

SINC1BA - Introduction

Introduction

Introduction

Computer science, or more generally information and communications technology (ICT), is everywhere; everyone uses computers/smartphones/... to communicate, work, study, play, travel, and manage. More and more activities are assisted by computers. SMEs, public services, education world, associations, leisure, in two ...

Your profile

You

- have a taste for problem solving;
- are pushed by a great curiosity;
- overflow of creativity and imagination;
- are a head for abstraction, analysis and synthesis;
- have a methodical mind and show rigor in your reasoning;
- are good for human contact, organization of teamwork, leadership, etc.

Following a strong mathematical option during high school and feeling an attraction to science or economics are assets.

Your future job

During his career, the computer scientist will flourish and evolve in one or more of the following profiles:

- The designer identifies the needs of the future user and determines the technical means useful to fulfil these needs. He is able to speak "the language" of the customer, it has a fairly broad culture to interact successfully with non-computer experts. He masters computer technology to identify the best solution. It builds a quality architecture for this solution.
- The achiever is able to translate the indications and guidelines produced by the designer in computer components. He analyses in detail some components of the architecture, he programs, tests, deploys these components into an integrated solution. His technical expertise is very sharp.
- The IT project manager takes care of the smooth running of the project; he is responsible for the completion of the tasks associated with these systems, their safety, planning their development. As the designer, it has qualities in terms of human contacts, a good general education and strong technical skills.

Your programme

The bachelor has a compulsory part covering different disciplines

- computer science ;
- mathematics ;
- life sciences;
- human sciences;
- english.

Once bachelor, you will continue your training by the Master in Computer Science.

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 purposes 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](#).

Prerequisites list

LANGL1183	" Anglais pour informaticiens II " has prerequisite(s) LANGL1182 <ul style="list-style-type: none"> • LANGL1182 - English for Computer Scientists
LANGL1184	" Anglais pour informaticiens III " has prerequisite(s) LANGL1183 <ul style="list-style-type: none"> • LANGL1183 - English for Computer Scientists II
LSINC1104	" Concepts des langages de programmation " has prerequisite(s) LSINC1101 <ul style="list-style-type: none"> • LSINC1101 - Computer Science 1: Introduction to Programming
LSINC1113	" Compléments de mathématiques " has prerequisite(s) LSINC1111 <ul style="list-style-type: none"> • LSINC1111 - Analysis
LSINC1114	" Analyse de données biologiques " has prerequisite(s) LSINC1101 ET LSINC1111 ET LSINC1002 <ul style="list-style-type: none"> • LSINC1101 - Computer Science 1: Introduction to Programming • LSINC1111 - Analysis • LSINC1002 - Project 2 in Computer Science: Design of an Interactive Website
LSINC1121	" Algorithmique et structure de données " has prerequisite(s) LSINC1402 <ul style="list-style-type: none"> • LSINC1402 - Computer Science 2
LSINC1201	" Techniques d'interaction et de visualisation " has prerequisite(s) LSINC1101 <ul style="list-style-type: none"> • LSINC1101 - Computer Science 1: Introduction to Programming
LSINC1211	" Probabilités et statistiques " has prerequisite(s) LSINC1111 ET LSINC1112 <ul style="list-style-type: none"> • LSINC1111 - Analysis • LSINC1112 - Algebra
LSINC1231	" Biochimie " has prerequisite(s) LSINC1131 ET LSINC1132 <ul style="list-style-type: none"> • LSINC1131 - General and Organic Chemistry • LSINC1132 - General biology
LSINC1232	" Éléments de pathologie humaine " has prerequisite(s) LSINC1131 ET LSINC1133 <ul style="list-style-type: none"> • LSINC1131 - General and Organic Chemistry • LSINC1133 - Introduction to Human Physiology
LSINC1233	" Biodiversité, évolution biologique et écologique " has prerequisite(s) LSINC1132 <ul style="list-style-type: none"> • LSINC1132 - General biology
LSINC1313	" Algorithmique numérique " has prerequisite(s) LSINC1101 ET LSINC1111 ET LSINC1112 <ul style="list-style-type: none"> • LSINC1101 - Computer Science 1: Introduction to Programming • LSINC1111 - Analysis • LSINC1112 - Algebra
LSINC1331	" Biologie moléculaire " has prerequisite(s) LSINC1231 ET LSINC1211 <ul style="list-style-type: none"> • LSINC1231 - Biochemistry • LSINC1211 - Probability and Statistics
LSINC1332	" Biotechnologies: omics " has prerequisite(s) LSINC1231 ET LSINC1211

o Formation en mathématiques et science des données

o LSINC1111	Analysis	Geovani Nunes Grapiglia	ES [q1] [30h +30h] [5 Credits]
o LSINC1112	Algebra	Stéphanie Guérit	ES [q2] [30h +30h] [5 Credits]

o Formation en sciences du vivant

o LSINC1131	General and Organic Chemistry	Karine Glinel Patricia Luis Alconero	ES [q1] [30h +30h] [5 Credits]
o LSINC1132	General biology		ES [q1] [30h +30h] [5 Credits]
o LSINC1133	Introduction to Human Physiology	Jean-François Rees	ES [q2] [30h +30h] [5 Credits]

o Formation en langues et sciences humaines

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

o Content:

o Formation en informatique

● LSINC1402	Computer Science 2 ■	Sébastien Jodogne
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SINC1BA - 3RD 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]

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

- 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 TJ 0 ificatelgian

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

