**Environmental Economics for Engineers**

Thalmann Philippe, Vielle Marc, Vöhringer Frank

---

**Cursus**: Génie civil & environnement

**Sem.**: 2

**Type**: Obl.

**Language**: English

**Credits**: 2

**Session**: Written

**Exam**: 60h

**Workload**: 60h

**Hours**: 29

**Lecture**: 24

**Exercises**: 3

**Practical work**: 2

**Number of positions**: Frequency: Every 2 years

**Remarque**: Every two years. Cancelled spring 2020. Next time spring 2022, Min 5 participants

**Summary**: Economic analysis (supply, demand, prices, elasticities), applied to environmental issues: externalities, instruments of environmental regulation (voluntary approaches, incentive taxes, emissions markets), assessment of economic impacts and valuation of natural resources, cost-benefit analysis.

**Content**:  
Introduction to economics: supply, demand, markets and prices (3 periods, PT)  
Environmental goods and environmental policy (6 p, MV)  
Emissions trading (3 p, FV)  
Economic decision making, in particular cost-benefit analysis (3 p, PT)  
Assessment of economic impacts and valuation of natural resources (6 p, PT)  
Decisions under uncertainty, economics of innovation (3 p, FV)  
Environmental policy-making (3 p, PT)

**Note**: It will be organised in half-days on Thursday mornings during the spring semester. It will only be given for a minimum of 5 students.

**Keywords**: Environmental economics, environmental policy, cost-benefit analysis

**Learning Outcomes**:  
By the end of the course, the student must be able to:  
- to understand the basic mechanisms of markets  
- to explain the differences between the main types of instruments of environmental policy  
- to explain the workings of these instruments

**Resources**:  
**Bibliography**
Bontems, P. and G. Rotillon (2013). L'Economie de l'Environnement, La Découverte
Washington, DC, USA, RFF Press / Routledge

Ressources en bibliothèque
- Bontems and Rotillon (2013). L'Economie de l'Environnement

Websites
- http://leure.epfl.ch/education