

PROFESSIONAL TRAINING FOR THE ENGINEERING DESCRIPTION OF SOIL AND ROCK (Eurocode 7 – BS 5930)

ONE DAY COURSE FOR GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS REQUIRING PRACTICAL EXPERIENCE

Course Outline

The accurate engineering description of soils and rocks is fundamental to the success of any civil engineering or geo-environmental site investigation. In the vast majority of cases the materials recovered from the ground are seen only once and it is in this very short space of time that the geotechnical/geo-environmental-engineer must decide on the composition of the soil and hence describe and record it. These descriptions invariably form the building blocks of conceptual ground models and are the basis for important design decisions, work often carried out by different personnel from another organisation.

This course will provide comprehensive practical, hands-on experience in the description of soil and rock for both engineering and environmental investigations based on Eurocode 7 - BS5930 (“Code of practice for site investigations”). Eurocode 7 - BS5930 provides a consistent framework for site investigation and contains the guidance allowing the standardisation of material description which is universally used throughout the UK engineering and environmental industries.



Handle real rocks and real core to get the grips with the practice of logging.



See sample disturbance.



Separate depositional from post-depositional changes



Appreciate the skill of rock drilling for good coring



Understand why drilling requires certain procedures for sampling



Recognize the importance of drilling equipment, liners and drilling fluids

Who should attend

The course will be of direct relevance to **geologists, environmental scientists and civil engineers with little or no practical site experience**. The course aims to impart sufficient practical experience and knowledge to allow the participants to provide accurate soil and rock descriptions to Eurocode 7 - BS5930, both when on site and in the laboratory / office.

Course Structure

The course will involve personal tuition designed to impart the skills necessary to describe soil and rock. The course is supported by a compact field package of information summarising the principles of describing ground. **Numbers are limited to 15 to enable all attendees ample access to samples and logging, and the opportunity for personal tuition.**

Session 1. 09.00-10.00

Registration	Introduction to what is expected from a description and log of soils and rocks
Tools for the job	Introduction to the techniques for the recovery of samples and their affect on the samples recovered
Site Overviews	Importance of the geological and anthropological context of the site on the description of samples
BS5930 – Eurocode 7	Introduction to the Codes and passage from “old” to “new”

Session 2. 10.00-13.00

Description of rocks with Hands-on Practical	Practical description of real rock cores including the assessment of core quality (RQD, TCR etc.) to illustrate the fundamental engineering characteristics of rock core and problems associated with drilling techniques.
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Lunch is provided during which period delegates have the opportunity to continue working with the samples and cores.

Session 3. 13.00-16.30

Description of soils with	Introduction to the physical properties of soils relevant to civil and environmental engineering, and practical description of a variety of soil samples, so providing experience with assessing composition, problems with
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Hands-on Practical	classification and assigning physical properties (permeability, shear strength etc.) from field descriptions. An outline of available quick site tests (slake tests, hand vane, pocket penetrometer etc.).
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Session 4. 16.30-17.00

Rounding off and issue of certificates	Unanswered questions and final advice for your description and logging in practice.
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Course date: Please see web site for dates www.firststeps-geo.co.uk

Location and cost

Please refer to the website www.firststeps-geo.co.uk/courses-2/course-calendar/

Booking details

Please contact Christine Butenuth at First Steps Ltd. by telephone 0207 736 6889 to enquire about availability of places on this course and confirm by filling in a **Booking Form on the website** and emailing it to office@firststeps-geo.co.uk. NOTE: A place is only reserved once the booking form has been received.

Course Presenter:

Paul Emerson is Director of EM Drilling Ltd, a firm specialising in advanced ground investigations in the UK and overseas. He holds a degree in Geology with an MSc in Engineering Geology and has extensive experience in both the field description of soil and rock and the interpretation of field descriptions to form conceptual ground models for design purposes. This course was established in 2003 and since then many young professionals have attended and speak highly of the help it has given them in practice.