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responsible
management,
sustainable
technology,
shared prosperity

master of science (MSc) in sustainable management & technology

GENERAL OUTLINE

Objectives

The Master of Science in Sustainable Management and Technology (MSc SMT) aims at equipping the entrepreneurs and intrapreneurs of the future with the knowledge and skills enabling them to steer the transition toward a more resilient, environmentally responsible and inclusive economy while harnessing the power of technology.

The program's target is building competences along three dimensions: technology & innovation, economics & management, tools & skills for developing sustainable solutions. The SMT Master program is unique and totally innovative in that it focuses on all the three dimensions simultaneously and in a balanced manner.

The SMT Master program is intended for holders of a bachelor degree with little or no professional experience and it is meant to bring together students with either a management/economics background or an engineering background.

While it builds on theory and real-life applications, the program is committed to enhance personal and social skills by encouraging interdisciplinary team work on practical projects and by systematically mixing students of different profiles.

The formal course work and team projects are completed and enriched by lectures and workshops with experts from industry.

GENERAL INFORMATION

Organizer

The SMT Master is a joint program offered by UNIL-HEC, IMD and EPFL, on behalf of Enterprise for Society (E4S).

Degree awarded

Master of Science in Sustainable Management & Technology delivered jointly by the three academic institutions: UNIL-HEC, IMD and EPFL.

ECTS credits

120

Duration

4 semesters

Teaching language

English. Recommended level: C1.

Additional information

Enterprise for Society (E4S)

<https://e4s.center/train/>

Email contact: master@e4s.center

Version: February 2021
Subject to the approval of the regulations and the study plan by the relevant authorities.



EDUCATIONAL CONTENT

Description

The first three semesters (90 ECTS) consist of courses and team projects structured in three blocks, with sustainability being the guiding thread: Technology, Economics & Management, Transferable skills & Team projects. In addition, a group of three courses called Integration Weeks aims at improving students' effectiveness in three directions: personal, group and organizational effectiveness.

The fourth semester consists in a Master Project based on an Internship in Industry (30 ECTS). The Master project will be undertaken with a supervisor affiliated to one of the three institutions (UNIL-HEC, IMD or EPFL).

Career Prospects

The SMT master program trains the next generation of entrepreneurs and intrapreneurs to conduct business for the benefit of their organizations, the environment and society in general.

Graduates will be able to lead teams in multiple disciplines and solve complex problems in different organizations (corporations, startups, NGOs, governments).

They will also be ready to take non-traditional positions and pursue their ideas as entrepreneurs, by integrating sustainability largely defined in their core activities.

SYLLABUS*

Courses are taught by professors on the campuses of UNIL, IMD and EPFL, thus bringing together the expertise of the three complementary academic institutions of international excellence.

Technology (29 ECTS)

- Science of climate change
- Statistical inference & machine learning
- New tools & research strategies in personalized health
- Causal inference
- Applied machine learning
- Information security and digital trust
- Digitalization & sustainable logistics
- Robotics & the future of manufacturing
- Energy supply, economics & transition

Economics & Management (34 ECTS)

- Economics for challenging times
- Sustainable & entrepreneurial finance
- Legal implications of digitalization & sustainability
- Introduction to ethics & critical thinking
- Marketing & sustainable consumption in a digital world
- Platforms & digital business models
- Sustainability accounting
- Strategy & disruption
- Entrepreneurship for profit & non profit

Transferable skills & Team projects (18 ECTS)

- Transformative project
- Project management & collaboration
- Complex problem solving in organizations
- Leadership essentials
- Strategic partnership

Integration Weeks (9 ECTS)

- Improve your personal effectiveness
- Improve your group effectiveness
- Improve your organizational & societal effectiveness

Master Project (30 ECTS)

- Internship in Industry

GENERAL INFORMATION

Admission requirements

Candidates with a management/economics profile should make proof of a strong achievement record in courses related to data science and quantitative methods (e.g. probability and statistics, econometrics, machine learning, etc.), while candidates with an engineering profile should make proof of a strong achievement record in courses related to economic and management reasoning and modelling.

Enrolment and final date

Candidates should apply on the EPFL online application platform until 15th April 2021. The admission is based on the quality of application: excellent academic record, relevance of the Bachelor's degree and motivation of the candidate (i.e. proven interest in topics related to sustainable management and technology). Successful candidates will be officially registered at EPFL with access to facilities on the UNIL and EPFL campuses. A number of activities will also be organized on the IMD campus.
<https://e4s.center/train/admission-criteria/>

Start of courses

Mid-September

