lsinc1112 2025	Algebra

The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

5.00 credits	30.0 h + 30.0 h	Q2

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

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	The course emphasizes: • the understanding of mathematical tools and techniques based on a rigorous learning of the concepts favored by the highlighting of their concrete application, • the rigorous manipulation of these tools and techniques within the framework of concrete applications. Subjects covered: Matrix calculation Solving Systems of Linear Equations Linear algebra
Learning outcomes	**At the end of this learning unit, the student is able to :** 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: S1.G1 S2.2 S1.G1 Students who successfully complete this course will be able to: S2.2 • Model concrete problems using matrices and vectors; • Solve concrete problems using matrix calculation techniques (in particular the resolution of linear systems); • Reasoning by correctly manipulating mathematical notations and methods keeping in mind but going beyond a more intuitive interpretation of concepts.
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	Moodle website for the course Book used for the course available online
Bibliography	S. Boyd et L. Vandenberghe, *Introduction to Applied Linear Algebra: Vectors, Matrices, and Least Squares*, Cambridge University Press, 2018.
Faculty or entity in charge	SINC

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Computer Science	SINC1BA	5		🔍