Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PFG0072 Forestry and Sustainable Development, 4.0 credits

Syllabus approved

2020-05-20

Subjects

Technology

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

The course is intended for PhD students within and outside of SLU and from a variety of disciplines. Reasonable knowledge of English is important to be able to read material, contribute to discussions and complete written assignments. Admitted as PhD or Licentiate student.

Objective, including learning outcomes

The course examines Swedish forests through the lens of the United Nations Sustainable Development Goals (SDG) with a focus on affordable clean energy (SDG 7) and climate action (SDG 13). The main purpose is to explore the potential of forest resources and forest-based industries in achieving national and EU energy policy objectives within the sphere of emission mitigation in society.

Content

Sweden and other United Nations Member States adopted the Sustainable Development Goals (https://sustainabledevelopment.un.org) in 2015 to end poverty, safeguard the environment and to ensure global peace and prosperity. Nationally, Sweden has committed to a net zero emission economy by 2040 and this decision elevates the strategic importance of forests as sources of sustainable energy and materials. Forest resources, play a key role in achieving national and EU energy policy objectives.
The course uses both quantitative and qualitative methods and draws on national and international statistics, energy and material assessments, emission accounting and technological factors. The course aims at an interdisciplinary audience and encourages cross-discipline discussions on forest, energy and climate issues.

Course topics include:
- UN Sustainable Development Goals
- Forestry practice and material cascade
- IPPC assessments findings
- Ecological perspectives and forestry
- Energy policy and future emission pathways
- Bioenergy and biorefining from forests
- Forest carbon accounting
- Future adaptation in the forestry industry

Requirements for examination

Examination is performed through active participation and attendance, and by producing individual assignments. Attendance during classroom lectures is mandatory. The grading scale is pass or fail.

Additional information

The course consists of a combination of individual self-study, classroom lectures, small-group work, discussions and a final project ending in presentation. Composition work by students equate to a maximum of five written pages and a final presentation.

The course timetable consists of three parts with a varying degree of study pace; i) an individual study task two weeks before the course begins, ii)three days full time physical meetings in a classroom setting (distance if covid-19 situations does not change) and iii) a final project task and presentation to be completed over a two week period. The total course time is estimated at 80 hours with 14 hours of lecture time, 10 hours of group tasks, 50 hours of self-study tasks and 6 hours for the final presentations session.

Intended Learning Outcomes:

- Understand Swedish forestry practice, products and material flows
- Discuss UN Sustainable Development Goals, their progress and indicators
- Describe the role of forests and forest-based industries in sustainable development
- Reflect on national/EU policy objectives related to energy, climate and industry
- Comprehend the potential and limitations of forest resources with respect to development of a sustainable society in Sweden

Start date: Tuesday 8 February 2022 (two weeks individual study at distance)
Physical meetings: 22-24 February 2022
End date: Friday 11 March 2022
Education cycle = third cycle

Course leaders: David Agar (david.agar@slu.se) and Anita Norman (anita.norman@slu.se)

Responsible department

Department of Forest Biomaterials and Technology