

FoSW PhD courses & activities - vs. 8th of June 2022. Feel free to contact the organizer for more information.

For details on PhD courses, please search with course code here: <https://www.slu.se/en/education/programmes-courses/doctoral-studies/search-doctoral-courses/>

course code	title	when?	course coordinator	aims & contents
PNS0190/PNS0074	Multivariate statistics	annually HT	Ulf Grandin	Application of a number of multivariate methods on ecological data. After the course, the students should be able to analyse multivariate ecological data using R.
PNG0101	Understanding & coding R	annually	Matt Low	Basic introduction into R
POG0086	Communicate Science	annually HT	Galia Zamaratskaia & Lotta Jäderlun	Learn how to communicate your science to a wider audience. Online course. Registration is open for 2022!
Workshop	How to become a Postdoc	annually VT	RS Ecology	
Workshop	Careers outside university	annually HT	Eva Krab	
Workshop	Thesis summary writing	annually HT	Philip Jacobson	
PFS0100	Watershed ecology and biogeochemistry	2022 & 2024	Hjalmar Laudon	Concepts and challenges of watershed science, including forest management aspects and its impact on watershed biogeochemistry in boreal lands. Collaboration with the Dept of Forest Ecology and Management and RS SILVA. Literature & practical part at field station.
Member meeting	FoSW biannual member meeting	2022 & 2024	Maria Kahlert & Eva Krab	practical workshop followed by dinner & social activities for all FoSW members
Workshop connected to member meeting	Soil classification	2022	Maria Kahlert & Eva Krab	learn how to classify soils
Workshop connected to member meeting	topic suggested by PhD students	2024	Maria Kahlert & Eva Krab	topic suggested by PhD students
PNS0209	Soil systems: Analytical methods	2023 & 2025	Katharina Meurer	Short introduction to soil system sciences with focus on micro-analytical techniques and their application to environmental samples. Literature review combined with a 1-week seminar with invited international scientists.
Workshop	How to speak in front of a crowd?	2023 & 2025	Cecilia Almlöv	Oral presentation
PNS0234	Aquatic systems through the lens of OM stability	VT2022	Magda Bierozza	Explore the controls of OM stability and fate in a range of aquatic systems. Lectures combined with a coordinated distributed experiment (CDE) at a SITES station, collaborative writing & publishing of the results.
PNS0182	Carbon cycling: from molecular to global processes	HT2022	Björn Lindahl	Overview of the research frontiers in the area of organic matter dynamics in terrestrial and aquatic ecosystems. From molecular chemistry, via the interplay between organisms and organic matter, to biogeochemical cycling of carbon at the global scale. Literature reviews combined with a 1-week seminar with invited scientists.
Seminar	Data management	2022 HT	SLU Data Management Support	Data management: what is it and why should I be doing it? Data management plan, publishing research data, FAIR
Workshop/minicourse	GIS and mapping	2022	Anders Larssolle	GIS introduction: GIS-software, download and import geodata, using SLU's GIS resources.
new course	Aquatic sciences: theory, practical methods, management, threats	VT2023	Maria Kahlert	Introduction to Aquatic Sciences & its application to environmental assessment, including an introduction into practical methods, threats to water, and aims of monitoring such as SDGs & national environmental goals. 1-week course at SITES station followed by project part involving own research.
PNS0119	Organic micropoll in the aquatic environment	VT2023	Foon Yin Lai	Introduction into environmental chemistry by investigating the sources, transport and fate of organic micropollutants. Literature review combined with a 1-week seminar with invited international scientists, and 1-week field/laboratory part
new course	Molecular methods: from theory to methods and applications	2023	Karina Clemmensen	Overview course on a theoretical and practical "toolbox" to study complex communities in natural settings (diversity, composition, biogeography and metabolics), with practical labs where students will do the different steps of molecular analysis as example labs. Overview on all organism groups, focus on microbiology.
new course	Soil sciences: theory, practical methods, management, threats	2024	TBA	Introduction to soil science. What are soils, why they are important, potential threats. Including soil sampling & data management.
Updated course (N-part was PNS0171)	P & N cycling in terrestrial and aquatic ecosystems	2024	Marie Spohn	Providing basic knowledge on N&P cycling in terrestrial and aquatic ecosystems, state-of-the techniques, including isotopes, farming, management, sustainable use, mitigation options minimizing eutrophication.
new course	Introduction to bioinformatics	2024	Stefan Bertilsson	Short introduction to bioinformatics with focus on the practical use of own DNA data. Lectures, interactive computer exercises.
PNG0100	Data handling with R	2024	Alistair Auffret	Writing reproducible code, basic use of GitHub and Rmarkdown, standardize code and data structure
suggested course	Synchrotron X-ray methods (spectroscopy and imaging)	2024	Jon-Petter Gustafsson	Spektroskopy and other soil chemistry methods. Characterize element associations and speciation in e.g. soils and biological materials. In collaboration with MAX IV.
PNG0057	Ecosystem functioning: From theory to applications	2025	Brendan McKie	Discuss and evaluate different definitions of ecosystem functioning, relate ecosystem functioning to ecosystem services, relation to own research.
PNS0204	Agricultural catchments in a changing world	2025	Magda Bierozza	Introduction to the importance of agricultural catchments and their sensitivity to global change, dominant processes shaping agricultural landscapes: hydrological, biogeochemical, ecological, economic and societal.
new course	eDNA methods for biodiversity monitoring and assessment	2025	Stefan Bertilsson	How to use (meta)barcoding (or maybe other molecular tools) for environmental monitoring and assessment. Focus on how to design and carry out an eDNA-based inventory of organisms in different terrestrial and aquatic environments. Limitations, annotation, sampling. The applied site of barcoding. All organism groups, with fish as example organism.
PNS0211	Advanced statistics in practice	2025	Mohammad Bahram	Demonstrate the ability to identify relevant functions and packages in R for analyzing their own datasets. Analyze data using R, including reporting advanced statistics, univariate and multivariate modelling and generation of graphs. Interpret, think critically and draw conclusions on data analysis results. Seminar series with practical hands-on labs on different topics, can be taken separately or together.
PNS0134	Minerals in soils and sediments and their X-ray identification and quantification	2025	Jon-Petter Gustafsson	Minerals in soils and sediments and their X-ray identification and quantification