

**UNIVERSITY OF ECONOMICS - VARNA**  
**MASTER DEGREE STUDIES CENTER**  
**DEPARTMENT „INFORMATICS“**

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**ACCEPTED BY:**

**Rector:**

**(Prof. Dr. Plamen Iliev)**

**SYLLABUS**

**SUBJECT: “.NET WEB DEVELOPMENT”;**

**DEGREE PROGRAMME: “Computer Science”; MASTER`S DEGREE**

**YEAR OF STUDY: 5;**

**SEMESTER: 9 (same field graduates), 10 (other fields graduates);**

**TOTAL STUDENT WORKLOAD: 210 h.; incl. curricular 75 h.**

**CREDITS: 7**

**DISTRIBUTION OF WORKLOAD ACCORDING TO THE CURRICULUM**

<i>TYPE OF STUDY HOURS</i>	<b>WORKLOAD, h.</b>	<b>TEACHING HOURS PER WEEK, h</b>
<b>CURRICULAR:</b>		
incl.		
• LECTURES	30	2
• SEMINARS (lab. exercises)	45	3
<b>EXTRACURRICULAR</b>	135	-

Prepared by:

1. ....  
(Prof. Dr. Vladimir Sulov)

2. ....  
(Assit. Prof. Bonimir Penchev)

Head of department: .....  
“Informatics” (Prof. Dr. Vladimir Sulov)

## I. ANNOTATION

The course “.NET Web Development” covers Microsoft's .NET framework, designed for development and implementation of applications and more specially its basic concepts, architecture, components, libraries, languages and development environment. The course provides theoretical knowledge and practical skills for creating web applications with the help of the .NET framework and the C# language, including the usage of a variety of Web controls, models and access to databases.

The application of the acquired knowledge and skills is in the field of software development with the help of .NET framework for creating web applications, including the usage of various controls, architectural models for design and access to databases.

The course allows students to expand their basic knowledge of programming and to form new skills for integration of the software tools and database technologies when creating web applications.

## II. THEMATIC CONTENT

No.	TITLE OF UNIT AND SUBTOPICS	NUMBER OF HOURS		
		L	S	L.E.
<b>1.Introducing .NET technologies and the C# language</b>		<b>10</b>		<b>5</b>
1.1	Microsoft's .Net Framework	1		
1.2	Basic programming languages and development tools	1		
1.3	VisualStudiodevelopment environment	1		2
1.4	C# basic features	4		1
1.5	C# object-oriented features	2		1
1.6	Arrays and lists	1		1
<b>2. Web formsapplications development</b>		<b>8</b>		<b>22</b>
2.1	Basic web controls, events and interactions	4		12
2.2	Web Forms and session management	2		6
2.3	Web services	2		4
<b>3.Working with databases</b>		<b>6</b>		<b>9</b>
3.1	Basic concepts and supported technologies	4		1
3.2	Controls and functions for database access	2		8
<b>4. MVC web applications development</b>		<b>6</b>		<b>9</b>
4.1	Models	2		3
4.2	Controllors and actions	2		3
4.3	Views	2		3
<b>Total:</b>		<b>30</b>		<b>45</b>

### III. FORMS OF CONTROL:

No. by row	TYPE AND FORM OF CONTROL	№	extracurricular, h.
<b>1.</b>	<b>Midterm control</b>		
1.1.	Theory test	2	40
1.2.	Practice test	2	50
<b>Total midterm control:</b>		<b>4</b>	<b>90</b>
<b>2.</b>	<b>Final term control</b>		
2.1.	Theory test	1	20
2.2.	Practice test	1	25
<b>Total final term control:</b>		<b>2</b>	<b>45</b>
<b>Total for all types of control:</b>		<b>6</b>	<b>135</b>

### IV. LITERATURE

#### REQUIRED (BASIC) LITERATURE:

1. Penberthy, W. Beginning ASP.NET for Visual Studio 2015: Web Forms and MVC. Wrox, 2015.

#### RECOMMENDED (ADDITIONAL) LITERATURE:

1. Watson, K. et al. Beginning Visual C# 2010. Wrox, New Jersey, 2010.
2. Sharp, J. Microsoft® Visual C#® 2005 Step by Step. Microsoft Press, 2005.
3. Richter, J. Applied Microsoft® .NET Framework Programming. Microsoft Press, 2002.