GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

Urban Ecology and Management (I002851)

Course size *(nominal values; actual values may depend on programme)*

Credits 3.0 **Study time 90 h**

Course offerings in academic year 2024-2025

A (semester 1)	English	Gent

Lecturers in academic year 2024-2025

Somers, Ben	LA20	lecturer-in-charge
Hermy, Martin	LA20	co-lecturer

Offered in the following programmes in 2024-2025	**crdts**	**offering**
Master of Science in Environmental Science and Technology	3	A

Teaching languages

English

Keywords

urban ecology, sustainable city development, designa & management of urban green, green roofs, vertical gardening, road verge management, natural gardens, pavement management, walls

Position of the course

If you are a Master student with interest in a more sustainable urban development and how green elements can support this, then this is your course. This course forms a baseline and aims at giving students an overview on backgrounds, aims, design, construction and maintenance of primary public green facilities mainly in urban or suburban environment. Sustainability and low maintenance are here key criteria. The focus is on a variety of urban green elements, their design, construction, maintenance as well as a critical evaluation of the possibilities of these green elements.

Contents

The course contains 9 chapters divided over 2 parts: a general part yielding some background, functions of green elements and a framework for a more sustainable urban development; a more specific part containing about seven important element of green which are looked at in detail.

Part I: Background and framework
- urban green as a backbone for a more sustainable urban development (incl. Ecopolis, functions and services, harmonic park & green management)
- cities are ecosystems (urbanization, environmental characteristics, heath islands, spontaneous flora and fauna, biodiversity as indicators)

Part II: ecology, functions, structure, design, construction and maintenance of green elements:
- vegetation on walls
- vegetation on pavements
- road verge management
- vertical gardens or the use of climbing plants
- green roofs (mainly extensive ones)
- towards more natural gardens
- parks

Initial competences

insight into ecological processes, elementary basic knowledge about plant species

is recommended

Final competences

1 Characterize a more ecological and/or sustainable urban development.
2 Assess the contribution of urban green management to a more responsible, sustainable and living city.
3 Describe the consequences of cities and urbanized areas from an ecological perspective.
4 Evaluate the urban biodiversity in relation to the biodiversity in rural areas.
5 Describe and evaluate the environmental conditions in urbanized areas in comparison to rural areas.
6 Understand the spontaneous flora and fauna of urban areas in relation to the biota in rural areas.
7 Describe and understand the variation in various urban green elements (namely, the vegetation of walls, green roofs, vertical green, gardens, parks, vegetation on pavements, road verges).
8 Describe and assess the functions, the construction and the maintenance of various urban green elements (namely, the vegetation of walls, green roofs, vertical green, gardens, parks, vegetation on pavements, road verges)

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Study material

None

References

Hermy M., Schauvliege M. & Tijskens G. 2005. Groenbeheer, een verhaal met toekomst.
Uitg. Velt in samenwerking met afd. Bos en Groen, Berchem. 576p.; D/2005/3489/I; ISBN 90-8066-222-4.
Andere refs.:
Stadtökologie. Sukopp H. & Wittig R. (eds) 1998. Fischer, Stuttgart.2°aufl
Fassaden- und Dachbegrünung. Köhler M. 1993. Ulmer, Stuttgart.

Course content-related study coaching

personal and via e-mail

Assessment moments

end-of-term assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment with open-ended questions

Examination methods in case of periodic assessment during the second examination period

Written assessment with open-ended questions

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Calculation of the examination mark

Students who eschew period aligned and/or non-period aligned evaluations for this course unit may be failed by the examinator.