|  | Level: bachelor |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Course title: Office software - advanced course |  |  |  |
|  | Status: elective |  |  |  |
|  | ECTS: 6 |  |  |  |
|  | Requirements: none |  |  |  |
|  | Learning objectives <br> Mastering the basic principles of solving both mathematical and programming problems, algorithmic thinking and precise formulation of problems. |  |  |  |
|  | Learning outcomes <br> Minimal: A student should know the concept and basic techniques for algorithmic process of defining, solving and interpreting of programming problems. Basic programming concepts and commands. <br> Desired: A student should master the advanced programming methods, observing the program execution and debugging. Solving real-life problems. |  |  |  |
|  | Syllabus <br> Theoretical instruction <br> Using identifiers and commands. Variables, primitive data types, expressions. Loops and iterations. Error management. Stack and Heap. Arrays. <br> Specialized software for mathematical calculations. Symbolic and numeric calculations. Graphical representation and problem solving. Applications in mathematics and physics. <br> Practical instruction Getting familiar with the concepts learned in lectures. |  |  |  |

