

## DESCRIPTION OF THE STUDY SUBJECT

### Title

<b>COMPUTER SYSTEMS DEVELOPMENT PRACTICE</b>
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### Scope of the subject

Semester	Mode of study	Structure*		Total number of hours	Number of credits	Group and type of subjects
		PR	S			
V	Full-time	120	40	160	6	Compulsory practice of the study field in the enterprise
VII	Part-time	120	40	160	6	

\*L – lectures, PS – practical activities, seminars, LW – laboratory work, PR – practice, CP – course paper, C – consultations, S – self-study

### Aim of the subject

To provide abilities to analyze and describe the organizational structure of the enterprise, the type of activities, peculiarities of distribution of internal and external information flows, operated computer systems, to evaluate their effectiveness, to identify the need for modernisation of operated computer systems or designing new ones. To use various programming languages, programming styles, database management systems, organizational, software and technical measures of information security while designing, modernising and administrating computer systems of the enterprise.

### Necessary background knowledge for studying the subject

Students shall have heard the subjects of the study field.

### Content of the subject

Title of the topic and description of the content	Number of contact hours	S	Total number of hours
	PR		
<b>Specializations: Groupware systems. Programming for smart devices</b>			
1. To perform the analysis of the organizational structure of the enterprise, of peculiarities of distribution of internal and external information flows.	15	5	<b>20</b>
2. To perform the analysis of computer systems operated in the enterprise, to evaluate their effectiveness, to identify the need for modernisation of operated computer systems, for designing new ones.	15	5	<b>20</b>
3. To describe usage of various programming languages, programming styles, database management systems while administrating, modernizing, designing and installing new computer systems of the enterprise.	10	5	<b>15</b>
4. To prepare (modernize) and install software of the computer information system of the enterprise.	49	10	<b>59</b>
5. To describe organizational, software and technical information security measures while administrating, modernizing, designing and installing new computer systems of the enterprise.	10	5	<b>15</b>
<b>Specialization: Designing, installation and maintenance of computer networks</b>			
1. To analyze the computer network of the enterprise / institution and evaluate hardware and software of the network. <i>To find out the number of computerised workstations in the network of the enterprise / institution, used network operating systems (servers), configured network services, computer systems, customer service in the network, configuration of the network, used hardware of the network, its parameters, possibilities, configuration.</i>	44	10	<b>54</b>
2. To design and integrate a specialized computer system into the computer network of the enterprise / institution. <i>To submit the analysis of the need for the computer system in the enterprise, considering the needs of the enterprise / institution, transferred information, its importance, transmission priorities, network load, the status and possibilities of active network equipment. To submit a proposal on installation of the computer system, which corresponds to the needs of the enterprise and would facilitate data sharing in the local and (or) global network.</i>	55	20	<b>75</b>
<b>To prepare a practice report and a presentation according to given requirements</b>	15	10	<b>25</b>
<b>Defence of the practice report</b>	6	-	<b>6</b>
<b>Total number of hours</b>	<b>120</b>	<b>40</b>	<b>160</b>

### Assessment of learning outcomes

Ten-point criteria-based assessment system is applied. The final mark (FM) of the practice consists of the sum of marks for the discipline of doing practice (DP), for performance of practice tasks evaluated by the practice supervisor of the enterprise (PSE), for performance of practice tasks evaluated by the practice supervisor of the college (PSC), for practice report evaluated by the practice supervisor of the enterprise (RPSE), for practice report evaluated by practice supervisor of the college (RPSC), for the defence of the report (DR), multiplied by weighted coefficients.  
 $FM = 0,3 DP + 0,3 (PSE + PSC) / 2 + 0,2 (RPSE + RPSC) / 2 + 0,2 DR$

### Recommended literature

No.	Year of publishing	Author(s) and title of the publication	Publishing house and/or internet link
1.	2015	Nixon R. Learning PHP,MySQL & JavaScript with JQuery	O'Reily Media
2.	2015	Kaklauskas L. Nuotolinis kursas „Kompiuterinių sistemų kūrimo praktika“.	<a href="http://moodle.svako.lt">http://moodle.svako.lt</a>
3.	2014	John Lewis, Joseph Chase. Java Software Structures. Designing and Using Data Structures	Harlow
4.	2010	Bakutienė V., Palepšaitis S., Sluckuvienė Z. Studijų darbų techninė dokumentacija	Šiaulių kolegijos leidybos centras
5.	2009	Goldberg K. H. XML, Second Edition	Peachpit Press
6.	2008	Saulis A., Vasilecas O. Informacinių sistemų projektavimo metodai	VG TU
7.	2007	Julie Mezony, PHP, MySQL ir Apache	Smaltija

### Practice organisation procedure and description of the workplace

- Practice is done in the enterprise, which operates computer network and where applied software is intended for computerisation of work of divisions (division) of the enterprise. The company shall be interested in modernisation of the operated computer system or in the creation of a new one. The trainee shall be given a computerised workstation in the enterprise.

### The description prepared by:

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