

**PPOL 5310: Public Management for Technology Innovation
Fall 2025**

Class Meeting Times: Wednesdays | 6:30 pm – 9:20 pm | Room 4503, Lift 25-26

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Background and Description:

Science, technology and innovation are widely accepted to have changed the world we live in. As the pace of change accelerates, innovation and technology promise to bring even more radical changes to our everyday lives. Given the increasing centrality and ubiquity of science and innovation, it is necessary to learn of the analytical approaches for developing appropriate public policy and governance structures so as to harness the full potential of scientific and technological advances.

Innovative policies, management, communication, collaboration in the strategic use of digital technology, are all required a public policy is to appropriately channelled the power of science technology and innovation to make significant improvements in the lives of people served.

While advancements in science and technology have been rapidly expanding the range of solutions governments' most pressing problems, science and technology innovations have also raised a set of emerging ethical, institutional and legal issues for government, non-profit and private entities. This course aims to help students familiarize themselves with opportunities and challenges brought about by advances in science and technology, and analytical approaches for developing appropriate public policy measures, and governance structures to harness the full potential of these advances. Major topics covered include: science and technology policy, regulation of the use and application of new technologies, smart cities, the application of big data, and the management and governance of new media.

Objectives:

This course:

- Introduces tools, concepts, and insights to a public sector manager/leader responsible for managing science, technology and innovation
- Examines leadership and a variety of tools and approaches to public sector management of science in technology and frameworks for the effect of use of those tools and approaches
- Analyzes and discusses illustrative case examples of the development and implementation of innovative ideas and approaches in the public sector for the management of science, technology, and innovation

Requirements:

This course is structured around two main components: lectures and discussion sections. Lectures will occupy the first half of each class meeting, followed by interactive discussion sessions. Attendance at ALL lectures and discussion sections is mandatory, as is completion of all assigned readings. **Please note that more than two unexcused absences will result in a reduction of one sub-grade from your overall course grade.**

Readings:

There is no single textbook for this class. Instead, students will read selected articles and chapters predominantly from two books (below) each week. All readings are available on the course's Canvas website. Readings should be completed during the week in which they are assigned. You are also encouraged to read local newspapers and follow current-day news stories on innovation and technology policy developments in Hong Kong.

Tidd, Joe, John R. Bessant. 2025. *Managing Innovation: Integrating Technological, Market and Organizational Change*, 8th Ed. John Wiley & Sons: Sussex, England.

HKUST library link: <https://lbdiscover.hkust.edu.hk/bib/991013405594703412>

Smits, Ruud E., Stefan Kuhlmann and Philip Shapira. 2010. *The Theory and Practice of Innovation Policy: An International Research Handbook*. Edward Elgar Publishing: Cheltenham, UK.

Grade Distribution:

Canvas online discussion	5%
In-class participation	10%
Group discussion	15%
Opinion Piece	20%
Policy Memos @10% (x 2)	20%
End-of-semester Assignment	30%

Canvas online discussion (5%): This requirement includes engaging regularly (that is, every week) and intelligently in the online discussion board on the course's Canvas website. Students who are scheduled to "lead" a reading in a particular week will be required to **post questions and/or comments about the reading on the discussion board** two days before the actual presentation itself—that is, no later than Sunday 12 noon, of that week. Other students will respond, individually, to these questions/comments or to other observations made by their fellow classmates. All responses should be posted on the discussion board before Tuesday of that week at 8:00 pm so that everyone can read them before the class meeting time on Wednesday. The aim of this online forum is to stimulate thinking and facilitate class participation in the discussion sections. Your responses need not be very long; one or two critical points, clearly conceived and elaborated, will suffice. Evaluation of your performance will depend on *both* the extent *and* the quality of your participation in the online discussion.

In-class participation (10%) includes active and productive participation in both lectures and discussion sections. Starting from week 2, the second half of each class will be dedicated to discussion. The class will be divided into 9 groups, and each group will be

responsible for preparing a short recap of the lecture as well as 1-2 case studies to serve as the basis for discussion. To fulfill this requirement, students are expected not only to attend class regularly but also to contribute meaningful questions and comments to both the lecture and discussion portions of the class. Do not hesitate to speak up, as almost every question or comment a student raises can open up valuable learning opportunities for the entire class. The instructor will make a concerted effort to encourage lively and fruitful discussions, and both the instructor and/or TA will keep a record of each student's participation. Class participation grades will be assigned based on this record.

Group discussion (15%): For the discussion component, students will be divided into groups. **Each group will be responsible for leading one discussion session during the semester.** These sessions, lasting approximately one hour, should begin with a **brief keynote presentation** leaving enough time for discussion. This presentation should introduce **relevant case studies** that illustrate the main concepts and ideas of the class theme, complementing (not repeating) the lecture and reading material with practical examples, preferably from the work experiences of the presenting group.

Following the keynote or in between different keynote sections, the presenting group will **facilitate an engaging discussion** with the rest of the class. This can involve posing specific questions, organizing small group discussions, or employing interactive methods such as quizzes, polls, or debates. The goal is to create a **productive and lively learning environment**. We strongly encourage you to draw **from your own professional experiences** and to select cases and examples that resonate with you personally. This approach allows you to share your unique insights while helping your peers and instructor learn more about you.

Group discussions are designed to provide a responsible platform for deeper exploration of course material, connecting it to your work experiences. We expect each group to approach this task with dedication, organizing the discussion in a way that benefits their peers and enhances everyone's understanding of the subject matter. The main evaluation criteria are:

- Keynote/discussion connection to the class material
- Keynote/discussion connection to your own work experience
- Keynote analytical depth
- Moderation of discussion
- Engaging discussion

While not all group members are required to present, we will expect $\geq 75\%$ of the members to be actively engaged in the presentation. The first student-led discussion will be held in the second class (week 2), on 11 September.

“Opinion piece” (20%): Each student will be required to submit a 1,500-word opinion piece. Aside from the length, the requirements for this piece are that: (a) it must be related to an issue/idea/event related to innovation and technology public (not corporate/business) policy in Hong Kong OR Mainland China, (b) it must be timely (i.e. it must be connected to something that has occurred or been in the news during the semester of our study (or at most in the second half of this year), and (c) it must reflect your **opinion** (that is, it must not be a regurgitation of a piece of news or event, nor should it reflect the opinion of others). **Due date:** No later than Wednesday 5 November (Week 10) *or earlier* (you may submit this assignment any time during the semester, but in any event no later than Week 11).

You can submit the “Opinion” piece in a video format, the duration should be

equivalent to 1,200 words.

Policy Memos (20%): Over the course of the semester, every student will have the option to complete THREE (3) Policy Memos on topics of their choosing (but related to topics we have covered in a particular week). The highest TWO (2) scoring Memos will be counted for this portion of the grade. Each student MUST complete a MINIMUM of TWO (2) Memos. Each Memo will be required to be between 750 and 850 words long. Each Memo assignment will be presented to you with a case background and the questions you will be asked to address in your Memo. Cases will be shared during the semester on the course Canvas site at the appropriate times. A Policy Memo serves as a concise analysis of the issue with brief recommendations of what policy actions should (or should not) be taken for the desired outcome. Basic Memo structure consists of the following sections:

- Background/problem definition
 - Issue analysis
 - Policy options (with pros and cons)
 - Strategic recommendations
 - Additional work
 - Limitations
1. Header (to, from, date, subject)
 2. Executive summary (~100 words)
 3. Background and Issue analysis (~150 words)
 4. Policy options (with pros and cons) (~200 words)
 5. Strategic recommendations (~150 words)
 6. Limitations and barriers (~100 words)
 7. Conclusion (~100 words)

It is valuable to see that you accompany your analysis and recommendations with relevant evidence, such as data, links, and references. The language of the memo should be professional but approachable as it targets practitioners, not academics. Therefore, if you use specific public policy terms, concepts, or frameworks, you have to make sure that your audience does not have to look them up or read additional materials in order to understand what your Memo is trying to convey. You will be provided with additional, more detailed tips on Policy Memo writing (with examples) during the semester. Your policy memo will be evaluated based on the quality of writing and analysis. ***IF YOU HAVE AN IDEA FOR A DIFFERENT, CREATIVE FORMAT FOR YOUR POLICY MEMO, PLEASE DISCUSS WITH ME IN ADVANCE.***

Specifically, your memo will be graded in the following four aspects:

1. Clarity of writing/language;
2. Persuasiveness in argumentation;
3. Analytical rigor (use of evidence and comprehensiveness), and
4. Demonstration of understanding of relevant materials (concepts, theories, and tools) covered in the class.

End-of-semester Assignment (30%): The end-of-semester assignment will be worth 30% of your course grade. For this assignment, you will create a comprehensive concept map that encapsulates the key ideas, theories, and themes covered throughout the course. Your concept map should include a minimum of 20 'concept nodes' representing main ideas or theories from the lectures. Each node should be accompanied by a brief description of 50-75

words. Additionally, 'links' connecting these nodes should be annotated with 20-30 words explaining the relationship between the concepts. You should also include at least 5 'examples' that provide real-world illustrations of the concepts, annotated with 40-50 words each. Overall, your concept map and accompanying annotations should total approximately 1,500-2,000 words. The objective is to synthesize the course material into a cohesive and interconnected framework. This assignment will test your understanding of the course content, your ability to identify relationships between different topics, and your skill in applying theoretical concepts to real-world scenarios. Detailed guidelines and assessment criteria will be provided to guide you through the process.

Submission of Assignments and Seeking Help:

Generally speaking, **late submission of assignments will NOT be accepted** except for hospitalization or similarly serious external circumstances (evidence of which may be required). Students are strongly encouraged to submit papers early and, at the very least, promptly. Students who are experiencing trouble of any kind in writing their papers should seek help from me. Similarly, students anticipating difficulty in submitting the paper on time must discuss the situation **WELL IN ADVANCE**.

A personal invitation: I am here to help you. I want you to be interested in the class material and to do well and I will react positively to any enthusiasm you show. In that spirit, if there is anything related to the class you need assistance with, or about which you would like to raise questions or discuss or offer suggestions for, I strongly encourage you to do so in class, or to see me (virtually or in person). I have ample office hours (especially virtual). Additionally, I will always be available before and after class and I will endeavor to respond to all e-mails I receive as promptly as I can.

In general, I do not handle grade disputes by e-mail. Students who believe that their grades are not reflective of their performance or what they deserve should meet with me in person. Once a grade has been released on Canvas, you have one week to come discuss any issues or appeals. After that, grades are considered closed for the semester.

More details on Grading Policies, please see Page 8.

Schedule (you can find it in calendar form in Canvas) and Readings:

Week 1	L1: Introduction and Course Overview Key Issues in Innovation Management
Wed 3Sep	Fagerberg, Jan. 2005. Innovation: A Guide to the Literature. In <i>Oxford Handbook of Innovations</i>, edited by J. Fagerberg, D. Mowery and R. Nelson. Oxford: Oxford University Press. [Ch.1/pp. 1–26] Tidd, Joe, John R. Bessant. 2025. <i>Managing Innovation: Integrating Technological, Market and Organizational Change</i>, 8th Ed. John Wiley & Sons: Sussex, England. Ch.1 (optional supplemental reading: Ch 2)

Week 2	L2: Innovation as a Management Process
Wed 10 Sep	Tidd, Joe, John R. Bessant. 2025. <i>Managing Innovation: Integrating Technological, Market and Organizational Change</i> , 8th Ed. John Wiley & Sons: Sussex, England. Ch.3
	<u>Student-led discussion (Group 1)</u>
Week 3	L3: Creating New Products and Services
Wed 17 Sep	Tidd, Joe, John R. Bessant. 2025. <i>Managing Innovation: Integrating Technological, Market and Organizational Change</i> , 6th Ed. John Wiley & Sons: Sussex, England. Ch.10.
	<u>Student-led discussion (Group 2)</u>
Week 4	L4: Exploiting Collaboration
Wed 24 Sept	Tidd, Joe, John R. Bessant. 2025. <i>Managing Innovation: Integrating Technological, Market and Organizational Change</i> , 8th Ed. John Wiley & Sons: Sussex, England. Ch.11.
	<u>Student-led discussion (Group 3)</u>
Week 5	PUBLIC HOLIDAY – NO CLASS
Week 6	L5: Changing Modes of Knowledge Production Inside the Public Scientific System
Wed 8 Oct	Smits, Ruud E., Stefan Kuhlmann and Philip Shapira. 2010. <i>The Theory and Practice of Innovation Policy: An International Research Handbook</i> . Edward Elgar Publishing: Cheltenham, UK. Ch.2.
	<u>Student-led discussion (Group 4)</u>
Week 7	L6: Rationales for Public Policy Intervention in the Innovation Process: Systems of Innovation Approach
Wed 15 Oct	Smits, Ruud E., Stefan Kuhlmann and Philip Shapira. 2010. <i>The Theory and Practice of Innovation Policy: An International Research Handbook</i> . Edward Elgar Publishing: Cheltenham, UK. Ch.5.
	<u>Student-led discussion (Group 5)</u>
Week 8	L7: Harnessing Science, Technology and Innovation for the Pursuit of Economic Growth
Wed 22 Oct	Lundvall, Bengt-Åke, and Borrás, Susana. 2005. Science, Technology and Innovation Policy. In <i>Oxford Handbook of Innovations</i> , edited by J. Fagerberg, D. Mowery and R. Nelson. Oxford: Oxford University Press. [pp. 599–631]
	Chaminade Cristina, Lundvall Bengt-Åke and Haneef Shagufta 2018. <i>Advanced Introduction to National Innovation Systems</i> . Edward Elgar Publishing [Ch. 4 (pp. 41-53), Ch. 5 (pp. 54-67)]
	<u>Student-led discussion (Group 6)</u>

WEEK 9	PUBLIC HOLIDAY – NO CLASS
Week 10	L8: Functionality of Innovation Systems as a Rationale for and Guide to Managing Innovation Policy
Wed 5 Nov	Smits, Ruud E., Stefan Kuhlmann and Philip Shapira. 2010. <i>The Theory and Practice of Innovation Policy: An International Research Handbook</i> . Edward Elgar Publishing: Cheltenham, UK. Ch.6.
	<u>Student-led discussion (Group 7)</u>
Week 11	L9: Innovation and Small and Medium Size Enterprises (SMEs): Innovation Dynamics and Policy Strategies
Wed 12 Nov	Smits, Ruud E., Stefan Kuhlmann and Philip Shapira. 2010. <i>The Theory and Practice of Innovation Policy: An International Research Handbook</i> . Edward Elgar Publishing: Cheltenham, UK. Ch.8
	<u>Student-led discussion (Group 8)</u>
Week 12	L10: Demand-Based Innovation Policy
Wed 19 Nov	Smits, Ruud E., Stefan Kuhlmann and Philip Shapira. 2010. <i>The Theory and Practice of Innovation Policy: An International Research Handbook</i> . Edward Elgar Publishing: Cheltenham, UK. Ch.12
	<u>Student-led discussion (Group 9)</u>
Week 13	L11: Managing the Soft Side of Innovation: How do Practitioners, Researchers and Policymakers Deal with Service Innovation?
Wed 26 Nov	Smits, Ruud E., Stefan Kuhlmann and Philip Shapira. 2010. <i>The Theory and Practice of Innovation Policy: An International Research Handbook</i> . Edward Elgar Publishing: Cheltenham, UK. Ch.13
	<u>Student-led discussion (Group 10)</u>

COURSE POLICIES

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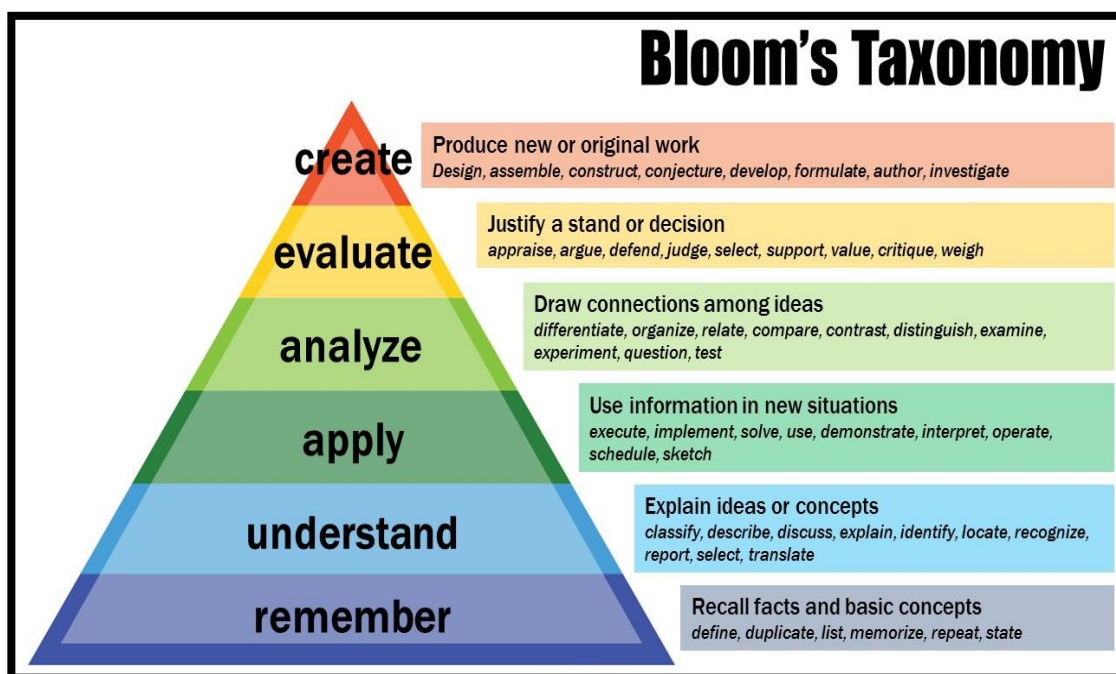
Grading Rubrics

Detailed rubrics for each assignment will be provided. These rubrics clearly outline the criteria used for evaluation. Students can refer to these rubrics to understand how their work will be assessed.

Final Grade Descriptors:

Grades	Short Description	Elaboration on subject grading description
A	Excellent Performance	Demonstrates a comprehensive grasp of subject matter, expertise in problem-solving, and significant creativity in thinking. In group work, exhibits a high capacity for scholarship and collaboration, going beyond core requirements to achieve learning goals. Working consistently at the top of Bloom's taxonomy: create, evaluate, analyze, apply...
B	Good Performance	Shows good knowledge and understanding of the main subject matter, competence in problem-solving, and the ability to analyze and evaluate issues. In group work, displays high motivation to learn and the ability to work effectively with others. Working upwards in Bloom's taxonomy: understand, apply, evaluate, analyze; may show creativity on occasion but not consistently; may have some minor issues with understanding or

		application of concepts
C	Satisfactory Performance	Possesses adequate knowledge of core subject matter, competence in dealing with familiar problems, and some capacity for analysis and critical thinking. Shows persistence and effort to achieve broadly defined learning goals. Working at the foundation of Bloom's taxonomy: remember, understand, apply; can have some errors of understanding and trouble with application or analysis.
F	Fail	Demonstrates insufficient understanding of the subject matter and lacks the necessary problem-solving skills. Shows limited ability to think critically or analytically and exhibits minimal effort towards achieving learning goals. Does not meet the threshold requirements for professional practice or development in the discipline. Unable to move beyond basics of Bloom's taxonomy without significant errors: remember, understand.

**EXPECTATIONS:**

This is a core course for MPM students. By this point in your university career, I expect that you are responsible, independent students. At the same time, the topic matter (or most of it) will be new to the majority of you. This can mean a heavy load at times. Attendance is mandatory, and the expectation is that you will do the readings for each session before the class. Be ready to discuss – this is supposed to be fun!

The reason that it is so important to do the readings and class assignments is that this course is only as good as what you each are willing to put into it. Our sessions will consist of some lecture to start, followed by a variety of interactive activities and/or cases (much of which is

actually presented by your peers!). These activities will only work well if students are prepared, and come to class willing to engage in fruitful discussions. This is not a brain-transfer from the instructor to the classroom. 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 contribute, orally and in writing. But working on oral skills is an important element of the class, and the expectation is that all students will contribute to the discussions.

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 witty. Any disrespectful or disruptive students will be asked to leave the class.

NO UNAUTHORIZED RECORDINGS OF CLASS SESSIONS ARE ALLOWED. If you have particular learning needs, please discuss with me personally and we can make the appropriate arrangements.

Course AI Policy

In general, the use of generative AI in this class should be limited to programs to help you improve your grammar/writing (i.e. Grammarly). ***For specific assignments, we will clarify the policy and procedures and uses of generative AI for aiding you in brainstorming or creating initial drafts of work.*** We also ask that you to NOT use translation software to generate your work (even with recent advances in accuracy, these often undermine the quality of your organization and argument).

Discussion posts: We expect these to be purely **your** own thoughts, and they are not meant to be highly polished. I do not care what Chat-GPT (or any other LLMs) think about the questions – I am looking for your thoughts, questions, ideas, and challenges. These are starting points for class discussions, so we expect that you would be able to expand on what you write in discussions with your colleagues.

Use of AI for Producing Readings Summaries/Notes: We are aware that there are programs out there that will help to create a summary of a document, including course readings. However, the reality is that while these programs can often capture many of the major points, they also omit many more subtle points, or can miss elements that are specifically important to our course. Even if you do choose to use these aids as a supplement, we expect that you have also been doing the readings yourself, and are able to pick up on subtle but important points. So go ahead and supplement your work flow, but YOU need to be putting in the time and attention (no cognitive outsourcing please).

Communication and Feedback

Assessment marks for individual assessed tasks will be communicated via Canvas within two weeks of submission. Feedback on assignments will include specific details, e.g., strengths, and areas for improvement. Please note, our comments are meant to be informative, and demonstrate why your work fell into a certain range in the rubric (as opposed to a list of places where you “lost points.”) Students who have further questions about the feedback including marks should consult the instructor within five working days after the feedback is received.

Reading Strategies

This course has no exams. What does that mean? It means you are reading to support our in-class discussions and activities – not to memorize. So when you approach a reading, try not to

get stuck trying to memorize everything. If you get stuck – make a note on what you find confusing – and then move on.

Take notes! For any reading, try to synthesize what you have read. What were the key ideas or concepts? What examples were used, or what evidence supports this? Does it make sense? Are there any shortcomings? Does it link to any other examples or experiences that you can think of? Does it support or contradict other things we have read or discussed in the class?

Academic Integrity

Students are expected to adhere to the university's academic integrity policy. Students are expected to uphold HKUST's Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to [Academic Integrity | HKUST – Academic Registry](#) for the University's definition of plagiarism and ways to avoid cheating and plagiarism.