BIOGRIP/CAF/SUN

ENVIRONMENTAL BIOGEOCHEMISTRY FIELD SAMPLING COURSE
STELLENBOSCH UNIVERSITY

Date: 17 – 19 March 2025 (3-day course)

COURSE CONTENT

The course will cover various sampling techniques in biogeochemistry field giving detailed attention to methodology and good sampling practices to ensure that results accurately represent the sampled environment. Topics will include sampling considerations, collection methods, laboratory procedures and data handling.

Environmental isotopes in water. Sampling of precipitation, surface water and groundwater for hydrogen, oxygen, strontium, radon and other tracers of hydrological processes. *Dr Roger Diamond, BIOGRIP/UCT.*

Contaminants of emerging concern. Procedures for sampling, handling, storage and preparation for analysis of CEC's. *Dr Alno Carstens & Dr Christoff Truter, Water Institute, Stellenbosch University.*

Plant stable isotopes. Sampling vegetation for C and N stable isotopes to understand plant stresses and responses, with application to agriculture, conservation ecology and climate change.
Dr Casper Crous, Dpt. of Conservation Ecology and Entomology, Stellenbosch University.

Nutrient analysis/Trace metals. Collection of sediment cores, water samples, biological samples (plants, fauna) and water quality good sampling practices. *Dr Lucienne Human, SAEON & Dr Aldwin Ndhlovu, BIOGRIP.*

Blue carbon. Collection of seagrass to assess the carbon cycle and carbon stocks for climate change mitigation potential. *Prof Sophie von der Heyden, Department of Botany and Zoology & Dr Andrew Ndhlovu, School of Climate Studies, Stellenbosch University.*

Dust and particulate matter sampling. Sampling and sensors for PM2.5 and PM10. Analysis methods for the determination of size, shape and composition of dust and particles. *Prof Suzanne Fietz and Dr Heleen Vos, Department of Earth Sciences, Stellenbosch University & Dr Johanna von Holdt, Environmental and Geographical Science, University of Cape Town.*

Laboratory tour. Overview of equipment in the BIOGRIP Soil & Water Node at Stellenbosch University, including analyses available, operation, standards and maintenance. Equipment includes discrete analyser, IC, IRMS and CRDS. *Dr Janine Colling & Volante Moonsamy, Central Analytical Facility, Stellenbosch University.*

At the end of the course, certificates of attendance are issued to those whose attendance and participation has been satisfactory. Full course rate (Ex VAT): R5 000, Full time student rate: R3 000. Stellenbosch University student rate: R 2 000. Fees cover course materials and teas (morning and afternoon). Meals and accommodation are not included.

Limited funding is available to fulltime students to attend the training course. Please apply for funding by emailing to Dr Janine Colling: jcolling@sun.ac.za and Dr Aldwin Ndhlovu: aldwin.ndhlovu@uct.ac.za motivating why funding is requested and how it will be of benefit to your studies.
Please make sure to register to attend the course by 20th of February 2025.

Biogeochemistry Research Infrastructure Platform (BIOGRIP), Central Analytic Facility (CAF), Stellenbosch University (SUN).