

Course Title	SP113: Retaining Walls – Principles and Practice
Duration	1 day
Delivery Mode	Full day session
Cost	£250 + VAT per delegate
Delegate Nos.	6 to 15
Intended Audience	<ul style="list-style-type: none"> • 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	<p>At the end of this course delegates should have:</p> <ul style="list-style-type: none"> • Refreshed their understanding of the types of wall and their common failure modes • Developed their knowledge and understanding of basic soil mechanics principles applicable to earth pressures • Reviewed the forms and magnitude of ground movements around retained excavations • Developed their knowledge and understanding of the design principles and codes for gravity and embedded walls
Course Description	<p>Most developments require some degree of ground profile modification. Where space is at a premium, ground will be retained rather than sloped. The design and appraisal of retaining walls 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.</p> <p>This aim of the course is to develop the abilities of the delegates to understand the principles and practice behind retaining structures. The course will start from a review of how walls fail and progress to examine the soil mechanics principles behind earth and water pressures. Movements behind and around walls will be discussed, and the analysis and design of both gravity and embedded walls addressed with the aid of worked solutions. The course closes with a brief overview of the design code requirements of BS8002 and EC7.</p> <p>The course will be taught via a series of lectures followed by tutorial questions with case studies to illustrate the material.</p>
Course Tutor	The tutor will be Dr Andy Goodwin, a chartered engineer with over 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	<p>The indicative content comprises the following:</p> <ul style="list-style-type: none"> • Types of wall • Common failure modes • Brief reprise of the principles of soil strength and earth pressures • Estimation of earth pressures • The influence of movement on earth pressures • Movements around excavations • Mechanics and design principles of gravity & embedded walls • Overview of design code requirements of BS8002 & EC7