

SYLLABUS

PUBLIC POLICY 610 (SECTION 04) COST-BENEFIT ANALYSIS FOR HEALTH, EDUCATION, AND ENVIRONMENTAL POLICY FALL 2023

INSTRUCTOR

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Pronouns: he/him/his

Office hours: Tuesdays, 3 – 4 pm, or by appointment

All office hours are virtual (Zoom Meeting ID: 945 503 3539).

LEARNING OBJECTIVES

The purpose of cost-benefit analysis (CBA) is to determine the net benefits of potential projects by cataloging the impacts of the projects, quantifying those impacts, and converting them into monetary terms. This course will focus on the use and application of CBA in health, education, and environmental policy. We will cover topics including the economic rationale for CBA, basic principles for assessing the economic effects of projects, techniques for valuing health, educational, and environmental impacts, intergenerational and philosophical concerns as they relate to CBA, social discounting, risk, and uncertainty. We will also compare CBA with alternative approaches to conducting public policy assessment such as cost effectiveness or multi-criteria analyses.

COURSE MATERIALS

1. Boardman, Anthony E., Greenberg, David H., Vining, Aidan R., and David L. Weimer. (2018). *Cost-Benefit Analysis: Concepts and Practice, 5th Edition*. Cambridge, United Kingdom: Cambridge University Press.
2. Blackboard: Problem sets, lecture slides, readings, and other course materials will be posted on the course page in Blackboard.

COURSE REQUIREMENTS

1. **Problem sets (2 x 15 points each):** Problem sets will guide students through exercises that apply the key tools of CBA. Problem sets will be issued during the first half of the course.
2. **In-class presentations of a published CBA (2 x 15 points):** During the second half of the course, students will select from a list of pre-approved CBAs and will present a summary of the key components of their chosen CBA to their classmates.
3. **Final CBA project (40 points):** Independent project to demonstrate execution of the basic components of a CBA and ability to communicate results in writing.

PROBLEM SET RULES

Due dates for problem sets are listed in the table at the end of this syllabus. **Problem sets are always due at the beginning of class.** If you miss the deadline for submitting your problem set, you may submit your problem set late but the grade for that problem set will be marked down:

- 25% for being even a second late
- 25% for each successive day that the problem set is late

up to 4 days late, at which point the grade on the problem set will be zero. In addition, your lowest problem set grade will be dropped when calculating the final grade for the course.

Students are encouraged to work on problem sets collaboratively, under the following ground rules:

1. Collaboration means discussing the problems together. However, the actual writing must be done individually. Each collaborator must hand in their own problem set; you cannot hand in a single set as the work of several people.
2. When collaborating, every student must work on every problem. You may not divide the problems up among yourselves.

ACADEMIC INTEGRITY

Academic integrity is an important value at UMBC. By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. These principles and policies apply in both face-to-face and online classes. Resources for students about academic integrity at UMBC are available at <https://academicconduct.umbc.edu/resources-for-students/>.

USE OF ARTIFICIAL INTELLIGENCE (AI) ASSISTANTS

The School of Public Policy currently does not have an official policy on the use of generative AI tools (such as ChatGPT) for course assessments. Understanding how and when to use these tools is quickly emerging as an important skill for future professions. To that end, *in this course*, you are allowed to use generative AI tools as long as it aligns with the learning outcomes or goals associated with assignments.

You are fully responsible for the information you submit based on a generative AI query. Your submissions may not violate academic honesty standards, intellectual property laws, or standards of research you are conducting through coursework. You are responsible for fact checking statements composed by AI language models as well as any mathematical calculations performed by AI assistants.

The same statistical analysis can often be performed in slightly different ways. *Problem sets and exams will be graded based on use of methods and approaches (e.g., formulas, mathematical conventions, Stata commands) that are presented in class.* I may deduct points on a question if the student relies on an AI tool that took a different approach to answer the question, and thus arrived at an answer that is different from what they would have obtained using methods and approaches presented in class.

Finally, your use of generative AI tools must be properly documented and cited for any work submitted in this course.

COVID-19 SAFETY PROTOCOLS AND COMPLIANCE

Students should comply with the university's current COVID-19 guidance and regulations, which can be found on the Retriever Ready: COVID-19 Response website: <https://covid19.umbc.edu>.

TRAUMA-INFORMED PEDAGOGY

Diminished mental health can interfere with optimal academic performance. The source of symptoms might be related to your course work; if so, please speak with me. However, problems with other parts of your life can also contribute to decreased academic performance. UMBC provides cost-free and confidential mental health services through [Retriever Integrated Health](#) to help you manage personal challenges that threaten your personal or academic well-being. Remember, getting help is a smart and courageous thing to do—for yourself and for those who care about you. Retriever Integrated Health is located in The Center for Well-Being (between Chesapeake and Susquehanna Halls). Phone: 410-455-2542. Hours: Monday-Friday 8:30am-5:00pm.

ACCESSIBILITY AND DISABILITY ACCOMMODATIONS, GUIDANCE, AND RESOURCES

Accommodations for students with disabilities are provided for all students with a qualified disability under the Americans with Disabilities Act (ADA & ADA AAA) and Section 504 of the Rehabilitation Act who request and are eligible for accommodations. The Office of Student Disability Services (SDS) is the UMBC department designated to coordinate accommodations that creates equal access for students when barriers to participation exist in University courses, programs, or activities.

If you have a documented disability and need to request academic accommodations in your courses, please refer to the SDS website at <https://sds.umbc.edu> for registration information and office procedures.

SDS email: disAbility@umbc.edu

SDS phone: 410-455-2459

If you will be using SDS approved accommodations in this class, please contact the instructor to discuss implementation of the accommodations. During remote instruction requirements due to COVID, communication and flexibility will be essential for success.

SEXUAL ASSAULT, SEXUAL HARASSMENT, AND GENDER BASED VIOLENCE AND DISCRIMINATION

[UMBC Policy](#) in addition to federal and state law (to include Title IX) prohibits discrimination and harassment on the basis of sex, sexual orientation, and gender identity in University programs and activities. Any student who is impacted by sexual harassment, sexual assault, domestic violence, dating violence, stalking, sexual exploitation, gender discrimination, pregnancy discrimination, gender-based harassment, or related retaliation should contact the University's Title IX Coordinator to make a report and/or access support and resources. The Title IX Coordinator can be reached at titleixcoordinator@umbc.edu or 410-455-1717.

You can access support and resources even if you do not want to take any further action. You will not be forced to file a formal complaint or police report. Please be aware that the University may take action on its own if essential to protect the safety of the community.

If you are interested in making a report, please use the [Online Reporting/Referral Form](#). Please note that, if you report anonymously, the University's ability to respond will be limited.

Notice that Faculty are Responsible Employees with Mandatory Reporting Obligations:

All faculty members are considered *Responsible Employees*, per [UMBC's Policy on Sexual Misconduct, Sexual Harassment, and Gender Discrimination](#). Faculty are therefore required to report any/ all available information regarding conduct falling under the Policy and violations of the Policy to the Title

IX Coordinator, even if a student discloses an experience that occurred before attending UMBC and/or an incident that only involves people not affiliated with UMBC. Reports are required regardless of the amount of detail provided and even in instances where support has already been offered or received.

While faculty members want encourage you to share information related to your life experiences through discussion and written work, students should understand that faculty are required to report *past and present* sexual assault, domestic and interpersonal violence, stalking, and gender discrimination that is shared with them to the Title IX Coordinator so that the University can inform students of their [rights, resources and support](#). While you are encouraged to do so, you are not obligated to respond to outreach conducted as a result of a report to the Title IX Coordinator.

If you need to speak with someone in confidence, who does not have an obligation to report to the Title IX Coordinator, UMBC has a number of [Confidential Resources](#) available to support you:

- [Retriever Integrated Health](#) (Main Campus): 410-455-2472; Monday – Friday 8:30 am – 5:00 pm; for after-hours support, call 988.
- [Center for Counseling and Well-Being](#) (Shady Grove Campus): 301-738-6273; Monday-Thursday 10:00am – 7:00 pm and Friday 10:00 am – 2:00 pm (virtual) [Online Appointment Request Form](#)
- Pastoral Counseling via [The Gathering Space for Spiritual Well-Being](#): 410-455-6795; i3b@umbc.edu; Monday – Friday 8:00 am – 10:00 pm

Other Resources:

- [Women’s Center](#) (for students of all genders): 410-455-2714; womenscenter@umbc.edu. Monday – Thursday 9:30 am – 5:30 pm and Friday 10:00 am – 4:00 pm
- [Shady Grove Student Resources](#), [Maryland Resources](#), [National Resources](#).

Child Abuse and Neglect:

Please note that Maryland law and [UMBC policy](#) require that faculty report all disclosures or suspicions of child abuse or neglect to the Department of Social Services and/or the police even if the person who experienced the abuse or neglect is now over 18.

Lauren’s Promise:

I promise to (a) listen and believe you if someone is threatening you; (b) represent a safe haven for sharing incidents of sexual assault, domestic violence, or stalking; (c) change campus culture that responds poorly to dating violence and stalking.

DISCLAIMER

This syllabus may need to be updated throughout the semester for many reasons. Policies, deadlines, and assignments may change. I will clearly communicate all such changes to you and the most up-to-date syllabus will always be posted on Blackboard.

COURSE SCHEDULE, READINGS, & DUE DATES

Week #	Date	Topics	Readings	Due	
1	August 30	Introduction to CBA; the “with-and-without” approach; the Referent Group			
2	September 6	Basic tools for CBA; net present value; discounting; annuities and perpetuities; accounting for depreciation and inflation	<ul style="list-style-type: none"> • BGVW, Chapter 1: Introduction; Sections 1 – 3 • BGVW, Chapter 9: Introduction; Sections 1 – 3, 5 – 7; Appendix 9A • BGVW, Chapter 10: Introduction; Sections 1, 6 		
3	September 13	CBA for decision making; Pareto efficiency; willingness to pay	<ul style="list-style-type: none"> • BGVW, Chapter 2: Introduction; Sections 1 – 4 		
4	September 20	Consumer and producer surplus; distributional implications; the marginal cost of public funds	<ul style="list-style-type: none"> • BGVW, Chapter 3 (all) 	<i>Problem Set #1</i>	
5	September 27	Predicting and monetizing impacts I	<ul style="list-style-type: none"> • BGVW, Chapter 8 (all) 		
6	October 4	Predicting and monetizing impacts II	<ul style="list-style-type: none"> • BGVW, Chapter 14: Introduction, Sections 1 – 2 • BGVW, Chapter 15 (all) 	<i>Problem Set #2</i>	
7	October 11	Predicting and monetizing impacts III	<ul style="list-style-type: none"> • BGVW, Chapter 16: Introduction, Section 1 • BGVW, Chapter 17 (all) 		
8	October 18	PUBLISHED CBA PRESENTATIONS I			<i>Published CBA presentation slides</i>
9	October 25	CBA in health policy; uncertainty and risk	<ul style="list-style-type: none"> • BGVW, Chapter 9: Section 10 • BGVW, Chapter 11: Sections 1 – 2 • BGVW, Chapter 18: Section 2 		
10	November 1	CBA in education policy; more on distributional implications	<ul style="list-style-type: none"> • BGVW, Chapter 14: Sections 3 – 5 • BGVW, Chapter 19 (all) 		
11	November 8	PUBLISHED CBA PRESENTATIONS II			<i>Published CBA presentation slides</i>
12	November 15	CBA in environmental policy; alternatives to CBA	<ul style="list-style-type: none"> • BGVW, Chapter 13 (all) • BGVW, Chapter 18: Section 1 		

13	November 22	NO CLASS – THANKSGIVING WEEK – WATCH RECORDED LECTURES		
		Recent developments in CBA and public policy I		
14	November 29	FINAL CBA PROJECT PRESENTATIONS		<i>Final CBA Project presentation slides</i>
15	December 6	Recent developments in CBA and public policy II		<i>Final CBA Project report</i>