



CIEE Global Institute - Copenhagen

Course name:	Sustainable City Planning in Copenhagen
Course number:	ENVI 3101 CPDK
Programs offering course:	Copenhagen Open Campus Block
Open Campus Track:	Sustainability and Environmental Sciences
Language of instruction:	English
U.S. semester credits:	3
Contact hours:	45
Term:	Spring 2020

Course Description

Copenhagen city is in many ways a role model on a global scale. In numerous ways, the city has managed to implement solutions to improve welfare, safety, efficiency, and pleasure, - often seeking solutions that are clever in thinking new ways, and in line with the global demand for sustainability. Not without reason has a concept like “Copenhagenization” found its way into the vocabulary. Most striking for the newcomer, however, is the overwhelming number of bikes, which except for Holland, is unprecedented worldwide. Bikes are widely used for transportation by all social groups, and Danes are aware of the benefits, both for the environment as they contribute with zero pollution, and for keeping the population fit.

In this course we will investigate how Copenhagen has dealt with solutions to the major challenges that every big city faces: Infrastructure, waste disposal, energy supply, and creating a friendly frame for people’s lives, that helps make it better. Students will look into numerous cases, and work to identify ways of being a sustainable city. Students will get insight in political moves and tools to guide the population in a sustainable direction. Students will also discover the power of the people’s voice. The student will learn to think ahead, identify in which direction to move, and how to get there.

Learning Objectives

- Students will obtain a thorough insight in ways the city of Copenhagen has dealt with basic challenges in a sustainable way.
- Students will learn to think ahead, identify a goal, and be creative in how to get there.
- Students will be introduced to a variety of projects, institutions, and ways of living, that pushes boundaries, give new perspectives.
- Students learn to become critical thinkers, able to evaluate and suggest new ways to solve issues in city planning.

Course Prerequisites

None

Methods of Instruction

The classes will consist of lectures, class discussion, group work, presentations, and individual projects, often describing observations and reflecting on these. As the course is about the city,



we will have several field trips both in class and cocurricular. For one topic we will have an expert coming to give a lecture.

Students must complete the course readings before class to ensure that course material can be discussed at the right pace and level. The lectures will be taught in the order written in the syllabus. However, there may be changes, in which case students will be informed in advance.

Assessment and Final Grade

1.	Group report:	25%
2.	Class participation:	20%
3.	Presentations:	10%
4.	Final exam:	25%
5.	Research paper:	20%
TOTAL:		100%

Group report

Students shall groupwise write a report on how the municipality of Copenhagen works with either a) Climate adoption, b) Transportation and infrastructure or c) Living together. The report shall critical discuss the way Copenhagen works with sustainability and city planning and incorporate course literature as well as supplementary literature. The report shall be between 1875 and 3000 words long.

Presentation

Students must conduct a 15-minute presentation on a text, film, theoretical concept, or author covered in the course. A summary handout must also be prepared for distribution to the class.

Research Paper

Each student is required to write an 1500-3000 words research paper consisting of an interpretative analysis or a theoretical argument related to topics covered in the course. The topic must be approved by the instructor. At least four scholarly sources must be used, in addition to relevant images or supporting media. A bibliography and proper citations are required. A critique of the proposal and an annotated bibliography will guide students through the process.

Final Exam

Students will in groups present a case on sustainable urban development from Copenhagen. Students shall prepare 2-3 planches including text (800-1600 words), furthermore visualizing the case by illustrations, pictures or maps; the case shall be supported by statistics, projections or other kind of supporting material for the suggested sustainable solutions. The students will in groups present their case and explain why have decided to present the case as in the planchet. Text and supporting material shall be submitted to the instructor before the final exam.

Class Participation

Film screenings and visits to cultural events will be obligatory for all participants and the students' active participation in this. Reacting to, understanding, and interpreting the various texts that we



encounter will be the central focus of the class. Students will be asked to take notes during visits or screenings.

Attendance Policy

Regular class attendance is required throughout the program. Students must notify their instructor via Canvas, beforehand, if possible, if they will miss class for any reason. Students are responsible for any materials covered in class in their absence. Students who miss class for medical reasons must inform the instructor and the Academic Director (or a designated staff member) and provide appropriate documentation as noted below. A make-up opportunity will be provided to the extent this is feasible.

Students who transfer from one CIEE class to another during the add/drop period will not be considered absent from the first session(s) of their new class, provided they were marked present for the first session(s) of their original class. Otherwise, the absence(s) from the original class carry over to the new class and count against the grade in that class.

For CIEE classes, excessively tardy (over 15 minutes late) students must be marked absent. Attendance policies also apply to any required co-curricular class excursion or event, as well as to Internship, Service Learning, or required field placement. Students who miss class for personal travel, including unforeseen delays that arise as a result of personal travel, will be marked as absent and unexcused. No make-up or re-sit opportunity will be provided.

Attendance policies also apply to any required class excursion, with the exception that some class excursions cannot accommodate any tardiness, and students risk being marked as absent if they fail to be present at the appointed time.

Unexcused absences will lead to the following penalties:

Percentage of Total Course Hours Missed	Equivalent Number of Open Campus Semester classes	Minimum Penalty
Up to 10%	1 content classes, or up to 2 language classes	Participation graded as per class requirements
10 – 20%	2 content classes, or 3-4 language classes	Participation graded as per class requirements; 3 points grade reduction; written warning
More than 20%	3 content classes, or 5 language classes	Automatic course failure, and possible expulsion



Weekly Schedule

Week 1 Introduction

Class 1 Introduction to Copenhagen Architecture Policy

Historic review. Factors influencing the city development, organization and structure in the past. (Needs, interests, prestige, protection, trade, growing population). Factors influencing city development in 21th century. (Thriving, safety, efficiency).

Readings:

<https://international.kk.dk/artikel/carbon-neutral-capital>

Week 2 The Development of Copenhagen

Class 2 Greater Copenhagen / Copenhagen in Denmark

Facts, scale, demography, geography - Copenhagen City's Architecture policy and Adaptation plans, needs to adapt, and steps already taken. Copenhagen region / Finger Plan - green / blue city / region.

Reading:

<https://international.kk.dk/artikel/creating-liveable-city>

Class 3 Infrastructure and mobility

Copenhagen region / Finger Plan - green / blue city / region. Mobility: Keeping up efficiency in a big city is dependent on an efficient infrastructure with smooth and reliable transportation. One main issue is avoiding too many cars and daily traffic-jams in the busy hours. In this class we will look into Copenhagen's Metro and S-train. Besides: Copenhagen is famous for its biking facilities. Biking is not just for recreational purposes but far more dominating is the use of a bikes as a mean of transportation. The degree in which people of all age groups use bikes for daily transportation is unprecedented.

Reading:

https://international.kk.dk/sites/international.kk.dk/files/the_capital_of_sustainable_development_sustainable_development_goals_2018.pdf

Mobility

<https://urbandevdevelopmentcph.kk.dk/artikel/city-cyclists> (Links to an external site.)

<https://urbandevdevelopmentcph.kk.dk/artikel/mobility-copenhagen> (Links to an external site.)

Week 3 Climate adaption as a strategy



Class 4 Climate adaptation

Copenhagen is preparing for the changing climate, including cloudbursts and rising water levels, but at the same time integrating the solutions into the everyday life and making sure that the huge public investments in climate adaptation is improving livability of the city. Climate plan, climate adaptation, climate projects

Reading:

https://en.klimatilpasning.dk/media/568851/copenhagen_adaption_plan.pdf

Site visit:

Tåsinge Plads (2100 Cph Ø) - Copenhagen's first climate-adapted urban space - starting point
<http://klimakvarter.dk/en/projekt/tasinge-plads/> (Links to an external site.)

ØsterGro Roof farm (Æbeløgade 4, 2100 Cph Ø - End point)

Class 5 Condensation and climate adaptation

The rising population growth and extensive climate adaptation in the city's space means that the city must embrace completely new needs. Both new urban spaces and buildings, new urban areas and renewal of existing ones must complement the city. It makes demands on the design, scope and location.

New, larger buildings and high-rise buildings breaks with the city's overall scale, profile and landscape features require a special attention and care. It is important, that they bring the city and the concrete place architectural added value - also in the close human scale.

Reading:

<https://urbandevdevelopmentcph.kk.dk/node/1563> (Links to an external site.)

<https://urbandevdevelopmentcph.kk.dk/artikel/cph-2025-climate-plan> (Links to an external site.)

https://en.klimatilpasning.dk/media/665626/cph_-_cloudburst_management_plan.pdf (Links to an external site.)

<https://urbandevdevelopmentcph.kk.dk/artikel/co-create-copenhagen> (Links to an external site.)

[https://www.uia-](https://www.uia-architectes.org/webApi/uploads/ressourcefile/264/dhaka_declaration_forpublication.pdf)

[architectes.org/webApi/uploads/ressourcefile/264/dhaka_declaration_forpublication.pdf](https://www.uia-architectes.org/webApi/uploads/ressourcefile/264/dhaka_declaration_forpublication.pdf) (Links to an external site.)

Week 4 Story telling in architecture

Class 6 Story telling in architecture - Planning urban neighborhoods

Copenhagen's neighborhoods and places each have their own distinctive character and local stories that create the special, the unique, and totally local. Bispebjerg is different from Brønshøj and Nørrebro, and Vanløse is different from Vesterbro and Ørestad. Also within the individual neighborhoods there are special features and local narratives, which mean that a district has several different areas and places. It gives the districts and the city architectural 'edge', and it must be strengthened as a foundation for the development.



The development of Copenhagen must respect existing cultural values. The means that we do not only look at one building or other physical structure in itself is worthy of preservation, but we too take into account what has a special cultural or social value for the city citizens and users. We work here with both to preserve, add to and transform.

Site visit: Carlsberg Byen

Group report 1 due.

Class 7 Building for Copenhagen Life - People in urban spaces

The city in a human scale. It is the vision that Copenhagen continues must be a city where living life is the city on a human scale There must be focus on how people experience the city when they use it. The design of buildings and urban spaces must be based on human scale and our ability to sense and handle impressions from the surroundings. The means that we design buildings, buildings and urban spaces to create quality of life for the individual. The architecture in Copenhagen must be varied to stimulate the senses and enrich everyday life. When we create good physical framework with man In the center, it means that more people want to live, stay in and use the city.

Film about "Life between buildings" (Jan Gehl): <https://vimeo.com/151880387> (Links to an external site.)

Reading:

<https://urbandevdevelopmentcph.kk.dk/artikel/urban-nature> (Links to an external site.)

<http://klimakvarter.dk/en/projekt/tagfarmen/> (Links to an external site.)

https://www.researchgate.net/publication/269275067_Evidence_for_Designing_Health_Promoting_Pocket_Parks (Links to an external site.)

Research paper due.

Week 5 Architecture, Nature and Life

Class 8 Urban nature

In this class we will look at nature and urban development focusing upon the sea and harbour of Copenhagen.

Reading:

<https://urbandevdevelopmentcph.kk.dk/artikel/harbour-opportunities> (Links to an external site.)

<https://www.archdaily.com/11216/copenhagen-harbour-bath-plot> (Links to an external site.)

https://vbn.aau.dk/ws/files/165920781/Downtown_Strategies.pdf (Links to an external site.)

Presentation due



Class 9 Building for Copenhagen Life - Diversity and Mixed use

Copenhagen has a diverse and attractive urban life and a broad population mix. Here citizens live in everyone age groups, from many different income groups and with widely different cultural background and breadth of interests. It is a great value for the city. Population growth is increasing pressure on the city. It is important to preserve and develop the diversity in Copenhagen building and housing stock. Therefore, we need both in new and existing residential areas ensure variation in housing sizes, types of housing, types of ownership and the composition of features. It is at the same time one occasion to rethink and create opportunity for new and different housing types.

Site visit: Cultural District, Copenhagen

Class 10 Building for Copenhagen Life - Spaces for contemplation

More people stay longer in the city's space

A good city is a city where there is a possibility for us to stay out day and night, and where the city's space is one natural extension of Copenhageners' home. Development of the architecture in Copenhagen must invite to community and give room for citizens' initiatives. The town's squares and streets are used for many different purposes within a year, as eg markets, festivals or sports events.

Group Report 2 due

Week 6 Final week

Class 11 Responsible design - CO2 optimized infra structure

The theme focuses on how Copenhagen can continue to take responsibility for the environment and climate related challenges, and how we can design architectural solutions, that provide quality of life, flexibility and resilience to change. The theme also focuses on creating resource-friendly, physical settings and adapting the city to future climate.

Class 13 Exam

Final exam presentations in class

Literature list

https://international.kk.dk/sites/international.kk.dk/files/the_capital_of_sustainable_development_sustainable_development_goals_2018.pdf

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<https://urbandevdevelopmentcph.kk.dk/artikel/co-create-copenhagen> (Links to an external site.)
https://www.uia-architectes.org/webApi/uploads/ressourcefile/264/dhaka_declaration_forpublication.pdf (Links to an external site.)
<https://urbandevdevelopmentcph.kk.dk/artikel/urban-nature> (Links to an external site.)
<http://klimakvarter.dk/en/projekt/tagfarmen/> (Links to an external site.)
https://www.researchgate.net/publication/269275067_Evidence_for_Designing_Health_Promoting_Pocket_Parks (Links to an external site.)
<https://urbandevdevelopmentcph.kk.dk/artikel/harbour-opportunities> (Links to an external site.)
<https://www.archdaily.com/11216/copenhagen-harbour-bath-plot> (Links to an external site.)
https://vbn.aau.dk/ws/files/165920781/Downtown_Strategies.pdf (Links to an external site.)