UCLouvain

UCL Study programme 2026 - 2027

Additional module in computer science

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APPSINF - Introduction

Introduction

Introduction

This additional module in Computer Science offers:

• a deepening and broadening of knowledge and skills in different areas in computer science

• to study and deepen further themes not addressed in the major course.

Therefore, the additional module in computer science does not anticipate courses normally present within the master in computer science.

Most of the activities proposed in this additional module are oriented towards informatics.

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
△ Not offered in 2026-2027
⊘ Not offered in 2026-2027 but offered the following year
⊕ Offered in 2026-2027 but not the following year
△ ⊕ Not offered in 2026-2027 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...)

30 crédits

Year
2 3

O *Content:*

⊠ Cours obligatoire de l'approfondissement pour les étudiants ayant commencé l'approfondissement avant 26-27 (25 credits)

O LINFO1212	Advanced computer science project	Eric Piette	[FR] [q1] [30h+30h] [5 Credits]	x	
O LINFO1311	Human Machine Interface	Jean Vanderdonckt	[FR] [q2] [30h+15h] [5 Credits]	x	
O LINFO1210	Information systems and IT project management	Manuel Kolp	[FR] [q1] [30h+15h] [5 Credits]	x	
O LINFO1122	Program design methods	Charles Pecheur	[FR] [q1] [30h+30h] [5 Credits]		x

				Year 2	3
O LINFO1131	Concurrent programming concepts		EN [q1] [30h+30h] [5 Credits] > *French-friendly*		x

⊠ Cours obligatoire de l'approfondissement pour les étudiants commençant l'approfondissement en 26-27 ou plus tard (25 credits)

O LINGE1322	Finance and information systems	Jean Vanderdonckt	EN [q2] [30h+15h] [5 Credits]	x	
O LINFO1210	Information systems and IT project management	Manuel Kolp	FR [q1] [30h+15h] [5 Credits]	x	
⊠ LELEC1930	Intoduction to telecommunication *pour étudiants de SINF1BA*	Jérôme Louveaux	FR [q2] [30h+15h] [5 Credits]	x	
O LINFO1122	Program design methods	Charles Pecheur	EN [q1] [30h+30h] [5 Credits]		x
O LINFO1301	Video game algorithms		FR [q1] [30h+30h] [5 Credits] △		x
⊠ LLING2260	Introduction to speech processing *pour étudiants de SINC1BA*		FR [q1] [15h] [5 Credits]		x

O Choice Courses of the additional module in computer sciences (5 credits)

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.

⊠ LINMA1702	Optimization models and methods I	François Glineur	FR [q2] [30h+22.5h] [5 Credits]		x
⊠ LSINC1114	Analysis of biological data	Sébastien Jodogne	FR [q1] [30h+30h] [5 Credits]		x
⊠ LDEMO2640	"Big data" : capture et analyse de données massives	Christine Schnor	FR [q2] [20h] [3 Credits]		x
⊠ LINMA1691	Discrete mathematics - Graph theory and algorithms	Vincent Blondel Jean-Charles Delvenne	FR [q1] [30h+22.5h] [5 Credits]		x
⊠ LDATS2360	Basic SAS programming	Céline Bugli	FR [q1] [15h+7.5h] [4 Credits]		x
⊠ LMAFY1101	Data exploration and introduction to statiscal inference	Anouar El Ghouch	FR [q2] [30h+30h] [5 Credits]		x
⊠ LLING2260	Introduction to speech processing *pour étudiants de SINC1BA*		FR [q1] [15h] [5 Credits]		x

THE PROGRAMME'S COURSES AND LEARNING OUTCOMES

For each UCLouvain training programme, a reference framework of learning outcomes specifies the the skills expected of every graduate on completion of the programme. Course unit descriptions specify targeted learning outcomes, as well as the unit's contribution to reference framework of learning outcomes.

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 Academic regulations and procedures. 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	SST/EPL/INFO
Denomination	(INFO)
Faculty	Louvain School of Engineering (EPL)
Sector	Sciences and Technology (SST)
Acronym	INFO
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