



Dept. of Civil Engineering | Masters module | CPD course

Transport Systems Simulation

24 -28 August 2026



Introduction



The Master's Programme

The master's programme offers degrees specialising in transport studies, with a specific focus on the planning and management of urban passenger transport systems. The primary aim is to produce graduates from a range of undergraduate disciplines with the necessary knowledge and skills to engage effectively with the challenge of creating affordable, efficient, sustainable, safe, equitable and environmentally sound urban transport systems, and to contribute to the implementation of new and demanding policy directives. Curriculum content is crossdisciplinary in

orientation and exposes students to a broad range of the analytical, evaluative, planning and management issues they are likely to encounter in the field. For further information on the master's programme please see the website: [Transport Studies | University of Cape Town \(uct.ac.za\)](https://transportstudies.uct.ac.za)

Continuing Professional Development

Modules of this master's programme are offered to Continuing Professional Development delegates. Ten individual block release modules are offered in 2025. 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 programme has been designed to be accessible to people in full-time employment as well as fulltime students. Applicants may register for the individual master level courses offered by the programme as Continuing Professional Development students. These students will be awarded a digital Certificate of attendance. University credits will not be awarded to CPD students. Courses are typically attended by consultants or government officials working within the transportation field.

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 it may be necessary to change the format of a course to an online or hybrid format.

Course Content

This course introduces methods of simulating the functioning of complex and dynamic transport systems. The purpose of these simulations is to support decision-making in relation to how such complex and dynamic systems are designed, managed, and regulated. Course modules will cover: the foundations and motivation of decision-making by different actors (from users, to operators, to transport authorities); the fundamentals of simulation modelling in support of decision-making; the data requirements of such simulation models; and the varying application of different models to transport system components such as the network, service operation, and travel behaviour. Knowledge areas drawn from in the course include activity-based simulations; optimisation; big data modelling; and computational science. Practical exercises and case studies will be presented.

Course Convenor



Prof Roger Behrens is a Professor in the University of Cape Town's Department of Civil Engineering. He is Director of the Centre for Transport Studies. He graduated with a master's degree in city and Regional Planning from UCT in 1991, and with a PhD degree in 2002. His current research activities relate to the regulation and improvement of informal public transport services; analysis of the dynamics of changing travel behaviour; and the identification of urban form preconditions for effective and viable public transport networks

Overview

Course Dates	24 - 28 August 2026
Delivery format	PG Seminar Room, NEB, Upper Campus, University of Cape Town
CPD	5 CPD points, ECSA registration number: <i>UCTTSPTSS26</i>
Fees	Standard fee: R18 100 UCT student fee: R9 050
Transport CPD courses 2025	<p>Transport Modelling CIV5133Z 02 – 05 February 2026</p> <p>Non-Motorised Transportation CIV5039Z 16 - 20 February 2026</p> <p>Management of Transport Supply and Demand CIV5035Z 23 - 27 March 2026</p> <p>Transport Demand Analysis and Project Assessment CIV5132Z 20 – 24 April 2026</p> <p>Integrated Land use Transport Planning CIV5038Z 18 - 22 May 2026</p> <p>Public Transport System Design and Operations Man CIV5071Z 22 - 26 June 2026</p> <p>Transport Systems Simulation CIV5165Z 24 - 28 August 2026</p> <p>Discrete Choice Modelling and Stated Choice Survey CIV5127Z 05 – 9 October 2026</p>

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 *UCTTSPTSS26*.

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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