



U-Care

This guide presents the educational framework, implementation experience and lessons learned from integrating the UrbanCare methodology into higher education through the U-CARE project. It is intended for educators, course coordinators and higher education institutions seeking to introduce or strengthen teaching on urban health, climate resilience, spatial equity and evidence-informed urban planning and design.

The guide addresses the need for more integrated approaches to urban health education. Challenges such as limited walkability and spatial equity, urban heat, stormwater runoff and biotope loss are closely connected to the design, planning and management of urban environments, yet they are often addressed separately within higher education curricula. The U-CARE approach provides a framework for connecting these challenges with research, spatial analysis, digital tools, field-based learning and participatory decision-making.

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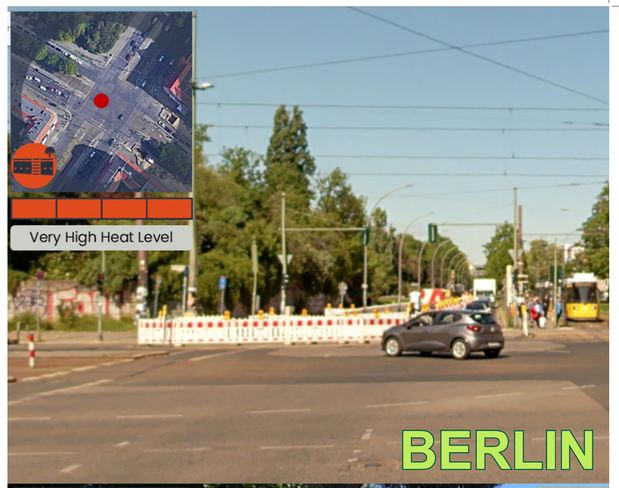
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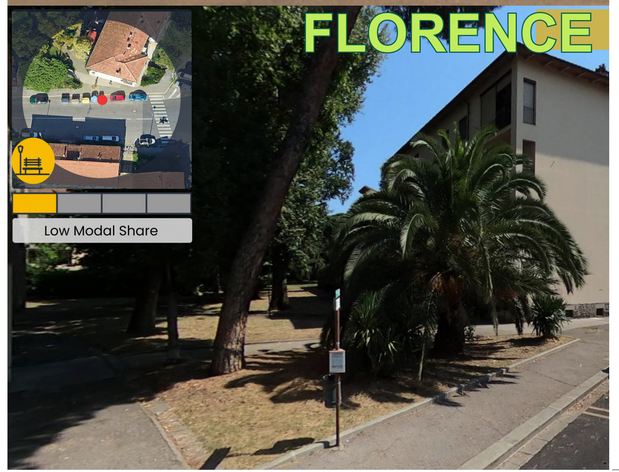
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U-Care Guide

A Handbook for Replicating the U-Care Approach to Urban Health Education

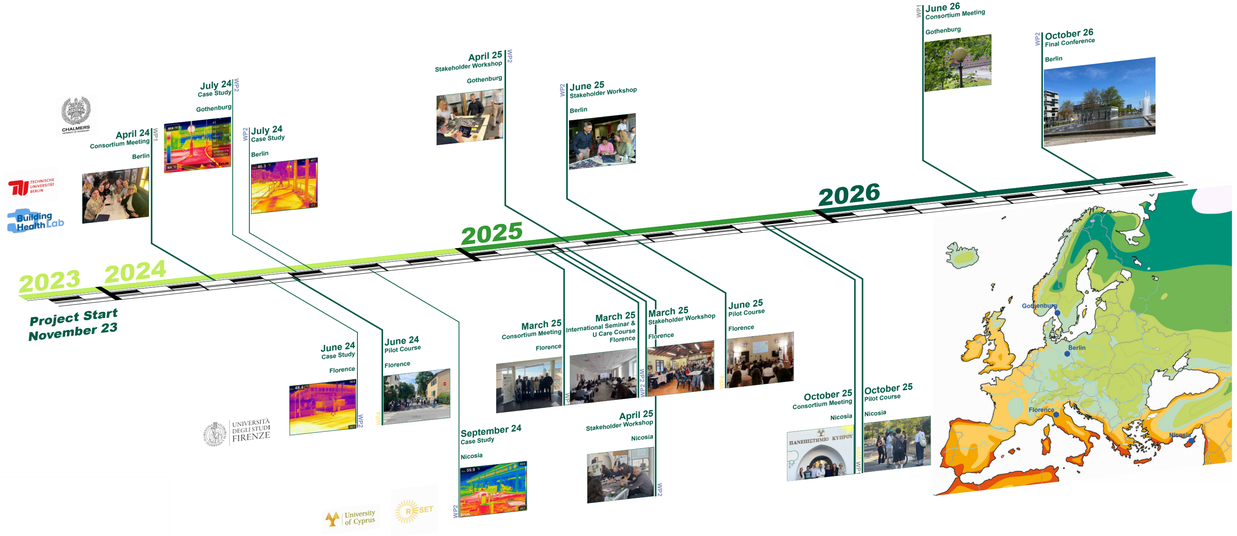






U-Care

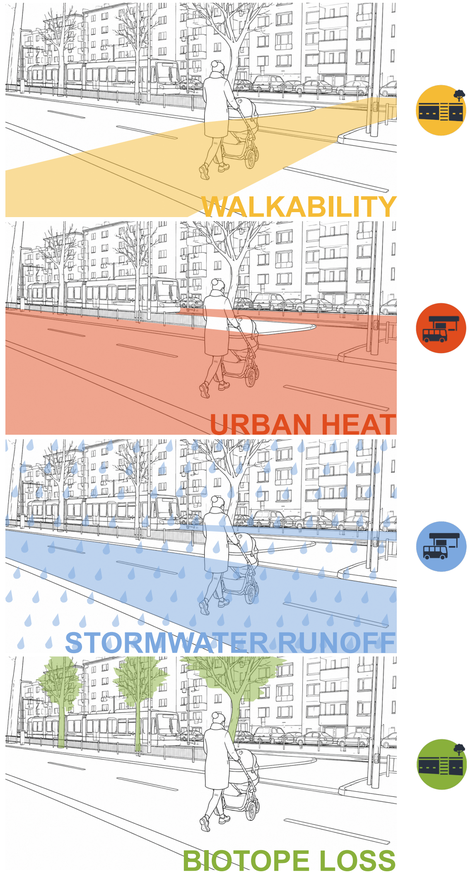
Project Timeline



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A three-step methodology

1. Urban Health Research → Research-based learning
2. Neighbourhood Diagnostics → Fieldwork + Data Collection
3. Stakeholder Workshops → Participation + Real World Constraints



THE U-CARE EXPERIENCE

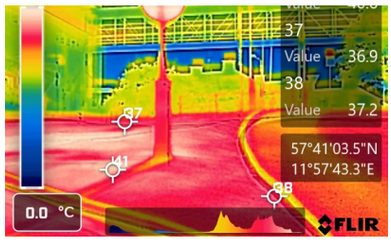






















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U-Care

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Executive Summary

This guide presents the educational framework, implementation experience and lessons learned from integrating the UrbanCare methodology into higher education through the U-CARE project. It is intended for educators, course coordinators and higher education institutions seeking to introduce or strengthen teaching on urban health, climate resilience, spatial equity and evidence-informed urban planning and design.

The guide addresses the need for more integrated approaches to urban health education. Challenges such as limited walkability and spatial equity, urban heat, stormwater runoff and biotope loss are closely connected to the design, planning and management of urban environments, yet they are often addressed separately within higher education curricula. The U-CARE approach provides a framework for connecting these challenges with research, spatial analysis, digital tools, field-based learning and participatory decision-making.

At the centre of the guide is the translation of the UrbanCare methodology into a flexible educational framework structured around three interconnected stages: urban health research, neighbourhood diagnostics and decision-making workshops. Students first develop an evidence base and a shared understanding of urban health challenges; they then investigate these challenges through spatial analysis, digital tools and direct engagement with neighbourhood conditions; and finally use their findings to identify priorities, develop and compare possible interventions and communicate evidence-informed responses. The four U-CARE themes – walkability, urban heat, stormwater runoff and biotope loss – provide a common thematic framework through which this learning process can be applied.

Digital skills are integrated throughout this learning process. The U-CARE Data Viewer demonstrates how spatial, environmental and visual information can support the exploration of urban health conditions and connect research with fieldwork, analysis and decision-making. The guide encourages educators to select digital tools according to learning objectives and students' prior experience, while maintaining critical attention to data quality, uncertainty, representation and accessibility.

The educational framework was implemented and tested through pilot courses at the University of Florence, the University of Cyprus and Chalmers University of Technology. Each institution adapted the common U-CARE themes and methodology to its disciplinary expertise, institutional setting, student cohort and existing curriculum. The pilots therefore demonstrate different implementation pathways rather than a single model course. These range from data management and environmental health impact assessment to healthy urban design and planning and the integration of urban health and climate considerations into facilities and development management education.

Experience from the pilot courses highlights the educational value of connecting theoretical knowledge with local case studies, structured analysis, field observation and decision-making activities. Students were encouraged to work with different forms of evidence, critically observe urban environments, collaborate across perspectives and develop proposals grounded in environmental and health considerations. At the same time, the pilots identified practical challenges related to curriculum approval processes, institutional timetables, staff capacity, technical requirements, differences in students' prior knowledge and the organisation of fieldwork and stakeholder participation.

A central conclusion of the guide is that successful implementation does not require educators to reproduce the U-CARE pilot courses or adopt every component of the methodology. The framework is designed to be adapted to different disciplines, course lengths, institutional settings and available resources. Educators can implement the complete learning sequence, integrate selected stages into existing courses or studios, or use individual activities such as evidence-based research exercises, neighbourhood diagnostics, digital analysis or participatory decision-making workshops.

The guide therefore provides practical support for course design and implementation, including alternative course structures, teaching formats, learning objectives and competencies, assessment principles, institutional implementation strategies, lessons from the pilot courses and a planning checklist for future applications. Particular emphasis is placed on aligning learning outcomes, teaching activities and assessment; connecting classroom learning with real urban contexts; providing appropriate scaffolding for interdisciplinary student cohorts; integrating equity and vulnerable groups throughout the learning process; and designing courses and modules that can continue beyond the duration of project funding.

Overall, the U-CARE experience demonstrates the potential of the UrbanCare methodology as a transferable framework for urban health and sustainability education. By connecting evidence, neighbourhood conditions, digital tools and decision-making, the approach can help students develop the analytical, practical, collaborative and critical competencies required to address complex urban health and climate challenges. Its flexibility allows institutions to begin with manageable interventions, adapt the methodology to their own educational context and progressively strengthen the integration of urban health into higher education curricula.

1. Introduction and purpose of the guide

1.1 Background: urban health in higher education

Climate change is reshaping European cities through rising temperatures, more intense rainfall events, biodiversity loss, and widening environmental inequalities. These dynamics generate direct and indirect public health impacts, including heat stress, reduced walkability, mental health pressures, flooding risks, and exposure to degraded public environments. These factors interact with social conditions, patterns of vulnerability and the ways urban environments are planned, designed, managed and maintained. Higher education has an important role in preparing future architects, planners, public health professionals, engineers, urban managers and other practitioners to work across disciplinary boundaries. Yet, despite these urgent challenges, urban health remains only occasionally or partially embedded in architecture, planning and public management curricula. Architectural education institutions are not required to include health in their scope [1], and few universities offer training programmes that equip students with the interdisciplinary skills needed to understand and improve urban health [2]. In particular, it was highlighted that the few available urban health programmes focus on a narrow range of methodologies, lack training in mixed methods and participatory action research, do not expose students to governance issues or field-based learning opportunities, and do not delve into comparative analysis of cities [2]. Therefore, students may be exposed to different aspects related to urban health but not in an integrated way; for example, they might learn about environmental performance without considering public health, be trained in spatial analysis without acquiring any participatory skills, or delve into policy without direct engagement with neighbourhood conditions.

Embedding urban health into higher education does not require every institution to establish a new degree programme. It can begin by creating stronger connections between existing subjects, local places, evidence and decision-making. The U-CARE approach presented in this guide is designed to support this flexible integration.

Teaching the field of urban health can provide students with opportunities to understand how climate, health, spatial quality and equity interact; work with different forms of evidence; learn directly from neighbourhoods; and communicate and negotiate possible interventions. It is a powerful integrative theme because it connects climate adaptation, environmental and spatial justice, health and wellbeing. These links enable the integration of design, planning, engineering, public health, and management perspectives into a coherent learning framework.

When planning or designing educational activities for urban health, whether as full courses, modules, or components within an existing curriculum, educators could consider the following question as a starting point: Where does urban health already appear in your curriculum? Which dimensions are missing? What local urban challenges could provide a meaningful learning context? Which disciplines, departments or external organisations could contribute? With these in mind, the present guide offers some directions with regards to topics and activities that could be included in teaching sessions, resources developed through the U-CARE project, which are freely accessible for use, and examples and reflections from the experience of implementing educational pilots which can be helpful to educators to choose their approach to teaching urban health and overcome any difficulties which may arise in the process.

1.2 The U-CARE project in brief

The Erasmus+ U-CARE project was established to address the educational gaps mentioned above by connecting research across different cities, digital innovation, participatory skills, stakeholder engagement and higher education. One of its objectives was to develop and test transferable learning modules that equip future professionals with the competencies needed to plan, design, and manage healthier, more climate-resilient cities, based on the UrbanCare methodology. The consortium partners are located in cities across different climate zones in Europe: Gothenburg (Oceanic), Berlin (Continental-humid), Florence (Mediterranean) and Nicosia (Semi-arid), which enabled the implementation and testing of the methodology in the context of different climatic characteristics and, therefore, also differing levels and types of exposure to climate change risks.

A curricula survey conducted among partner institutions identified fragmented treatment of urban health topics, limited use of data-driven methods, insufficient fieldwork opportunities, and weak links between academic learning and real-world governance contexts [3]. It also highlighted opportunities for more systematic treatment of urban health, stronger links between data and spatial decision-making, greater use of field-based learning, more interdisciplinary work, and closer engagement with real-world governance and stakeholder contexts. These findings are consistent with broader policy debates on the need to align higher education with sustainability transitions, digital competence, and future green market needs [4].

The educational pilots were deliberately different. The University of Florence focused on data management and environmental and health impact assessment. The University of Cyprus connected urban health policy, design and planning with neighbourhood analysis and participatory decision-making. Chalmers University of Technology applied the approach to service design and infrastructure management. Together, the pilots demonstrate that a shared methodology can support different educational formats without requiring identical courses.

1.3 Target audience and scope of the guide

This guide is intended for lecturers, programme directors, course coordinators, studio tutors and educational teams in higher education, particularly in architecture, urban planning, public health, landscape architecture, environmental studies, engineering, geography, public policy and related fields. You can use the guide to:

- Design a complete course in urban health around the three-stage UrbanCare learning-sequence.
- Integrate one or more UrbanCare stages into an existing course, studio or seminar.
- Develop a short, intensive module, field school or workshop focused on a local neighbourhood.
- Add evidence-informed fieldwork or participatory decision-making activities to existing teaching.
- Use the U-CARE pilots as examples when discussing course design, assessment and institutional implementation.
- Use the U-CARE open-access teaching and learning resources in your own activities.

How to use this Guide

Start with Chapter 2 to understand the methodology's educational logic. Chapter 3 provides examples and ideas for integrating digital tools and practising digital skills in learning activities. Go to Chapter 4 when designing or revising a course. Use Chapter 5 to inform institutional implementation and Chapter 6 for lessons from the pilots and challenges faced. You do not need to reproduce a U-CARE pilot. Select the elements that serve your learning objectives, student cohort, disciplinary context, teaching time, access to sites and data, and opportunities for stakeholder engagement.

At each step, we provide hands-on suggestions and examples of how to configure your U-Care seminar.

2.0

Pedagogical framework of U-CARE



Fig. Nicosia Pilot Course
April 2025

2. The UrbanCare methodology and mitigation targets as an educational framework

The UrbanCare framework was developed through sustained research, teaching, and applied practice. It integrates urban health, climate, and spatial analyses into a structured three-phase methodology to assess spatial inequities and guide the sustainable development of public spaces. The framework was originally established for industry before its educational application in the U-CARE project, where it served as a structured approach for moving from understanding an urban health problem to investigating it in situ and considering possible responses. The methodology creates a learning sequence in which research, field observation, analysis, participation and decision-making reinforce one another. The complete sequence can structure a semester course, while individual stages can be used as stand-alone modules or activities.

Find out more about the UrbanCare Framework

https://www.u-care.solutions/urbancare-concept/

A three-step methodology

UrbanCare is an indicator-based urban health framework that analyses spatial inequity through four interconnected mechanisms of urban degradation: walkability constraints, surface runoff, urban heat, and biotope loss. These mechanisms capture conditions affecting the quality and functioning of air, soil, and water, while spatial equity operates as a cross-cutting determinant of health [5]. They also affect ecosystem services and disproportionately impact vulnerable and slower-paced groups.

The framework is structured around three phases: 1) urban health research, which establishes baseline conditions; 2) a planning phase involving neighbourhood diagnostics, which analyse environmental exposures and the health impacts of urban conditions; and 3) a design phase beginning with stakeholder decision-making workshops and leading to the development of spatial interventions at the pedestrian scale. Across these phases, environmental indicators support research, planning, and spatial design decisions in either a higher education institution or a professional studio context [6].

The U-CARE teaching framework is structured around this three-step methodology - a sequence which provides a coherent backbone for integrating urban health, climate responsiveness, and spatial analysis into higher education, ensuring that evidence generation, decision-making, and spatial intervention remain continuously connected. How the methodology was translated into a learning framework is summarised in Figure 1.

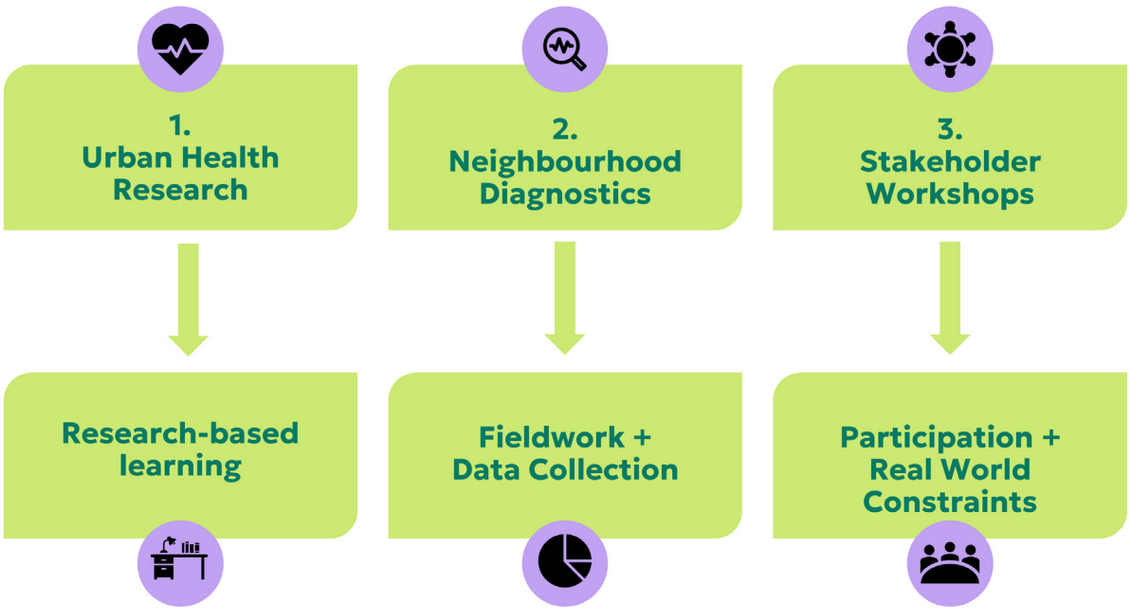


Figure 1. Translation of the UrbanCare methodology into a learning framework.

The implementation of the U-CARE pilot courses translated the UrbanCare framework into a higher education context through thematic and pedagogical adaptation. The four urban degradation mechanisms structuring the framework - walkability constraints, urban heat, surface runoff, and biotope loss - were operationalised as teaching themes (summarised below) to guide course content, fieldwork, and design tasks.

Walkability

The research theme of walkability examined the relationships among urban form, accessibility, mobility networks, and public space quality, and how these conditions influence active mobility, health, independence and social interaction. Spatial equity is directly related to this in terms of the universality of walkability - the degree to which urban environments are (in)accessible across urban populations and neighbourhoods. The pedestrian environments and the design choices that shaped them are assessed for their impact on public health, with a critical examination of accessibility, vulnerability, inclusion, and the distribution of climate risks and environmental benefits.

Urban heat

Research into urban heat examined the relationship between urban morphology, surface and street-furniture materials, vegetation, shade presence and continuity, and microclimate conditions, and their contribution to heat accumulation and pedestrian exposure and thermal comfort. Prolonged solar and heat stress exposure can aggravate cardiovascular, respiratory, and other health conditions, while older people, children, pregnant women, people with disabilities, those with chronic illnesses and socially disadvantaged populations are particularly vulnerable. Understanding the impact of urban design on pedestrian heat exposure and associated health risks was therefore essential for identifying, targeting and prioritising effective mitigation measures where they are most needed.

Stormwater runoff

The surface runoff theme focuses on the consequences of climate change, intense rainfall, surface sealing and reduced soil permeability for urban flooding, infrastructure performance and pedestrian health and safety.. Impermeable, damaged, and poorly designed urban surfaces accelerate runoff and can generate ponding, erosion, and local flooding along pavements, crossings, waiting areas and entrance thresholds leading to slipping hazards and making public spaces inaccessible for wheelchair users, people with visual or mobility impairments, older adults and caregivers with strollers.
Water-sensitive urban design and Nature-based Solutions were introduced through a climate-specific approach, comparing how runoff processes and suitable interventions differ across European contexts, from oceanic climates with frequent rainfall to Mediterranean and semi-arid climates characterised by intense storm events, prolonged dry periods and reduced soil infiltration.

Biotope loss

The theme of biotope loss addressed the fragmentation and degradation of urban ecosystems due to land sealing, infrastructure development and urbanisation . Along pedestrian paths, the analysis considered the availability and proximity of green space, the diversity and structure of vegetation, the continuity between green areas and the presence of features capable of supporting wildlife. Biotope loss was therefore approached as an integrated ecological and urban-health issue, examining how planning and design choices weaken or restore the capacity of connected living systems to regulate heat, retain and manage rainwater, provide habitat for pollinators and other species, and support human physical and mental health through cooler, healthier and more restorative pedestrian environments.

While the methodological structure of UrbanCare remained constant, its application was adapted to the disciplinary focus, institutional setting, and pedagogical format of each participating university. Table 1 provides an example of this adaptation in the piloting institutions to inform how the framework could be adapted in others.

Table 1. Adaptation of U-CARE shared themes to local institutions' disciplinary emphasis

	Pilot 1 University of Florence	Pilot 2 University of Cyprus	Pilot 3 Chalmers University of Technology
Walkability	Evaluating the impact of climate change, specifically urban heat and stormwater run-off, on the pedestrian mobility and accessibility of vulnerable groups	The role of walkability in reducing accidents, contagious and non-contagious diseases, and promoting active lifestyles	Integrating active travel: how walkable environments influence health
Urban Heat	Addressing urban heat as part of climate-resilient strategies	Mitigating heat-related health issues	Shading to save energy: the urban heat island effect and its impact on the health of vulnerable groups
Stormwater Runoff	Stormwater management as part of climate-resilient strategies	Reducing waterborne diseases and safeguarding drinking water supplies	Unsealing as a water-sensitive strategy: health risks associated with unmanaged stormwater, drought and flooding
Biotope Loss	Balancing climate mitigation strategies with biodiversity conservation	The connection between biodiversity, mental health and ecosystem services	How the loss of natural habitats affects health

A full learning sequence moves from research to diagnostics to decision-making. This progression helps students understand that urban health interventions should be evidence-informed, place-sensitive and negotiated. However, educators can enter the framework at different points. A methods course may focus on research and diagnostics. A design studio may draw on an existing evidence base and focus on diagnostics and proposals. A policy course may use research findings as the basis for a decision-making simulation. The framework should serve the course rather than the course serving the framework.

2.1 Urban health research - building a common understanding of the evidence base

This pillar introduces students to urban health challenges and the evidence needed to investigate them. In U-CARE, key themes included urban heat, stormwater runoff, biotope loss and walkability. These themes can be retained, expanded or replaced according to local conditions and course objectives.
Students can work with scientific literature, policy documents, spatial datasets, environmental indicators, demographic information and local knowledge. The educational aim is to learn how to formulate questions, assess evidence, identify uncertainty and connect environmental conditions with health and equity through the U-CARE place-based approach, which covers various types of urban scenes (priority entrances, stops and stations, crossings, respite areas).

→ See section 4.1 for examples of what was done in the U-CARE pilots.

2.1.1 Research-based learning

Research-based learning places inquiry, evidence gathering, reflection, and knowledge production at the centre of the student experience. Rather than passively receiving knowledge, students engage with practical questions, methods, and uncertain outcomes. Healey and Jenkins argue that links between research and teaching are especially valuable when students actively participate in inquiry processes rather than simply consuming research outputs [7]. Brew similarly emphasises that research and teaching should be understood as mutually reinforcing activities in higher education [8]. Inquiry-led and problem-based pedagogies are therefore particularly relevant to planning and design disciplines, where complex socio-environmental problems require analytical reasoning, synthesis across multiple forms of evidence, and the ability to formulate situated responses. Evidence from broader higher education research supports this emphasis on active learning approaches, which increase student performance in science, engineering, and mathematics compared with traditional lecturing [9]. While urban planning and design education has its own studio-based traditions, the U-CARE pilots extend active learning by connecting design work with empirical urban health research, environmental data, and participatory decision making.

Minimum requirements:
Use one urban health theme, one local case area and a small set of accessible evidence sources. Ask students to produce a short evidence brief identifying the problem, affected groups, spatial patterns and key uncertainties.

Questions to consider:

- What evidence can students realistically access and interpret?
- Which concepts require introductory teaching?
- How will you help students distinguish between correlation, exposure, vulnerability and causation?

2.1.2 Transdisciplinary and problem-oriented education

Graduates are increasingly expected to combine disciplinary knowledge with collaboration, communication, and digital competence. Digital competence is not limited to software operation; it includes the capacity to locate, interpret, create, and communicate information through digital tools, as well as the critical evaluation of digital resources [10]. In planning and design education, these skills are increasingly important because urban decisions should rely on spatial data and environmental indicators, both of which require visualisation for interpretation.

Participatory skills are equally important. Sustainability challenges involve multiple actors with different forms of expertise, authority, and lived experience. Planning theory has long emphasised communicative and collaboration and stakeholder engagement as necessary conditions for ve approaches to decision-making [11], while more recent work stresses co-creation for sustainable urban transitions, since complex urban challenges require collaborative governance, shared learning, and coordinated action across sectors [12,13]. For students, this means learning not only to produce technically sound proposals but also to communicate evidence, facilitate dialogue, and understand the institutional settings in which decisions are made. Urban health problems cross disciplinary and professional boundaries. A course can use this complexity as a teaching resource. Students can combine environmental, spatial, social and policy perspectives and explain how different forms of expertise shape the understanding of a problem.

Adaptation option: In a single-discipline course, introduce other perspectives through guest lectures, short readings, stakeholder interviews or peer critique. In a multidisciplinary cohort, make integration of different forms of knowledge an explicit learning outcome.



If you have more time: Ask interdisciplinary teams to compare several forms of evidence, develop indicators, use digital spatial tools and examine how different definitions of the problem lead to different priorities.

2.2 Neighbourhood diagnostics - learning from place: fieldwork and analytical skills

This pillar takes students into the neighbourhood. Fieldwork allows them to test assumptions, observe conditions that may not be visible in datasets, document differences between locations and consider how urban environments are experienced by different users.

Diagnostics can include structured observation, mapping, environmental measurements, photographic documentation, accessibility audits, pedestrian route assessments, interviews, and other methods appropriate to the course. Students should use a transparent and repeatable approach and connect observations to questions developed during the research stage.

Minimum implementation:
Organise one field visit with a shared observation protocol. Ask students to document selected locations and compare observations with the evidence gathered in the research phase.

Questions to consider:

- What permissions, accessibility arrangements and safety procedures are required?
- How will students record observations consistently?
- Whose experience of the neighbourhood may be missing?

If fieldwork is difficult: Use remote mapping, street-level imagery, existing datasets, virtual site visits or student-collected observations from different locations. Include the limitations of these alternatives in the learning discussion.



2.3 Decision-making workshops - moving from evidence to priorities: participatory and communication skills

This pillar enables students to use evidence and diagnostics in decision-making, supporting the development of participatory planning and communication skills in urban health and climate adaptation. They identify priorities, compare possible interventions, make trade-offs visible and communicate recommendations.
Participatory activities can range from classroom role-play to workshops involving residents, public authorities, professionals or civil society organisations. External participation can deepen learning, but it should be purposeful and ethically organised.

The aim of participatory workshops is to introduce students to facilitation techniques, stakeholder engagement processes, and interdisciplinary collaboration practices. By working with real case studies and diverse stakeholder perspectives, students can strengthen their ability to communicate and discuss complex urban health issues, negotiate priorities, and translate research findings into inclusive and actionable planning strategies.

Minimum implementation:
Run a classroom workshop in which students represent different stakeholder perspectives, prioritise problems and compare possible responses using explicit criteria.

2.3.1 Participatory activities used in the U-CARE pilots

During the deployment of the U-CARE pilot courses, participatory activities were included in the curricula. These activities supported the development of critical thinking and place-based understanding of urban health and climate challenges, strengthening the students' ability to connect research, policy, and design practice in real-world urban contexts.

At the University of Cyprus, the workshop simulated a participatory workshop involving local stakeholders, community actors, and representatives of governance structures. Students were provided with a 'character' card and asked to role-play a stakeholder role according to specific guidelines, while a student acted as facilitator and mediated the participatory process,

attempting to produce a positive outcome and initial design considerations for the Nicosia case study site. The workshop methodology and materials were identical to those used in real co-design workshops within the UrbanCare methodology.

At the University of Florence, students participated directly in a real co-design workshop, working side by side with citizens, experts, and representatives of public authorities. Students were actively involved in the workshop as part of an applied learning experience; this allowed them to experience first-hand how participatory planning processes are structured, how different stakeholder needs and priorities emerge, and how dialogue can support the development of shared design directions.

If you can involve external stakeholders:
Engage them early enough to shape the learning process, prepare students for respectful interaction, avoid extractive consultation and provide a clear output or feedback loop.

From an educational perspective, the workshops provided a hands-on learning environment in which students could develop participatory, communication, and design translation skills in a real-world context. The activity strengthened their capacity to listen to non-expert voices, collaborate with diverse actors, communicate spatial ideas clearly, and translate complex urban health and climate adaptation needs into accessible, actionable design proposals.

Questions to consider:

- Who has decision-making power?
- Who is affected but often absent?
- What evidence will participants use?





Fig. 2



Fig. 1



Fig. 3

Fig. 1: Florence Stakeholder Workshop, March 2025
Fig. 2: Florence Pilot Course, June 2024
Fig. 3: Florence Stakeholder Workshop, March 2025

3.

Digital Skills as a horizontal component



Fig. Berlin Stakeholder Workshop
June 2025

3. Digital skills as a horizontal component

Digital tools can support all three stages by helping students access and organise data, visualise spatial patterns, document field observations, compare locations and communicate findings. Digital skills should be treated as a means of investigating urban health questions rather than as an isolated technical objective - digital tools are most effective when used not as substitutes for teaching but as bridges between research, place-based learning, and collaborative decision-making. The digital tools selected for activities depend heavily on students' backgrounds and skill levels, as well as on those of the educators. Choose tools according to the learning outcome and students' prior experience. Avoid allowing technical complexity to displace the urban health question. Provide introductory exercises where necessary and ask students to reflect on data gaps, uncertainty and representation.

Minimum implementation: Use a simple shared map or dataset that allows students to locate evidence and connect it.

Advanced option: If your students are more familiar with data management and processing, ask them to combine multiple datasets, develop indicators, document data provenance and limitations, and produce an interactive or reproducible analytical output.

In the case of the U-CARE project, Data Viewers were developed to provide open access to validated case-study outputs, comparative urban health evidence, and learning resources across Berlin, Florence, Nicosia and Gothenburg. These viewers make street-level urban health evidence practical for the research, planning, and design of climate-sensitive pedestrian projects. Using real cases from European cities, they organise and present immersive assessments of walkability, surface runoff, urban heat, and biotope loss along everyday pedestrian routes, helping users identify spatial inequities and create healthier, more climate-resilient urban environments.

Students could engage with a site-specific Data Viewer (an immersive visual data model) and curated case materials, which supported the reading, interpretation, and discussion of environmental conditions, pedestrian exposure, and potential health impacts. The U-CARE Data Viewers demonstrate how spatial and environmental information can be brought together for exploration and comparison. Educators may use the U-CARE Data Viewers directly where relevant, as an example of evidence visualisation, or as a remote case study, substituting pre-existing, local or open-source tools.

Find out more about the UrbanCare Data Viewers

https://ucareproject.eu/platform/

3.1 The U-CARE Data Viewer as an educational tool

Pedagogically, the viewer supported three important learning outcomes. First, it strengthened spatial literacy, enabling students to relate environmental indicators to specific urban locations (e.g., crossings, bus stops, shaded areas, entrances). Second, it improved evidence-based reasoning, since proposals were justified through observed thermal exposure, sealed surfaces, missing shade, or discontinuous footpaths rather than intuition alone. Third, it supported participatory learning by providing a shared visual evidence base that facilitated discussion during workshops, role-play exercises, and group design reviews. Students could debate priorities and interventions using common datasets and scenarios, and they particularly valued the opportunity to connect abstract concepts, such as heat exposure and pedestrian comfort, to specific locations. The Data Viewers therefore provided a consistent, evidence-based interface through which students apply data management, spatial analysis, and interpretative skills in relation to real urban contexts.

3.2 Structure and functionalities of the U-CARE Data Viewer

The Data Viewers allow users to move from neighbourhood-scale conditions to street-level scenes, providing evidence about three mitigation targets: urban heat, stormwater runoff, and biotope loss (Figure 2). Regarding walkability, the Viewers offered surveys enabling users to score the quality of specific urban locations (respite areas, pedestrian crossings, entrances to key services, public transport stops) and reflect on their own experience of place. In educational terms, this transformed abstract sustainability concepts into measurable and discussable urban conditions.

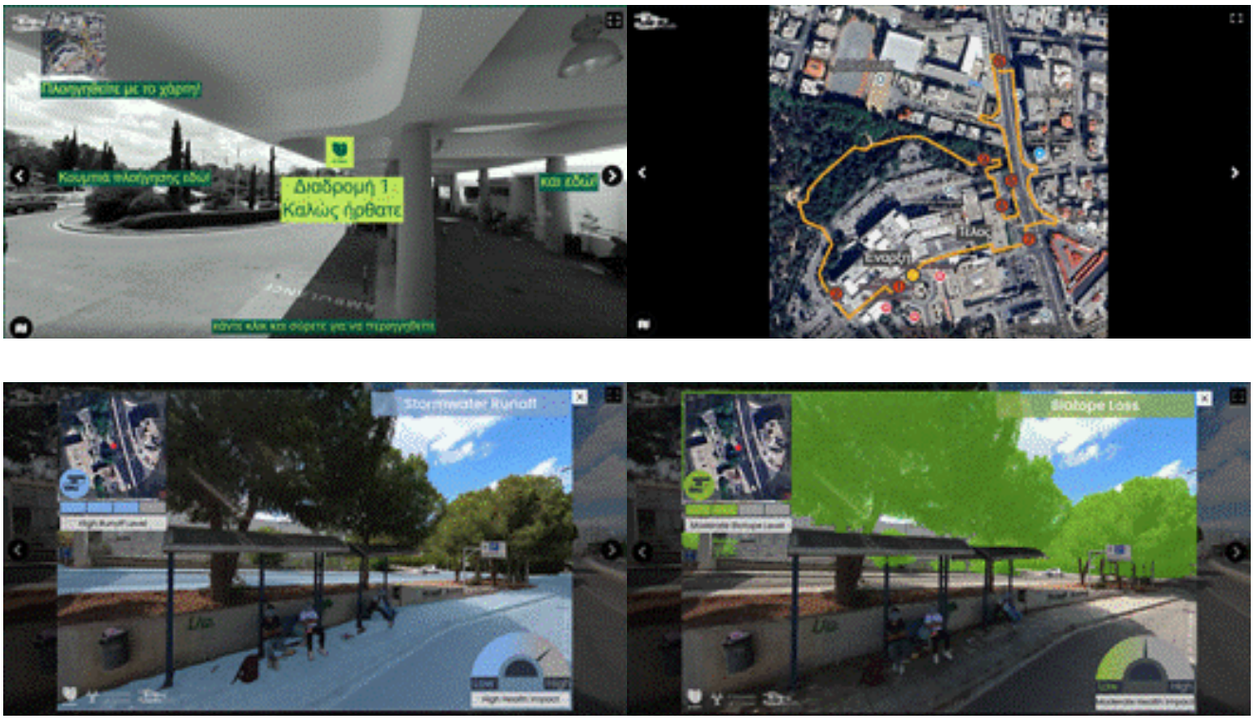


Figure 2. Example of the interface of the Data Viewer (Nicosia - Loop 1). Landing page for loop (top left); aerial view of loop showing locations of assessed urban scenes (top right); stormwater runoff assessment of location 5 (bottom left); biotope loss assessment of location 5 (bottom right).

3.3 How you can use the Data Viewers

The U-CARE Data Viewer is a tool for educational activities, providing students with easy-to-understand background information on sites and enabling them to conduct their own research. The viewer provides a preliminary analysis of urban scenes using indicators developed as part of the U-CARE project, aligned with the themes of stormwater runoff, urban heat, biotope loss, and walkability. These are visualised in an easy-to-understand manner, while thermal imagery accompanies each urban scene.

Example: Use of Data Viewer at the University of Florence

The Data Viewer was used during a co-design workshop in which students and local citizens jointly explored the case-study pedestrian routes and related urban scenes in the case-study area. It was thus integrated with the practice of participatory skills. The viewer provided a shared visual and analytical basis for discussion, helping citizens communicate their observations more clearly while enabling students to practice explaining research outcomes and better understand and comment on urban issues.
Furthermore, throughout the course, students used the platform as a complementary resource to the initial site visits. It allowed them to revisit specific locations, verify spatial characteristics, and check details as they developed their analyses and design proposals. Additionally, the course introduced an applied research component into the educational process. In addition to using the existing material available on the Florence Data Viewer, students assessed further urban scenes using the U-CARE indicators and prepared new analytical content for the platform. Their assessments were collectively discussed, reviewed, and corrected where necessary before being uploaded to the Data Viewer. While the initial platform included 24 urban scenes, additional scenes were subsequently added with students‘ support. The activity therefore enabled students not only to use a digital research tool, but also to contribute directly to its development and to the expansion of the project’s evidence base.

4.

Course design and sequential learning process



Fig. Nicosia Pilot Course
October 2025

4. Course design and sequential learning process

Before selecting content or activities, identify the role urban health should play in your programme. Decide whether you are creating a full course, adding a module, revising a studio or introducing a short activity. Clarify students' disciplinary background, expected prior knowledge, assessment requirements, access to local sites and data, and opportunities for collaboration.

Questions to consider:

- What should students be able to do by the end?
- Which UrbanCare stages best support those outcomes?
- What is the smallest coherent learning sequence you can deliver well?

4.1 Choose a course implementation structure

There is no single recommended course length. The U-CARE pilot courses responded to specific gaps in the curriculum of each participating institution - the length and intensity of your activities can do the same in terms of addressing your own institutional requirements and ambitions for innovating learning content and practice. Examples and links to U-CARE course structures and materials are provided below - possible pathways to implementation include:

- **Short introduction:** one urban health theme, a guided diagnostic exercise and a class room decision-making activity.
- **Embedded module:** several weeks within an existing course, combining research, fieldwork and a group output.
- **Studio or project course:** a neighbourhood-based sequence leading from evidence and diagnostics to strategies or design proposals.
- **Full urban health course:** the complete UrbanCare methodology, multiple themes, digital analysis, fieldwork, stakeholder engagement and integrated assessment.

Find out more about the UrbanCare Curricula Survey

https://ucareproject.eu/download/21725/

Example 1: Combating the impacts of climate change on urban ecosystems and health across different climatic zones in Europe (University of Florence)

The Florence pilot course aimed to create an evidence-based design research and practice learning module that tackles 'real-world' impacts in the fight against the global climate and health crises effectively by equipping students with practical skills in urban health design, environmental assessment, and data management, bridging the gap between research and real-world impact in urban health and climate resilience.

The course responded to the following challenges evidenced by project partners in the preparatory stages of the courses' design:

1. Absence in HEI curricula of key topics like healthy urban design and using digital tools to fill the gap;

2. absence of a unified framework linking environmental data with health outcomes;

3. absence of quantifiable tools to measure design impacts, seeing U-CARE as an opportunity to better engage students with real-world urban care issues.

The University of Florence pilot delved into quantitative and qualitative indicators of urban heat and stormwater runoff, as well as qualitative indicators of biotope loss. Concerning the evidence-based solutions approach, the University of Florence pilot course focused on different perspectives:

- **Walkability - Climate:** Evaluating the impact of climate change, specifically urban heat and stormwater run-off, on the pedestrian mobility and accessibility of vulnerable groups

- **Urban Heat - Climate:** Addressing urban heat as part of climate resilience strategies.

- **Stormwater Runoff - Climate:** Addressing stormwater as part of broader water-sensitive urban design.

- **Biotope Loss - Climate:** balancing climate mitigation strategies with biodiversity conservation.

Access the University of Florence Syllabus and Course Materials

https://ucareproject.notion.site/Combating-the-impacts-of-climate-change-on-urban-ecosystems-and-health-across-different-climatic-zon-1b26c542bea080239521eae9bc1e034f

Example 2: Healthy urban design and planning for Mediterranean cities (University of Cyprus)

This course addressed urban health in the specific context of Cyprus's semi-arid climate. It focused on the four pillars of urban health: walkability and spatial equity, urban heat mitigation, stormwater management, and biotope preservation. It delivered lectures covering the theoretical and conceptual framework of healthy cities and presenting the core concepts with a specific focus on walkability and urban heat, and the role of urban design in addressing health challenges:

- The role of walkability in reducing accidents and non-contagious diseases and promo ting active lifestyles.
- Mitigating urban heat-related health hazards through green infrastructures.
- The connection between biodiversity, mental health and ecosystems services.
- Reducing water runoff pollution and health risks.

Practical applications of healthy urbanism were exemplified through case studies. The students worked on the local case study of the area surrounding the Makarios Hospital in the Municipality of Strovolos, specifically the three pedestrian routes researched by the U-CARE team members. Students had access to the research materials and tools used to analyse the case study: the Data Viewer including evaluations of the pedestrian routes, urban health case site reports, and the outcomes of decision-making workshops with stakeholders.

The course was delivered in hybrid format at the University of Cyprus with lectures in presence and online by external speakers from both academia and practice. The practical sessions involved the students in fieldwork, desk-based research and participatory planning, feeding into the course assessment tasks including, presentations of readings, a group design exercise and visual presentation, and an individual essay (report).

Example 3: Service Management for Construction and Facilities (Chalmers University of Technology)

This course focused on the broader framework of service management for construction and facilities, introducing urban health and climate adaptation from a real estate and service management perspective. Rather than viewing the built environment as a static product, the course framed it as a dynamic resource, facility, or enabler of broader functions. This approach aligns with the service logic adopted in real estate and facilities management, emphasizing how built spaces support and facilitate services.

Access the University of Cyprus Syllabus and Course Materials

https://ucareproject.notion.site/Healthy-urban-design-and-planning-for-Mediterranean-Cities-2306c542bea0807abfdec64a3e3dd651

The course examined:

- The relationship between urban health, climate adaptation, and the built environment.
- The role of data and spatial analysis in informing planning and design decisions.
- Climate-related challenges including walkability, urban heat, stormwater runoff, and biotope loss.
- The integration of health and sustainability considerations within construction, facili ties management, and real estate development.

Practical applications were developed through group project work addressing real-world urban challenges. Students applied the UrbanCare methodology and supporting datasets to analyse case studies, interpret urban health indicators, and develop evidence-based strategies that integrated environmental, social, and economic considerations into urban renewal and development proposals.

4.2 Teaching formats, resources and learning activities

Use formats that support progression from concepts to application. Lectures and seminars can establish shared foundations - these are available on the U-CARE YouTube Channel; practical workshops can build analytical and digital skills; fieldwork can connect evidence with lived and spatial conditions; studios and group projects can support synthesis; and asynchronous resources can prepare students with different backgrounds.
Select fewer activities and connect them clearly rather than adding disconnected methods. Students should understand why each activity is used, how it relates to the urban health question and how it contributes to assessment.

4.3 Learning objectives and competencies

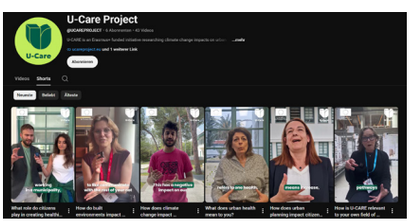
Depending on the type, length and level of the course, students may be expected to achieve a variety of learning outcomes. In the case of the U-CARE pilot courses, learning outcomes combined both field-specific and transferable competencies. These included an understanding of relationships between urban environments and health outcomes, developing

Access the Chalmers Syllabus and Course Materials

https://ucareproject.notion.site/Service-management-for-construction-and-facilities-52c6c542bea0826dbbb50163bdd24c45

Check out the U-CARE YouTube Channel

https://m.youtube.com/@UCAREPROJECT?ra=m



competencies to analyze and interpret environmental and health data, applying systems think ing to complex urban issues, translating analytical insight into design proposals, and engaging with stakeholders and decision making processes.
The learning objectives shared here are drawn from the implementation of the U-CARE pilot courses, and are intended as an indicative resource for future educators. They are not a prescriptive set of outcomes but rather an indicative, non-exhaustive list of potential directions such learning activities can take. Depending on the course structure, disciplinary focus, and level of study, educators may select and combine learning objectives that best support their teaching aims. The objectives span knowledge acquisition, analytical and technical skills, systems thinking, design application, and interdisciplinary collaboration, and can be adapted to suit different educational contexts.

Learning objectives from the implemented pilot courses included enabling students to:

- Explain the relationships between urban form, climate change, environmental quality, and human health.
- Describe the principles of healthy urban planning and their application in different climatic and geographical contexts.
- Evaluate how walkability influences public health, accessibility, active mobility, and social inclusion.
- Analyse the effects of urban heat, stormwater runoff, biodiversity loss, and air pollution on urban environments and health outcomes.
- Explain the role of green infrastructure, ecosystem services, and biodiversity in pro moting healthier and more climate-resilient cities.
- Assess how specific characteristics of the built environment influence environmental performance and community health outcomes.
- Apply systems thinking to understand complex urban health challenges and develop integrated planning and policy responses.
- Develop conceptual urban design proposals that respond to climate adaptation and public health objectives.
- Collect, manage, and analyse spatial, environmental, and qualitative data using mixed-methods research approaches.
- Apply urban health indicators and spatial analysis techniques to evaluate neighbourhood conditions.
- Gain familiarity and understanding of emerging technologies and digital tools, such as LiDAR, thermal imaging, GIS, and immersive visualisation platforms, for analysing urban environments.
- Interpret and communicate data from case studies to support evidence-based planning and design decisions.
- Evaluate innovative and low-impact design interventions for improving outdoor comfort, walkability, and environmental quality.
- Integrate climate adaptation, sustainability, and urban health considerations within planning, design, and real estate development processes.
- Collaborate effectively in interdisciplinary teams and engage with diverse stakeholders through participatory planning processes.
- Critically reflect on the social, environmental, and governance dimensions of healthy and resilient urban development.

4.4 Assessment principles and methods

Assessment should be constructively aligned with the learning sequence and the intended learning outcomes, ensuring that students are evaluated on their theoretical understanding, analytical abilities, research skills, design thinking, and communication competencies. Rather than assessing only a final proposal, consider how students demonstrate research, diagnostic reasoning, collaboration, decision-making and reflection.

A combination of formative and summative assessment methods is recommended to capture both individual learning and collaborative project work. Assessment should encourage students to engage critically with urban health challenges while applying research methods and evidence-based design approaches to real-world case studies. Possible components include evidence briefs, data exercises, field notebooks, diagnostic maps, group presentations, stakeholder workshop outputs, strategy reports, design proposals, reflective essays and peer assessment. Non-graded assessment is also beneficial to ensure learning and understanding of concepts through a revision and feedback process - to achieve this within U-CARE we used anonymous, online quizzes at the end of each lecture.

A practical approach: Use a small number of assessment components corresponding to key stages of learning. Make criteria explicit and assess the quality of reasoning and use of evidence, not only the visual or technical quality of the final output.

The assessment methods of the U-CARE pilot courses followed a balanced strategy, including three key components: participation, group work, and individual outputs.

Participation: This evaluates students‘ active engagement throughout the course, including attendance and participation in lectures, discussions, fieldwork, group work, workshops, and other collaborative learning activities. Participation encourages continuous learning and the development of communication and teamwork skills. The participation assessment can also cover formal or informal contributions to the course by the participating students.

Group work: Students work collaboratively to investigate and present a selected case study. Presentations may take different formats relevant to a specific course, including posters, slide presentations, videos, sketches, physical models, or other visual media.

Assessment criteria may include:

- Demonstration of understanding of the selected thematic area through engagement with relevant literature.
- Identification and discussion of key research questions and urban health challenges.
- Description, analysis, and critical interpretation of the case study findings.
- Ability to draw evidence-based conclusions from the analysis.
- Development of appropriate design or planning recommendations.
- Quality of visual communication and overall presentation.

Individual work: Students produce an individual written assignment (or other relevant piece of coursework) based on their analysis of the selected thematic area and case study. This should demonstrate the ability to integrate theoretical concepts, research findings, and critical analysis while reflecting on the implications for urban planning, design, and urban health.

Questions to consider:

- Are individual and group contributions both visible?
- Are students rewarded for critical reflection and recognition of uncertainty?
- Does the assessment remain feasible for the teaching team?

5.

Institutional implemation and transferability



Fig. Florence Stakeholder Workshop
March 2025



5. Institutional implementation and transferability

5.1 Adapting the U-CARE approach to different higher education contexts

Implementing the pilot courses carried specific challenges. The experience of working across institutions is presented here so that future educators can have a clearer image of the processes to be navigated. It is important to keep in mind that each partner institution had different regulations for the approval of courses within their institutions:

University of Florence (UNIFI): At UNIFI, replacing existing content of established courses with new materials and topics proved to be complex. The pilot course was implemented as a stand-alone course and made use of the program of Thematic Seminars which were able to accommodate new content more easily, requiring approval by the Faculty Council. Proposals could be submitted any time, however alignment with the beginning of the academic year was standard procedure.

University of Cyprus (UCY): At UCY, the pilot course was integrated within an existing course, since implementing a new course requires a lengthy, complex process of approval by the academic senate with very tight deadlines for submitting material that were difficult to align to the project's timeline. Altering an existing course was much simpler, collaborating with a course instructor willing to accommodate the new content. The course ran as part of APH549 Specialised Topics in Urban Design and Planning.

Chalmers University of Technology (Chalmers): At Chalmers, the course was integrated within an existing course. A new course would need around two years to complete necessary approval processes, which would be impossible to align with the project's timeline. Similar to the process at UCY, this relied on collaboration with the course instructor. The course ran as part of IBY015 Service Management for Construction and Facilities.

The U-CARE pilots show that implementation depends on institutional context. Course approval procedures, semester structures, credit requirements, staff availability, disciplinary traditions, student recruitment and access to sites or stakeholders can all affect what is feasible. Preserve the educational logic - connecting evidence, place and decision-making - while adjusting content, scale, timing, methods and outputs.

Start small when needed: A well-integrated module within an existing course can be more sustainable than a new stand-alone course that depends on temporary project resources.

5.2 Administrative, regulatory and timing challenges

The integration of the U-CARE pilot courses across the partner institutions revealed several administrative and timing challenges linked to curriculum development, institutional approval procedures, and project scheduling. Introducing entirely new courses proved difficult due to lengthy academic approval processes, fixed submission deadlines, and the need to align with institutional academic calendars that didn't necessarily line up with the project's development and timeline. This is an issue that is likely to reappear in any such future attempts. The solution was to navigate each institution's regulations and find ways in which to integrate the U-CARE content into the curricula in other ways, primarily by adding it to existing courses, since the alteration of an existing course, even if it is significant, does not require the lengthy administrative process that introducing a new course would.

It is therefore important to allow sufficient time for course approval, timetabling, accreditation, data access, ethical review where applicable, fieldwork planning and coordination with external contributors. Where formal curriculum change is difficult, consider elective modules, intensive courses, studios, seminars or activities embedded within established courses. Document educational value and student demand to support later institutionalisation.

Building a teaching team and partnerships: Urban health teaching benefits from collaboration, but coordination has a cost. Define who leads the course, provides specialist input, manages digital tools and data, organises fieldwork and maintains relationships with external participants. Partnerships with municipalities, community organisations, professional bodies and other university departments can improve access to cases and expertise. Build relationships around realistic expectations and mutual benefit.

5.3 Recommendations for future implementations

1. Begin with explicit learning outcomes and choose only the UrbanCare components that support them.
2. Use a local case to connect abstract urban health concepts with observable conditions.
3. Sequence activities so evidence informs fieldwork and fieldwork informs decision-ma king.
4. Provide scaffolding for students entering from different disciplinary and technical backgrounds.
5. Treat equity and vulnerable groups as integral to analysis rather than as an additional topic.
6. Make data limitations and uncertainty visible.
7. Plan stakeholder engagement early and clarify its purpose.
8. Align assessment with the complete learning process, not only the final product.
9. Collect student and tutor feedback during implementation and adjust activities where possible.
10. Design for continuation using formats, partnerships and resources that can be maintained after project funding ends.



Fig. Nicosia Pilot Course
October 2025



6.

Outcomes, impact and lessons learned

Fig. Florence Stakeholder Workshop
March 2025



6. Outcomes, impact and lessons learned

6.1 Educational outcomes of the pilot courses

Across the three institutions where the U-CARE pilot courses were implemented, some common educational outcomes emerged despite differences in disciplinary focus and institutional context. The U-CARE approach addressed gaps in the curricula on topics of urban health, and facilitated the development of knowledge, practical skills, and critical thinking on the four themes of spatial equity, urban heat, biotope loss, and stormwater runoff.

Overall, students demonstrated an improved understanding of the relationships between urban design, climate change, and public health. Particular improvement was seen on making connections between different issues and understanding their systemic links and dependencies. Through engagement with real case studies developed by the participating institutions, students developed the ability to critically analyse urban environments using both qualitative observations and quantitative evidence. The case studies were a key factor enabling the students to ground the lectures and readings in issues faced by the urban environment which they inhabit and are familiar with. The ability to visit a specific site, do observation studies, and be informed on health indicator assessments via the Data Viewer, was a valuable learning experience. Participatory co-design workshops with citizens (figure 4) were considered especially impactful, helping participants/students translate community needs and environmental evidence into design responses.

The evaluation of the pilot courses used a mixed-methods approach that combined participation data, completion rates, grades, student questionnaires, and tutor reflections. Beyond measuring course completion (100% in all cases), the framework sought to assess whether the modules developed relevant competencies for urban health and sustainable development.

Across the three pilots, student self-evaluations were highly positive. Understanding of urban health among students increased significantly following the course. Between 66.6% and 100% of respondents reported substantial or full achievement of the targeted learning outcomes. The most positively rated competencies included understanding the links between urban form and health, interpreting environmental data, teamwork and collaborative problem-solving, presenting evidence-based proposals, and awareness of the labour market relevance of sustainability skills. Students also reported strong satisfaction with the learning materials and course design.

These results suggest that the combination of lectures, applied case studies, and practical assignments supported both conceptual understanding and transferable competencies. The pilots were effective not only in transmitting knowledge but in building confidence, interdisciplinary reasoning, evidence-based decision-making, and professional competencies. Particularly valuable were those learning activities that moved beyond lectures: fieldwork, participatory workshops, collaborative assignments, and the use of digital analytical tools.

6.2 Lessons for course design and delivery

Lesson 1 - Make the learning sequence visible: Students should understand how research, diagnostics and decision-making connect. Use milestones and interim outputs.

Lesson 2 - Use local cases purposefully: Choose cases where students can access sufficient evidence, observe meaningful conditions and connect work to real questions or actors.

Lesson 3 - Scaffold interdisciplinary learning: Do not assume a common vocabulary or technical background. Provide introductory resources, shared concepts and peer learning.

Lesson 4 - Keep tools subordinate to questions: Digital platforms, indicators and mapping methods should help students investigate and communicate urban health conditions.

Lesson 5 - Plan participation as a learning process: Prepare students before stakeholder activities and reflect afterwards on whose knowledge was included, whose was absent and how participation affected decisions.

Lesson 6 - Evaluate and adapt: Collect feedback on workload, sequencing, materials, group work and assessment and use it to refine future iterations.

6.3 Evaluating your own implementation

Evaluation can be proportionate to the scale of the course. Combine basic quantitative information - participation, completion and assessment results - with qualitative evidence from student feedback, reflective work and tutor observations.
Ask whether students achieved the intended learning outcomes; which activities contributed most to learning; whether workload and technical demands were appropriate; how students experienced fieldwork and group work; whether stakeholder participation added educational value; and what should be retained, changed or removed.

Practical suggestion: Keep a short teaching log during delivery. Record changes, recurring student difficulties, activities that worked particularly well and issues raised by external contributors.


Fig. 1


Fig. 2


Fig. 3


Fig. 4


Fig. 5

Fig. 1: Florence Stakeholder Workshop, March 2025
Fig. 2: Berlin Stakeholder Workshop, June 2025
Figs. 3-5: Florence Stakeholder Workshop, March 2025

7.

Conclusions and future perspectives

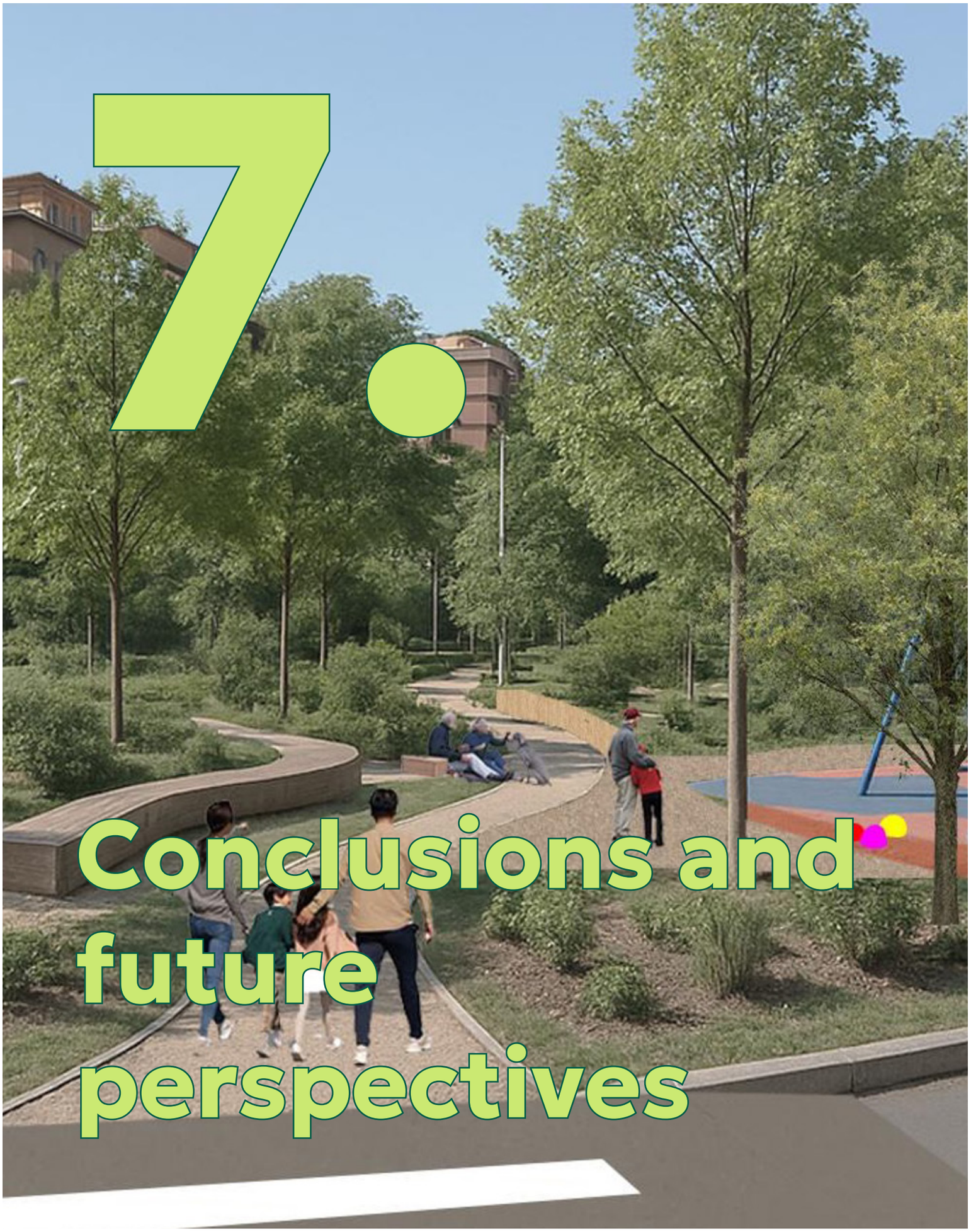


Fig. Student Work UNIFI; Giulia Ferri.

7. Conclusions and future perspectives

7.1 Contribution of U-CARE to urban health and sustainability education

The U-CARE pilots highlight lessons for most effectively integrating urban health education across disciplines and indicate the need for higher education reform in the EU to enable collaborative approaches and equip students with the skills to address complex problems.
Firstly, urban health proved to be an effective integrative theme because it connects climate adaptation, environmental and spatial justice, health and wellbeing. These links enable the integration of design, planning, engineering, public health, and management perspectives within a coherent learning framework. Secondly, research-based learning strengthens relevance. Engaging with real case studies and stakeholders in Florence, Nicosia, and Gothenburg improved motivation and exposed students to the complexity of real decision-making contexts. The use of digital tools further supported them in translating abstract data into spatial understanding. Finally, and perhaps most importantly, institutional innovation is as necessary as pedagogy. Even when teaching models are successful, scaling joint European learning modules requires better interoperability between universities in calendars, credit recognition and participation rules. The pilots demonstrate the value of combining local contextualisation with a shared international framework that can be transferred across institutions.
Across three universities and 58 students, the courses generated positive learning outcomes, strong student satisfaction, and evidence of transferable skills development. The experience suggests that curricula in architecture, planning and management can effectively place urban health at the core of sustainability education through flexible, research-based, and practice-oriented learning modules. To scale such initiatives across Europe, universities and policymakers should address structural barriers to cross-border participation, credit recognition, and reliable digital delivery systems.

7.2 Potential for replicating and scaling up

The U-CARE pilots show that the methodology can be incorporated into different higher education settings and disciplinary contexts - it can therefore be replicated in other settings. Their most useful contribution is not a single model syllabus, but a set of implementation lessons. Students benefit when theoretical content is connected to a concrete urban case, data analysis is followed by direct observation, and they are required to justify priorities or interventions. Fieldwork and participatory activities can strengthen engagement but require careful preparation, realistic scheduling and clear links to assessment.

The pilots also show the importance of **balancing ambition with feasibility.** Interdisciplinary content, digital tools, field activities and stakeholder engagement can create a rich learning environment, but attempting to introduce all elements at once may overload students and staff. **Urban health education can be introduced at different scales**, from a single learning activity to a complete course - doing so across courses in a variety of related disciplines means that **the teaching of urban health can be scaled up across departments and institutions.** The UrbanCare methodology offers educators a coherent way to connect evidence, neighbourhood conditions and decision-making while retaining flexibility in content, duration, teaching format and assessment.

The U-CARE pilots show how this framework can be applied in practice. Their main value is as a resource for adaptation. Educators are encouraged to begin with their own learning objectives and context, use the methodology selectively, connect teaching to real places and questions, and refine the approach through evaluation and repeated implementation.



Fig. Florence Pilot Course
June 2024

A successful course does not need to reproduce every U-CARE component - this is what makes scalability possible. It should provide students with a clear, purposeful learning process that helps them understand urban health challenges, investigate them critically and develop evidence-informed, equitable and feasible responses.

7.3 A practical planning checklist

Use this checklist when designing or adapting urban health teaching:

- ☐ Define the educational purpose and target student group.
- ☐ Identify 3–6 achievable learning outcomes.
- ☐ Choose a local urban health challenge or case area.
- ☐ Select the UrbanCare stages that support your objectives.
- ☐ Identify available evidence, datasets and digital tools.
- ☐ Plan fieldwork or an alternative place-based diagnostic activity.
- ☐ Decide whether and how external stakeholders will participate.
- ☐ Sequence lectures, workshops, fieldwork and decision-making activities.
- ☐ Choose assessment tasks that capture both process and outputs.
- ☐ Check accessibility, ethics, safety, data protection and permissions.
- ☐ Confirm staffing, timetable, rooms, equipment and technical support.
- ☐ Prepare introductory resources for students with different backgrounds.
- ☐ Collect feedback and document lessons for the next iteration.

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