The potential of Nature-based solutions (NBS) for water resources management in Mediterranean medium-sized cities in the context of climate change



**SUMMER SCHOOL** 

Girona, June 20th - July 1st 2022

WATER RESOURCES and ENVIRONMENTAL CHANGE

**Erasmus Blended Intensive Program (BIP)** 

Organizers









Co-organizers

# Programm

## Aim

The Summer School is a 2-week intensive collaborative knowledge-creation experience for students, teachers, partners and local stakeholders.

The first week is on on-line mode and includes formation about Problem-based learning (PBL) methodology and about NBS for Water Resources management in the context of Med cities, complementary conferences and PBL autonomous work.

The second week deals with the case study of Girona city where students will work with groups using the PBL methodology the following topics:

- How can mid-size cities face challenges related to global environmental change and the climate emergency through Nature Based Solutions (NBS)?
- How can water cycle related NBS contribute to:

Mitigate the heat island effect and heat waves?

Urban food supply, food sovereignty and gastrotourism?

biodiversity Flood prevention and conservation

Working languages

English

It provides

3 ECTS credits

Accommodation

Rental bike

Contribution to living expenses















## First week : June 20th - June 24th

	Da	te and time	Topics	Activity	Groups	Speaker/Dinamyser	
on-line week	Monday 20	10:00 - 11:00	Intro to the course, agenda PBL Methodology	Online talk	All groups Ignasi Rodríguez-Roda (University of Girona-UdG)		
		11:00 - 12:30	PBL session I	Breakout	Group 1 Group 2 Group 3	Ignasi Rodríguez-Roda (University of Girona-UdG) Antonina Torrens (Solidarity Foundation University Barcelona-FSUB) Pere Olives (University of Girona-UdG)	
			PBL autonomous work				
	Tuesday 21	10:00 - 12:30	Nature Based Solutions for food production in cities: the Edicinet project	s and ions	sdn	Ina Samuel (Humboldt University-HU)  Natasha Atanasova (University of Ljubljana-UL),	
			Resources flows in cities: towards circularity	Seminars and discussions	All groups	Joaquim Comas (University of Girona, UdG- Catalan Institute for Water Research-ICRA)	
			Nature-Based Solutions and biodiversity in cities			Latifa Bousselmi, Lamia Bouziri (Research in action Association-REACT)	
	$\vdash$		PBL autonomous work	Seminars and			
	2	10:00 - 11:00	Greening cities and environmental justice	discussions	All groups	Alexandra Popartan (University of Girona-UdG)	
	Wednesday 22	11:15 - 12:30	PBL session I	Breakout rooms	Group 1 Group 2	Ignasi Rodríguez-Roda (University of Girona-UdG) Antonina Torrens (Solidarity Foundation University Barcelona-FSUB)	
			PBL autonomous work		Group 3	Pere Olives (University of Girona-UdG)	
	Thursday 23	10:00 - 12:30	Making cities green and edible integrating Nature-Based Solutions in building projects	Seminars and discussions	All groups	Felix Mollenhauer (German federation of building greening, BUGG)	
			Social and cultural impact of Edible Nature-Based Solutions	Sem	₹	Prinzessinnengarten Kollektiv Berlin. TO CONFIRM	
				ш	Group 1	Ignasi Rodríguez-Roda (University of Girona-UdG)	
			PBL session I	Breakout rooms	Group 2	Antonina Torrens (Solidarity Foundation University Barcelona-FSUB)	
			DDI sutonomous work		Group 3	Pere Olives (University of Girona-UdG)	
	Carl	2F	PBL autonomous work				
	Saturday 25 Sunday 26		Arrival to Girona city and accommodation				

### Second week: June 27th - July 1st

#### Case Study

# Location Study area:

Catalonia (SP

# Working location:

Girona University, Catalonia (SP)

#### Accommodation:

Hotel Peninsular, Girona city, Catalonia (SP)

	Date and time		Topics	Activity		
face-to-face week		9.00 - 13.00	Introduction to the case study, week agenda, work methodology, expected outputs, practicalities, etc. Presentation of the Project Based Learning cases by local stakeholders:  Girona council – UMAT / Environment Department: Urban climate and green-blue infrastructure.  Girona Council – Tourism / Environment Department: Menja't Girona (Eat Girona Next Generation project)  UdG – Anna Ribas: Historic water management, floods, flood risk and NBS  Sorelló – Quim Pou: River system conservation and regeneration challenges and projects			
	Monday 27	13.00 - 14.00	10 Lunch in university canteen			
	Mor	14.00 - 16.00	Students split in 3 groups according to the Project Based Learning selected topic and start to devise main research questions and creative solving resources and ideas.			
		16.00 - 18.00	Free time			
		18.00 - 20.00	City tour: historic-cultural visit of the city with the local tourist guide Maria Rizzolo.  End: local deluxe ice cream at Rocambolesc (paid by each one)			
		20.00 - 22.00	Dinner in local restaurant: Le Bistrot charming city center restaurant			
	Tuesday 28	09.00 - 13.00	Cycling the waterscape of Girona. Cycling tour starting from the city center (Town Hall). Stops:  Ribes del Ter & Devesa: Olga Felip – Four rivers Project  Santa Eugènia urban agriculture plots: Cristian Geiss – Local council Environmental officer  Deveses d'en Bru wetlands – Local council Environmental officer  The Water Museum: Teia Puigvert – River Ter Consortium  Molí hydropower plant  Back to the Sciences Faculty			
	_ 2	13.00 - 15.00	Lunch in university canteen			
		15.00 - 18.00	Project Based Learning autonomous work			
		18.00 - onwards	Free time and free arranged dinner			
		09.00 - 12.30	Project Based Learning autonomous work			
		12.30 - 13.40	Lunch in university canteen			
	29	13.30 - 15.00	Presentation of first ideas, designs and results to local stakeholders and feedback discussion.			
	day	15.00 - 17.00	Project Based Learning autonomous work			
_	Wednesday 29	17.00 - 19.00	Free time			
	Wed	19.00 - 22.00	Low-carbon landscape eaters experience:  Walking tour to Sant Daniel, along the Fringes Project (periurban landscaping), with outdoors gathering with members of the 4 organic consumers' groups in Girona, and meal with locally sourced products.			
	<u>~</u>	09.00 - 17.00	O Project Based Learning autonomous work (lunch in University Canteen)			
	Thursday 30	17.00 - onwards	Free time and self-arranged dinner			
		10.00 - 13.00	FINAL PRESENTATIONS			
	<u>₹</u>	13.00 - 20.00				
	Friday	20.00 - onwards	Farewell dinner in local restaurant			
	Sat	turday 25	Return Travels			