


5.00 credits

30.0 h + 30.0 h

Q2

Teacher(s)	Bonaventure Olivier (coordinator) ;Legay Axel ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	This course assumes that you have acquired the fundamental concepts of programming (object-oriented), as well as the notions of analyzing a computer problem, designing, specifying and implementing a solution as taught in course LEPL1401 (or LINFO1101); as well as the transversal skills as developed in Projects 1 and 2 (LEPL1101 and LEPL1102).
Main themes	<ul style="list-style-type: none"> - embedded programming in C language - implementation and testing of programs and algorithms - memory management - interfacing with sensors - Informatic project
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>At the end of the course, the student will be able to:</p> <ul style="list-style-type: none"> - develop a program in C language - verify by tests the correct functioning of a program - compare, analyze and criticize different programs 1 - choose the metrics to measure the effectiveness of a program - document a program, its installation and its use - give constructive feedback - use a professional collaborative software development system <p>AA of the baccalaureate program: 2.2; 2.4; 2.5; 2.6; 2.7; 2.8; 3.2; 3.3; 4.2 4.3; 4.4; 4.5; 5.1</p>
Evaluation methods	<p>First session Written exam in session on the mastery of programming in C language (35%) Evaluation of the group work on the basis of the project submitted, its documentation and the presentation (55%). The teachers reserve the right to call for an oral exam during the session any group that presents difficulties identified by the teaching team during the correction of the project. In the event that a group is convened, all members of the group must be present. Any absence must be justified by a reason validated by the faculty authorities. Continuous evaluation (10%) of the individual work of the student (presence and contributions to practical work sessions, help to others, ...)</p> <p>Second session The skills of the students will be evaluated by a written exam which will focus on the knowledge of programming in the C language. This evaluation counts for 40% of the points.</p>
Teaching methods	Project-based learning in groups
Content	<p>Project organized in several phases</p> <ul style="list-style-type: none"> - individual learning of the C language - improvements of existing algorithms in C and comparison of programs inside the group - development of an embedded solution - peer-review of other groups' programs and improvement of the group's program
Inline resources	https://sites.uclouvain.be/SyllabusC/ https://moodle.uclouvain.be/course/view.php?id=3842
Bibliography	Syllabus Langage C, accessible via https://sites.uclouvain.be/SyllabusC/
Faculty or entity in charge	BTCI

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Engineering	FSA1BA	5		
Bachelor in Computer Science	SINF1BA	5		