



Programme of Course "Laboratorio di Programmazione II"

- Code: F0127
- Type of course unit: Compulsory (Bachelor Degree in Computer Science curriculum General)
- Level of course unit: Undergraduate Degrees
- Semester: 2

Number of ects credits: (Bachelor Degree in Computer Science) 6 (workload 150 hours)

Teachers: Luca Forlizzi (Luca.Forlizzi@univaq.it)

1	<b>Course objectives</b>	Knowledges: intermediate notions of imperative programming in C language and related technologies. Abilities: to formalize and algorithmically solve simple mathematical problems; to implement algorithms using C language; to analyze a C language program; to learn and to use the technology of a programming language. Expected behaviours: critical evaluation of the characteristics of a programming language; attention to software portability and to follow standards and rules of a programming language; interest in formal modeling of data, problems, and solutions in a programming language.
2	<b>Course content and learning outcomes (dublin descriptors)</b>	Topics of the module include: <ul style="list-style-type: none"> <li>• Imperative Programming languages: introduction to the C language, instructions, variables, basic data types</li> <li>• Structured Programming: execution sequence, selection, iteration</li> <li>• Procedural Programming: program organization, program units</li> <li>• Derived data types</li> <li>• The C Standard, function libraries, input/output, memory management, low-level programming</li> <li>• Modular Programming: programs divided among any number of source files, information hiding, introduction to abstract data types</li> </ul>
3	<b>Course prerequisites</b>	Required knowledge: basics of imperative style programming in Java language; basics of computer systems architecture; elementary mathematics; reading and understanding English language; Abilities: implementing correctly elementary algorithms in Java language; compiling and running simple programs on a computer.
4	<b>Teaching methods and language</b>	<b>Language:</b> Italian <b>Reference textbooks</b> <ul style="list-style-type: none"> <li>• K.N.King, <i>C Programming: a Modern Approach</i>. W.W.Norton &amp; Company. 2008. <a href="http://knking.com/books/c2/index.html">http://knking.com/books/c2/index.html</a></li> </ul>
5	<b>Assessment methods</b>	Exams are in written form. In certain semesters, there is a mid-term examination.