

MASTER IN COMPUTER SCIENCE

IMPACT OF COVID-19

ACADEMIC YEAR 2020 - 2021



COURSES AVAILABLE FOR DISTANCE LEARNING

1. Impact of COVID-19

We are aware that the impact of the COVID-19 crisis on international mobility is generating many concerns and questions from prospective international students who are interested in starting our Computer Science master programme.

Our master programme is built upon a combination of lectures and practical teaching activities, such as programming lab sessions, project work, assignments, seminars, etc., which are essential to the learning experience and outcomes of our master programme.

We have carefully considered how to manage delivery of the programme in the forthcoming academic year; especially if some of the students cannot be present at the start of the academic year, due to COVID-19-related travelling restrictions, etc.

2. Academic year '20-'21

Should the health situation and the associated measures taken by the Belgian authorities prevent on-campus teaching at the start of academic year, then the courses will go digital for all students.

Our master programme has a core set of courses, but also a very wide range of electives. We have prepared a list of courses that are guaranteed to be available for distance learning in the academic year 2020-2021. There are three requirements:

1. You will need to be registered in full for the programme and for the courses you select, because you will need access to the learning platform of the VUB and the individual spaces of each course.
2. We expect you to have access to a reliable, modern computer and network connection including a webcam, microphone and loudspeakers.
3. We expect flexibility from you regarding the live on-line lectures, seminars, Q&A sessions etc. as they will take place during standard office hours in the Brussels time zone, and therefore they may take place at times which are unusual for your time zone.

Of course we hope to welcome you in person to Brussels in September, but if this is not possible we guarantee that you will be able to start the Computer Science master program by choosing from the list of courses that we have carefully prepared for this purpose.

3. Courses available for distance learning

The courses listed on the next page are guaranteed to be available for distance learning in the academic year 2020-2021. Click the course names for detailed information about the course contents and organisation.

Core Courses

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| Declarative programming | Recorded lectures, live on-line exercise sessions, live on-line meetings |
| Methods for scientific research | Recorded lectures, short movies, remote assignments |
| Open information systems | Recorded lectures, remote group project work |
| Software architectures | Recorded lectures, live online Q&A, instruction movies for project work, remote or live online exercise sessions |
| Theory of computation | Short movies that accompany the course handbook, remote assignments |

Elective Courses

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| Actual trends in artificial intelligence | Recorded guest lectures, live on-line team work |
| Adaptive systems seminar | Videos, live on-line discussion |
| Advanced methods in bioinformatics | Live on-line lectures (also recorded for later viewing), remote individual or group projectwork |
| Cloud computing and big data processing | Recorded lectures, instruction movies for exercises and projectwork, remote exercises and project work, live on-line Q&A |
| Computational creativity | Live on-line lectures (also recorded for later viewing), live on-line exercises |
| Computational game theory | Recorded lectures, live on-line Q&A for each lecture, remote assignments and project work |
| Discrete modeling, optimisation and search using answer set programming | Recorded lectures, instruction movies for exercises and project work, live on-line Q&A |
| Evolution of speech | Live on-line lectures |
| Functional programming | Recorded lectures, remote exercises or live on-line exercise sessions (also recorded for later viewing) |
| Higher order programming | Recorded lectures, instruction movies for exercises and project work, remote exercises and project work, online Q&A |
| Information visualisation | Recorded lectures, remote project work |
| Machine learning | Recorded lectures, instruction movies for exercises and projectwork, remote exercises and project work, online Q&A |
| Meta programming and reflection | Recorded lectures |
| Natural language processing | Recorded lectures, remote assignments |
| Programming language engineering | Live on-line lectures, remote project work |
| Reinforcement learning | Live on-line seminar sessions, remote projectwork |
| Scalable data management systems | Recorded lectures, remote project work |
| Security in computing | Recorded lectures, recorded exercise sessions, online Q&A |
| Software quality analysis | Recorded lectures, live online Q&A, instruction movies for project work, remote or live online exercise sessions |

[Click here for a complete overview of the Master in Computer Science programme.](#)