

PPOL 5440
Sustainable Urban Design and Development

Instructor: Dr Marie N. BERNAL

Office: Room 4616B (4/F, Lift 31/32), Main Academic Building

Email: mbernal@ust.hk

Office hours: By appointment (email me anytime) or catch me before/after class

Teaching Assistant: Mengyuan Niu mniu@connect.ust.hk

COURSE DESCRIPTION

This course is designed for graduate students who want to learn about urban sustainability, an emerging and still developing field that draws on different disciplines, such as industrial ecology, urban political ecology, urban ecology, and planning and how public policy and public management approach it. It will explore how to make cities more sustainable in terms of environmental, social, and economic aspects and equip students with the theoretical and methodological tools to draft and analyze strategies and their viability. The course will also introduce and evaluate various approaches to foster more sustainable and resilient forms of urbanization and urban life, such as localization, industrial symbiosis, and ecological restoration and review processes of reducing the dependence on external resources and increasing the local production and consumption of goods and services. These approaches will be examined in different contexts and scales, from local to global, and from individual to collective.

On successful completion of this course, students will be able to:

- Compare and contrast different models and theories of urban sustainability and their implications for urban policy and practice.
- Explain and analyze the concept of urban sustainability and its social, economic and environmental dimensions.
- Assess the strengths and weaknesses of different methods and tools for collecting and analyzing data on urban sustainability issues and solutions.
- Develop strategies to counteract or mitigate the impact of urban population trends and climate change on urban sustainability and resilience.
- Evaluate the benefits and challenges of various approaches to foster more sustainable and resilient forms of urbanization and urban life.
- Develop and communicate interdisciplinary and integrative strategies to address complex urban challenges and opportunities.
- Critically reflect on their own role and responsibility as urban citizens and professionals in promoting urban sustainability and resilience.
- Demonstrate ethical and professional practices in working with diverse urban communities and stakeholders to promote urban sustainability and resilience.

ASSESSMENT

The details of the assignments and different graded components of the class will be announced during class and via Canvas. The overall structure and points assigned to each are as follows:

<i>Weight</i>	<i>Component</i>
25%	Final Project
40%	Assignments
10%	Attendance
15%	In-Class Participation and Engagement
10%	Readings

This course bears 3 credits and is designed to cover the required 39 hours of instruction in and out of the classroom. The application of the theory learned in class will be practiced and tested for the most part during **four expected fieldtrips. This structure makes attendance, participation, and active engagement crucial for successful learning and knowledge acquisition, and thus, bears a heavy weight on final grades.**

EXPECTATIONS:

This is an elective course for postgraduate students. By this point in your academic career, I expect that you are responsible, independent students and adults. At the same time, some the topic matter may be new to a good portion of you. This means that class discussion, analysis, exercises and participation will be crucial for your understanding and processing of the material. ***Attendance is mandatory, and the expectation is that you will do the readings for each session before the class.*** I am committing to be in class, each day, and on time (and earlier in my office when possible), ready to guide and support you through the course. I ask that you make the same commitment to yourselves and to your learning. **Every unexcused absence, late arrivals and leaving early will have an impact on final grades. More than 3 absences, excused or unexcused, will result in a 0 in attendance (15% of your grade).**

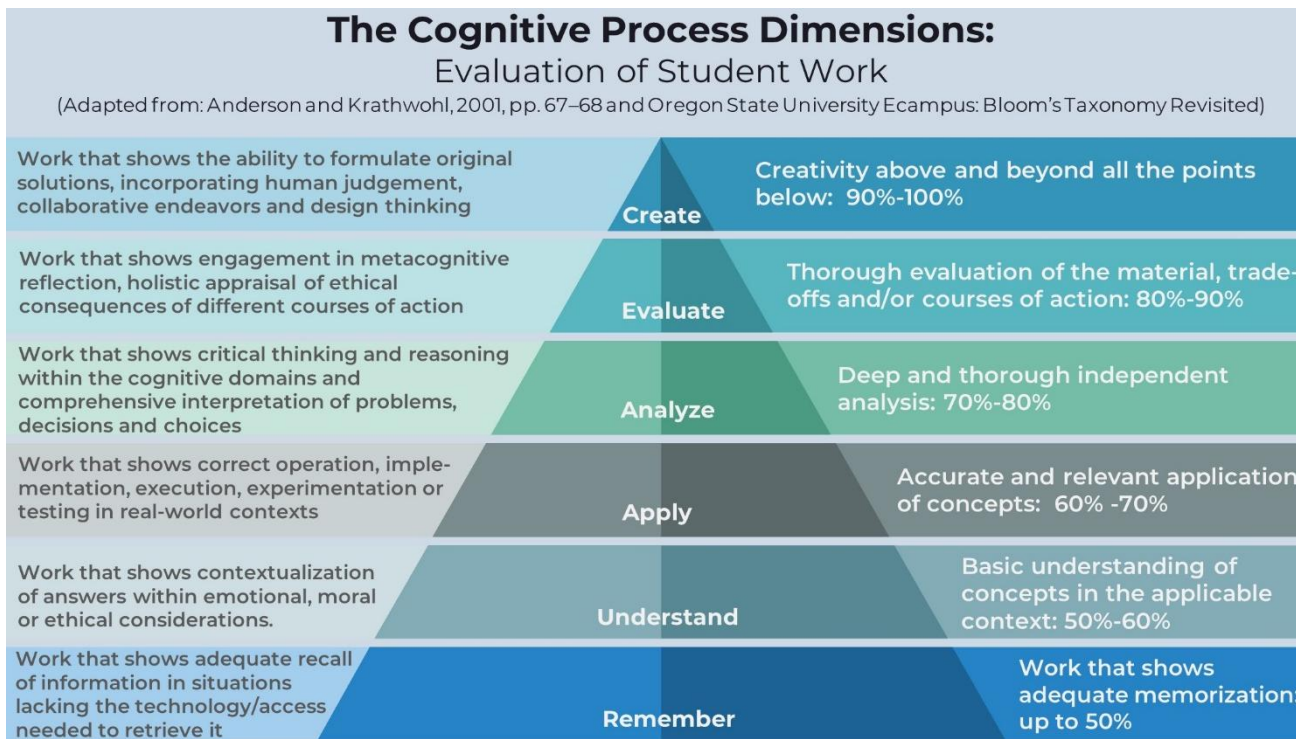
Our lectures will consist of a mix of theory (lecture), discussion, and application. Public policy is a cooperative, interdisciplinary endeavour, and working through the material together is as much an element of the course as the subject matter itself. The structure of the course gives multiple ways for students to develop your skills by contributing orally and in writing. But working on oral skills is an important element of the class, and the expectation is that ***all students will come to class prepared to participate.***

At HKUST, we have a wonderful diversity of students. They bring with them a wealth of perspectives and experiences. So, while vigorous discussion is encouraged, disrespect, inside of the classroom or out, will not be tolerated. We will work under Chatham House rules- what is said in the classroom stays in the classroom. Furthermore, under no circumstances will any student resort to personal attacks, however dry or wit. Any disrespectful or disruptive students will be asked to leave the class.

Finally, please note that only students who have successfully enrolled or those with expressed permission from the instructor to audit it, may attend this course (no friends, assistants, spouses etc.).

GRADING:

For each assignment, we will provide the outline and general marking rubrics. But for all assignments, it will be helpful to keep Bloom's Taxonomy in mind. In general, the different levels relate to grades as follows (but keep in mind, different assignments may have particular requirements that need to be met which may change this a bit):



ACADEMIC INTEGRITY CODE

All work must be entirely your own. Please **cite** the relevant work whenever you borrow ideas from others, using the proper reference format (e.g., APA, MLA). Examples of violations of the academic integrity code include but are not limited to: *failure to use quotation marks when quoting, failure to give full credit when paraphrasing, use of others' ideas or work products, submission of work prepared through impermissible collaboration, and submission of work prepared by you for another class.* (Your work in this class may be related to your work in another class, but the work you submit for this class should not duplicate that submitted for another class. If you anticipate an exception, please do not hesitate to ask.) Violation of the Academic Integrity Code may result in failure in the course, as well as more serious academic sanctions. For details about the academic integrity code, please refer to <https://acadreg.ust.hk/generalreg.html>.

Please check for plagiarism before you turn in each homework, for example using the anti-plagiarism software Turnitin available on Canvas. **A rule of thumb is that the similarity score should not exceed 15%, excluding references.** But it is entirely possible to have a similarity score below 15% and still commit plagiarism! Look holistically and check for accidental copying/cut and paste, missing references, or even insufficient paraphrasing (i.e. just changing word order or minor words, as opposed to summarizing in your own words). If you have any questions, the Instructor and TA are more than happy to discuss.

GENERATIVE AI

In this course, you are expected to produce original and authentic work that reflects your own understanding and creativity. The use of generative AI tools, such as ChatGPT, Bing Chat, Claude, Google Bard, or any other automated assistance, to complete any part of your assignments is strictly prohibited, unless you have a written permission from the instructor, or we are expressly using such tools in class. Generative AI tools are

not reliable sources of information, and they may produce inaccurate, misleading, or plagiarized content. Using these tools without proper citation and acknowledgment *is a form of academic dishonesty, and it will result in serious consequences, such as a failing assignment grade, a report to the dean, or even a failing final grade.* Therefore, you are strongly advised to avoid using generative AI tools for your coursework, and instead, rely on your own skills, knowledge, and resources.

LATE HOMEWORK POLICY

Late assignments will incur a penalty for each day they are late, except in cases where extensions have been granted by the instructor. Except for emergencies, extensions are much more likely to be granted when they are requested well in advance, with strong justification. If you are struggling to complete your coursework, please come discuss it with us sooner rather than later, as it is always easier to adjust things before there is a crisis.

READING MATERIAL

There is no single book that covers all the topics of this course. Essential material is provided via Canvas. You are not expected to read everything on the reading list. Aim to read the required readings for each class meeting. Further reading provides for alternative sources as well as opportunities for more in-depth study for assignments.

We will also, when appropriate, make use of other media, including film, podcasts, etc. These will be provided via the library, freely available links, or viewing sessions, depending on the source.

CLASS SCHEDULE (Subject to topic adjustment as necessary)

<i>Date</i>	<i>Class</i>	<i>Title</i>	<i>Assessments/ Hwk due</i>
02-Sep	1	Urban Sustainability: Introduction	
09-Sep	2	Space and the Built Environment	
16-Sep	3	Renewal, Redevelopment and Identity	Journal Notes
23-Sep	4	Cancelled due to Typhoon	
30-Sep	5	Population + Environmental Justice	UDS Video Notes
07-Oct	6	No Class	
14-Oct	7	Measuring Sustainable Development 1 - Indicators	
21-Oct	8	Measuring Sustainable Development 2 - Policy	Harper's Index + Brainstorm
28-Oct	9	Urban Design & Planning - Why? - Mei Foo	Journal Notes
04-Nov	10	Urban Design & Planning - How?	
11-Nov	11	Strategies Moving Forward	
18-Nov	12	Sustainable Transportation Systems - Tai Koo (?)	Journal Notes
25-Nov	13	Wrap-up	
29-Nov		Final Project + Peer Review	Final Project + Peer Review