### DESCRIPTION OF STUDY MODULE

<table>
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<tr>
<th>Study programme</th>
<th>Applied Informatics and Programming</th>
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<tr>
<td>Study module</td>
<td>IS DESIGN AND CASE TECHNOLOGIES</td>
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<tr>
<td>Credits in total</td>
<td>5</td>
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#### Learning outcomes
- Ability to use the fundamental concepts of systematic analysis, its principles, the enterprise modelling methodologies, methods, techniques and standards.
- Using the skills of systematic thinking for information systems analysis, division into the smaller units and coupling to the larger ones and implementation with the chosen information technologies, forming the performance models of organizations using different methods (structural-functional, object-oriented) and notations (DFD, DSD).
- Execution of the design process of information systems by using CASE technologies of performance modelling.
- Practical skills of using software and CASE tools for obtaining and processing of data and information needed to address the problem.
- Ability to use specification of information needs of consumers by preparing a company for installation of applied information systems.

#### Aims of study module
The aim of the course – to provide the knowledge and skills of information systems design methods, basics of enterprise modelling and specification of information needs that are required for the development of computerized systems.

#### Annotation of a study module
The purpose of the subject is to introduce the performance models of organizations, used in the design of information systems, as well as the performance modelling methods, principles and standards. The subject helps the students assimilate the following: performance modelling technology, basics of business management and specification of information needs by using computerized software CASE measures. The students will learn to form, analyze, model, specify, check, comment and evaluate the formed models of information systems by creating informational infrastructures and computerized systems that help the organizations achieve their own goals of performance improvement.

#### Topics of the subject
1. Introduction to the Course.
2. Lifetime cycle of information systems.
3. Analysis of the organizational system activity.
7. Analysis of activity using the object-oriented method: other models.
8. Analysis and specification of the use’s information needs.
11. Information systems modelling.
12. Model of activity objects.
14. Description of the process logics.
15. Conceptual map.

#### Procedure for assessment of knowledge and competences
Knowledge and abilities are evaluated on the basis of a criteria-based ten-point scoring system and accumulative assessment: average assessment of laboratory works (20%), practical work (20%), self-work (10%) and assessment of the examination (50%).

\[ G = LD*0.2+PD*0.2+SD*0.1+E*0.5 \]

#### Main literature

* Short form
<table>
<thead>
<tr>
<th></th>
<th>Author(s)</th>
<th>Title</th>
<th>Publisher</th>
<th>Pages</th>
<th>ISBN</th>
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<tbody>
<tr>
<td>5</td>
<td>SEKLIUCKIS, Vitolis; GUDAS, Saulius; and GARŠVA, Gintautas</td>
<td>Informacijos sistemos ir duomenų bazės / Information Systems and Databases</td>
<td>„Technologija“, Kaunas</td>
<td>350</td>
<td>9955-25-039-9</td>
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<tr>
<td>6</td>
<td>SAULIS, Algis; and VASILECAS, Olegas</td>
<td>Informacinių sistemos projektavimo metodai / Methods of Designing Information Systems</td>
<td>„Technika“, Vilnius</td>
<td>247</td>
<td>978-9955-283-45-4</td>
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