

# UML Language II

Course code: GOC265

The course is designed primarily for architects and programmers who need to understand or create logical and physical models of their solutions, both for the purpose of design and planning, and for documentation purposes. Students will gain advanced knowledge about Class, State Machine, Activity, Sequence, Component, Composite Structure and Deployment diagrams in the context of technical specifications and documentation software solutions.

## Who the course is for:

- The course is intended for architects and developers

## Required skills:

- The course assumes a basic knowledge of UML-level course GOC26

## Teaching methods:

- Professional explanation with practical samples and examples.

## Teaching materials:

- Powerpoint handouts and module printouts.

## Course syllabus:

### Advanced class diagrams

- The term "classifier" and its meaning in UML
- Generalization and redefinition detail
- Derived attributes subset union and attributes
- Multiple inheritance and its consequences
- Nested class
- Formal definitions of data types
- DataType, Primitive type, enumeration and their instances
- Differences between the two ways of describing data types

### Advanced interaction

- Less used interaction fragments (strict, seq, critical, assert, neg ...)
- Communication diagram notation as an alternative sequence diagram
- Timing diagram
- Diagram overview of interactions

### Description System Architecture

- Component diagram
- Deployment diagram
- Components
- Realization
- Manifestation
- Artifacts

### Diagram composite structures

- Diagram of internal structures
- The class as a composite structure
- As a component of composite structure
- Collaboration and their use

### Advanced state machines

- Choice junction and the difference between them
- Complex cases - entry and exit point
- Deep and shallow history

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- Parallel state machines
- Protocol state machine interface and souvyslosti

## Profiles

- Diagram profile
- Stereotips and their structure
- Definition tags
- Definition alternate notation for stereotypovan? element
- Formal application profile model

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