Course Title	SP115: Slope Stability – Principles and Practice
Duration	1 day
Delivery Mode	Full time day course
Cost	£250 + VAT per delegate
Delegate Nos.	6 to 20
Intended Audience	• Engineering geologists with some design experience wanting to develop or refresh their understanding • Geotechnical engineers early in their careers wanting to develop their understanding and skills • Graduate civil and structural engineers wanting to develop their understanding and skills
Objectives	At the end of this course delegates should have: • Refreshed their understanding of the types of slope failure using case studies • Refreshed their understanding of basic soil mechanics principles relevant to soil slope stability • Developed their knowledge and understanding of the principles of slope stability analysis • Reviewed design codes and principles, and applied their knowledge to a case study • Reviewed a range of slope remediation techniques
Course Description	Many developments will require some degree of ground profile modification. This will commonly result in the ground being cut or fill being placed, and this new condition must be stable. The appraisal of slope stability for all but the simplest cases should be undertaken by a specialist, but those commissioning and / or managing a project should have an appreciation of the design issues and what is reasonable. The aim of the course is to develop the abilities of the delegates to recognise and address slope stability issues. It will start from a review of how slopes fail and the fundamental basis of why they stand up. It will examine the contrasting analytical issues in granular and cohesive soils, and the importance of time, before progressing to design codes and practicalities, and the principles of slope remediation. The course will be taught via a series of lectures followed by tutorial questions with case studies to illustrate the material.
Course Tutor	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.
Indicative Content	The indicative content comprises the following: • Types of failure through case studies • Brief reprise of the principles of soil strength and why slopes stand • Stability issues: cohesive or granular? cut or fill? short or long term? • Principles of circular slope stability analysis • Simple chart based analytical methods • Design codes and factors of safety • Slope analysis design examples • Practical guidance on slope design • Brief review of the investigation and remediation of slope failures