

UNIVERSITY OF ECONOMICS - VARNA
MASTER DEGREE CENTER
DEPARTMENT OF INFORMATICS

Adopted by the FC (record №8 / 05.03.2020)

Adopted by the DC (record №7 / 28.02.2020)

ACCEPTED BY:

Dean:

(Prof. Vladimir Sulov, PhD)

SYLLABUS

SUBJECT: "SERVER-SIDE WEB PROGRAMMING"

DEGREE PROGRAMME: „Computer Science”; MASTER'S DEGREE

YEAR OF STUDY: 5; SEMESTER: 9; (for same field graduates)

YEAR OF STUDY: 6; SEMESTER: 11; (for other fields graduates)

TOTAL STUDENT WORKLOAD: 240 hours; incl. curricular 75 hours

CREDITS: 8

DISTRIBUTION OF STUDENT WORKLOAD ACCORDING TO THE CURRICULUM

<i>TYPE OF STUDY HOURS</i>	WORKLOAD, hours	TEACHING HOURS PER WEEK, hours
CURRICULAR:		
incl.		
• LECTURES	30	2
• SEMINARS / LAB. EXERCISES	45	3
EXTRACURRICULAR	165	-

Prepared by:

1.
(Assoc. Prof. Pavel Petrov, PhD)

2.
(Assoc. Prof. Ivan Kuyumdzhev, PhD)

Head of department

of Informatics:
(Prof. Julian Vasilev, PhD)

I. ANNOTATION

During the course the students should receive theoretical and practical knowledge of basic concepts, standards and technologies necessary to create client-server web applications in the local and global networks. It focuses primarily on the server side of client-server web technology.

As a result of the training students are expected to understand the principles of creating web server applications and using open source software in a real network environment.

The course combines knowledge from programming, operating systems, databases, web design, computer networks and communications.

II. THEMATIC CONTENT

№	TITLE OF UNIT AND SUBTOPICS	NUMBER OF HOURS		
		L	S	L.E.
Theme 1. The concept of client-server		2	3	
1.1	Client, server.			
1.2	Data, network connection, protocol			
1.3	Features of the web server programming.			
Theme 2. Standards for communication protocols		2	3	
2.1	De-jure and de-facto standards. RFC.			
2.2	HyperText Transfer Protocol 1.0			
2.3	HTTP 1.1			
2.4	HTTP/2			
Theme 3. Webserver		4	6	
3.1	Configuration files.			
3.2	Log files.			
3.3	CGI scripts.			
Theme 4. Server applications with web interface		6	9	
4.1	PHP. Configuration.			
4.2	Super global arrays.			
4.3	Functions.			
4.4	Classes.			
Theme 5. Web apps working with DBMS		4	6	
5.1	MySQL			
5.2	Administration tasks.			
Theme 6. Working with templates in PHP.		4	6	
Theme 7. Technology AJAX. Library jQuery.		4	6	
Theme 8. Security of Web applications. Using Free software.		4	6	
Total:		30	45	

III. FORMS OF CONTROL:

№	TYPE AND FORM OF CONTROL	Number	extracurricular, hours
1.	Midterm control		
1.1.	Programming test	1	45
1.2.	Programming project related to the topics discussed in this course	1	45
	Total midterm control:		90
2.	Final term control		
2.1.	Test	1	75
	Total final term control:	1	75
	Total for all types of control:	3	165

IV. LITERATURE

REQUIRED (BASIC) LITERATURE:

1. Apache HTTP Server Version 2.4 Documentation, <<http://httpd.apache.org/docs/2.4/>>
2. jQuery API Documentation, <<https://api.jquery.com/>>
3. MySQL Reference Manual, <<https://dev.mysql.com/doc/refman/8.0/en/>>
4. PHP Manual, <<http://php.net/manual/en/>>

RECOMMENDED (ADDITIONAL) LITERATURE:

1. Robin Nixon, Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (4th Edition), O'Reilly, 2014.
2. Luke Welling, PHP and MySQL Web Development (5th Edition), 2016.
3. Josh Lockhart, Modern PHP: New Features and Good Practices, O'Reilly, 2015.
4. Doug Bierer, PHP 7 Programming Cookbook, 2016.