

| | | | | |
|--|--------------|----------------------------|---------------------|----------|
| Level: bachelor | | | | |
| Course title: Object-oriented programming 2 (I341) | | | | |
| Status: elective | | | | |
| ECTS: 8 | | | | |
| Requirements: Object-oriented programming 1 | | | | |
| Learning objectives Introducing the students to advanced methodologies and techniques of object-oriented programming, and enabling them to apply the proven solutions and modern tools in the development of a wide range of complex applications. | | | | |
| Learning outcomes <i>Minimal:</i> Students should demonstrate the ability to understand and analyze complex problems, as well as to design and implement advanced solutions in a concrete object-oriented programming language. <i>Desirable:</i> Students should demonstrate the ability to understand, analyze and define complex problems on a logically-founded basis, as well as to creatively design and implement advanced solutions using the most recent techniques of the object-oriented programming paradigm. | | | | |
| Syllabus <i>Theoretical instruction</i> An overview of recent improvements of the Java programming language. Strings in Java, advanced text processing, regular expressions. Enumerated data types. Input and output streams. Generics. Collections. Concurrent programming. Developing advanced graphical user interfaces. Network programming. Distributed programming. Developing complex enterprise applications using Java EE. Web services and web applications. <i>Practical instruction</i> Use of illustrative examples as the means of studying all of the presented theoretical concepts. Analysis of existing solutions and tools, and discussions about their usage in an efficient development of complex applications. Individual and group practical assignments and exercises focused on developing complex applications in the concrete object-oriented programming language. | | | | |
| Weekly teaching load | | | | Other: 0 |
| Lectures: 2 | Exercises: 4 | Other forms of teaching: 0 | Student research: 0 | |