Course Unit Descriptor

Study Programme: Information Systems Engineering

Course Unit Title: Object oriented information technologies

Course Unit Code: IZO052

Name of Lecturer(s): Pržulj Đorđe

Type and Level of Studies: bachelor

Course Status (compulsory/elective): compulsory

Semester (winter/ summer): summer

Language of instruction: english

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 6

Prerequisites: none

Course Aims:.

The aim of the course is to empower students with theoretical and practical knowledge in object-oriented (OO) information technologies and OO software engineering. Students will be able to approach systematically to the study of new (not learned yet) OO tools and techniques and to master their use easily and quickly.

Learning Outcomes:
This course discusses the design principles of object-orientation, introduces students with the Unified Modeling Language and studies advanced topics in OO system design, OO programming language and OO development process.

Syllabus.
Object-oriented paradigm. Introduction into software engineering. Fundamental OO concepts: object, class, message etc. Object identity. Inheritance. Implementation hiding, polymorphism and persistence. OO data model. OO programming techniques. Fundamental concepts and syntax of selected OO programming language. Fundamentals of Unified Modelling Language (UML). OO model:structure model and behavior model. Methodological approach to OO software design and development. Fundamentals of Unified Process.

Required Reading:
Relevant literature in English, tbd

Weekly Contact Hours:2	**Lectures: 2**	**Practical work: 0**

Teaching Methods:
Lectures; Tutorials (computer laboratory); Consultations; Individual work on required assignments. Students are encouraged to communicate, to participate in critical discussions; to work independently and to be actively involved in teaching process.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Attendance			
Computer exercises			
Tests (4x)			