

PPOL 5310: Public Management for Technology Innovation Fall 2026

Class meeting time & venue: Mondays | 7:00 pm – 9:50 pm | Room 4504 (Lifts 25-26)

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I. Description and basic information

Science, technology, and innovation are widely recognized as major drivers of economic growth, organizational transformation, and improvements in public services. Yet innovation does not emerge automatically from scientific discovery or technological change. It depends on how governments, organizations, firms, and other actors identify opportunities, mobilize resources, build capabilities, collaborate across organizational boundaries, and create environments in which new ideas can be developed, adopted, and scaled. Understanding how innovation can be effectively nurtured and managed is therefore an increasingly important task for public managers and policymakers.

This course introduces students to key concepts, analytical frameworks, and practical approaches for understanding and supporting technological innovation. It examines innovation as a management process and explores the roles of organizations, collaboration, knowledge production, innovation systems, and public policy in shaping innovation outcomes. Particular attention is given to why and how governments intervene in innovation processes, the policy instruments available to them, and the challenges of promoting innovation across different sectors and organizational settings. Major topics include innovation management, new products and services, collaboration, systems of innovation, science and technology policy, innovation-led economic growth, SMEs, demand-based innovation policy, and service innovation.

Objectives

- Introduce key tools, concepts, and analytical frameworks for public sector managers and leaders responsible for fostering and managing science, technology, and innovation.
- Examine leadership strategies, policy instruments, and management approaches used by

public sector organizations to support, shape, and evaluate science, technology, and innovation.

- Analyze illustrative case studies of how innovative ideas, policies, and management approaches are developed and implemented in practice, and assess the conditions that enable or constrain successful innovation.

Intended learning outcomes

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

1. Think strategically and imaginatively to tackle science- and technology-related public problems and solutions
2. Develop a toolkit of innovative approaches to achieve meaningful outcomes for citizens
3. Identify the importance of context in leading, managing and communication with regards to science and technology
4. Develop their potential to become successful public sector entrepreneurs
5. Write succinct, clear memos and communicate effectively on issues of complex science-, technology-, and innovation-related issues

Requirements

This course is structured around two main components: lectures and discussion sections. Starting from the week of Sept 21, discussion presentations will occupy the first 40 minutes of each class meeting, followed by interactive lectures.

Students are required to attend ALL lectures and discussion sections. More than two unexcused absences will result in a reduction of one sub-grade from your FINAL GRADE.

Students are required to complete the assigned readings for each week BEFORE class.

Presentation discussions focus on course materials of that week RATHER THAN the week before. In other words, presentation discussions are designed to let students have a grasp of the topic before the lecture, while the lecture will then further synthesize the class topics.

Readings

There is no single textbook for this class. Instead, students will read selected articles and chapters predominantly from two books (below) each week. Readings should be completed during before the class. 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.

OR

Tidd, Joe, John R. Bessant. 2018. *Managing Innovation: Integrating Technological, Market*

and Organizational Change, 6th Ed. John Wiley & Sons: Sussex, England.

*The two editions of this book cover largely similar content, and students may choose either edition for the assigned readings.

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.

Where can you get the readings?

1. All selected chapters from Tidd & Bessant (2018) and Smits et al. (2010), as well as a few readings from other sources, will be available on Canvas.
2. Go to HKUST library and search “PPOL 5310” in the search bar. All versions of the two books available in the library are put into the course reserves for you to borrow and read, including physical and e-versions. You can also go to the course reserves from the left-hand side button on Canvas.

II. Assignment and assessment

Canvas online discussion	10%
In-class participation	10%
Presentation discussion	15%
Opinion Piece	20%
Policy Memos @10% (x 2)	20%
End-of-semester Assignment	25%

Canvas online discussion (10%)

Canvas online discussion includes engaging regularly (that is, every week) and intelligently in the online discussion board on the course’s Canvas website. Starting from the week of September 21, students who are scheduled to lead the presentation discussion in that week will be required to post questions and/or comments about the reading on the discussion board no later than Friday at 12:00 pm (noon) of the previous week. Other students will respond, individually, to these questions/comments or to other observations made by their classmates no later than Monday at 12:00 pm of that week. This online forum aims 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%)

In-class participation includes active and productive participation in both lectures and discussion sections. 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. Participation may include responding to questions raised by the instructor or presenting groups, engaging with classmates' comments, and drawing connections between course materials and relevant professional or real-world experiences. 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. The instructor and/or TA will keep a record of each student's participation. Class participation grades will be assigned based on this record.

Presentation discussion (15%)

Each student group will be responsible for leading one discussion session during the semester. Starting from the week of September 21, the first 40 minutes of each class will be dedicated to student-led presentation and the corresponding discussion. Each session should consist of an approximately 20-minute presentation followed by approximately 20 minutes of facilitated whole-class discussion. The presentation should briefly connect to the key themes and concepts of the assigned readings and introduce one or two relevant case studies that extend, illustrate, or challenge the course material rather than simply repeat it. Groups are STRONGLY encouraged to draw on practical examples, especially members' own life and professional experiences. Following the presentation, the group should actively facilitate discussion through questions, debates, small-group activities, polls, or other appropriate methods. The goal is to create a productive and lively learning environment. This approach allows you to share your unique insights while helping your peers and instructor learn more about you. The main evaluation criteria are: connection to the class material, connection to your own work experience, analytical depth, and moderation of discussion.

Students will be divided into 9 groups, normally consisting of 5 students each. Students are encouraged to form their own groups. Group membership must be submitted to the TA by 11:59 pm, September 14. Students who have not submitted their group information by the deadline will be randomly assigned to groups by the instructor and TA. The instructor and TA may make minor adjustments to group size if necessary due to changes in course enrollment.

Once a group has been formed, members should submit their group information to the TA and simultaneously register for their preferred presentation week. Presentation weeks will be allocated on a first-come, first-served basis. The TA will coordinate group registration, maintain the group list, and record each group's selected presentation week.

The group that is presenting on Monday is required to submit their final presentation slides by 12:00 pm (noon) of that Monday.

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

- It must be about an issue/idea/event related to public (not corporate/business) policy and

governance of technology and innovation in Hong Kong OR Mainland China

- It must be timely, i.e., it must be connected to something that has occurred or been in the news over this year
- 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).

You can submit the opinion piece in a video format. If you do so, the duration should be equivalent to 1,200 words.

Due date: 11:59 pm, November 9 (you may submit this assignment any time during the semester, but no later than this day).

Policy Memos (20%, best 2 out of 3)

Over the course of the semester, every student will have the option to finish 2 out of 3 Policy Memos. The highest 2 scoring Memos will be counted for this portion of the grade. Each student must complete a MINIMUM of 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. 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. The structure and content of the Memo usually consists of the following:

- Header (to, from, date, subject)
- Executive summary (~100 words)
- Background and Issue analysis (~150 words)
- Policy options (with pros and cons) (~200 words)
- Strategic recommendations (~150 words)
- Limitations and barriers (~100 words)
- 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 Memo, please discuss with me in advance.

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

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

Due date: Policy Memo assignments will be offered at different points during the semester, each with its own submission deadline. Students are required to complete two of the three memos. Each memo must be submitted by its designated deadline; students who choose not to submit a particular memo may complete either or both of the remaining memo assignments instead.

Due date for Memo 1: 11:59 pm, Oct. 5

Due date for Memo 2: 11:59 pm, Nov. 2

Due date for Memo 3: 11:59 pm, Nov. 30

End-of-semester Assignment (25%)

You will create a comprehensive concept map that synthesizes the key ideas, theories, and themes covered throughout the course. The objective is not simply to summarize individual topics, but to demonstrate how different concepts are connected and can be organized into a coherent understanding of technology and innovation policy.

Your submission should consist of two components: a visual concept map and accompanying annotations. The concept map should include at least 15 concept nodes representing important ideas or theories from the course, at least 15 meaningful links connecting these concepts, and at least 5 real-world examples illustrating their application. Each concept node should be accompanied by a concise annotation of approximately 40–60 words explaining the concept in your own words. Major links should be briefly annotated (approximately 15–30 words) to explain the nature of the relationship between the connected concepts. Each real-world example should also include a brief explanation of how it illustrates or applies the relevant concept(s).

The visual map may be created using any appropriate software (e.g., PowerPoint, Word, Canva, Miro, or similar tools) or even hand-drawn, but finally submitted in a PDF format, provided that the relationships among concepts can be clearly understood. Visual sophistication or graphic-design skills will not be assessed; the emphasis is on conceptual accuracy, meaningful connections, and clarity of organization. Annotations may be incorporated directly into the map or presented separately in an accompanying Word or PDF document, provided that they can be clearly matched to the relevant nodes, links, and examples.

The complete submission should contain approximately 1,500–2,000 words of annotations. It will be assessed based on conceptual accuracy, integration and quality of relationships among

concepts, application to real-world examples, and clarity and organization. Detailed submission guidelines and assessment criteria will be provided to you throughout the process.

Due date: 11:59 pm, December 7.

III. Course policies

Assignment submission

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 memos, opinion pieces, or end-of-semester assignments should seek help from me. Similarly, students anticipating difficulty in submitting them on time must discuss the situation WELL IN ADVANCE.

Assignment feedback and grade disputes

Grades for assignments will be communicated via Canvas within 2 weeks after the deadline. The instructor and/or TA will give feedback on assignments that include 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”).

In general, we do not handle grade disputes by e-mail. Students who believe their grades do not reflect their performance or what they deserve should meet with me in person. Once a grade and the corresponding feedback (if applicable) have been released on Canvas, you have one week to discuss any issues or appeals. After that, this grade is considered closed for the semester.

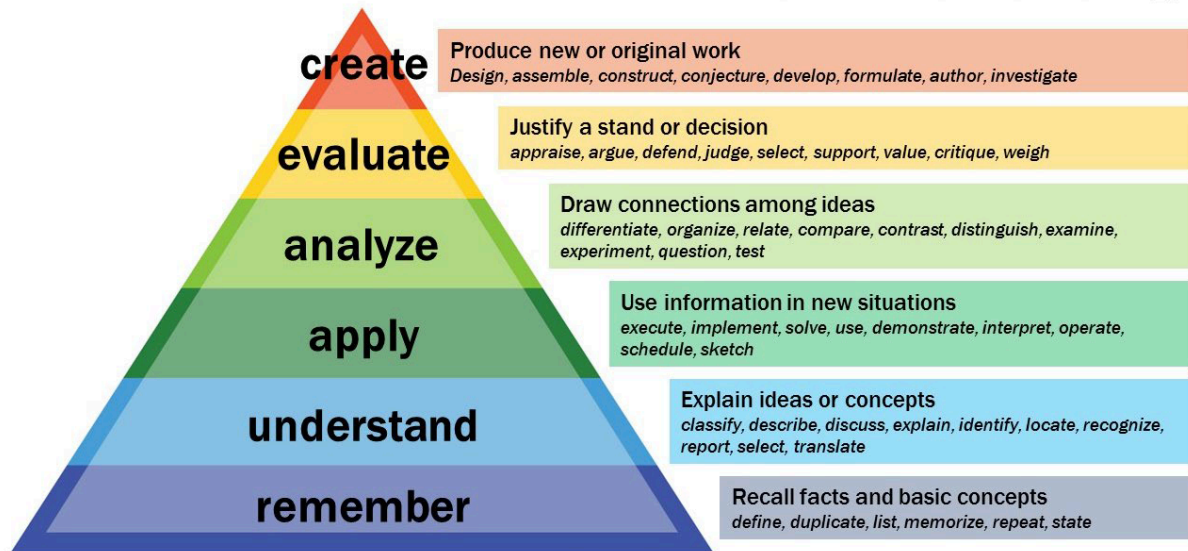
Grading rubrics

Detailed rubrics for in-class participation, presentation discussion, Policy Memos, opinion-pieces, and end-of-semester assignments will be provided. Students may also refer to the overall rubrics below, which the grading of all assignments, as well as the final grade, will generally follow

A range	90–100	Excellent Performance. Demonstrates a comprehensive and sophisticated understanding of the course material and consistently applies relevant concepts, theories, and analytical tools effectively. Work at this level goes beyond accurate understanding to demonstrate strong analytical judgment, synthesis across different ideas and materials, and, where appropriate,
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		originality or creativity in addressing complex problems. Arguments are well supported by relevant evidence and communicated with clarity and precision. In collaborative work, demonstrates substantial intellectual contribution and effective collaboration. Performance consistently operates at the higher levels of Bloom's taxonomy: analyze, evaluate, and create.
B range	75-89	Good Performance. Demonstrates good knowledge and understanding of the course material and an ability to apply relevant concepts and analytical tools to policy and management problems. Work shows meaningful analysis and evaluation, although the depth, consistency, integration of evidence, or originality may be uneven. Arguments are generally clear and well supported, with some limitations in reasoning or application. In collaborative work, contributes effectively and works well with others. Performance generally moves upward through Bloom's taxonomy: understand, apply, analyze, and evaluate, with occasional evidence of creativity or synthesis.
C range	60-74	Marginal Performance. Demonstrates basic knowledge of the core course material and some ability to apply relevant concepts to familiar problems. Work generally meets essential requirements but may contain important gaps in understanding, limited analytical depth, weak integration of evidence, or difficulty applying concepts to new situations. Arguments may be primarily descriptive rather than analytical. Performance is concentrated primarily at the foundational and intermediate levels of Bloom's taxonomy: remember, understand, and apply, with limited or inconsistent analysis.
F	Below 60	Failure. Does not demonstrate sufficient understanding of the core course material or the ability to apply key concepts and analytical tools at the level required by the course. Work may contain substantial conceptual errors, fail to address essential elements of the task, lack adequate evidence or reasoning, or demonstrate insufficient engagement with course materials. Performance is generally limited to the basic levels of Bloom's taxonomy and may show significant errors even in remembering, understanding, or applying core concepts. Performance does not meet the minimum threshold for achievement of the course learning outcomes.

Bloom's Taxonomy



Class courtesy

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 or outside the classroom, 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.

Recording and transcription

NO UNAUTHORIZED RECORDINGS OR TRANSCRIPTION OF CLASS SESSIONS, WHETHER OR NOT VIA AI TOOLS, ARE ALLOWED. If you have particular learning needs, please discuss with me personally, and we can make the appropriate arrangements.

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 for academic misconduct. Please refer to [Academic Integrity | HKUST Academic Registry](#) for the University's definition of plagiarism and ways to avoid cheating and plagiarism.

Plagiarism, Citation, and Referencing

Plagiarism in any form is strictly prohibited. All work submitted for this course must appropriately acknowledge the ideas, words, data, evidence, and other materials drawn from

external sources. Whenever you quote, paraphrase, summarize, or otherwise build upon the work of others, you must provide appropriate citation and attribution. Changing the wording of a source does not eliminate the obligation to cite it. Presenting another person's ideas, analysis, language, or work as your own constitutes plagiarism and may result in academic disciplinary action in accordance with University regulations.

Students are expected to maintain accurate and complete references for all written assignments. Any established academic citation style (e.g., APA, Chicago, or Harvard) is acceptable unless otherwise specified, but it must be used consistently. All sources cited in the text should be identifiable in the reference list, and all factual claims, data, quotations, and arguments derived from external sources should be appropriately attributed. When in doubt about whether a citation is required, students are strongly encouraged to provide a citation or consult the instructor or TA before submission.

IV. Course Policy on Generative AI

Generative AI tools are increasingly part of professional and academic work. This course does not prohibit their use in general. Instead, students are expected to use these tools selectively, transparently, and critically. AI should support rather than substitute for the intellectual work that the course is designed to develop. Different course activities and assignments therefore have different rules regarding the use of generative AI.

AI use in activities

Reading and learning. Students are expected to complete the assigned readings themselves. AI tools may be used as a supplement, for example, to clarify an unfamiliar concept, compare interpretations, or help organize notes, but AI-generated summaries should not substitute for reading the assigned material. Reading is itself part of the process through which you develop knowledge, identify arguments and evidence, notice details and ambiguities, and form your own interpretations. AI summaries may omit precisely the details, qualifications, and tensions that are important for our discussions. There should be no cognitive outsourcing of the reading process.

Writing and language. You may use AI-based tools to improve grammar, clarity, organization, and expression. Indeed, learning how to revise your own writing critically with these tools can be useful. However, you are strongly encouraged to develop and write your own argument first and then use AI as a tool for revision, rather than asking AI to generate the substance of a piece of writing from the outset. The same principle applies to translation tools: they may assist with language, but should not replace your own formulation and organization of an argument.

Idea generation and intellectual engagement. You are strongly encouraged to develop your own ideas, questions, interpretations, and arguments before consulting generative AI. Limited

use of AI for brainstorming, testing an argument, identifying counterarguments, or exploring alternative perspectives is acceptable where AI use is permitted. However, the purpose of the course is to develop your capacity to think through problems independently. In particular, classroom and online discussions are intended to reflect your engagement with the readings and with one another, not an AI system's response to the same questions.

What materials may be uploaded to AI systems. Students must also consider intellectual property and privacy when using generative AI. Publicly available or published materials, such as published articles and book chapters assigned as course readings, may be uploaded to AI tools where legally and technically permitted. Non-public course materials—including lecture slides, unpublished teaching materials, and work produced by other students—must not be uploaded to external AI systems without explicit permission from the relevant copyright holder or author. You may decide whether to upload your own work to an AI system, but you should make that decision with an awareness of the platform's terms of use, data practices, and potential implications for your intellectual property.

Choice of AI tools. Students are free to choose the generative AI tools they use where such use is permitted. For the kinds of English-language academic and professional writing, analysis, and revision undertaken in this course, ChatGPT, Claude, and Gemini are generally recommended. Tools such as Doubao and DeepSeek are generally not recommended for these purposes, although students remain free to use them. Where available, paid tiers often provide access to more capable models, larger context windows, or additional features than free tiers; however, students are not expected or required to purchase any AI service for this course. Because AI systems change rapidly, students should make informed choices about the tools they use rather than assume that any particular system is always superior. The HKUST Library provides a useful comparison of AI tools for academic work: <https://libguides.hkust.edu.hk/AI-tools-literature-review/compare-ai-tools>

*****AI use in course assessments**

The following rules apply:

- **Canvas online discussions:** Use of generative AI is not permitted. Discussion posts and responses should reflect your own reading, thinking, questions, and reactions. They are deliberately short and need not be highly polished.
- **Group presentation slides, Policy Memos, opinion piece, and end-of-semester assignment:** Generative AI may be used, subject to the disclosure requirements below.
- **In-class participation and discussion:** Contributions should represent your own understanding and thinking. Generative AI should not be used to generate responses during classroom discussion unless explicitly authorized for a particular activity.

Disclosure of AI use. For every assessed assignment in which generative AI is permitted and used, students must disclose the AI tool(s) and version(s), where available, used in preparing the assignment. Students must also submit all prompts and all relevant conversation history associated with the preparation of that assignment as an appendix. Students should therefore

retain their AI interaction records as they work.

These records will not themselves be graded. You will not receive a higher or lower grade simply because you used more, less, or no generative AI. The purpose of disclosure is to encourage transparency and to help you reflect critically on when, why, and how you use AI in your intellectual work. The instructor may review these records to better understand how AI contributed to the submitted work and, where appropriate, may discuss your AI-use process with you.

Do not reconstruct, fabricate, edit, translate, or otherwise alter prompts or conversation histories before submitting them. This includes translating your original Chinese prompts or responses into English, rewriting prompts to make them appear more sophisticated, removing portions of an AI exchange, or recreating a conversation after the fact. Submit the interaction record as it actually occurred. There is no benefit to making an AI-use record appear “better”: the record itself is not graded, and its purpose is to enable reflection and transparency.

Failure to disclose AI use, or submission of fabricated, reconstructed, selectively altered, translated, or otherwise falsified AI-use records, will result in a REDUCTION OF ONE SUB-GRADE (e.g., from A+ to A) for that assignment and may also be treated as an academic integrity matter where appropriate.

Responsibility, verification, and citation. Regardless of whether generative AI is used, students remain fully responsible for everything submitted under their name. AI-generated claims, factual information, quotations, data, and references must be independently verified. Generative AI output should not be treated as an authoritative source or used as a substitute for consulting and citing the original source. Where an argument, fact, or piece of evidence originates from an external source, students must locate and cite that source according to the course’s normal citation requirements.

Particular care must be taken with references and sources generated or suggested by AI systems. Fabricated, nonexistent, or hallucinated references, sources, quotations, data, or citations are unacceptable. Each instance identified in an assessed assignment will result in a REDUCTION OF ONE SUB-GRADE for that assignment. Multiple instances may therefore result in multiple sub-grade reductions and, where appropriate, may also constitute an academic integrity violation. Students are responsible for checking that every source they cite actually exists, accurately supports the claim for which it is cited, and is represented correctly in the reference list.

V. Expectations and recommendations

Help-seeking

The instructor and TA are here to help you. We want you to be interested in the class material

and to do well, and we 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, we strongly encourage you to do so in class, or to see us (virtually or in person). We have ample office hours (especially virtual). Additionally, we will always be available before and after class and will endeavor to respond to all e-mails we receive as promptly as we can.

Expectations

This is a core course for MPM students. By this point in your university career, we 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 lectures and 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 endeavor, 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.

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?