

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

# **GENERAL OUTLINE**

## Objectives

Digital technologies act as a significant catalyst in our rapidly evolving world, affecting not only businesses but also society and the environment. This Master's program is an intense and engaging, 3-semester program blending business and technology.

It is designed for individuals who:

- Have a passion for emerging technologies and want to make a meaningful impact on business, society, and the environment.
- Enjoy innovation and are eager to tackle complex real-world problems, envisioning and crafting practical solutions.
- Aspire to launch their own digital ventures, or have keen interest in spearheading digital innovation within organizations.



# **Career prospects**

The program offers a mix of business and technology skills, opening up multiple job opportunities and enabling you to effectively tackle future challenges. Upon program completion, you will have the flexibility to pursue a range of jobs, including technical, managerial, and strategic roles. Our alumni have successfully pursued high-demand, well-compensated careers with abundant opportunities, including:

- Project and Innovation Management (Innovation Project Manager, Digital/IT Project Manager, Business or Technology Consultant)
- Design and Development of Digital Solutions (Product Owner/Manager, Interaction Designer, Agile Delivery Manager)
- Data & Analytics (Business Analyst, Data Scientist)
- Cybersecurity (Security Analyst)
- Startups (Founder or Entrepreneur)
- Research in Information Systems and Digital Innovation (PhD student or Professor)
- Technology Leadership (Head of Product, Director of Information Systems - CTO/CIO)

# can you shape the future?

# **GENERAL INFORMATION**

#### Organiser

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

# Degree awarded

Maîtrise universitaire ès Sciences en systèmes d'information et innovation numérique Master of Science (MSc) in Information Systems and Digital Innovation

ECTS credits 90

Duration

3 semesters

## **Teaching language**

French and English. Level necessary for your studies: C1

## Study advisor

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More information

www.unil.ch/hec/masters

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# EDUCATIONAL CONTENT

# Description

We provide a dynamic and immersive Master's program that extends over three semesters, seamlessly integrating business and technology. In the first two semesters, you will engage in a diverse array of courses characterized by their creative, collaborative, and practical approach. These courses foster many opportunities for project-based learning, encompassing essential topics in management, technology fundamentals, and the development and conceptualization of digital solutions. Throughout this period, you will apply critical thinking, innovation, and design approaches, enjoying the sense of achievement that comes from bringing new ideas to life.

The third semester primarily focuses on preparing and composing a dissertation either at the University or as part of an internship, which accounts for 24 ECTS. Additionally, you can choose to participate in 6 ECTS worth of optional pedagogical activities such as seminars.

One of the highlights of this program is the « Digital Innovation Week ». During this event, you will tackle real-world digital challenges presented by local businesses, working in teams to develop and present innovative solutions.

**Our team**: The professors leading this program have been working on the transformational power of digital technologies for decades. Our diverse teaching team brings a wealth of knowledge from both academia and industry. We are committed to continually crafting a cutting-edge program that prepares you for future challenges and incorporates the latest technologies and their business impacts.

# SYLLABUS\*

# 1<sup>st</sup>-2<sup>nd</sup> semesters (up to 66 ECTS credits)

Compulsory courses (30 ECTS):

- Digital Strategies and Innovation
- Software Architectures
- Data Science & Machine Learning
- Business and IS Design
- Interaction Design

# Elective Courses (up to 36 ECTS):

- Digital Innovation Week
- Sustainable Innovation Challenge
- Ethical Business Modeling and Innovation Design
- Enterprise Data and Integration
- Information Security & Privacy
- Strategy in Digital Markets
- Advanced Project Management & Outsourcing in a Digital Era
- Audit & Governance of IT
- Cloud & Advanced Analytics
- Management of AI in Organizations
   Technical and Economic Aspects of Cybersecurity
- Research Introduction Seminar

# 3<sup>rd</sup> semester (24-30 ECTS credits)

Academic dissertation or internship dissertation, and related pedagogical activities.

\* 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/immat

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

# Start of courses

Mid-September Academic calendar: 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.

Timetables www.unil.ch/hec/masters

General information on studies, guidance

www.unil.ch/soc

# Career prospects

www.unil.ch/perspectives/unil-et-apres https://heccareer.ch/

Accomodation and financial assistance www.unil.ch/sasme

International www.unil.ch/international





