RESEARCH CLINIC

General information

Supervisor:	Dr. Min J Cho Dr. Annie Trevenen-Jones
Title of clinic:	Design for the future lab - Wicked environmental problems in sustainability and health .
Number of students:	12-15
Major *(if applicable and approved by the Major Convener)*:	
(Pre)requisites *(if applicable)*:	Should have an interest in sustainability and health Please note: Students must submit an application in order to be considered for the research clinic. This application should comprise a brief statement (no more than 300 words) explaining:1) their personal motivations for wishing to take this research clinic, and2) how this course would complement their study plan. In addition, students should also include a list of courses they have completed which they feel might prepare them well for this course. Selection will be based on the strength of students' motivations and with an eye towards achieving in the classroom between students with different kinds of expertise. Applications should be sent to m.j.cho@luc.leidenuniv.nl

Research context

Many environmental challenges facing society today, such as climate change and integrated waste management, have been described as “wicked problems” due to their biological, physical, and social complexity. Wicked problems extend across media such as air, land, and water; across political jurisdictions and landscape boundaries; and across traditional policy arenas.

The ‘wicked problem’ in household hazardous waste and packaging is unique, hard to comprehensively both define and solve, and involves a diversity of stakeholders among other factors. Household hazardous waste is any material discarded from a home that may pose a threat to human health or the environment when disposed of improperly. It differs from typical household waste because it can be toxic, corrosive, flammable or explosive.

Design for the future lab course is aimed at addressing this “wicked problems” in sustainability and health through household hazardous waste. The course will apply the Design Thinking, a human-centred, possibility driven, approach. We will draw upon theoretical concepts and models from varied disciplines, including ethnography, environmental science, pharmaceutical science, public health, public policy, psychology, and organizational learning.

The course consists of three interconnected elements: (1) in-depth readings of material on the subjects of wicked environmental problems, (2) a design thinking project on a real-world wicked problem (i.e. household hazardous waste) involving context analysis, problem finding and framing, ideation, prototyping on wicked dilemmas (3) presentation of the project to experts as well as households facing wicked problems at the end of the research clinic.

This course is worth 5 ECTS, which means the total course load equals 140 hours.

- Seminars (participation is mandatory)
- Three in-person excursion planned (under the guidance of covid-19 RIVM measures) – 1) Hague waste treatment plant 2) PLNT Leiden 3) Design thinking lab – approximately 1-2 hours each
- Compulsory literature reading

Student are expected to spend the remaining hours working on their group project.

Students' tasks and activities

1. Study and apply team work skills.
2. Collaborate with stakeholders of wicked problems in collecting data, insight, contextualizing the problem through online communication technology
3. Critically interpret, assess, evaluate and discuss the most important dilemmas (for various stakeholders including households, health professionals, researchers, and policy makers) around complexity and wicked problems and suggest ways to deal with them