SINC1BA

2024 - 2025

Bachelor in Computer Science

At Charleroi - 180 credits - 3 years - Day schedule - In French
Dissertation/Graduation Project : **NO** - Internship : **NO**
Activities in English: **NO**

SINC1BA - **Teaching profile**

Learning outcomes

				Year		
				1	2	3
O LSINC1252	Informaticals Systems	Etienne Riviere	FR [q1] [30h+30h] [5 Credits] △ ⊛			x
O LSINC1301	Databases and modeling		FR [q1] [30h+30h] [5 Credits] △ ⊛			

List of available minors

> Additional module in computer science   *[en-prog-2024-appsinf]*
> Additional module in life sciences and health for computer scientists   *[en-prog-2024-appscvs]*

Course prerequisites

The **table** below lists the activities (course units, or CUs) for which there are one or more prerequisites within the programme, i.e. the programme CU for which the learning outcomes must be certified and the corresponding credits awarded by the jury before registering for that CU.

These activities are also identified **in the detailed programme**: their title is followed by a yellow square.

Prerequisites and student's annual programme

As the prerequisite is for CU registration pupposes only, there are no prerequisites within a programme year. Prerequisites are defined between CUs of different years and therefore influence the order in which the student will be able to register for the programme's CUs.

In addition, when the jury validates a student's individual programme at the beginning of the year, it ensures its coherence, meaning that it may:

  • require the student to combine registration in two separate CUs which it considers necessary from a pedagogical point of view.
  • transform a prerequisite into a corequisite if the student is in the final year of a degree course.

For more information, please consult the Academic Regulations and Procedures.

 # Prerequisities list

LANGL1183	"English for Computer Scientists II" has prerequisite(s) LANGL1182

  • LANGL1182 - English for Computer Scientists

LANGL1184	"English for Computer Scientists III" has prerequisite(s) LANGL1183

  • LANGL1183 - English for Computer Scientists II

LSINC1104	"Programming Paradigms and Concurrency" has prerequisite(s) LSINC1101

  • LSINC1101 - Computer Science 1: Introduction to Programming

LSINC1113	"Additional Mathematics" has prerequisite(s) LSINC1111

  • LSINC1111 - Analysis

LSINC1114	"Analysis of biological data" has prerequisite(s) LSINC1101 AND LSINC1111 AND LSINC1002

  • LSINC1101 - Computer Science 1: Introduction to Programming
  • LSINC1111 - Analysis
  • LSINC1002 - Project 2 in Computer Science: Design of an Interactive Website

LSINC1121	"Algorithms and data structure" has prerequisite(s) LSINC1402

  • LSINC1402 - Computer Science 2

LSINC1201	"Interaction and Visualization Techniques" has prerequisite(s) LSINC1101

  • LSINC1101 - Computer Science 1: Introduction to Programming

LSINC1211	"Probability and Statistics" has prerequisite(s) LSINC1111 AND LSINC1112

  • LSINC1111 - Analysis
  • LSINC1112 - Algebra

LSINC1231	"Biochemistry" has prerequisite(s) LSINC1131 AND LSINC1132

  • LSINC1131 - General and Organic Chemistry
  • LSINC1132 - General biology

LSINC1232	"Elements of Human Pathology" has prerequisite(s) LSINC1131 AND LSINC1133

  • LSINC1131 - General and Organic Chemistry
  • LSINC1133 - Introduction to Human Physiology

LSINC1233	"Biodiversity, Biological and Ecological Evolution" has prerequisite(s) LSINC1132

  • LSINC1132 - General biology

LSINC1313	"Numerical algorithmic" has prerequisite(s) LSINC1101 AND LSINC1111 AND LSINC1112

  • LSINC1101 - Computer Science 1: Introduction to Programming
  • LSINC1111 - Analysis
  • LSINC1112 - Algebra

LSINC1331	"Molecular biology" has prerequisite(s) LSINC1231 AND LSINC1211

  • LSINC1231 - Biochemistry
  • LSINC1211 - Probability and Statistics

LSINC1332	"Biotechnology: omics" has prerequisite(s) LSINC1231 AND LSINC1211

- LSINC1231 - Biochemistry
- LSINC1211 - Probability and Statistics

Formation en mathématiques et science des données

O LSINC1111	Analysis	Geovani Nunes Grapiglia	FR [q1] [30h +30h] [5 Credits] ⊕
O LSINC1112	Algebra	Stéphanie Guérit	FR [q2] [30h +30h] [5 Credits] ⊕

Formation en sciences du vivant

O LSINC1131	General and Organic Chemistry	Karine Glinel Patricia Luis Alconero	FR [q1] [30h +30h] [5 Credits] ⊕
O LSINC1132	General biology		FR [q1] [30h +30h] [5 Credits] ⊕
O LSINC1133	Introduction to Human Physiology	Isabelle Donnay	FR [q2] [30h +30h] [5 Credits] ⊕

Formation en langues et sciences humaines

O LSST1002	Information and critical thinking	Anne Bauwens (compensates Jean-François Rees) Myriam De Kesel	FR [q2] [30h +30h] [5 Credits] ⊕
O LANGL1182	English for Computer Scientists	Lucille Meyers (coord.)	EN [q1] [30h] [5 Credits] ⊕

SINC1BA - 2ND ANNUAL UNIT

- ○ Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊘ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- 🟨 Activity with requisites
- ✿ Open to incoming exchange students
- ✿ Not open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

○ *Content:*

○ **Formation en informatique**

○ LSINC1402	Computer Science 2 🟨	Sébastien Jodogne Ramin Sadre	[FR] [q1] [30h +30h] [5 Credits] ✿
○ LSINC1201	Interaction and Visualization Techniques 🟨		[FR] [q1] [30h +30h] [5 Credits] ✿
○ LSINC1123	Calculability, Logic and Complexity	Yves Deville	[FR] [q2] [30h +30h] [5 Credits] ✿
○ LSINC1104	Programming Paradigms and Concurrency 🟨	Peter Van Roy	[FR] [q2] [30h +30h] [5 Credits] ✿
○ LSINC1503	Project 3 in Computer Science: Improvement of Algorithms Efficiency 🟨	Olivier Bonaventure	[FR] [q2] [30h +30h] [5 Credits] ✿
○ LSINC1313	Numerical algorithmic 🟨	Sébastien Jodogne Estelle Massart	[FR] [q1] [30h +30h] [5 Credits] ✿

○ **Formation en mathématiques et science des données**

○ LSINC1113	Additional Mathematics 🟨	Benoît Legat	[FR] [q1] [30h +30h] [5 Credits] ✿
○ LSINC1211	Probability and Statistics 🟨		[FR] [q2] [30h +30h] [5 Credits] ✿

○ **Formation en langues et sciences humaines**

○ LSINC1241	Law, Ethics and Technology		[FR] [q2] [30h +30h] [5 Credits] ✿
○ LANGL1183	English for Computer Scientists II 🟨	Lucille Meyers (coord.)	[FR] [q1] [30h] [5 Credits] ✿

⊗ *Minor or additional module*

The student completes his training with the additional module in computer science or the additionel module in life sciences and health for computer scientists.
Maximum 1 element(s)

SINC1BA - 3RD ANNUAL UNIT

O Mandatory
⊗ Optional
△ Not offered in 2024-2025
⊘ Not offered in 2024-2025 but offered the following year
⊕ Offered in 2024-2025 but not the following year
△ ⊕ Not offered in 2024-2025 or the following year
🟨 Activity with requisites
🌐 Open to incoming exchange students
🌐 Not open to incoming exchange students
[FR]

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SINC1BA - Information

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Access Requirements

Decree of 7 November 2013 defining the landscape of higher education and the academic organization of studies.
The admission requirements must be met prior to enrolment in the University.

In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail.

SUMMARY

- General access requirements
- Specific access requirements
- Access based on validation of professional experience
- Special requirements to access some programmes

General access requirements

Except as otherwise provided by other specific legal provisions, admission to undergraduate courses leading to the award of a Bachelor's degree will be granted to students with one of the following qualifications :

1. A Certificate of Upper Secondary Education issued during or after the 1993-1994 academic year by an establishment offering full-time secondary education or an adult education centre in the French Community of Belgium and, as the case may be, approved if it was issued by an educational institution before 1 January 2008 or affixed with the seal of the French Community if it was issued after this date, or an equivalent certificate awarded by the Examination Board of the French Community during or after 1994;

2. A Certificate of Upper Secondary Education issued no later than the end of the 1992-1993 academic year, along with official documentation attesting to the student's ability to pursue higher education for students applying for a full-length undergraduate degree programme;

3. A diploma awarded by a higher education institution within the French Community that confers an academic degree issued under the above-mentioned Decree, or a diploma awarded by a university or institution dispensing full-time higher education in accordance with earlier legislation;

4. A higher education certificate or diploma awarded by an adult education centre;

5. A pass certificate for one of the entrance examinations organized by higher education institutions or by an examination board of the French Community; this document gives admission to studies in the sectors, fields or programmes indicated therein;

6. A diploma, certificate of studies or other qualification similar to those mentioned above, issued by the Flemish Community of Belgium, the German Community of Belgium or the Royal Military Academy;

7. A diploma, certificate of studies or other qualification obtained abroad and deemed equivalent to the first four mentioned above by virtue of a law, decree, European directive or international convention;

Note:

Requests for equivalence must be submitted to the Equivalence department (Service des équivalences) of the Ministry of Higher Education and Scientific Research of the French Community of Belgium in compliance with the official deadline.

The following two qualifications are automatically deemed equivalent to the Certificate of Upper Secondary Education (Certificat d'enseignement secondaire supérieur – CESS):

- European Baccalaureate issued by the Board of Governors of a European School,
- International Baccalaureate issued by the International Baccalaureate Office in Geneva.

8. Official documentation attesting to a student's ability to pursue higher education (diplôme d'aptitude à accéder à l'enseignement supérieur - DAES), issued by the Examination Board of the French Community.

Specific access requirements

- Access to bachelor programmes for candidates of nationality outside the European Union who are not assimilated to Belgian nationals is subject to the following criteria:

    - not have obtained a secondary education diploma for more than 3 years maximum. Example: for an admission application for the academic year 2024-2025, you must have obtained your diploma during the academic years 2021-2022, 2022-2023 ou 2023-2024. In the French Community of Belgium, the academic year runs from September 14 to September 13
    - not already hold an undergraduate degree

- Candidates, whatever their nationality, with a secondary school diploma **from a country outside the European Union**, must have obtained an average of 13/20 minimum or, failing that, have obtained this average, have passed one year of study in Belgium (for example special Maths / sciences). A non-successful year will not be taken into consideration.

- For any secondary school diploma **from a European Union country**, the admission request must contain the equivalence of your dip6di101ny secondary school diploma

Evaluation

The evaluation methods comply with the regulations concerning studies and exams. More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

Contacts

Curriculum Management

Entity

Structure entity	SST/EPL/INFO
Denomination	(INFO)
Faculty	Louvain School of Engineering (EPL)
Sector	Sciences and Technology (SST)
Acronym	INFO
Postal address	Place Sainte Barbe 2 - bte L5.02.01
	1348 Louvain-la-Neuve
	Tel: +32 (0) 10 47 31 50 - Fax: +32 (0) 10 45 03 45

Academic supervisor: Siegfried Nijssen

Jury

- Président du jury: Claude Oestges
- Secrétaire du jury: Cristel Pelsser

Useful Contact(s)

- Secrétariat: bac-sinc@uclouvain.be
- Conseillère aux études en sciences informatiques: Cécile Lombart