

URBAN ENVIRONMENTAL ACUPUNCTURE SPECIALISTS

E-LEARNING - COURSE





INTRODUCTION

The e-learning course has been elaborated within the Salute4CE project. The SALUTE4CE project has been implemented under the INTERREG Central Europe Programme. The main goal of the course is to introduce the professionals and general public with the concept, goals, opportunities and procedures of urban environmental acupuncture (UEA) approach. The UEA application is part of cities' adaptation strategies as a response to climate change negative effects. UEA can also be addressed a problems, such as air pollution, lack of biodiversity or inconvenient social situation.

The e-learning course aims at giving participants a quality overview on a full range of issues on UEA. Meanwhile, thanks to the inclusion of an additional list of references, every participant has the opportunity to improve their knowledge on specific issues. . At the same time, the course also includes additional List of references to improve the knowledge of specific issues. For further self-study, the Salute4CE Handbook is also prepared which solves individual problem areas in greater detail, or expands the basic portfolio of knowledge.

Who can participate?

The course is open to all who are interested in sustainable urban development. It is primarily intended for urban planners, architects, students, citizens, local and regional authorities ect.

Why attend the course?

Thanks to the chosen form, the participant has the opportunity to gain an intensive overview of the entire UEA issue. Thanks to the self-evaluation system, the participant has the opportunity to find out if he / she has understood the given issue correctly

How the e-learning course is divided?

The course is divided into two parts. Educational part and certificated part-

The educational part is accessible to everyone without registration. This part includes all educational modules, including the possibility of self-evaluation.

The certificated part is intended for those e-learning participants who want to obtain a certificate URBAN ENVIRONMENTAL ACUPUNCTURE SPECIALISTS, awarded by the Salute4CE project.

How to proceed in the e-learning course to get a certificate?

In the beginning is necessary to study the information in materials from the **educational** part. After **you feel that you are familiar with UEA**, then it is necessary to register. After [registration](#) project representatives will open a special on-line test. **Before you start with registration please read [Private Policy - GDPR information](#)**. By registering, you agree to the terms of the GDPR



How to use this manual?

The e-learning manual is divided into 7 separate chapters and a special section (Module 4) describes each Nature Based Solution (NBS).

For a better overview, the chapters are divided into modules. Each chapter must be opened separately. For those interested, a self-evaluation text is prepared for each chapter.

Module 1 - Introduction

It introduces the participant to the UEA issue and the selection of suitable green spots for its implementation.

Module 2 - Challenges that need to be overcome

The second module is divided into 4 separate chapters, which address the individual challenges that cities face in relation to climate change, problems with air pollution, hearth stress, soil sealing and rain water.

Module 3 Connecting UEA with urban planning

Module include chapter focused on selection of **suitable, sustainable native plants**. Also is part of this **module chapter** introducing **Action planning for UEA**. Both chapters are important for the communication of our UEA idea. Good communication and is necessary in order to be acceptable both for the city for which they are intended and for the inhabitants of the city who will be users of the UEA.

Module 4 Special section - Nature Based Solutions - examples for shaping UEA green space.

This section describes key information about each Nature Based Solutions. Descriptions contain pictures, main ecosystem services, short description, typical/possible locations, and list of references.

MODULE 1 - Introduction

Chapter 1 What is Urban Environmental Acupuncture? Short Description of Selection Methods of Green Acupuncture Spots

Authors: Jiří Kupka, Adéla Brázdová, IURS – institute for sustainable development

Self evaluation test



MODULE 2 - Challenges that need to be overcome

Chapter 2 Soil Sealing and Soil Degradation Reduction by application of Urban Environmental Acupuncture solution

Authors: Anna Starzewska- Sikorska, Justyna Gorgoń , IETU - The Institute for Ecology of Industrial Areas

Self evaluation test

Chapter 3 Urban Environmental Acupuncture as One of the Solutions for Reduction of Heat Stress in Urban Space

Authors: Juliane Mathey, Jessica Hemingway, Peter With IOER The Leibniz Institute of Ecological Urban and Regional Development

Self evaluation test

Chapter 4 Possibilities of application of Urban Environmental Acupuncture in Reducing Problems with Rainwater in the Urban Space

Authors: Barbara Vojvodikova, Božena Schejbalova, , IURS – institute for sustainable development

Self evaluation test

Chapter 5 Urban Environmental Acupuncture for Increasing Air Quality

Authors: Matteo Tabasso, Elena Masala, LINKS Foundation

Self evaluation test



MODULE 3 Connecting UEA with urban planning

Chapter 6 Selection of suitable - sustainable - native - plants - country specific native plants

Authors: Leszek Trzaski, Katarzyna Galej-Ciwiś, Silesian Botanical Garden






Self evaluation test

Chapter 7 Action planning for urban environmental acupuncture (small green space)

Authors: Jessica Hemingway, (Juliane Mathey and Peter Wirth, IOER The Leibniz Institute of Ecological Urban and Regional Development

Self evaluation test

MODULE 4 - Nature based solutions - examples for shaping UEA green space

 <p>Positive effect on Soil sealing</p>	 <p>Positive effect on rainwater accumulation</p>	 <p>Positive effect on heat stress reduction</p>	 <p>Positive effect on social situation</p>	 <p>Positive effect on air quality</p>
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1.	Urban meadows	16.	Herb spiral
2.	Verges / flower beds with native perennials	17.	Urban wilderness / succession area
3.	Ground cover plants	18.	Ground crops of vegetables / herbs
4.	Lawn	19.	Vegetated reinforced soil slopes with green fences
5.	Green pavements	20.	Green pergolas/ green arbors
6.	Street trees	21.	Green facades with climbing plants
7.	Park trees	22.	Wall-mounted living walls
8.	Fruit trees/ shrubs/	23.	Hydroponic mobile living walls / vertical gardens
9.	Large shrubs	24.	Vertical vegetable / herb gardens
10.	Rain gardens (under-drained)	25.	Hanging wall planters (as green street furniture)
11.	Road-side swales for retention and infiltration	26.	Compacted pollinators' module
12.	Linear wetlands for stormwater filtration	27.	Rain gardens in planter (=self-contained)
13.	Natural pollinators' modules	28.	Street planters (as green street furniture)
14.	Hedge/hedgerow	29.	Green covering shelters
15.	Rockery	30.	Green roof / roof terrace

