# CARLETON UNIVERSITY DEPARTMENT OF ECONOMICS WINTER 2023

# ECON 3509 A – Development Planning and Project Evaluation Wednesdays, 6:05 pm – 8:55 pm, Online (BigBlueButton)

Instructor: Dr. Samuel Bonti-Ankomah

E-mail: samuel.bontiankomah@carleton.ca or Brightspace at carleton.ca/Brightspace (please use the Brightspace e-mail facility for all course-related electronic communication)

Virtual Office hours: Wednesdays, 5:15 – 5:55 pm

TA: Gyse Martine Jean Louis

Lectures will be live online every Wednesday. Students are required to attend the live lectures. The recording will also be accessible to students after the lecture.

Students can email me at any time with their questions and comments, and I will respond within 24 hours.

#### Introduction

The course will provide students some understanding of the basic principles of development planning and introduce them to the tools used in economic evaluation of development projects. It provides an analytical and practical approach to financial and economic project evaluation that looks at projects from the perspective of governments or development agencies. The course covers general economic principles that are used for evaluating the social benefits and costs of projects. It includes approaches to valuing market and non-market benefits and costs and analysis of uncertainty.

#### **Learning Outcomes:**

After successful conclusion of this course, students should be able to:

- Describe the key steps involved in a standard cost-benefit analysis;
- Explain the economic principle that guides cost-benefit analysis;
- Identify all relevant costs and benefits of a particular project/policy/ regulation;
- Properly classify all relevant benefits and costs of a project/policy/regulation;
- Understand how to attach a dollar value to benefits and costs;
- Evaluate the role of non-market benefits and costs in a CBA;
- Understand the importance of the discount rate in CBA;
- Conduct a basic cost-benefit analysis.

Prerequisite: ECON 1000 or FYSM 1003.

Students who believe they have taken similar background course or courses from another university must provide appropriate documentation to the Department of Economics Undergraduate Administrator, Renee Lortie.

#### **Text and Reading Materials**

Materials will come from several sources and books including:

Boardman, A.E., Greenberg, D.H., Vining, A.R., and Weimer, D.L., 2018. *Cost-Benefit Analysis: Concepts and Practices*, 5<sup>th</sup> ed, Cambridge University Press (*Required*)

Campbell, Harry, F. and Brown, Richard, P.C., 2003. *Benefit-Cost Analysis: Financial and Economic Appraisal Using Spreadsheets*, Cambridge University Press, New York, ISBN 13-9780521528986

Pedro Belli, Jock R. Anderson, Howard N. Barnum, John A. Dixon, and Jee-Peng Tan, 2001. *Economic Analysis of Investment Operations: Analytical Tools and Practical Applications*, World Bank Institute, Washington, D.C., 292 p., ISBN 0-8213-4850-7.

Todaro, Michael and Smith, Stephen, C., 2015/2012/2009. *Economic Development* Addison-Wesley, Boston, USA

Dale, R., 2006. Development Planning: Concepts and Tools for Planners, Managers and Facilitators, Zed Books Limited, London, United Kingdom.

Townley, P., 1998. Principles of Cost-Benefit Analysis in a Canadian Context, Prentice Hall.

United Nations Development Program, 2020. *Human Development Indices and Indicators:* 2020 *Statistical Update*, <u>Human Development Report 2020 | Human Development Reports (undp.org)</u>

United Nations Development Program, 2020. Human Development Indices and Indicators: 2020 Statistical Update, Technical Notes, <a href="https://doi.org/10.1007/journal.notes.pdf">hdr2020</a> technical notes.pdf (undp.org)

Zerbe, R. and Dively, D., 1994. *Benefit-Cost Analysis in Theory and Practice* Harper Collins College Publishers.

Additional materials will be obtained from the following sources:

- United Nations Development Program, 2016. Human Development Report,
- Treasury Board Secretariat of Canada, 2007. *Canadian Cost Benefit Analysis Guide*: http://www.tbs-sct.gc.ca/rtrap-parfa/analys/analystb-eng.asp
- Treasury Board Secretariat of Canada, 2003. Assessing, Selecting and Implementing Instruments for Government Action: <a href="http://www.tbs-sct.gc.ca/rtrap-parfa/asses-eval/asses-eval/asses-eval/b-eng.asp">http://www.tbs-sct.gc.ca/rtrap-parfa/asses-eval/asses-eval/asses-eval/asses-eval/b-eng.asp</a>

- World Bank, Operations Evaluation Department (OED) sub-site:
   www.worldbank.org/oed
- Inter-American Development Bank: www.iadb.org
- Asian Development Bank: <a href="www.adb.org">www.adb.org</a>
   African Development Bank: <a href="www.afdb.org">www.afdb.org</a>

#### **Course Evaluation**

Each student's grade will be calculated as a weighted average of the following four components:

Quiz 1 (Feb 1):	15%
Quiz 2 (Mar 1):	15%
Group Assignment (Due April 5):	30%
Final Exam (April 15-27)	40%

#### **Class Ouizzes**

There will be two quizzes to be held on February 1, 2023 and March 1, 2023. Each quiz will be worth 15% of class grade and will cover text material, class discussions and other documents discussed in class up until that time.

There will be no deferred quizzes. Students who can document a compelling reason for missing any of the quiz will be excused and their final grade will be based on their performance in the rest of the course evaluation criterion, i.e., the weight of each of the remaining evaluation criterion will rise by a factor of 20/17 (example, the final take home examination's weight will become 40%\*20/17 = 47.06%). Students must inform the instructor of such an absence in advance, if possible.

Please note that tests and examinations given online in this course may use e-Proctoring, a remote proctoring service provided by Scheduling and Examination Services. More information may be obtained at <a href="https://carleton.ca/ses/e-proctoring/">https://carleton.ca/ses/e-proctoring/</a>.

#### Group Assignment

Students will be put in groups for the purpose of discussing and completing the assignment. Each group will submit one group assignment through Brightspace. The details of the assignment will be given to students on Brightspace by March 1, 2023 and students are to submit through Brightspace no later than April 5, 2023. All submitted assignments should be typed. Hand-written assignments will not be accepted

Students will lose 5% per each day for submitting assignments after the due date of April 5, 2023. Students who fail to submit their assignments without a compelling reason will be awarded a grade of zero for the assignment and the assignment grade will not be distributed to the remaining evaluation instruments.

#### Doctor's note or police report

The documentation provided by students for missed quiz may be subject to verification. Students who provide such documentation must also complete the "Consent to Release Information to a Third Party" form posted on Brightspace.

### **Satisfactory Performance Criteria**

Students must fulfil all of the preceding course requirements in order to achieve a passing grade (D- or higher). See Academic Regulation 2.3 for the official meanings of the grades, and note that standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean. Application to write a deferred final examination must be made at the Registrar's Office."

#### Plagiarism

Please be aware that plagiarism is a serious offence at Carleton and should be recognized and avoided. Please consult Carleton University's Academic Integrity Policy at <a href="https://carleton.ca/economics/courses/writing-preliminaries/academic-integrity-and-offenses-of-conduct/">https://carleton.ca/economics/courses/writing-preliminaries/academic-integrity-and-offenses-of-conduct/</a>

#### **Requests for Academic Accommodations**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

#### **Pregnancy obligation**

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the <a href="Equity Services website">Equity Services website</a>: <a href="https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf">https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf</a>

#### **Religious obligation**

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the <a href="Equity Services website">Equity Services website</a>. <a href="https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf">https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf</a>

#### Academic Accommodations for Students with disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or <a href="mailto:pmc@carleton.ca">pmc@carleton.ca</a> for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the <a href="Paul Menton Centre website">Paul Menton Centre website</a>.

#### **Survivors of Sexual Violence**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: <a href="mailto:carleton.ca/sexual-violence-support">carleton.ca/sexual-violence-support</a>

#### **Accomodation for student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see <a href="the policy">the policy</a> at <a href="https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf">https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf</a>

#### **Course Content**

## PART I: Basic Principles of Development Planning- Jan 11 & 18

1. Basic Concepts of development planning (Dale, Chapter 1, 4 & 5; Todaro *et al*, Chapter 11; UNDP Human Development 2020 Statistical Update and Technical Report)

## **PART 2: Economic Foundations of project evaluation – Jan 25**

- 2. Efficiency, and project evaluation [Boardman, et al, Chap. 2 (pp. 28-30)]
- 3. Willingness to pay and opportunity cost [Boardman et al, Chap. 2 (pp. 31-41)]
- 4. Consumer and producer surplus [Boardman *et al*, Chap. 3 (pp. 55-75)]
- 5. Market Distortions and project evaluation—[Belli et al, Appendix 1A (pp.199-213)]

#### *Ouiz* 1 – *Feb* 1

## PART 3: Cost Benefit Analysis – A tool for Project Evaluation – Feb 1

- 6. What is Cost Benefit Analysis? [Boardman, Chap. 1 (pp. 1-2)]
- 7. Private versus social Cost Benefit Analysis [Boardman, Chap. 1 (pp. 1-2)
- 8. Key Steps in Cost Benefit Analysis [Boardman, Chap. 1 (pp. 4-15)]
- 9. Why Cost benefit Analysis? [Boardman, Chap. 1 (pp. 21-23)]

## PART 4: Identification and Valuation of Costs and Benefits – Feb 8 & 15

- 10. Identifying cost and benefits [Belli, Chap. 4]
- 11. Valuing Benefits and Cost [Boardman, Chap. 4, 5 & 6]

#### Winter Break – Feb 20-24

## **Quiz 2- Mar 1**

## PART 5: Monetising Costs and Benefits – Mar 1 & 8

- 12. Market Approaches (Belli, Chap. 5; Campbell and Brown, Chap. 8; Townley, Chap. 6)
- 13. Non-market/Indirect Market approaches (Boardman, Chap. 15 & 16; Belli, Chap. 4; Campbell and Brown, Chap. 12; Townley, Chap. 9)

# PART 6: Decision Criteria for Cost Benefit Analysis – Mar 15 & 22

- 14. Cost Benefit Analysis Criteria (Belli, Technical Appendix (pp.217-222); Campbell and Brown, Chap. 3; Zerbe and Dively, Chap. 9)
- 15. Discounting [Boardman, Chap. 9]
- 16. Cost Effectiveness [Boardman, Chap. 18; Belli, Chap. 7]

## PART 7: Dealing with Risks and Uncertainties – Mar 29

- 17. Risks and Uncertainty (Zerbe and Dively, Chap. 12)
- 18. Analysing uncertainty (Boardman, Chap. 11; Belli, Chap. 11; Zerbe and Dively, Chap. 12; Campbell and Brown, Chap. 9)

## Class Review – Apr 5

# Group Assignment submission – Apr 5

Note: The foregoing is a tentative list of contents. There may be changes due to questions and interests of students.