



P000090, Nitrogen and phosphorus cycling in terrestrial and aquatic ecosystems, 3.0 Hp

Syllabus

Finalized by: Finalized by: Karolina Jörgensen, 2024-05-15, 2024-05-15

Level within study regulation:

Third cycle

Grading scale:

Pass / Failed

Course language:

Swedish

Entry requirements:

The course is open to any interested PhD student but members of the “Focus on Soils and Water” PhD school will be prioritised in case of overbooking. PhD students should have basic knowledge in soil science, aquatic science or soil ecology.

Objectives:

The aim of the course is to (i) provide basic knowledge of, as well as (ii) present state-of-the-art techniques to study nitrogen and phosphorus cycling in terrestrial and aquatic ecosystems. Furthermore, the course is focusing on (iii) assessing management systems in relation to improving nitrogen and phosphorus use efficiencies in various ecosystems and (iv) evaluation of current mitigation options to minimize eutrophication of water bodies.

Content:

Furthering our understanding of nitrogen and phosphorus cycling is crucial for conservation and sustainable management of ecosystems since these elements are important macronutrients for plant productivity. However, when available in excess, they can be lost, causing eutrophication of water bodies. This course will cover the basic knowledge of nitrogen and phosphorus cycling and their interactions across spatiotemporal scales ranging from the microbial habitat to the global scale.

During the course, the students will gain knowledge of the nitrogen and phosphorus cycle, and together with leading researchers in the field, the students will discuss knowledge gaps as well as potential future directions of research activities.

The course consists of three parts a 5-day workshop at SLU Ultuna campus with participation of leading scientists within the research area.

Modes of assessment:

Active participation in class and a shorter assignment. - If a student has failed an examination, the examiner has the right to issue supplementary assignments. This applies if it is possible and there are grounds to do so.

- The examiner can provide an adapted assessment to students entitled to study support for students with disabilities following a decision by the university. Examiners may also issue an adapted examination or provide an alternative way for the students to take the exam.
- If this syllabus is withdrawn, SLU may introduce transitional provisions for examining students admitted based on this syllabus and who have not yet passed the course.
- For the assessment of an independent project (degree project), the examiner may also allow a student to add supplemental information after the deadline for submission. Read more in the Education Planning and Administration Handbook.

Organisation:

Department of Soil and Environment

Supplementary information

Other information:

- The right to participate in teaching and/or supervision only applies for the course instance the student was admitted to and registered on.
- If there are special reasons, students are entitled to participate in components with compulsory attendance when the course is given again. Read more in the Education Planning and Administration Handbook.