

Course title: Fundamentals of Programming - Python
Course code:
ECTS credits: 5
Requirements: None
Basic information
Level of studies: Undergraduate applied studies
Year of study: 1
Trimester: 3
Goal: Course covers all the basics of programming in Python, as well as general computer programming concepts and techniques, and the object-oriented approach.
Outcome: After completing the course, students will be able to accomplish coding tasks related to the basics of programming in the Python language, and to understand the fundamental notions and techniques used in object-oriented programming.
Contents of the course
Theoretical instruction
1. Data types, variables
2. Basic input-output operations, basic operators
3. Boolean values, conditional execution, loops
4. Lists and list processing, logical and bitwise operations
5. Functions, tuples, dictionaries, and data processing
6. Modules, packages and PIP
7. Exceptions, strings, string and list methods
8. Object-oriented programming in Python
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Data types, variables
2. Basic input-output operations, basic operators
3. Boolean values, conditional execution, loops
4. Lists and list processing, logical and bitwise operations
5. Functions, tuples, dictionaries, and data processing
6. Modules, packages and PIP
7. Exceptions, strings, string and list methods
8. Object-oriented programming in Python

Textbooks and References
1. Miloš Kovačević, Osnove programiranja u Pajtonu, Akademska misao, Beograd, 2017.
2. Al Sweigart, Uvod u Python, Kompjuter biblioteka, Beograd, 2016.
3. Brian Overland, Python opuštено, CET Computer Equipment and Trade, Beograd, 2018.
Number of active classes (weekly)
Lectures: 3
Practical classes: 2
Other types of classes:
Grading (maximum number of points: 100)
Pre-exam obligations: Points
Activities during lectures:
Activities on practical excersises: 10
Seminary work:
Colloquium: 40
Final exam: Points
Written exam: 50
Oral exam:
Lecturer
Tatjana Keča, PhD
Associate