

<b>Software Engineering Institute</b>			Semester 1. of the curriculum 2024-25-2			
Name of the subject:	Code of the subject:	Credits:	Weekly hours:			
				lec	sem	lab
<b>Full-stack development</b>	NSXFSSEBNF	5	full-time	2	0	2
Responsible person for the subject: Dr. habil Zoltán Imre Vámosy			Classification: associate professor			
Subject lecturer(s): Zsolt Krutilla						
Prerequisites:		NSXPP1EBNF NSXHSFEBNF	Advanced development techniques Advanced software development			
Way of the assessment:		Midterm-grade				
<b>Course description</b>						
Goal:	The aim of the course is to introduce students to the topics, methods, languages and tools related to full-stack development. Through these, they will learn about the path of web development, from its beginnings to the present day.					
Course description:	Students will learn the basics of developing layered applications and how to test each layer. They will also learn the basics of HTML and CSS, and learn to create static web pages. They will learn dedicated server-side and client-side methods and languages, as well as the relationship and communication methods between the two. They will process forms and generate formatted responses using ASP.NET framework. Learn the basics of session management, client and server side validations. They will develop API endpoints and develop client applications in Javascript.					

<b>Lecture schedule</b>	
Education week	Topic
1.	Lecture: Basics of web development Lab: -
2.	Lecture: Basics of HTML language Lab: Developing HTML webpages
3.	Lecture: Developing CSS 1 Lab: -
4.	Lecture: Developing CSS 2 Lab: Application of CSS with HTML
5.	Lecture: Javascript 1 Lab: -
6.	Lecture: Javascript 2 Lab: Basics of Javascript and its application in webpages
7.	Lecture: Javascript 3 Lab: -
8.	Lecture: PHP development Lab: Advanced Javascript webpages
9.	Lecture: ASP.NET MVC Lab: -
10.	Lecture: ASP.NET MVC case study Lab: Introducing the ASP.NET MVC development
11.	Lecture: REST API Lab: -
12.	Lecture: REST API and JavaScript client case study Lab: How we can use the front-end and the back-end layers
13.	Lecture: Midterm Lab: Presentation of midterm assignment
14.	Lecture: Substitution for the midterm Lab: Substitution for the presentation of midterm assignment

<b>Mid-term requirements</b>	
Conditions for obtaining a mid-term grade/signature	The semester assignment must be accepted and successfully defended/presented, and perform at least at the satisfactory level in the lecture midterm (min. 50%).
<b>Assessment schedule</b>	
Education week	Topic
13.	Midterm (lecture)
14.	Substitution for the midterm (lecture)
<b>Method used to calculate the <i>mid-term grade</i></b> (to be filled out only for subjects with mid-term grades)	
The final grade can be calculated once the semester assignment has been accepted by the teacher. If this has been done, the final grade is the average of the grade (based on the score achieved) from the lab exercises and the final grade for the lecture. In case of doubt, the quality of the mid-term assignment may be a factor.	
<b>Type of the replacement</b>	
Type of the replacement of written test/mid-term grade/signature	<p>If the student did not pass the final examination of the lecture to a satisfactory level or was unable to attend, he/she may attend the make-up examination. See above “Assessment schedule” section.</p> <p>If the student is unable to complete the term assignment by the deadline or fails to present/defend it, he/she may submit the make-up by the deadline, after which it must also be presented and defended.</p> <p>If the student has not been able to meet the requirements of the above (either by the due date or the make-up date) during the semester, he/she may correct these requirements in the mid-term examination announced during the examination period.</p>
<b>Type of the exam</b> (to be filled out only for subjects with exams)	
<b>Calculation of the exam mark</b> (to be filled only for subjects with exams)	
<b>Final grade calculation methods:</b>	
	<ul style="list-style-type: none"> <li>- Excellent: above 85%</li> <li>- Good: above 73%</li> <li>- Medium: above 62%</li> <li>- Sufficient: above 50%</li> <li>- Insufficient: below 50%</li> </ul>
<b>References</b>	
Obligatory:	- Moodle (E-learning) learning materials
Recommended:	<ul style="list-style-type: none"> <li>- David Flanagan: JavaScript: The Definitive Guide, O’Reilly Media, Inc, USA, 2020</li> <li>- W3 Schools lessons (HTML, CSS, JavaScript) <a href="https://www.w3schools.com/">https://www.w3schools.com/</a></li> <li>- Official Microsoft ASP.NET API <a href="https://dotnet.microsoft.com/en-us/apps/aspnet/apis">https://dotnet.microsoft.com/en-us/apps/aspnet/apis</a></li> </ul>
Other references:	