

A SEMINAR ON THE TEACHING OF SOIL MECHANICS

The principal presenter of the seminar will be **Dr Laurie Wesley** from New Zealand, who has had a long career in geotechnical engineering, both as a practicing engineer and as a university lecturer. Dr Wesley has written many papers, mainly on residual and volcanic soils, and is the author of two text books published by John Wiley and Sons. He first taught soil mechanics to undergraduate students at Imperial College, University of London, while completing a PhD under the supervision of Professor A.W. Bishop.

Fecha: Lunes 3 de Octubre, 2016

Lugar: Departamento de Ingeniería Civil, Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile (**Sala por Confirmar**)

Cupos: 25 participantes

Costo: Sin costo (el almuerzo corre por parte de los participantes)

Inscripciones: Escribir a César Pastén cpasten@ing.uchile.cl

Aim: The aim of this course is to encourage teachers of soil mechanics to think more critically about what they teach and how they teach it. This includes the following:

- (a) The technical material
- (b) The order in which to teach the material
- (c) How to stimulate student interest in soil mechanics.

The content of soil mechanics courses in universities, and the material in text books, has not changed much over the past fifty or more years, despite the fact that the subject itself has developed enormously. The seminar will focus on a number of areas where defects exist in the way the technical content or soil mechanics is taught.

An outline of the seminar is shown below. It is intended that each session have a presentation of about 1 hour followed by 30 minutes for questions and discussion.

SESSION 1 9.00 – 10.30

- 1. Introduction
- 2. The Principle of Effective Stresses
- 3. Shear Strength, Total Stress and Effective Stress Analysis
- 4. Residual Soils

SESSION 2 11.00 – 12.30

- 5. Classification and Evaluation of Soils
- 6. Compressibility Behaviour: Log and Linear Graphs
- 7. Time Rate of Consolidation in Oedometer Tests
- 8. Rate of Consolidation of Surface Foundations on Clay



SESSION 3 13.30 - 15.00

- 9. The Water Table, Pore Pressures and Seepage State in the Ground
- 10. Flow Net Sketching
- 11. Limitations of Theory
- 12. Slope Stability

SESSION 4 15.30 - 17.00

- 13. Teaching Techniques
- 14. Stimulating Student Interest
- 15. Interaction with Students