

RESEARCH CLINIC

General information

Supervisor:	Peter Houben
Title of clinic:	Testing soil microbial activity (Literature review and application)
Number of students:	One to two.
Major (if applicable and approved by the Major Convener):	EES, GPH
(Pre)requisites (if applicable):	Passion for accurately conducted lab tests.

Research context

Relationships between classic physical and chemical soil parameters and the residing soil microbiome are a developing field in soil sciences.

This research clinic explores the opportunities to conduct tests characterizing microbial mass and activity of soil samples in the LUC Science Lab.

Student work includes to

- Sample soil at sites visited during the soils course (Eifel Mtns.)
- Summarize given standard methods in the form of a literature review
- Test methodological applications (plate reader, photospectrometry) that can be used for research and teaching in the LUC Science Lab
- Conduct some tests in a lab at VU Amsterdam.

Students' tasks and activities

Please specify the tasks and activities, timeline, the learning aims and how they are assessed, i.e. what the deliverables will be.

(A) Literature review - 6 weeks - (PRISMA concept) - ASMT: 30% - clarification of options for microbial analyses at LUC

(B) Application of standard procedures (e.g., FDA; enzyme activity, respiration) using LUC Lab facilities - 6 weeks - ASMT: 30%

(C) Evaluation report - On lab testing - ASMT: (40%)