

Human Factors

Subject area: Other subject area

University: TU/e

Level: BA3

Teaching mode: hybrid: some students participate online, other students attend real-life

Instructor(s): Daniel Lakens and Giulia Perugia

Short description

In this course, we will study how to design technological artifacts, systems, and environments in such a way that they support and enable the human brain to do what it does best. Students will learn about the principles and processes that govern the ways in which humans interact with technological products, systems and services.

Full description

"Students will learn about the principles and processes that govern the ways in which humans interact with technological products, systems and services. The role of fundamental technical interactive components, e.g., displays or controls, and of complex processes and interfaces, e.g., in medical environments, transportation, or advanced Human-Computer Interaction, are highlighted based on properties of human perception and action, models of cognition and communication, and empirical performance data. In addition, in two group assignments, you will become acquainted with the design processes by which both simple and more complicated technological systems and artifacts can be constructed to optimally address the capabilities, limitation, needs, and expectations of their users."

Learning outcomes

"After completing this course, students will:

- be able to provide insight in the behavioral processes determining the ways in which people interact with products, systems and services.
- obtain knowledge of research and evaluation methods, the iterative design cycle and standardized usability metrics.
- apply the theoretical knowledge of evaluation and usability metrics in two technological domains."

General information

Contact hours per week:	4
Total workload:	5 ects, so 5 x 28 hours. (in student hours for the whole course)
ECTS credits:	5
Language:	English
Course start date:	14 November 2022
Course end date:	28 January 2023
Add. info about start date:	
Weekly teaching day/time:	
Time zone:	CET (Denmark, Germany, France, Netherlands, Switzerland, Czech Republic)
Further information:	Lectures are 2 times 2 hours
Prerequisites:	Introduction to Psychology is an asset but not essential
Activities and methods:	Lectures, Self-study, Exercises
Presence on campus:	not required

Final examination

Form:	written
Date:	
Location/format:	online
Re-sit possibility:	yes
Transcript available:	end of semester
Add. info/requirements:	"Written exam consisting of multiple choice and open questions (60%), assignment 1 (20%), and assignment 2 (20%). "

Registration

To register for this course, follow the registration requirements of your **home university** as specified here: www.euroteq.eu/courses-registration.

Administration

Number of places:	24
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Minimum participants:

Internal course code: OHV100

Contact: D.Lakens@tue.nl

This course is part of the EuroTeQ Engineering University joint course catalogue 2022/2023. This is a collaborative activity of the partner universities DTU, L'X, TU/e, TaITech, CTU, TUM as well as Technion. Students from these universities can participate in the offered courses. It is the responsibility of the student to check if you fulfil the requirements to participate in a specific course. Students are also advised to check with their home institution how to get recognition of the ECTS credits gained in courses of the EuroTeQ course catalogue. For further information about EuroTeQ Engineering University, visit www.euroteq.eu or get in touch with the above-mentioned point of contact.



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