Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PFS0173 Economic Principles for Natural Resource Conservation and Management, 7.5 credits

Syllabus approved

2020-03-02

Subjects

Economy

Education cycle

Third cycle

Grading scale

Pass / Failed
The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Language

English

Prior knowledge

None

Objective, including learning outcomes

The aim of the course is: (i) to introduce participants to how economics approaches renewable natural resources management and conservation; and (ii) to illustrate and

discuss how principles grounded in economics are applied to specific natural resource contexts. The target audience for this course is primarily doctoral candidates in a variety of fields that intersect with natural resource management who wish to familiarise themselves with the fundamental economic principles related to managing natural resources.

Content

The course commences with an introduction to basic notions in economics relevant to renewable resources: goods, public and private; maximisation of an objective by the individual resource user and society; externalities; optimal policy interventions via different instruments, e.g. taxes, subsidies and quotas. Key theories related to specific resources are briefly developed e.g. classic models of fisheries, and the relevance of regimes of property are introduced, with a view to illustrate the its key role in the use of renewable resources. This is followed by an application of how market imperfections stemming from externalities and weak property rights yield undesirable outcomes in the form of illegal deforestation and degradation. Taking examples from temperate and tropical forests, we will demonstrate how market imperfections affect the opportunity cost for forestland and forest resources, and how policy interventions can be devised to ameliorate them. The course then continues with an orientation on economic concepts and theories regarding other types of renewable (e.g. fish) and non-renewable (e.g. oil) natural resources. Particular attention is given to the way in which economic theory is used to analyze the utilization of these types of natural resources. The importance of ownership forms for management is studied (e.g. tragedy of the commons), in particular to gain insight into and understanding why different forms of misuse can occur. Subsequently, characteristics of common pool management will be illustrated, with field experimental methods introduced briefly. In addition, strategic interaction aspects between different agents will also be discussed along with the role of institutions, with particular reference to common pool and other resource problems. Finally, two basic approaches to the valuation of non-market goods and services, such as ecosystem services, shall we considered. The focus here will be on application of the methods to forestry and natural resources problems. Throughout the course, specific resource problems, as appropriate to the tool or approach in question, shall be discussed to enable participants to both grasp the essentials of the approach and also to understand how the tool is applied in practice.

Requirements for examination

Approved written take-home exam, and active participation in problem sessions that will conclude the Umeå-based course meeting.

Additional information

Instruction will consist largely of lectures, group interactions or discussions, supplemented by self-study of assigned readings.
The course is offered as an intensive course, with approx. 5 days of full-time lectures and exercises with physical meetings. The remaining 4 weeks will involve self-study by the participants. The course is proposed to be offered starting June 1, with self-study. The course meetings is held at Umeå, June 8-12, and continues with self-study during the period June 15-30. The course concludes with a take home exam/assignment, due June 30.

The Department reserves the right to cancel the course if there are not more than 5 students who have applied for the course. There is no tuition fee. The student is responsible for any housing and travel costs. Students belonging to the ECOS research school, and the Swedish University of Agricultural Sciences, have priority to the course.

Responsible department

Department of Forest Economics