

## DESCRIPTION OF PRACTICE

### Title

|                             |
|-----------------------------|
| <b>PROGRAMMING PRACTICE</b> |
|-----------------------------|

### Scope of the subject

| Semester | Mode of studies | Structure* |    | Total number of hours | Number of credits | Group and type of subjects             |
|----------|-----------------|------------|----|-----------------------|-------------------|--|
|          |                 | PR         | S  |                       |                   |  |
| IV       | Full-time       | 180        | 60 | 240                   | 9                 | Compulsory subjects of the study field |
| VI       | Part-time       | 180        | 60 | 240                   | 9                 |  |

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

### Aim of the subject

To analyze software created in the IT services enterprise, to participate in the process of developing software in the enterprise, to practically apply knowledge of object-oriented programming characteristics, principles and techniques, to use basic object-oriented programming commands, components and structures, object-oriented programming tools.

### Necessary background knowledge for studying the subject

Students shall have heard subjects object-oriented programming, database management, internet technologies.

### Content of the subject

| Title of the topic and description of the content   | Number of contact hours | S         | Total number of hours |
|---|-------------------------|-----------|-----------------------|
| To perform the analysis of software designed and developed in the enterprise, to identify areas for improvement of software.  | 36                      | 12        | <b>48</b>             |
| To prepare the code of the program (s) and to project its (their) integration into the project of software, developed (installed) in the enterprise.  | 54                      | 18        | <b>72</b>             |
| In the prepared code of the program (s) to project various ways of information protection and their compatibility with the ways of protection used in the enterprise.                             | 27                      | 9         | <b>36</b>             |
| In the prepared code of the program (s) to use object-oriented programming principles and structures (classes, class methods, constructors, modifiers, inheritance, encapsulation, polymorphism). | 27                      | 9         | <b>36</b>             |
| To prepare the practice report and presentation according to given requirements.  | 36                      | 12        | <b>48</b>             |
| <b>Total number of hours</b>  | <b>180</b>              | <b>60</b> | <b>240</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

| Key literature        |                    |  |                                       |                  |                |                   |
|-----------------------|--------------------|--|---------------------------------------|------------------|----------------|-------------------|
| No.                   | Year of publishing | Author(s) and title of the publication   | Publishing house                      | Number of copies |                |                   |
|                       |                    |  |                                       | ŠSC library      | Other premises | Other libraries * |
| 1.                    | 2008               | Sinkevičius S. PHP 5 pradmenys   | Smaltija                              | 3                | -              | 18                |
| 2.                    | 2007               | Julie Mezony, PHP, MySQL ir Apache   | Smaltija                              | 1                | -              | 22                |
| Additional literature |                    |  |                                       |                  |                |                   |
| No.                   | Year of publishing | Author(s) and title of the publication   | Publishing house and/or internet link |                  |                |                   |
| 1.                    | 2014               | Horton I. Beginning Visual C++ 2013  | John Wiley & Sons, Indianapolis       |                  |                |                   |
| 2.                    | 2011               | Daniliauskas T., Kapočius K., Butleris R. Duomenų bazių programavimas Microsoft SQL Server priemonėmis | Technologija                          |                  |                |                   |
| 3.                    | 2010               | Bakutienė V., Palepšaitis S., Sluckuvienė Z. Studijų darbų techninė dokumentacija                      | ŠVAKO LC                              |                  |                |                   |
| 4.                    | 2008               | Vidžiūnas A. C++ ir objektinis programavimas: programuotojo vadovas                                    | Smaltija                              |                  |                |                   |

*Institution: Šiauliai State College*  
*Study programme: Information Systems Technology*

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|----|------|---|--------------|
| 5. | 2008 | Blonskis J., Bukšinitis V. ir kt. Programavimas C++       | Technologija |
| 6. | 2015 | Milašauskas S. Objektinio programavimo dalyko kompediumas |              |

\* ŠAVB – Šiauliai Region Povilas Višinskis Public Library, ŠU – library of Šiauliai University

**Practice organisation procedure and description of the workplace**

- Practice is done in the enterprise providing services of information technologies, specialising in the development of software. The enterprise provides the student with the access to technical and systematic software used in the enterprise.

**The description prepared by:**

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