

5.00 credits

30.0 h + 30.0 h

Q2



**This learning unit is not open to incoming exchange students!**

Teacher(s)	Guérit Stéphanie ;
Language :	French
Place of the course	Charleroi
Prerequisites	This course assumes that you have acquired the skills of the end of secondary school allowing you to translate a problem into a system of equations with several variables and to solve it.
Main themes	<p>The course emphasizes:</p> <ul style="list-style-type: none"> <li>• the understanding of mathematical tools and techniques based on a rigorous learning of the concepts favored by the highlighting of their concrete application,</li> <li>• the rigorous manipulation of these tools and techniques within the framework of concrete applications.</li> </ul> <p>Subjects covered:                      Matrix calculation                      Solving Systems of Linear Equations                      Linear algebra</p>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p>With regard to the AA reference system of the "Bachelor in Computer Science" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes:</p> <p>S1.G1                      S2.2</p> <p>S1.G1 Students who successfully complete this course will be able to:</p> <p>S2.2</p> <ul style="list-style-type: none"> <li>• Model concrete problems using matrices and vectors;</li> <li>• Solve concrete problems using matrix calculation techniques (in particular the resolution of linear systems);</li> <li>• Reasoning by correctly manipulating mathematical notations and methods keeping in mind but going beyond a more intuitive interpretation of concepts.</li> </ul>
Evaluation methods	Students are assessed individually during a written exam on the basis of the learning outcomes announced above. In addition, homework or project results will be incorporated into the final grade (4 points out of 20 points). The exact terms and conditions will be specified during the course.
Inline resources	<p><a href="#">Moodle website for the course</a></p> <p><a href="#">Book used for the course available online</a></p>
Bibliography	S. Boyd et L. Vandenberghe, <i>Introduction to Applied Linear Algebra: Vectors, Matrices, and Least Squares</i> , Cambridge University Press, 2018.
Faculty or entity in charge	SINC

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Computer Science	<a href="#">SINC1BA</a>	5		