

### Cost-Benefit Analysis: Foundations and Practice

Course title – Intitulé du cours	Cost Benefit Analysis: Foundations and Practice
Level / Semester – Niveau /semestre	M2 / S1 and S2
School – Composante	Toulouse School of Economics
Teacher – Enseignant responsable	Henrik ANDERSSON
Lecture Hours – Volume Horaire CM	30
Course Language – Langue du cours	English

#### **Teaching staff contacts – Coordonnées de l'équipe pédagogique :**

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Office hours: On demand. Ask for appointment by email.

#### **Course Objectives – Objectifs du cours :**

Cost-benefit analysis (CBA) is the standard economic method to evaluate public policies and investments and is largely used in public and/or private organizations worldwide. The objectives of the course are to introduce the foundations and concepts of cost-benefit analysis (CBA) and to explain and provide training on how CBA is implemented in practice. The aim is to provide the students who intend to pursue environmental, transportation, and/or health-related research, or being involved in policy decision making, or working in the private sector, for NGOs, international organizations, etc., with an understanding and knowledge of economic evaluation. Teaching will consist of both lectures and training sessions on applying CBA.

The course is divided into two parts. The first part, “Foundations”, provides the introduction and background to CBA and covers core concepts of CBA such as decision rules, defining projects, welfare measures, discounting, etc. Lectures are combined with exercises and small tasks. The second part, “Practice”, focuses on how CBA is implemented. It provides examples of how CBA is used in different contexts, and practical training on specific issues. The main task consists of a group project in which students carry out their own CBA.

#### **Course Outline**

##### Part 1: Foundations

1. Introduction to cost-benefit analysis (CBA)
2. Foundations of CBA
  - a. Basics
  - b. Decision rules
3. Specific topics in CBA
  - a. Discounting
  - b. Benefit transfers
  - c. Cost estimation
  - d. Partial vs. general equilibrium
  - e. Distributional issues
  - f. ... (in the amount of time)

## Part 2: Practice

1. Guidelines and manuals
2. CBA Tools
3. Incorporating uncertainty
4. Group project

### **Prerequisites – Pré requis :**

Good knowledge of intermediate microeconomics and econometrics. For “Part 2: Practice”, a good knowledge of non-market valuation methods, such as revealed- and stated-preference methods, and how values from such studies reflect monetized individual preferences.

### **Practical information about the sessions – Modalités pratiques de gestion du cours :**

Use of laptops and tablets, etc., is welcome if used for course purposes only. Violations will result in such devices being banned for all students during lectures. Use of cell phones during lectures is not allowed.

### **Grading system – Modalités d'évaluation :**

More details on the grading requirements will be provided in class, but in short the grading will be based on the following components:

#### Part 1: Foundations (10/20)

Students are evaluated individually in this part of the course. Grading is based on two tasks:

1. Mid-term written exam (5/10)
2. Short report to be presented and discussed in a seminar (5/10)

#### Part 2: Practice (10/20)

In this part of the course students will obtain a group grade. Students will in groups conduct a CBA on a project they themselves will define. The project is to be presented and discussed in a seminar. The grade will be based on:

1. Quality and originality of the project.
2. Performance during the seminar.

#### Active participation in class:

Students can obtain a bonus (max 2/20) based on regular attendance and active participation in class, including active participation in the seminar for the group projects.

### **Bibliography/references – Bibliographie/références :**

The proposed textbooks of the course are:

- Atkinson, G., et al., 2018, Cost-Benefit and the Environment: Further Developments and Policy Use. Paris, France: OECD Publishing.
- Johansson, Per-Olov and Bengt Kriström. 2015 Cost-Benefit Analysis for Project Appraisal. Cambridge, UK, Cambridge University Press.
- Phaneuf, D.J. and T. Requate, “A Course in Environmental Economics – Theory, Policy, and Practice”, Cambridge University Press, 2017.

Students are free to use other textbooks covering the same material as the two proposed above. The required reading is also based on peer-reviewed and published articles. Lecture notes, required readings, except the textbook, and any exercises will be made available through the Moodle course page.