



EPFL

ENV-462 Urban Green & Blue Infrastructure and Global Warming

Assessment during the semester:

- Individual in-class test (40%)
- Group project (60%)

Case study on campus

- *individual sub-project (20%)*
- *group project (40%)*

Individual Test (40%)

Friday, 9 May 2025, from 09.15 to 10.00 in class

- Written exam or multiple choice exam
- 10 “simple” questions
- Concepts and principles for UGBI planning and design
- Based on the course presentations and readings (not the exercises)
- The exam’s key elements of the course and the readings will be indicated

Course Structure & Group Project

8 “green & blue” layers (exercises)

WATER

07.03.2025 Urban Rainwater Management
14.03.2025 Grey to Green Strategy

UHI

21.03.2025 Urban Heat Island
28.03.2025 Urban Heat Mitigation

BIODIVERSITY

04.04.2025 Tree in the City
11.04.2025 Urban Ecology & Biodiversity

HEALTH

02.05.2025 Health & Well-Being
09.05.2025 Healthy & Biophilic Design

Groupe Project (60%)

Simplified Case Study

- 4 Groups of 7 to 8 people
- Step-by-step “grey to green” strategy through the exercises
- Each group member is responsible for 1 “green & blue” layer (personal sub-project)
- Groupe work for all UGBI layers
 - bring all “green & blue” layers together
 - create a coherent and optimized new “grey to green” project
 - discuss Strengths/Weaknesses/Opportunities/Limits of your project
- Output: poster presentation
- Deadline: group presentation on May 30, 2025

Personal Project (20%)

Sub-project (as part of the group project)

- Step-by-step “grey to green” strategy through the exercises
- 8 exercises during the course = 8 “green & blue” layers
- Each group member is responsible/expert for 1 “green & blue” layer
- Personal work per UGBI layer
 - assess and analyse UGBI data
 - pre-design a “grey to green” strategy for your project
 - discuss Strengths/Weaknesses/Opportunities/Limits of your strategy
- Output: a short report (given format)
- Deadline: 2 weeks after each exercise!

Working Groups Instructions

Step 1 - Set up your group (28.02.25)

Students can organise and set up their working group according to the following rules/advice:

- groups should have between 6 and 7 students.
- diversity in the group is key!

Step 2 – Choose your personal sub-project (07.03.25)

Within a group, each student chooses a personal sub-project based on the course program.

Step 3 - Register your group (07.03.25)

Go to Moodle ENV-462 (<https://moodle.epfl.ch/course/view.php?id=18354> -)

Questions/Expectations/Demands

- Do you have any **questions** so far?
- What is the **newest** information/knowledge you have heard today? *(things you never heard before)*
- What is the information/knowledge you were **already** aware of? *(things you have heard several times before)*
- What do you **expect** from this course?
- Do you have any special **demands/requests** about the course?



TAKE HOME MESSAGE

- UGBI reconciles nature and cities
- UGBI strengthen city adaptation and resilience to climate change
- UGBI offer a wide range of ES to the urban environment
- UGBI improve people's health and well-being
- UGBI are cost-effective (in comparison to grey infrastructures)
- UGBI requires soundly planned and designed projects
- UGBI are connected and multifunctional
- UGBI are inter- and transdisciplinary

Next steps

Today

- Presentations and readings will be uploaded on Moodle

Next lesson (28.02.2025)

- Definition and concept of urban “green & blue” infrastructure
- Strategic planning and design of UGBI

Reading for the week!

- Metro Vancouver, (n.d): *Connecting the dots. Regional green infrastructure network resource guide.*

Questions or problems

- yves.kazemi@epfl.ch or +41 (0)79 637 67 46 (urgent)

A vibrant, high-resolution photograph of a forest stream. The water flows over large, dark rocks covered in bright green moss. The surrounding trees and foliage are a mix of deep green and bright yellow-green, suggesting a sunny day in a dense forest. The overall atmosphere is peaceful and natural.

**Have a good weekend
&
Looking forward to seeing
you next week**