UCL - Université catholique de Louvain Study Programme 2024-2025

APPSINF: Additional module in computer science

## **APPSINF - Teaching profile**

## **Learning outcomes**

To extend and / or improve their knowledge and skills related to different areas in computer science

To deploy them to study in depth an issue or complex computer system,

To possibly facilitate the choice of options in the master's program.

On successful completion of this programme, each student is able to :

Compl-disc.1. master the knowledge and extensive expertise in different areas in computer science to possibly facilitate the choice of the options in the master's program.

- Perceive the role of information systems in enterprises
- o describe the operation of an information system in enterprises;
- o design and develop an information system and justify the design choices in relation to the enterprise organisation and needs;
- o analyse and adapt an existing information system;

Compl.discpl.2. Develop a thorough understanding of human-computer interaction in a computer system.

- Develop quality human-machine interface that meets the user expectations
- o describe the issues of interaction between man and machine;
- o design and develop a software interface and justify the design choices in relation to the issues of man-machine interaction;
- o analyse and adapt an existing interface to better meet the challenges of human-computer interaction

Compl-discpl.3. Demonstrate and operate pertinently a broader range of tools within computer science in a project team (developing transversal competences)

- Rely on its non-technical skills to contribute to the advancement of an IT project
- make a convincing demonstration of software;
- present a convincingly product based on multimedia support;
- work effectively in small groups:
- know the managerial, human and economic challenges of managing an IT project and master some tools and methods to manage.

#### **Programme**

#### DETAILED PROGRAMME BY SUBJECT

- O Mandatory
- ☼ Optional
- $\triangle$  Not offered in 2024-2025
- $\oslash$  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
- - R] Teaching language (FR, EN, ES, NL, DE, ...)

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

30 crédits

Year

# 2 3

#### • Content:

#### Cours obligatoires

O LINFO1212	Advanced computer science project	Eric Piette	[q1] [30h+30h] [5 Credits]	X
O LINFO1311	Human Machine Interface	Jean Vanderdonckt	[q2] [30h+15h] [5 Credits]	хх
O LINFO1210	Information systems and IT project management	Manuel Kolp	[q2] [30h+15h] [5 Credits] @	X
O LINFO1122	Program design methods	Charles Pecheur	[q1] [30h+30h] [5 Credits]	X
O LINFO1131	Concurrent programming concepts	Peter Van Roy	[q1] [30h+30h] [5 Credits] (1) > French-friendly	X

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Year

2 3

#### o Choice Courses of the additional module in computer sciences

The student completes his program by choosing one or two of the following courses, in order to reach a minimum of 30 credits.

The elective course LSINC1114 will be particularly useful to students who wish to follow the "medical informatics" option in a Master's degree.

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S LINMA1702	Optimization models and methods I	François Glineur	FR [q2] [30h+22.5h] [5 Credits] (5)	X
SS LSINC1114	Analysis of biological data	Sébastien Jodogne	[q1] [30h+30h] [5 Credits] 🛞	X
X LCLIG2260	Introduction to speech processing	Thierry Dutoit	[q1] [15h] [5 Credits] 🕮	X
□ LDEMO2640	"Big data" : capture et analyse de données massives	Christine Schnor	[q2] [20h] [3 Credits] #	X
\$\$ LINMA1691	Discrete mathematics - Graph theory and algorithms			

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# **APPSINF - Information**

# **Access Requirements**

This option additional module in computer sciences is accessible only to students enrolled in the Computer Science Bachelor program.

#### **Evaluation**

The evaluation methods comply with the <u>regulations</u> 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".

# Possible trainings at the end of the programme

This option does not give direct access to a Masters program. However, since this option is reserved for bachelor students in computer science, these students obviously have access to the Masters program in Computer Science.

## **Contacts**

## **Curriculum Management**

Entity

Structure entity Denomination SST/EPL/INFO

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