



Dept. of Civil Engineering | CPD Courses

## Advanced Soil Mechanics

26 – 30 August 2024



# Introduction



The master's programme with a specialisation in Geotechnical Engineering is intended to support high level training and enhance both the technical skills of recent graduates or experienced personnel who work in, or aspire to a career in civil engineering construction, consulting, environmental and related industries. The primary purpose of the programme is to provide advanced conceptual understanding, detailed factual geotechnical knowledge, and specialist technical skills appropriate for postgraduates who wish to widen their professional scope and work towards a career in the field of geotechnical engineering. For further information about this master's programme please visit the website: <http://www.civil.uct.ac.za/msc-engineering-specialising-geotechnical-engineering>

## Continuing Professional Development

Modules of this master's programme are offered to Continuing Professional Development delegates as 4 separate certificate courses from which a participant can obtain CPD credits. All the courses consist of 5 days of formal lectures at the University of Cape Town.

## Who should attend?

The courses are best suited for Civil Engineers, Consultants, Architects, Engineering Geologists, Geotechnical Engineers and Geologists, Bridge Engineers, Landscape Architects, Contractors, Soil Scientists, Project managers, City and Public Works Officials, City Planners, and other design professionals who address construction related issues.

## Format

The courses will be presented in a hybrid format (online and face-to-face). Online course participants will need computer access and a reliable internet connection.



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# Course content

The course covers the advanced concepts and theories in soil mechanics fundamental to geotechnical engineering such as Shear Strength of Soils; Stress-Strain Behaviour; Drained and Undrained Shear Strength; Stress Paths; Critical State Soil Mechanics, Failure Criteria; Constitutive Models Soil Deformation Analysis; Stress Distribution in Soil; Settlement of Soil; Consolidation Theory. Participants will get an opportunity to brush-up with what they already know and to recognize what they don't know. They will then learn about the basic principles of the mechanics of granular media from a rather different perspective. They will learn a lot about the mechanical behaviour of soils. Upon completing the course, they will be ready to apply the principles of soil mechanics to different engineering applications.

## Course Convenor



Professor Denis Kulumba is a distinguished geotechnical engineer that serves as director of the department Geotechnical Engineering Division and champion social responsibility efforts within the Civil Engineering department of UCT's Faculty of Engineering & the Built Environment. Professor Kulumba's qualifications, including a PhD from the University of Newcastle upon Tyne, showcase his deep knowledge of the field. Prof's active membership and affiliations to numerous organizations, like the International Society for Soil Mechanics and Geotechnical Engineering and Institution of Civil Engineers (ICE), further highlights his standing as a respected leader in the field of geotechnical engineering.

## Overview

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|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Course</b>       | Advanced Soil Mechanics, CIV5122Z                                                                                                                                                                                                               |
| <b>Duration</b>     | 26 – 30 August 2024                                                                                                                                                                                                                             |
| <b>Venue</b>        | University of Cape Town or online                                                                                                                                                                                                               |
| <b>CPD</b>          | 5 CPD points, ECSA validated: UCTGTEASM24                                                                                                                                                                                                       |
| <b>Fees</b>         | Standard fee: R16 500 (5-day course) *<br>UCT student fee: R8 250                                                                                                                                                                               |
| <b>Participants</b> | Civil Engineers, Consultants, Architects, Engineering Geologists, Geotechnical Engineers and Geologists, Bridge Engineers, Landscape Architects, Contractors, Soil Scientists, Project managers, City and Public Works Officials, City Planners |

\*10% discount will apply if the course is attended online only.

# Registration

## Registration and Cancellation

- [Register for this course](#)
- Registration covers attendance of all course sessions and the electronic copies of the course notes.
- Registrations close one week before the start of the course. Confirmation of acceptance will be sent on receipt of a registration form.
- Cancellations must be received one week before the start of a course, or the full course fee will be charged.
- For more information on application and registration procedures, please visit our website: [www.cpd.uct.ac.za/cpd/registration-policies](http://www.cpd.uct.ac.za/cpd/registration-policies)

## Certificates and CPD Points

A certificate of attendance will be awarded to CPD participants. Participants need to attend 80% of the lectures to qualify for an attendance certificate.

CPD participants can also request a formal university transcript, which will show this course as part of a Professional Development Career. The ECSA validation number for this course is *UCTGTEASM24*.

Please note: If you are interested in attending this course for credit purposes, you will need to register for the master's programme or as an occasional student.

For further information about the master's programme, please contact [denis.kalumba@uct.ac.za](mailto:denis.kalumba@uct.ac.za)

If you attend the course as a CPD participant, credit cannot be claimed in retrospect.

## Contact details

For more information or details on CPD courses, visit our website or contact us.

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**Web:** <http://www.cpd.uct.ac.za>

**Email:** [ebe-cpd@uct.ac.za](mailto:ebe-cpd@uct.ac.za)

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