



what shape  
for the future?

# master of science (MSc) in information systems and digital innovation

## GENERAL OUTLINE

### Objectives

The Master of Science in Information Systems allows you to acquire advanced skills in New Information and Communications Technologies (NICT) for use within organisations. Subjects are studied with a balanced multidisciplinary approach and cover both information technology and management techniques. The Master's degree thus trains high-level specialists with the skills needed to design, manage, evaluate and implement IT services and applications.

This course also allows to undertake doctoral studies.

### Career prospects

University studies develop a great many transverse skills such as: communication, critical, analytical and summarising faculties, abilities in research, and so on.

This panoply of skills, combined with specialist knowledge acquired in the course of studies, is excellent preparation for a wide range of employment opportunities such as:

- IT Project Leaders
- Information System Designers
- Senior Management Technology Adviser
- Chief Technology Officer - CTO
- Chief Information Officer - CIO
- IS Auditor
- Integrator
- Business Analyst
- NTIC Consultant
- Company Architect

## GENERAL INFORMATION

### Organiser

HEC Lausanne: [www.unil.ch/hec](http://www.unil.ch/hec)  
Information Systems Department (DESI):  
[www.hec.unil.ch/desi](http://www.hec.unil.ch/desi)

### Degree awarded

Master of Science (MSc) in Information Systems

### ECTS credits

90

### Duration

3 semesters

### Teaching language

French and English. Recommended levels: C1.

### Study advisor

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### More information

[www.unil.ch/hec/masters](http://www.unil.ch/hec/masters)

## EDUCATIONAL CONTENT

### Description

During the first two semesters, various courses are offered in two key fields of the programme: Management and Information System Engineering. They are completed by fundamental courses, and will be accompanied by complementary activities that vary according to the different courses (exercises, practical work, projects, lectures, workshops, etc).

The third semester is dedicated essentially to the preparation and writing of a personal research or internship dissertation representing 25 ECTS credits, supplemented by 5 ECTS credits from a choice of teaching activities, such as seminars.

### Examinations

Examinations on all subjects taught are held at the end of each semester.

## SYLLABUS\*

### 1<sup>st</sup>-2<sup>nd</sup> semesters (60 ECTS credits)

Compulsory courses (24 ECTS)

- Digital Strategies
- Business & Architecture Design
- Software Architectures
- Data Mining & Machine Learning

Free-choice courses (36 ECTS)

- Enterprise Data & Integration
- Interaction Design
- Information Security & Privacy
- China Hardware Innovation Camp
- IT Audit & Governance
- Big-Scale Analytics
- Digital Innovation
- Cybercrime and Economic Intelligence
- Project Management & Outsourcing
- Semester Project

### 3<sup>rd</sup> semester (30 ECTS credits)

Research or internship dissertation

\* the official study plan prevails.

## PRACTICAL INFORMATION

### Admission requirements

Candidates must be holders of a Bachelor of Science awarded by a Swiss university in one of the following areas: Business Information Systems; Economics, Management or Finance, provided that the candidates have earned at least 12 ECTS credits in informatics; in Informatics or Communication Systems provided that they have earned at least 12 ECTS credits in human and social sciences. Another degree or university title may be judged to be equivalent and give access to this Master's degree course, with or without further conditions.

### Enrolment and final dates

The candidate's application must be submitted to the UNIL Admissions Department before 30<sup>th</sup> April:  
[www.unil.ch/immatt](http://www.unil.ch/immatt)

Candidates needing a study visa:  
28<sup>th</sup> February

### Start of courses

Mid-September  
Academic calendar: [www.unil.ch/central/calendar](http://www.unil.ch/central/calendar)

### Part-time Master's degree

Under certain conditions, a Master programme can be followed part-time. See  
[www.unil.ch/formations/master-temps-partiel](http://www.unil.ch/formations/master-temps-partiel).

### Timetables

[www.unil.ch/hec/masters](http://www.unil.ch/hec/masters)

### General information on studies, guidance

[www.unil.ch/soc](http://www.unil.ch/soc)

### Career prospects

[unil.ch/perspectives/unil-et-apres](http://unil.ch/perspectives/unil-et-apres)  
[www.heccareercenter.ch](http://www.heccareercenter.ch)

### Accommodation and financial assistance

[www.unil.ch/sasme](http://www.unil.ch/sasme)

### International

[www.unil.ch/international](http://www.unil.ch/international)



Version: March 2023  
Subject to changes  
Only the official texts should be considered binding.