Course title: Object-Oriented Programming Java

Course code: 63050

ECTS credits: 6

Requirements: None

Basic information

Level of studies: Undergraduate applied studies

Year of study: 3

Trimester: 8

Goal: Enabling students to design and develop applications with graphical user interface in Java, using the principles of object-oriented programming.

Outcome: Students should be able to successfully use development environment for Java programming language in the process of designing and maintaining complex software applications with graphical user interface.

Contents of the course

Theoretical instruction

- 1. Threads
- 2. Generic types
- 3. Collections
- 4. Network programming
- 5. Event processing
- 6. Working with windows, graphical objects and text
- 7. AWT control objects, schedulers and menus
- 8. Swing graphical library
- 9. Concurrent programming, NIO package, reflection, RMI
- 10. Java Beans, servlets

Practical instruction (Problem solving sessions/Lab work/Practical training)

- 1. Threads
- 2. Generic types
- 3. Collections
- 4. Network programming
- 5. GUI, Swing library, event processing

6. Working with images 7. Java Beans **Textbooks and References** 1. H. Schildt, Java JDK 7: The Complete Reference 2. L. Kraus, Solved Problems in Java JSE 8 programming language, Akademska misao, Beograd, 2015. Number of active classes (weekly) Lectures: 4 Practical classes: 2 Other types of classes: Grading (maximum number of points: 100) **Pre-exam obligations: Points** Activities during lectures: Activities on practical exercises: Seminary work: Colloquium: 30 **Final exam: Points** Written exam: 70 Oral exam: Lecturer Nenad Teofilović, MSc Associate