Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PNS0119 Organic micropollutants in the aquatic environment – measurements and transport processes, 5.0 credits

Syllabus approved

2014-12-02

Subjects

Chemistry

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

Students must be enrolled as PhD students in a subject that is related to the course themes (environmental sciences or equivalent).
Target Group: PhD students, (young) researchers and postdocs

Objective, including learning outcomes

The aim of this course is to introduce students to the research field of environmental chemistry by investigating the sources, transport and fate of organic micropollutants in the environment. The course will focus on measuring organic micropollutants and exploring their environmental transport processes in water.

After completion of the course the student will be able to
• Explain and discuss the transport and fate of common micropollutants in the aquatic environment (ILO 1)
• Summarize and compare different analytical methods to measure organic micropollutants in the aquatic environment (ILO 2)
• Perform the analysis of common organic micropollutants in water samples (ILO 3)
• Conduct a statistical evaluation of the analysis results and interpret the findings in terms of cycling of organic micropollutants in the aquatic environment (ILO 4)

Content

The course concerns organic micropollutants with focus on their analysis and transport processes in the aquatic environment. Lectures and laboratory sessions will be carried out to teach students how to: perform field sampling, perform chemical analysis of water samples for common micropollutants, and carry out a critical evaluation of the results. The course also includes lectures on other relevant areas such as legislation on guideline values of environmental micropollutants. Field sampling, written and oral presentation of the chemical analysis are obligatory parts of the course.

Requirements for examination

The examination will test if the Learning outcomes have been met in form of a) discussions with the teachers, b) laboratory work and a following report including a statistical evaluation of the analysis results and interpretation of the findings in terms of cycling of organic micropollutants in the aquatic environment , and c) a report including a summary and compariosn of different analytical methods to measure organic micropollutants in the aquatic Environment.

Additional information

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Guest lecturer:
Karin Wiberg (Department of Aquatic Sciences and Assessment, SLU, Uppsala)
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Responsible department

Department of Aquatic Sciences and Assessment