

Course Title	SP102: Mentoring of Engineering Geologists on Geotechnical Engineering
Duration	1 long day, equivalent to a conventional 1.5 day course
Delivery Mode	Day course, notionally 8.30am to 7.30pm
Cost	£335 + VAT per delegate
Delegate Nos.	6 to 12
Intended Audience	Engineering geologists wanting to develop or refresh their understanding
Objectives	At the end of this intensive course, delegates should have: <ul style="list-style-type: none"> • Developed a conceptual framework for understanding soil behaviour. • Gained an understanding of the principles of the design of foundations, retaining walls, and slope stability, for soils.
Course Description	<p>Engineering geologists and civil engineers that do not specialise in geotechnical engineering do not always have a good understanding of how soils behave in principle, which can affect the delivery of their projects. This course aims to develop that core understanding in a small group, with the focus being on interactive learning and discussion with individual guidance.</p> <p>The course comprises three main sessions within a long day:</p> <ol style="list-style-type: none"> 1. Fundamental visualisation of soils, leading to a discussion around why soils behave as they do 2. Application of the understanding of soils to elements of foundation design and gravity retaining wall design 3. Application of the understanding of soils to embedded wall design, and stability of soil slopes from a mechanistic approach. <p>The tutor will be Dr Andy Goodwin, a chartered engineer with about 30 years' experience in industry and academia. He is a geotechnical specialist, with a thorough knowledge of both the theory and practicalities of geotechnical engineering.</p>
Indicative Content	<p>The indicative content comprises:</p> <ul style="list-style-type: none"> • Fundamental soil characterisation & visualisation • Principles of total and effective stresses • Conceptual models for strength, compressibility and permeability • Conceptual failure theories for shallow foundations • Conceptual failure theories for piles • Principles of foundation design • Essentials of earth pressures & movements around excavations • Fundamental mechanics and design of gravity walls • Fundamental mechanics and design of embedded walls • Types of failure & effect of material type on the time to failure • Principles of circular slope stability analysis • Conceptual slope remedial options