

Instructor: Sommer Abdel-Fattah

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Classes: Tuesday 9:30 - 12:30 In Person or occasionally by Zoom

<https://mcmaster.zoom.us/j/92137992816>

ID: 921 3799 2816 Passcode: SEP709

DESCRIPTION:

Environmental, social and economic threats that emerge from engineering innovation will be examined from the perspective of public policy development. Institutional effectiveness and policy implications for new programs will address greater interoperability of the institutional framework in various geographic regions. Policy paradigms explore equity and rights based frameworks; risk analysis; uncertainty; perception and decision making; and ethical challenges.

OBJECTIVES: The objective of this course is for students to use analytical discussions and debates on contemporary societal issues for which technology and policy can be integrated to generate sustainable solutions.

INTENDED COURSE LEARNING OBJECTIVES

At the end of the course students will be able to:

1. **Understand deep sustainability**
2. **Identify** means to optimize various dimensions of sustainability, including economic, social, political physical and environmental
3. **Apply** various tools for policy analysis to complex current societal problems
4. **Interpret, explain and evaluate** the role of stakeholders and jurisdictional analysis in public policy construction
5. **Develop briefing notes and white papers** that enable policy makers to evaluate policy options.

Finally, the course is designed to apply a multidimensional understanding of various perspectives and concepts of sustainable public policy through written assignments,

class discussions, and practical project application. Students are also expected to interact and collaborate with stakeholders to consider policy research and/or solutions to local or global challenges.

PREREQUISITES: Undergraduate degree in science or engineering.

TEXTBOOK: *Selected Readings provided by the instructor*

RESOURCES: References Texts (recommended, not mandatory)

- *Great Lakes Water Quality Agreement*. 2012. Canada and the United States http://www.epa.gov/greatlakes/glwqa/20120907-Canada-USA_GLWQA_FINAL.pdf
- Systemic instruments for systemic innovation problems: A framework for policy makers and innovation scholars, AJ Wieczorek, MP Hekkert - *Science and Public Policy*, 2012
- PUBLIC POLICY ANALYSIS, WILLIAM N. DUNN ROUTLEDGE, 2015
- HEAD, B. W., & ALFORD, J. (2015). WICKED PROBLEMS: IMPLICATIONS FOR PUBLIC POLICY AND MANAGEMENT. *ADMINISTRATION & SOCIETY*, 47(6), 711–739. [HTTPS://DOI.ORG/10.1177/0095399713481601](https://doi.org/10.1177/0095399713481601)

COURSE TOPICS/THEMES

Sept 5	no class: welcome week
Sept 12	Introduction and conversations on “sustainability” and Sustainable Development Goals
Sept 19	Climate change, developing a strategic response for the city of Hamilton, <u>Andrea McDowell for the City of Hamilton</u>
Sept 26	Mercury, A global Challenge
Oct 3	Pros and Cons of Pesticides: the DDT Debate
Oct 10	True Colors® Personal Success Seminars, Keys to Successful Team Building, and True Core Leadership – <u>Hoda Kamel (McMaster)</u>

Oct 17	Plastics, benefits, harms, and policy responses
Oct 24	Digital Democracy: Threats and Responses, <u>Tony Porter (McMaster)</u>
Oct 31	AI, Cloud and Smart Technology - DEBATE
Nov 7	Biotechnology risks, ethics, and policy Nanotechnology: threats and opportunities - DEBATE
Nov 14	Environmental Law, <u>Jacqueline Wilson/ Lindsay Dixon, Canadian Environmental Law Association</u>
Nov 21	<u>Circular Economy and IoT, Greg Zilberbrant</u>
Nov 28	Analysis of the Policy Response to the COVID-19 Pandemic – DEBATE
December 2	Student Paper presentations

The course will be a complementary stream of lectures and seminars. Instruments will include debates, presentations, student lead seminars, and will be highly interactive

- Readings must be completed prior to each class to prepare for engaged discussions.
- Classes will be used to help guide students through the readings and will expand upon key ideas in the curriculum by exploring connections to real world case studies.

ASSESSMENT

Assignments	15% (3) One week after given
Project outline	15% Due Oct 17
Class participation	10%
Major paper	40% Due December 2
Presentation of major paper	15% Due December 2

Class Participation

Given the course format, it is anticipated that students will actively participate in the discussions each week. Students should complete the assigned readings before class and be prepared to contribute meaningfully to in class discussions. Students will be

assessed on their ability to make original points, express their own thoughts on the topic, ask meaningful questions, engage other students' comments and incorporate the readings into their own comments. One of the following acts of participation will demonstrate that you have actually read the material assigned each week and participated in a meaningful fashion:

1. Ask a question.
2. Introduce a topic.
3. Use examples to illustrate a point.
4. Agree with or debate what you read or hear in debate or discussion.
5. Offer your own interpretation of the material.
6. Think: what? so what? now what?

If you are having trouble interpreting the material, it is a good idea to see the instructor for extra help early in the semester. Telling the instructor at the end of the seminar that you either have difficulty interpreting the material and/or that you are too timid to speak is not an acceptable reason for failing to participate. You need to be proactive about the need to complete this task effectively in order to receive a good mark.

HOW TO WRITE A BRIEFING NOTE

WHAT IS A BRIEFING?

Briefings, whether in the form of briefing notes, longer briefing papers, or oral briefings, are used to keep decision makers informed about the issues they are responsible for. In government, briefings are the principal means of communication between government managers and their ministers (or other senior officials).

The demands of government these days are such that senior officials must constantly learn and retain information about an enormous range of topics and issues, which change rapidly. The only way they can do this is to rely on concise, clear, reliable briefings.

WHAT IS A BRIEFING NOTE AND WHEN IS IT USED?

Written briefings are usually done in the form of briefing notes. A briefing note is a short paper that quickly and effectively informs a decision-maker about an issue. A useful briefing note distills often complex information into a short, well-structured document.

Briefing notes usually deal with "issues"—subjects of debate. But briefing notes are also prepared for any topic someone needs to be informed about. It might be a policy matter, a situation, a report, action by another government—in fact, anything that government deals with.

Briefing notes are typically written for those senior-level decision-makers who

- have to keep track of many, often unrelated, issues
- may not be familiar with the issues and may not have any related background
- for whatever reason, cannot spend time doing their own research
- need a capsule version of the key points and considerations about an issue

WHAT ARE THE CHARACTERISTICS OF A GOOD BN?

A well-prepared briefing note quickly and efficiently fills a person in on an issue. The most valuable BN is clear, concise and easy to read. To succeed, a briefing note should be:

- **short:** one to two pages, and always as short as possible
- **concise:** a short document isn't necessarily concise; concise means every word is used as efficiently as possible
- **clear:** keep it simple and to the point; always keep your reader firmly in mind and include only what matters to that reader
- **reliable:** the information in a briefing note must be accurate, sound and dependable; any missing information or questions about the information should be pointed out
- **readable:** use plain language and design your BN for maximum readability (use white space, subheadings, lists, font, and other means of making reading easier)

HOW IS A BN STRUCTURED?

Briefing notes often follow a standard format, but **THERE ARE MANY VARIATIONS** on that format. The most important point to remember about the structure of briefing notes is that they have three main parts:

- **the purpose** (usually stated as the issue, topic or purpose)
- **a summary of the facts** (what this section contains and the headings used will be determined by the purpose of the briefing note)
- **the conclusion** (this may be a conclusion, a recommendation or other advice, or both)

THESE THREE MAIN PARTS ARE PRESENTED UNDER SOME OR ALL OF THE FOLLOWING SECTION HEADINGS.

Issue (also Topic, Purpose): A concise statement of the issue, proposal or problem. This section should explain in one or two lines why the BN matters to the reader. It sets out in the form of a question or a statement what the rest of the note is about.

Background: The details the reader needs in order to understand what follows (how a situation arose, previous decisions/problems, actions leading up to the current situation). Typically this section gives a brief summary of the history of the topic and other background information. What led up to this problem or issue? How has it evolved? Do not repeat information that you're including in the Current Status section.

Current Status: Describes only the current situation, who is involved, what is happening now, the current state of the matter, issue, situation, etc.

Key Considerations: A summary of important facts, considerations, developments—everything that needs to be considered now. While you will have to decide what to include and what to leave out, this section should be as unbiased as possible. Your aim is to present all the details required for the reader to be informed or to make an informed decision. Keep the reader's needs uppermost in your mind when selecting and presenting the facts. Remember to substantiate any statements with evidence and to double check your facts. Additional details may be attached as appendices.

Options (also Next Steps, Comments): Basically, observations about the key considerations and what they mean; a concise description either of the options and sometimes their pros and cons or of what will happen next.

Conclusion and/or Recommendations:

Conclusions summarize what you want your reader to infer from the BN. Many readers jump immediately to this section, so be sure it covers the points you most want your reader to be clear about. Do not introduce anything new in the Conclusion. Recommendations should offer the best and most sound advice you can offer. Make sure the recommendation is clear, direct and substantiated by the facts you have put forward.

BEFORE YOU START WRITING, BE SURE YOU ARE CLEAR ABOUT

- why you're writing the BN (your purpose)
- who you're writing the BN for (your reader)
- what that person most needs to know
- the points you will cover
- how you will structure your information

AFTER YOU HAVE DRAFTED YOUR BN, USE THE FOLLOWING QUESTIONS AS AN EDITING GUIDE:

- Is the purpose of the briefing note clear?
- Is the language simple, economical and clear?

- Is everything there that needs to be there?
- Is anything there that isn't essential to the purpose?
- Is the BN easy to read, understand and remember?
- Do the sections lead logically from one to another?
- Is the BN designed so that it is inviting to the reader?
- Is there a good balance between white spaces and text?
- Has the briefing note been carefully edited and proofread?

PLEASE READ THE FOLLOWING CAREFULLY:

ACADEMIC DISHONESTY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that result or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>.

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

INCLUSIVITY

The Booth School of Engineering Practice is committed to creating an equitable environment and encourage openness to multiple perspectives and points of view. Students with diverse learning styles and needs are welcome in this course. If you have a disability or health consideration that may require accommodations, please feel free to approach one of the instructors and/or Student Accessibility Services (<http://sas.mcmaster.ca/>) as soon as possible.

A NOTE ABOUT THE USE OF AVENUE TO LEARN

This course uses Avenue to Learn. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with a course instructor.

COURSE MODIFICATIONS

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check his/her McMaster email and course websites weekly during the term and to note any changes.

CONDUCT EXPECTATIONS

As a McMaster graduate student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students with disabilities who require academic accommodation must contact [Student Accessibility Services](#) (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University’s [Academic Accommodation of Students with Disabilities](#) policy.

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should submit their request to their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the

Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

EXTREME CIRCUMSTANCES

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

RELATED POLICIES:

1. The Freedom of Information and Protection of Privacy Act (FIPPA) applies to universities. Instructors should take care to protect student names, student numbers, grades and all other personal information at all times. For example, the submission and return of assignments and the posting of grades must be done in a manner that ensures confidentiality - see <http://www.mcmaster.ca/univsec/fippa/fippa.cfm>
2. [Academic Integrity Policy](#)
3. [Academic Accommodation of Students With Disabilities Policy](#)
4. [Student Code of Conduct](#)
5. [Research Ethics Policy](#)
6. Risk Management policy for field trips – see <http://fhs.mcmaster.ca/ceb/phpm/docs/Due-Diligence-Re-International-Travel.pdf>
7. [Conflict of Interest-Undergraduate and GraduateStudies](#)

