|  |  |
| --- | --- |
| **Course unit title** | **SYSTEM ANALYSIS** |
| **Course unit code** | InfT6025 |
| **Type of course unit**  | A part – Compulsory part |
| **Level of course unit** | 2nd cycle (Master) |
| **Year of study**  | - |
| **Semester** | II |
| **Number of ECTS credits** | 3 |
| **Name of lecturer(s)** | Guntars Būmans, Mg.math. |
| **Learning outcomes of the course unit** | **Aims of the course**To develop understanding about principles of system analysis and their usage in analysis stage of designing software, as well as give direction of current events, problems and solutions in this field.**Objectives of the course**To acquire principles of system analysis, the newest methods and tools.**Results of the course (competences to be developed)**Students have to acquire knowledge and master skills for doing standard system analysis work and solving problems. |
| **Mode of delivery** | Face-to-face |
| **Prerequisites and co-requisites** | Knowledge acquired in course Software Engineering in bachelor's study programme. |
| **Recommended optional programme components** | - |
| **Course contents** | In the course System Analysis are acquired theoretical principles and practical solutions for analysis stage of designing software. Themes to be acquired: business processes engineering; methods of system engineering; documentation of system concept; demands engineering; demands specification; modelling of analysis; documentation; current solutions in system analysis (project RedSeeDS and etc.) |
| **Course plan** |

|  |  |
| --- | --- |
| **Theme** | **Sub-theme** |
| Business processes engineering  | Analysis of business province; modelling business data; modelling entrepreneurship. |
| Methods of system  | Modelling systems; engineering of  |
| engineering | information; product engineering; modelling architecture of systems. |
| Documentation of system concept | Content of concept documentation; example for elaborating documentation. |
| Demands engineering | Questions of communication; prototyping; analysis of demands. |
| Documentation of demands specification | Content of demands specification documentation; example for elaborating documentation. |
| Formalism for ensuring traceability | Usage of principles and methods for ensuring traceability between different system items. |
| Modelling analysis | Usage of UML, ER etc. modelling formalisms. |
| Current solutions in system analysis | Examination of project RedSeeDS etc. |

 |
| **Recommended or required reading** | Rogers S Presman "Software engineering. Practitioners Approach", 5th ed. Mc Graw Hill, 2001 |
| **Planned learning activities and teaching methods** | Lectures, practical works, seminars, student's individual work |
| **Assessment methods and criteria** | Successfully fulfilled practical works get positive assessment in theoretical tests |
| **Language of instruction** | English |
| **Work placement(s)** | N/a |