FACULTY OF
ENGINEERING &
THE BUILT ENVIRONMENT

CPD
CONTINUING PROFESSIONAL DEVELOPMENT

Dept. of Civil Engineering | Masters module | CPD course

Rock Mechanics

23 - 27 February 2026

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

Introduction

The Master's Programme

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:Geotechnical Engineering | Civil Engineering

Continuing Professional Development

Modules of this master's programme are offered to Continuing Professional Development delegates. Five individual block release modules are offered in 2026. Continuing Professional Development students may take each module as a separate certificate course. CPD students are required to attend the lectures but are not required to submit assignments or write the exam.

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

Each module is structured in the following way: a week of intensive contact time at UCT, comprising formal lectures, class assignments and seminars/tutorials.

Please note: these courses are currently planned to be presented face-to-face over 5 days but may be attended online for those who cannot attend in person.

Course Content

This course provides an introduction to the theory of rock mechanics and its applications in construction and mine operations. Students are presented with the fundamental concepts of stress and strain in isotropic and anisotropic rocks and conduct stress analyses using data collected in the laboratory and the field. Rock mass structures and classification schemes are introduced, and students learn how these govern rock slope stability and underground rock excavation methods in a given stress environment. Rock control and support systems utilized in underground and surface excavations and their related safety requirements are discussed. Rock mechanics topics surrounding blasting and the stability of impoundment dams and tailings dumps are also presented.

Course Convenor

Prof Denis Kalumba is a prominent figure in geotechnical engineering. He currently leads the University of Cape Town's (UCT) Geotechnical Engineering Division within the Civil Engineering department of the Faculty of Engineering & the Built Environment. Professor Kalumba's expertise is grounded in his PhD from the University of Newcastle upon Tyne. His leadership extends beyond UCT, this is evident by his active involvement in prestigious organizations like the International Society for Soil Mechanics and Geotechnical Engineering and the Institution of Civil Engineers (ICE).

Overview

Course Dates	23 - 27 Feb 2026
Delivery format	PG Seminar Room, NEB, Upper Campus, University of Cape Town **or** online
CPD	5 CPD points, ECSA registration number: *UCTGTERMC26*
Fees	Standard fee: R18 100 UCT student fee: R9 050
Geotechnical engineering CPD courses 2026	Rock Mechanics CIV5143Z: 23 – 27 Feb Slope Stability and Lateral Earth Support CIV5149Z: 1 – 5 Jun Geosynthetics Engineering CIV5124Z: 6 – 10 Jul Advanced Soil Mechanics CIV5122Z: 3 – 7 Aug Tailings Storage Facility Design, Construction and Management CIV5162Z: 28 Sep – 2 Oct

Registration

Registration and Cancellation

- Register for this course
- Registration covers attendance of all sessions of the course and course material.
- Registrations close one week before the start of the course. Confirmation of registration 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

Certificates and CPD Points

A digital certificate of attendance will be awarded to CPD participants. Participants need to attend 80% of the lectures to qualify for an attendance certificate. For further information on digital certificates please visit Digital Certificates at UCT

According to guidelines set out by the Engineering Council of South Africa, attendance of this course will earn participants 5 points towards Category 1 (Developmental Activities). The ECSA validation number for this course is *UCTGTERMC26.*

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. 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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