UCL - Université catholique de Louvain Study Programme 2024-2025

SINC1BA: Bachelor in Computer Science

SINC1BA - Teaching profile

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Year

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 puposes 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	"Anglais pour informaticiens II" has prerequisite(s) LANGL1182			
LANGL1184	LANGL1182 - English for Computer Scientists "Anglais pour informaticiens III" has prerequisite(s) LANGL1183			
LSINC1104	• LANGL1183 - English for Computer Scientists II "Concepts des langages de programmation" has prerequisite(s) LSINC1101			
LSINC1113	• LSINC1101 - Computer Science 1: Introduction to Programming "Compléments de mathématiques" has prerequisite(s) LSINC1111			
LSINC1114	• LSINC1111 - Analysis "Analyse de données biologiques" has prerequisite(s) LSINC1101 ET LSINC1111 ET LSINC1002			
	LSINC1101 - Computer Science 1: Introduction to Programming LSINC1111 - Analysis LSINC1202 - Project 6 in Computer Sciences Project of an Interpreting Website			
LSINC1121	 LSINC1002 - Project 2 in Computer Science: Design of an Interactive Website "Algorithmique et structure de données" has prerequisite(s) LSINC1402 			
LSINC1201	• LSINC1402 - Computer Science 2 "Techniques d'interaction et de visualisation" has prerequisite(s) LSINC1101			
LSINC1211	 LSINC1101 - Computer Science 1: Introduction to Programming "Probabilités et statistiques" has prerequisite(s) LSINC1111 ET LSINC1112 			
	LSINC1111 - Analysis LSINC1112 - Algebra			
LSINC1231	"Biochimie" has prerequisite(s) LSINC1131 ET LSINC1132 • LSINC1131 - General and Organic Chemistry			
LSINC1232	LSINC1132 - General biology "Eléments de pathologie humaine" has prerequisite(s) LSINC1131 ET LSINC1133			
LSINC1233	 LSINC1131 - General and Organic Chemistry LSINC1133 - Introduction to Human Physiology "Biodiversité, évolution biologique et écologique" has prerequisite(s) LSINC1132 			
201101200	•LSINC1132 - General biology			
LSINC1313	"Algorithmique numérique" has prerequisite(s) LSINC1101 ET LSINC1111 ET LSINC1112			
	LSINC1101 - Computer Science 1: Introduction to Programming LSINC1111 - Analysis LSINC1112 - Algebra			
LSINC1331	"Biologie moléculaire" has prerequisite(s) LSINC1231 ET LSINC1211			
LSINC1332	LSINC1231 - Biochemistry LSINC1211 - Probability and Statistics "Biotechnologies: omics" has prerequisite(s) LSINC1231 ET LSINC1211			

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SINC1BA - 2ND ANNUAL UNIT

- O Mandatory
- ☼ Optional
- △ Not offered in 2024-2025
- O Not offered in 2024-2025 but offered the following year
- $\ensuremath{\oplus}$ Offered in 2024-2025 but not the following year
- $\Delta \, \oplus \, \text{Not offered in 2024-2025}$ or the following year
- Activity with requisites
- Open to incoming exchange students
- M 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...)

o Content:

o Formation en informatique

O LSINC1402	Computer Science 2	Sébastien Jodogne Ramin Sadre	[q1] [30h +30h] [5 Credits]
• LSINC1201	Interaction and Visualization Techniques		[q1] [30h +30h] [5 Credits] (#)
O LSINC1123	Calculability, Logic and Complexity	Yves Deville	[q2] [30h +30h] [5 Credits] 🛞
O LSINC1104	Programming Paradigms and Concurrency	Peter Van Roy	[q2] [30h +30h] [5 Credits] (#)
O LSINC1503	Project 3 in Computer Science: Improvement of Algorithms Efficiency	ः [q1] Fiou st well [q1] Oliviet <u>चेत्रीफीकी</u> trite Credits] ⊛	[q2] [30h +30h] [5 Credits] ((3))
O LSINC1313	Numerical algorithmic		[q1] [30h +30h] [5 Credits] (#)

o Formation en mathématiques et science des données

LSINC1313

SINC1BA - 3RD ANNUAL UNIT

- Mandatory
- ☼ Optional
- △ Not offered in 2024-2025
- Not offered in 2024-2025 but offered the following year
- $\ensuremath{\oplus}$ Offered in 2024-2025 but not the following year
- $\Delta \oplus \text{Not offered in 2024-2025}$ or the following year
- Activity with requisites
- Open to incoming exchange students

[FR]

SINC1BA - Information

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

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- For any secondary school diploma **from a European Union country**, the admission request must contain the equivalence of your diploma or, at the very least, proof of the filing of the equivalence request with the Wallonia-Brussels Federation (French Community of Belgium). For any information relating to obtaining an equivalence, please refer to the following site.
- For any secondary school diploma **from a country outside the European Union**, the admission application must contain the equivalence of your diploma issued by the Wallonia-Brussels Federation (French Community of Belgium). If you have a restrictive equivalence for the programme of your choice, in addition of it, you **must** have either the DAES or a certificate of successful completion of the examination giving access to 1St cycle studies when you submit your application

Access based on validation of professional experience

Admission to undergraduate studies on the basis of accreditation of knowledge and skills obtained through professional or personal experience (Accreditation of Prior Experience)

Subject to the general requirements laid down by the authorities of the higher education institution, with the aim of admission to the undergraduate programme, the examination boards accredit the knowledge and skills that students have obtained through their professional or personal experience.

This experience must correspond to at least five years of documented activity, with years spent in higher education being partially taken into account: 60 credits are deemed equivalent to one year of experience, with a maximum of two years being counted. At the end of an assessment procedure organized by the authorities of the higher education institution, the Examination Board will decide whether a student has sufficient skills and knowledge to successfully pursue undergraduate studies.

After this assessment, the Examination Board will determine the additional courses and possible exemptions constituting the supplementary requirements for the student's admission.

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Evaluation

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