

Course name: **Programming Paradigms**

No. of ECTS: **2**

Aim:

The aim of the subject is to introduce to various programming paradigms and their employment in programming languages; gaining ability of choosing a paradigm and a language to use; learning to create easy applications using object, logic and functional languages.

Course content:

- Paradigms classification;
- Overview of programming languages;
- Imperative paradigm;
- Structural paradigm;
- Procedural paradigm;
- object and object-oriented programming;
- Declarative languages;
- Functional paradigm;
- Logic paradigm;
- Multiparadigm languages;
- Basics of Python.

Skills:

A student knows programming paradigms, can indicate the difference between them and find application for them; can indicate characteristics of object languages, the difference between object and object-oriented programming; is able to indicate difference between functional and logic programming, knows about semi-paradigms; can create easy applications using programming languages for chosen paradigms(C, C++, Java, C#, Haskell or Python); is able to choose an appropriate paradigm and language for the given task to complete it optimally.

Form of teaching:

Lecture, computer laboratory.