EPFL

MGT-409 **D. Thinking: real problems, human-focused solutions**

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Cursus	Sem.	Type
Digital Humanities	MA1, MA3	Opt.
Management, Technology and Entrepreneurship minor	H	Opt.
Managmt, tech et entr.	MA1, MA3	Opt.

Language of teaching	English
Credits	5
Withdrawal	Unauthorized
Session	Winter
Semester	Fall
Exam	During the semester
Workload	150h
Weeks	14
Hours	**5 weekly**
Courses	3 weekly
Exercises	2 weekly
Number of positions	**35**

It is not allowed to withdraw from this subject after the registration deadline.

Summary

The purpose of this course is to engage students into multidisciplinary collaboration to tackle real world problems with a human centered approach.

Content

By a Design Thinking approach, students are encouraged to discover through observation what is meaningful and to whom, to generate empathy with users, find a specific focus to the challenge and ideate on possible solutions. These must then be quickly prototyped, tested and iterated based on results. Students will work in different teams during the semester to solve a set of challenges; these are divided into a four-week, and an eight-week project. During the course of these challenges, they will learn the different tools and exercises to generate insights, collaborative working, idea building, rapid prototyping and iterative testing.

Keywords

innovation, design thinking, rapid prototyping, user empathy, ideation

Learning Prerequisites

Required courses
None

Important concepts to start the course
Empathy, fast failure

Learning Outcomes

By the end of the course, the student must be able to:
- Develop a new product
- Synthesize user needs
- Sketch ideas
- Assemble prototypes
- Construct prototypes

Transversal skills

- Assess progress against the plan, and adapt the plan as appropriate.
- Set objectives and design an action plan to reach those objectives.
- Communicate effectively with professionals from other disciplines.

Teaching methods

Case method, guest lectures, building things

Expected student activities

Group work, ideation / brainstorming, building prototypes, going into the field, talking with users and customers. Attendance to every session is mandatory. Expect a higher than usual workload for this course.
A maximimum number of 30 students will be accepted in this course, however students are encouraged to attend the first two classes even if there are not spaces left on IS Academia. Please note that those students that have not attended since the first class will not be accepted.

Assessment methods

Prototypes and documentation of two different projects will be graded, as well as class participation:

- Four-week project: 25%
- Eight-week project: 50%
- Class participation: 25%

Supervision

Others   Office hours TBD, exercises