

NADEL Interdisciplinary Sustainable Development Challenge

(as delivered in HS2024)

865-0700-00L

Project-Based Education in Action

SELECTED TRANSFERABLE COMPETENCIES

**Problem-solving****Cooperation and Teamwork****Communication****Creative Thinking**

Lecturer responsible for the class:

Jasmine Neve

Teaching team FS2024:

Shruti Patel, Max Morel, Fritz Brugger, Medinat Malefakis

Department:

D-GESS; NADEL - Global Cooperation and Sustainable Development

Credits:

4 ECTS

Class size and study programme:

24 students with mixed disciplinary backgrounds taking the Master of Advanced Studies in Development and Cooperation

Real-world or Practice Context

Driving question:

How can we address sustainable development challenges that are complex, interdisciplinary and intercultural in nature?

Practice context:

Eight international cooperation partner organisations present eight sustainable development challenges they are facing.

Learning Objectives

After completing this course, students will be able to:

- Systematically analyse specific sustainable development challenges, & design possible solutions, taking into account scientific evidence, user perspectives; and the complexity of the tackled sustainable development challenge (including the social, environmental, economic system in which it occurs).
- Apply tools to prompt creativity, innovation and complex problem solving, including design thinking, systems thinking.
- Build collaborative relationships with others from diverse disciplines and exchange feedback and ideas constructively.

Process and Student Agency

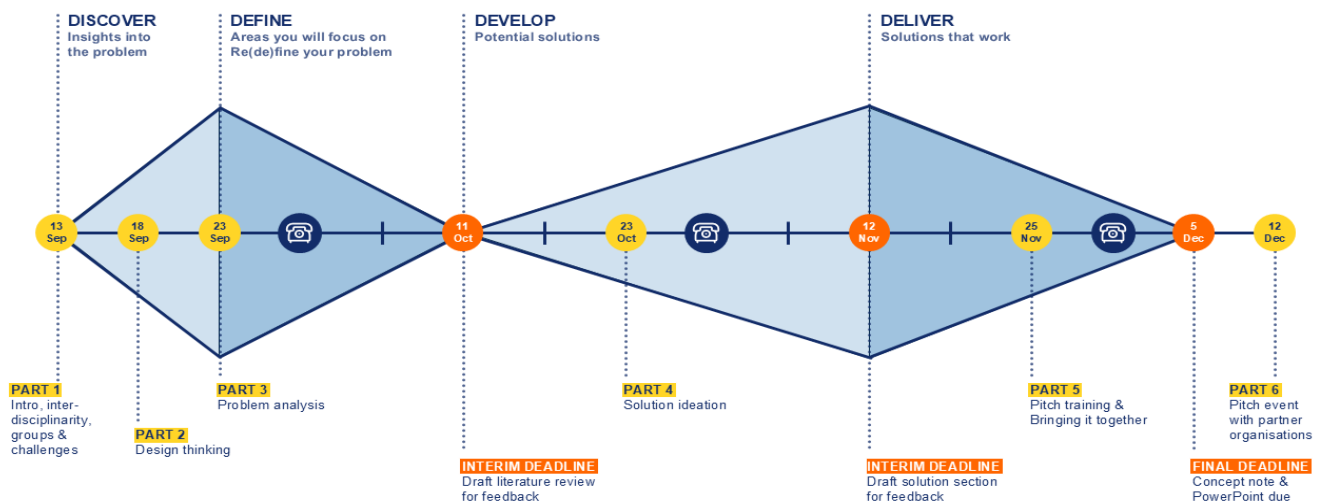
Length/format of module:

- 14 weeks (1 semester)
- 5 classroom sessions with lectures and group work
- 1 pitching event with partner organisations
- Approximately 20 hours group work outside the classroom
- Approximately 35 hours of individual work (reading, research, writing)

Student agency in the project:

- Students form interdisciplinary groups based on their industry background
- Student groups can select the challenge they want to work on. Challenges are provided by the partner organisations

TIMELINE



ETH zürich

Guidance and Coaching

- All groups had a supervisor from NADEL who provided feedback at two interim deadlines during the semester on the draft problem analysis and the proposed solutions.
- Peer feedback was encouraged throughout.
- Three exchanges with the project partners were organised during the project (marked in the above diagram by the blue telephone symbol).

Review and Assessment

- Active participation (15%)
- End-of-Semester Exam (50%)
- Concept note (including academic literature review) (65%)
- Pitch (20%)

Reflection and Evaluation

- Two reflection rounds are organised to help students address issues that they encountered.

Anything else that makes this project special?

The use of Design Thinking helped students identify and address 'sticking points' in a timely manner, and encouraged them to 'think outside the box' about the challenges they were facing. The methodology also encouraged a really active engagement by students, yet provided structure as well.

ETH Zürich
PBLabs
Auf der Mauer 17
AMA F13
8001 Zürich

Telefon: +41 44 632 87 02
pblabs@ethz.ch
www.ethz.ch/pblabs