GEOTECHNICAL FOUNDATION DESIGN

Course Outline
This one day course will provide a general overview of foundation design for geotechnical practitioners and engineers. The course will look at how information is obtained and then used to provide a design for simple shallow foundations. It will also look at the derivation of the formula used for basic foundation design.

The methods used for the foundation design calculations will be in accordance with those described in the current British Standards (Eurocodes) including an introduction to limit state design and use of partial factors.

Course Contents
- Assessment of the use and choice of shallow foundations and piles
- Derivation of bearing capacity
- Calculate the working loads and settlement of simple foundations
- Overview of pile foundations
- Introduction to Limit State Design and Partial Factors
- Calculation of pile working loads in accordance with Eurocode
- Ground improvement techniques

Various pile types are looked at and a basic design to Eurocode will be made. This course will include practical exercises using the methods defined in the current British Standards (Eurocode).

Summary
At the end of the course the delegates should be able to:
- Assess ground conditions with respect to suitable shallow foundations
- Calculate bearing capacity, settlement
- Assess ground conditions with respect to piled foundations
- Calculate simple pile foundations
- Use partial factors and carry out Limit State Design for simple foundations
- Have an appreciation for the use of ground improvement techniques

Who should attend?
This course will give a practical introduction to foundation design for geotechnical practitioners and engineers who may have only a limited knowledge of how to choose and design a foundation.