

WATER AND SEDIMENT MANAGEMENT

LEVEL: MASTER 1

PERIOD: SEMESTER 2

LANGUAGE: EN

ECTS: 6

TEACHER/COORDINATOR: JULIEN CASTELIN



1-Main objectives

Learning outcomes:

- › Understand the main issues and challenges about water and sediment pollution, in France and in Europe
- › Learn about the French and Dutch specific approaches on this topic.

2-Skills developed

- › Practice collaborative group work: work, oral presentation, written report...
- › Perform GW monitoring and sampling operations
- › Analyze survey reports, maps and data

3-General content

The course will include many different lectures about this topic, from different actors, showing different perspectives + a lot of field visits, in France and in the Netherlands.

› **Water Management:**

- Specific cases of Water Management:

Example of Friesland region in The Netherlands (lecture from Friesland region water board + boat trip).

At the European Level: presentation of Integrated Management of Water Resources (lectures and serious game)

- Sustainable Water Technology: visit of WETSUS center of excellence for water technology (Leeuwarden) + CEW (Center of Expertise Water Technology)

- About Groundwater topic: field visit (groundwater sampling tools) + practical (groundwater quality)

- Other field visits (visit of the biggest groundwater pumping facility of The Netherlands...)

› **Sediment Management:**

Specific approach of sediment management in The Netherlands: lectures and field visits (dredging work/deposit places/sludge treatment facility...)

Specific approach of sediment management in France: lectures and field visits.

4- Evaluation

Practical in lab, group assignments and individual written exam based on the lectures, visits.