

Cost Benefit Analysis of Agricultural and Environmental Projects, NA0153, 7.5 hp

Schedule (**Update September 14**)

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Objective

Many decisions regarding cost and benefits of different tasks are made in everyday life. For example, a household compares costs and benefits from buying a new environmentally friendly car. The cost benefit tests are also carried out for much larger projects such as changes in national transport systems. Common to most projects is the need for attaching costs and benefits to different items which can be difficult to assess such as the value of life or cost of the risk for future catastrophic events from, e.g., nuclear power works. The purpose of this course is to give theoretical and empirical knowledge on design of cost benefit studies applied mainly on environmentally related projects.

Learning Outcomes

After passed course the student should be able to:

1. describe what should be included in a financial and a social cost-benefit analysis (CBA),
2. demonstrate a good knowledge of how non-market goods and services should be included in a CBA and discuss the challenges,
3. conduct a financial and social CBA for small- and large-scale investments
4. critically review and present scientific outcomes of related studies
5. work effectively with a group and provide recommendations for profitable investments.

Forms of Examination

The examination of the course includes the following **mandatory** parts:

- Active participation in the seminar discussions on CBA of investment projects (Learning outcome 4).
- Work in groups, written report, presentation of the results. (Learning outcomes 3, 5).
- Written exam (Learning outcomes 1, 2, 3, 4, 5).

The grading scale for the course is 3-5.

The final grade is decided based on the written exam and the case study.

The case study may give maximum 20 credits. Students should **work in pairs (mandatory)**, but they will have to submit **an individual report**. Each group of two should send **one email with 3 attachments**: one excel file with the calculations and two individual report. The deadline for the submission is on **October 19 (09:00 !!)**.

The exam has four questions; each question may give maximum 20 credits. Thus, the maximum for the case study and the exam is 100 credits in total. In order to get grade:

- 3 you must have at least 50 points in total.
- 4 you must have at least 70 points in total.
- 5 you must have at least 85 points in total.

Seminar participation is mandatory!!

Literature

- Boardman A., Greenberg D., Vining A., Weimer D., Cost benefit-analysis. International Edition. Pearson (Main text book).
- Perman, R., Ma, Y., McGilvray, J., Common, M. 2003. Natural resources and environmental economics. Pearson, Harlow, UK, Chapters 11-13.
- Guide to Cost-Benefit Analysis of Investment Projects. Economic appraisal tool for Cohesion Policy 2014-2020. European Commission.
http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/cba_guide.pdf

Date	Lecture	Title	Reading material
Sept 3 9.00-11.00 Online Lecture	1	Introduction, Microeconomic Foundations	Boardman et al. Chapters 1- 3 EC Guide
Sept 8 9.00-11.00 Online Lecture	2	Estimating Costs and Benefits	Boardman et al. Chapters 4- 5
Sept 10 9.00-11.00 Online Lecture	3	Financial and Social Cost Benefit Analysis	EC Guide

<p>Sept 15</p> <p>9.00-11.00</p> <p>Online Lecture</p>	4	<p>Discounting Benefits and Costs</p> <p>Social Discount Rate</p>	Boardman et al. Chapters 6, 10
<p>Sept 17</p> <p>10.30-12.30</p> <p>Ulls hus Computer room 2</p>	Lab 1	Introduction to Case Study	
<p>Sept 22</p> <p>9.00-11.00</p> <p>Online Lecture</p>	5	<p>Uncertainty</p> <p>Calculating Shadow Prices</p>	Boardman et al. Chapters 7, 15-16;
<p>Sept 24</p> <p>10.30-12.30</p> <p>Ulls hus Computer room 2</p>	Lab 2	Case Study	
<p>Sept 29</p> <p>9.00-11.00</p> <p>Online Lecture</p>	6	Valuing the environment	<p>Perman et al. Chapter 12</p> <p>(Boardman et al Chapters 11-14)</p>
<p>Oct 6</p> <p>9.00-11.00</p> <p>Online Lecture</p>	7	Seminar I	
<p>Oct 13</p> <p>9.00-11.00</p> <p>Online Lecture</p>	8	Seminar II	

Oct 15 10.30-12.30 Ulls hus Computer room 2	Lab 3	Case Study	
Oct 19 09:00 (!)		Deadline (case study)	
Oct 20 9.00-11.00 Online Lecture	9	Exercises & Case Study	Boardman et al.
Oct 27 09.00-13.00	Exam		
Dec 9 13.00-17.00	Re-Exam		