecture	<p>The history of the development of the Internet. The OSI layer model. TCP / IP protocol stack. IP addressing. Application protocols. WWW system. HTTP protocol. Technologies for creating internet applications. Page rendering. DOM tree. Methods of accessing electronic mail. Send and receive electronic messages. SGML standard. Framework structure of a web document. The essence of the use of cascading style sheets. Selectors. Cascading. XHTML and HTML5.</p> <p>The structure of the search terms on the Internet. Search Engine Marketing. The benefits of high website positioning. Parameters of indexing robots. Myths about website positioning. Tips for preparing a website to work with indexing robots. The concept of usability and ergonomics of websites. Elements of usability. Website availability. Website structure. Usability errors. Elements of ergonomic design. Typography.</p> <p>Basic concepts of computer networks. Digital data transmission units. Computer network topologies. Ethernet standard. Scheme of data transmission in Ethernet networks.</p>

Laboratory	<p>Basics of HTML5. Reminding and deepening the knowledge about selected elements (e.g. document structure, semantic elements, selected block and line tags, entities, embedding graphics, bulleted and numbered lists, links, tables, code validation, document tree) - implementation of tasks according to the scenario.</p> <p>Selected elements of CSS3 cascading style sheets (eg introduction, embedding styles in the document, CSS sheet syntax, boxed element formatting model, selectors, classes, identifiers, cascade principle, measurement units, colors, pseudo-classes) - implementation of tasks according to the scenario.</p> <p>Design of a static website (eg with a two-column layout) with the use of semantic tags - implementation of tasks according to the scenario. Detailed formatting of the look of a website with CSS3 cascading style sheets. Preparation of the concept of your own website.</p> <p>Designing your own static website using HTML5 and CSS3.</p> <p>Familiarization with the selected CMS content management system (eg WordPress).</p> <p>Development of a sample website - implementation of tasks according to the scenario.</p> <p>Development of a project of a practical website with the possibility of publishing it on the Internet - implementation of tasks according to the scenario and individual tasks.</p>
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METHODS OF ASSESSING TEACHING RESULTS

Symbol	Methods of checking the learning outcomes <i>(select X)</i>					
	Oral exam	Written exam	Test	Project	Statement	Other
W01			X	X		
W02			X	X		
W03			X	X		
U01				X		
U02				X		
K01				X		
K02				X		X
K03				X		X

FORM AND CONDITIONS OF PASSING

Form of classes	Form of credit	Passing conditions
Lecture	Credit with grade	Obtaining at least 50% of the points in the final test.
Laboratory	Credit with grade	Obtaining at least 50% points from website designs performed during practical classes.

STUDENT WORKLOAD

Balance of ECTS points												
No.	Type of student's activity	Student's workload										Unit
		full-time					part-time					
		Lc	C	Lb	P	O	Lc	C	Lb	P	O	
1.	Participation in the activities	15		15			9		9			h
2.	Other (consultation, exam)	2		2			2		2			h
3.	Number of hours of a student's as- sisted work	34					22					h
4.	Number of ECTS credit points which are allocated for assisted work	1,4					0,9					ECTS
5.	Number of hours of a student's un- assisted work	16					28					h
6.	Number of ECTS credit points which a student receives for unassisted work	0,6					1,1					ECTS
7.	Work input connected with practical classes	25					25					h
8.	Number of ECTS credit points which a student receives for practical classes	1,0					1,0					ECTS
9.	Total number of hours of a stu- dent's work	50					50					h
10.	Punkty ECTS za modul <i>1 ECTS=25 hours</i>	2										ECTS

LITERATURE

1. Frain B. (2022), *Responsive Web Design with HTML5 and CSS. Build future-proof responsive websites using the latest HTML5 and CSS techniques*, Fourth Edition, Packt Publishing Ltd, UK.
2. DuRocher D. (2021), *HTML and CSS QuickStart Guide*, ClydeBank Media LLC.
3. Felke-Morris T. (2021), *Basics of Web Design: HTML5 & CSS*, Pearson Education, Inc.
4. W3Schools. *HTML Tutorial* (Available online: <https://www.w3schools.com/html/>).