

Informations pratiques

Teaching coordinators

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More information

www.universite-paris-saclay.fr/en/education/master/computer-science/m1-human-computer-interaction

<https://masterschool.eitdigital.eu/human-computer-interaction-and-design>

Teaching location

Université Paris-Saclay, Orsay Campus



Master Informatique

Parcours HCI

Master 1 Human Computer Interaction

Master 1 Human Computer Interaction & Design - EIT

There are 2 tracks in this master program

- + HCI
- + HCID - EIT (with EIT Digital)

The 2 tracks are tightly linked and most of their courses are in common. Special features of the HCID – EIT track:

- + students spend only one year at UPSaclay (in M1 or M2). The second year is spent in a partner university
- + students obtain 2 master degrees diplomas, from the 2 universities where they studied
- + students follow courses in Innovation and Entrepreneurship in M1 and M2
- + attend a compulsory 2-weeks summer school paid by the EIT Digital

Objectives

The domain of Human Computer interaction is attracting considerable attention in many areas of the software industry and in digital technologies in general.

- + This Master's program prepares students for jobs in research, R&D, industry and consulting: interaction designer, user interface specialist, engineer, designer and project manager of interactive applications on various platforms: desktop computer, web, mobile, Virtual and Augmented Reality.
- + These jobs exist in companies that specialize in interaction design and in numerous academic research teams that work in the area of human-machine interaction.
- + The HCID – EIT tracks helps students to develop an entrepreneurial state of mind.

Skills

- + **Understand** the fundamental concepts related to the field of human-machine interaction.
- + **Set up** user-centric design methodologies.
- + **Design, develop and evaluate** interactive systems adapted to users' needs (mobile applications, WEB applications, multimodal interactions, data visualization, virtual and augmented reality systems, systems for users with specific needs, etc.).
- + **Use** qualitative and quantitative methodologies (as in controlled experiments) to assess interactive systems.

Career prospect

This HCI master trains specialists in the field of Human-Computer Interaction, paving the way to careers in the academic field as well as in industrial R&D centres or in cutting-edge industries.

- + **Continuation of studies:** After graduation, students can apply to the doctoral programme at the STIC department of Université Paris-Saclay and either join one of the university's research laboratories or the R&D department of a company.
- + **Entry into employment:** M2 graduates can work for companies that develop innovative software, or start-ups, or join the R&D departments of companies such as Thalès, Orange, HP, IBM, Research, Yahoo, Google, etc.
- + **Typical jobs** in research, R&D, industry and consulting include:
 - interaction designer,
 - UX designer,
 - interface usability specialist,
 - engineering project manager of interactive applications on different media (desktop, web, mobile).

Required Skills

- + **Object Oriented Programming** (Not only CMS) and some maths.
- + **English level B2** (Common European Framework of Reference for Languages) or above.
- + Applicants should have a **B.Sc. degree in computer science, electrical engineering, computer engineering or information systems**.

In special cases, applications from students in industrial design, media technology, computational linguistics, and cognitive sciences with sufficient skills in mathematics, software design and programming will be considered.

Courses

Mandatory courses :

Programming of Interactive System 1 & 2
Fundamental of Human Computer Interaction 1 & 2
Fundamental of eXtended Reality
Soft skill
Design of Interactive System 1 & 2
Evaluation of Interactive System
Design project 1 & 2
Winter School
TER (Research and study project)
Studio Art Science
EIT ONLY : Innovation & Entrepreneurship Basics 1 & 2
EIT ONLY : Innovation & Entrepreneurship Business Lab 1 & 2
EIT ONLY : Innovation & Entrepreneurship Advanced 1 & 2
EIT ONLY : Innovation & Entrepreneurship Summer Schools

Electives courses :

Serious games
Groupware & Collaborative Interaction
Creative Design
Virtual Human
Mixed Reality & Tangible Interaction
Advanced Immersive Interaction
Experimental Design & Analysis
Situated Interaction
Advanced Design of Interactive Systems
Digital Fabrication
Interactive Information Visualization
Interactive Machine Learning
Interactive Information Visualization
Electives offered in the other tracks of the Computer Science master program of Paris-Saclay University
Some electives offered by Telecom/ENS Paris-Saclay