


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"> <li>- embedded programming in C language</li> <li>- implementation and testing of programs and algorithms</li> <li>- memory management</li> <li>- interfacing with sensors</li> <li>- Informatic project</li> </ul>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p>At the end of the course, the student will be able to:</p> <ul style="list-style-type: none"> <li>- develop a program in C language</li> <li>- verify by tests the correct functioning of a program</li> <li>- compare, analyze and criticize different programs</li> <li>1 - choose the metrics to measure the effectiveness of a program</li> <li>- document a program, its installation and its use</li> <li>- give constructive feedback</li> <li>- use a professional collaborative software development system</li> </ul> <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	See French document
Teaching methods	Project-based learning in groups
Content	Project organized in several phases <ul style="list-style-type: none"> <li>- individual learning of the C language</li> <li>- improvements of existing algorithms in C and comparison of programs inside the group</li> <li>- development of an embedded solution</li> <li>- peer-review of other groups' programs and improvement of the group's program</li> </ul>
Inline resources	<a href="https://sites.uclouvain.be/SyllabusC/">https://sites.uclouvain.be/SyllabusC/</a> <a href="https://moodle.uclouvain.be/course/view.php?id=3842">https://moodle.uclouvain.be/course/view.php?id=3842</a>
Bibliography	Syllabus Langage C, accessible via <a href="https://sites.uclouvain.be/SyllabusC/">https://sites.uclouvain.be/SyllabusC/</a>
Faculty or entity in charge	BTCI

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Engineering	<a href="#">FSA1BA</a>	5		
Bachelor in Computer Science	<a href="#">SINF1BA</a>	5		