

Geotechnical Laboratory Testing

Instructors: Rachid Hankour, PhD and Allen Marr, PhD, PE, NAE, D.GE, F.ASCE

Date: Sept 15-17, 2010 **Location:** Boxborough, MA, USA **Registration deadline:** August 27th, 2010

Course Overview:

This 3-day course presents practical principles and testing techniques as well as the latest technologies applied to soil testing.

Who Should Attend:

Engineers, lab technicians, geologists, and lab managers.

Course Outline - List of Topics

DAY 1:

- Introduction
- Geotechnical history, fundamental principles
- Geotechnical testing from basics to the most advanced using the latest technologies
- Consolidation testing
- General aspects of one-dimensional consolidation
- Consolidation equipment, and procedures
- Basic principles and important parameters in measurement of hydraulic conductivity
- Advanced consolidation testing using back pressure saturation, constant rate of strain, gradient, and stress
- Fully automated and manual consolidation testing
- Trimming, setting up, and running a full incremental consolidation test overnight

DAY 2:

- Data reduction and analysis of the incremental consolidation test ran previous day
- Shear strength of soil
- Types of laboratory shear testing devices
- Direct shear testing
- Fully automated and manual direct and residual shear testing
- Basics of triaxial testing of soil
- Triaxial shear tests - UU, CU, and CD
- Fully automated and manual triaxial testing
- Trimming, setting up, and running a direct shear test overnight
- Trimming, setting up, and running a CU triaxial test overnight

DAY 3:

- Data reduction and analysis of the CU triaxial test ran previous day
- Data reduction and analysis of the direct shear test ran previous day
- Backpressure saturation techniques
- Test data reduction, analysis
- Real world applications
- Tour of our own modern fully automated geotechnical lab testing facility
- Questions and answers

After attending this course, the participants will:

- Have a better understanding of the latest technologies applied to soil testing

- Learn the proper soil specimen handling and preparation procedures for testing
- Learn to eliminate and reduce critical testing errors
- Know how to effectively present results of consolidation, and shear strength tests.

FEE: \$876.00 USD includes continental breakfast and lunch for the 3 days.

Room accommodations can be arranged at the Holiday Inn Boxborough, MA at a special rate of \$89.00 per night.

Any suggestions/comments about course content should be emailed to Dr. Rachid Hankour, rh@geocomp.com

Sign up for short course should be emailed to Louise Coldwell, lcoldwell@geocomp.com RSVP by August 27th, 2010

Cancellation Policy

Geocomp Corporation reserves the right to cancel its program in the event of insufficient registrations, instructor illness, severe weather or natural disaster.

Decision to proceed with course will be made on September 1st, 2010 based on registrations received at that time. In the event of cancellation, registrants will be notified immediately and all fees will be refunded in full. Individuals wishing to cancel their registration must do so 2 weeks prior to the start of the course. Refunds will not be issued after this date. Registrant substitutions may be made at any time.

Holiday Inn Boxborough, MA

Special room rate is \$89.00 per night. Link to hotel below:

http://www.holidayinn.com/hotels/us/en/boxborough/boxma/hoteldetail?&cm_mmc=mdpr_-_googlemaps_-_hi_-_boxma&dp=true#hotel-information

Livery Service suggestions:

Crown Livery..... 508-736-4732

Accurate Transportation 781-640-6537

CH Livery Services 781-652-1555

All Seasons Limousines, Inc. 1-800-246-0481