UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Design of Experiments (16h lezione)

2627-114R-EXPE

Title

Design of Experiments

Teacher(s)

Fabio Stella and Federico Cabitza

Language

English

Short description

The course is structured into two complementary modules. The first module offers a broad introduction to conducting empirical studies related to computational methods, while the second focuses specifically on empirical research within the field of Human-Computer Interaction (HCI).

Empirical studies are integral to nearly all fields of inquiry, aiming to uncover insights about specific processes or systems. The first module introduces students to the fundamentals of experimental design, a cornerstone of scientific methodology developed for planning, executing, and analyzing real-world experiments. Through lectures, practical examples, and exercises, students will learn how to apply experimental design techniques to address

research questions with rigor, emphasizing the principles of causality and reliable inference.

The second module delves deeper into empirical research methods tailored to HCI. It equips doctoral students with the skills needed to design, execute, and report user studies critical to the development and evaluation of interactive computational systems. Combining lectures, discussions, and hands-on activities, this module provides students with a comprehensive understanding of how to rigorously plan, conduct, analyze, and present empirical research that advances the state of the art in HCI.

CFU / Hours

2/16

Teaching period

18-01-2027 - 30-01-2027

Sustainable Development Goals