

| | | |
|---|------------------|--------------------|
| Course title: Information systems 2 (code I262) | | |
| Status: obligatory for module <i>Information technology</i> , optional for module <i>Computer science</i> | | |
| ECTS: 7 | | |
| Requirements: Object-oriented programming 1 (I032); Databases 1 (I 031) | | |
| Learning objectives Training students for development of information systems in three-tier software architecture. | | |
| Learning outcomes <i>Minimum:</i> Students should be able to implement certain functionalities of information system using up-to-date software tools. <i>Desirable:</i> Students should be able to implement the complete information system from the database schema, implementation of the business logic and simple user interface using up-to-date open-source software environments and tools. | | |
| Syllabus <i>Theoretical instruction</i> Object-rational mapping: Hibernate. Object-oriented query language: Hibernate Query Language. Web application concepts: URL, HTTP, three-tier and n-tier software architecture. Java Servlets. Java Server Pages (JSP). JSP Standard Taglib Library and JSP expression language. The overview of current open-source Web development frameworks. Automated application compiling and building: Apache Ant. Reporting in information systems. <i>Practical instruction</i> Specification of the software requirements and creating database schema for one example of information system. Implementation of the business logic using ORM. Development of complex functionalities of the business tier using Java Servlet. Implementation of the user interface in JSP and HTML. Application building. | | |
| Weekly teaching load | Theory: 2 | Practice: 3 |