NA0165 Natural Resource and Environmental Economics
Autumn 2020 7.5 credits

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Prerequisites:
Knowledge corresponding to 30 credits in Economics.
Knowledge equals English B from upper secondary school.

Objective:
The goal of the course is to give an in-depth knowledge of economics in the field of environmental policy and the management of natural resources.

With successful completion of this course, students shall be able to:
- account for the possibilities and limitations of a market economy when it comes to the solution of environmental problems and the management of natural resources,
- account for the concept of cost efficiency,
- judge about the usefulness of various environmental policy instruments in different situations,
- explain different methods for valuation of the environment,
- explain the possibilities of voluntary solutions to, e.g. international environmental problems,
- explain natural resources management based on economic theory,
- use economic theory on actual environmental problems, local, regional, or global.

Content:
- Description of various environmental problems and economic explanations for why they arise
- Description of various environmental policy instruments
- Analysis of the strengths and weaknesses of various policy instruments in different situations
- Valuation of environmental goods which do not have a price on a market
- Strategic behavior in international environmental problems
- Long-run management of natural resources

Textbook:
We have no required texts, but the following two are wonderful references:
- *Perman, Roger, Yue Ma, Michael Common, David Maddison, and James McGilvray. Natural Resource and Environmental Economics. Pearson, 2011.*
- *Conrad, Jon M. Resource economics. Cambridge University Press, 2010.*

Requirements for examination:
One written final exam, written summary for two papers, and exercises. Grading criteria are available on the next page.

Grading criteria

Grade 3

To get this grade (and to pass the course) the student must
- Summarize papers according to guidelines posted on our course website.
- Demonstrate that he or she has basic knowledge and understanding of the central topics in environmental and resource economics. It means that the student can solve standard problems and explain central phenomena in economic terms.

Grade 4

To get this grade, the student must demonstrate that he or she has relatively advanced knowledge and understanding of the central topics in environmental and resource economics. It means that the student can solve rather difficult problems and explain (potentially) puzzling phenomena in economic terms and in an independent way.

Grade 5

To get this grade, the student must demonstrate that he or she has advanced knowledge and understanding of the central topics in environmental and resource economics. It means that the student can identify and solve complex problems and explain puzzling phenomena in economic terms and in an independent way.

Grading

- **Exam:** The exam can be given 0-100 points. You must have at least 50 points on the exam to pass this course.

- **Two Paper Summaries:** Each paper summary can be given 0-100 points. It is necessary to show abilities according to guidelines to get 50 points. Two paper summaries are weighted equally. You must have at least 50 points on average for written paper summaries to pass this course.

- **Final Course Grade:** When calculating the final grade, the exam is given a weight 2/3, and the average score of paper summaries is given a weight 1/3. To achieve a grade 3, you must have at least 50 points when the exam and summaries are weighted together. A grade 4 requires a weighted score equal to or above 75 points, and a grade 5 requires a weighted score equal to or above 90 points.

- For example, if you get 80 points for the exam and 50 points on average for paper summaries, your weighted number of points is $80 \cdot \frac{2}{3} + 50 \cdot \frac{1}{3} = 70$ points, which will give you a grade 3.

NA0165 Autumn 2020 *Course schedule:* (COVID19 remote learning)

- There are no face-to-face meetings scheduled, although **exams will be on campus**.
- We will have pre-recorded lectures and live Zoom help/review sessions. Zoom sessions will also be recorded and made available online.

Calendar week	Content	Location
45	Lecture 1: Introduction to NREE - topics	Canvas
	Lecture 2: Introduction to NREE - methods	Canvas
46	Lecture 3: Pollution control - targets	Canvas
	Lecture 4: Pollution control - instruments	Canvas
	Zoom session: 10/Nov/2020 Tuesday 13:00-15:00	Zoom
	Zoom session: 13/Nov/2020 Friday 13:00-15:00	Zoom
47	Lecture 5: International environmental problems	Canvas
	Lecture 6: Cost-benefit analysis	Canvas
	Zoom session: 16/Nov/2020 Monday 9:00-11:00	Zoom
48	Lecture 7: Valuing the environment	Canvas
	Zoom session: 24/Nov/2020 Tuesday 13:00-15:00	Zoom
	Zoom session: 27/Nov/2020 Friday 13:00-15:00	Zoom
49	Lecture 8: Irreversibility, risk and uncertainty	Canvas
	Lecture 9: Non-renewable resources	Canvas
	Zoom session: 30/Nov/2020 Monday 9:00-11:00	Zoom
50	Lecture 10: Renewable resources	Canvas
	Zoom session: 7/Dec/2020 Monday 9:00-11:00	Zoom
	Zoom session: 11/Dec/2020 Friday 13:00-15:00	Zoom
51	Exam: 18/Dec/2020 Friday 9:00-13:00	VHC hus 5 Särimner
week 2 in 2021	Paper summaries due on 15/Jan/2021 (by 23:59)	Canvas
TBD	Re-exam	TBD

Note: This schedule is subject to change.