

Short Name of the University/Country code Date (Month / Year)	DSEA Sept 2020
TITLE OF THE MODULE	Code
Web-oriented medical systems	2.2.11

Teacher(s)	Department
Coordinating Valerii Anosov, Senior teacher Others:	Department of Computer and Information Technology (CIT)

Study cycle (BA/MA)	Level of the module (Semester number)	Type of the module (compulsary/elective)
BA	5 th semester	Elective

Form of delivery	Duration	Language (s)
Lectures, exercises	15 weeks	Ukrainian/English

Prerequisites	
Prerequisites: study of the disciplines "Algorithmization and programming, medical data processing", "Object-oriented programming", "Computer graphics"	Co-requisites (if necessary):

ECTS (Credits of the module)	Total student workload hours	Contact hours	Individual work hours
7,0	210	60	150

Aim of the module (course unit): competences foreseen by the study programs
Students should be able: <ul style="list-style-type: none"> - to develop and implement web-based systems for effective cooperation between medical services and Internet technologies with the help of modern web technologies of frameworks and WEB-services

Learning outcomes of the module (course unit)	Teaching/learning methods	Assessment methods
<p>Knowledge:</p> <ul style="list-style-type: none"> – familiarization with the principles, methods, algorithms of functioning of web medical service; – familiarization with the principles of creating interactive web applications; – familiarization with the principles of using frameworks and libraries for creating websites and web applications based on JavaScript and PHP programming languages 	<p>Working with lecture notes and basic literature on relevant topics</p>	<p>Test</p>
<ul style="list-style-type: none"> – Skills: – to design the appearance and form the basic functionality of web applications for medical purposes; – create and adapt interactive web-oriented medical systems; – use modern frameworks and libraries to create websites and web applications 	<p>Lectures, practical training, consultations</p>	<p>Active attendance of lectures, individual project and presentation</p>

Themes	Contact work hours							Time and tasks for individual work	
	Lectures	Consultations	Seminars	Practical work	Laboratory work	Placements	Total contact work	Individual work	Tasks
1 General overview of web-oriented medical systems. Layout web application pages using HTML 5	2			2			4	11	Study of theoretical material, design of practical work
2. Designing web application pages using the CSS 3 cascading style language	2			2			4	11	Study of theoretical material, design of practical work
3. Design of web-application pages of raster graphics elements with the help of Canvas	2			2			4	11	Study of theoretical material, design of practical work
4. Design of web-applications pages of vector graphics elements with the help of SVG	2			2			4	11	Study of theoretical material, design of practical work
5. Using the Bootstrap framework to design adaptive web application pages	4			2			6	14	Study of theoretical material, design of practical work
6. Use JavaScript scripting language to create interactive web application pages. Event handling and DOM object manipulation	4			4			8	12	Study of theoretical material, design of practical work
7. Creating a web project using Angular framework	3			4			7	18	Study of theoretical material, design of practical work
8. Creating interactive web-applications with the help of the Vue.js framework	3			4			7	18	Study of theoretical material, design of practical work
9. Creating a web-project using the Angular framework	4			4			8	17	Study of theoretical material, design of practical work
10. Basics of creating interactive web-applications using the PHP language. Basics of working with functions and processing of forms	4			4			8	27	Study of theoretical material, design of practical work
Total	30			30			60	150	

Assessment strategy	Weight in %	Deadlines	Assessment criteria
Presentation	60	during the semester	Participation, activity, presentation
Final test	40	15 th week	Open test questions

Author	Year of issue	Title	No of periodical or volume	Place of printing. Printing house or internet link
Compulsory literature				
Фрейн Б.	2014	HTML5 и CSS3. Разработка сайтов для любых браузеров и устройств		СПб.: Питер
Marijn Haverbeke	2018	Eloquent JavaScript. 3rd Edition		https://eloquentjavascript.net/Eloquent_JavaScript_small.pdf
Raymond Camden, Andy Matthews	2017	jQuery Mobile Web Development Essentials - Third Edition		Packt Publishing Ltd, ISBN-13: 978-1783555055
Anthony Gore	2017	Full-Stack Vue.js 2 and Laravel 5: Bring the frontend and backend together with Vue, Vuex, and Laravel		Packt Publishing Ltd. ISBN-13: 978-1788299589
Additional literature				
Фримен Э.	2015	Изучаем программирование на JavaScript		СПб.: Питер