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

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SINC1BA - Introduction

</div>

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 ;
  •
  • life sciences;
  • human sciences;
  • english.

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] △ ⊛				

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 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 "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**

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

○ 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

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]

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 wh Esity ued byility 598bc1AdFrench 0 - 1 0 0 -1 0 565000

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
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	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 informatiqu5 TeeG Tfstiqu5u3295e0(•2.13900757 Tm [(•)] T1Tm Oestges)] TJ 0 g /F5 8 Tul Co6 Tm m m TeeG