

## Cost Benefit Analysis : Foundations and Practice

Course title – Intitulé du cours	Cost Benefit Analysis : Foundations and Practice
Level / Semester – Niveau /semestre	M2 / S2
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	Andersson Bo Henrik
Other teacher(s) – Autre(s) enseignant(s)	
Other teacher(s) – Autre(s) enseignant(s)	
Other teacher(s) – Autre(s) enseignant(s)	
Other teacher(s) – Autre(s) enseignant(s)	
Other teacher(s) – Autre(s) enseignant(s)	
Lecture Hours – Volume Horaire CM	30
TA Hours – Volume horaire TD	
TP Hours – Volume horaire TP	
Course Language – Langue du cours	Anglais
TA and/or TP Language – Langue des TD et/ou TP	

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

Email: [henrik.andersson@tse-fr.eu](mailto:henrik.andersson@tse-fr.eu)

Office: T.309

Office hours: Mondays, 8:30-10:00, by prior appointment by email only.

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

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. CBA is the standard economic method to evaluate a public policy, and is largely used in public and/or private organizations worldwide. It is well founded in economic theory and the first part of the course will cover the basics such as decision rules, defining projects, welfare measures, etc. The second part will consider specific topics of interest in CBA, e.g. the treatment of uncertainty, or partial vs general equilibrium. The third part will focus on practice, with a special focus on how to conduct a CBA and how it is implemented in different context, like at the European level.

The aim is to provide the students who intend to pursue environmental, transportation, and/or health-related research, 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.

### **COURSE OUTLINE**

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)
4. Practice of CBA
- a. Incorporating uncertainty
  - b. CBA as applied

**Prerequisites – Pré requis :**

Good knowledge of intermediate microeconomics and econometrics. Knowledge of non-market valuation methods, such as revealed- and stated-preference methods, to monetize individual preferences.

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

Use of laptops, tables, cell phones, etc., is welcome if used for course purposes only. Violations will result in such devices being banned for all students during lectures.

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

Grading will be based on the following components:

1. Mid-term written exam
2. Group project: Students will in groups conduct a cost-benefit analysis on project they themselves will define. The project is to be presented and discussed in a seminar. The grade will be based on:
  - a. Quality and originality of the project.
  - b. The role of discussant in the seminar.
  - c. Active participation in the seminar.
3. Active participation in class: Grade based on attendance and active participation in class, including fulfillment of task(s).

Grading: "1" = 20%, "2" = 60%, "3" = 20%

The above grading structure is under the assumption that traditional in classroom teaching can be carried out. In the event that distance based teaching is necessary the following grading rule will be implemented: "1" = 30%, "2" = 70%.

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

The proposed textbooks of the course are:

- Phaneuf, D.J. and T. Requate, "A Course in Environmental Economics – Theory, Policy, and Practice", Cambridge University Press, 2017.
- Johansson, Per-Olov and Bengt Kriström. 2015 Cost-Benefit Analysis for Project Appraisal. Cambridge, UK, Cambridge University Press.

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.

**Distance learning – Enseignement à distance :**

Depending on the situation, distance learning may be implemented. If necessary it will be a mix of “Interactive virtual classrooms”, “Recorded lectures” (videos), with the support of a Chatroom/Forum, and online exercises may complement the mid-term exam described above under “Grading”.