

Airport Engineering Fundamentals

Presented by the Department of Civil Engineering, University of Pretoria

5 CPD Points

Brief description

The **Airport Engineering Fundamentals** course consolidates six specialised modules on pavement and air traffic engineering into a certificate-level programme. This course aims to provide participants with a comprehensive understanding of key concepts and considerations throughout the airport pavement lifecycle, addressing related issues. It serves as a valuable foundational resource and is recommended for airport operations and technical staff, managers, regulators, inspectors, engineers, project managers, and individuals responsible for managing, designing, constructing, evaluating, or maintaining airfield assets. Additionally, the course is suitable for anyone seeking to expand their knowledge of airfield and civil engineering, in line with the International Civil Aviation Organisation (ICAO) standards and recommended practices

The primary objective of the course is to familiarise delegates with the fundamental principles of airport pavement layout, landside facilities, and airside facilities—areas currently lacking in the country. The course content draws extensively from the presenters' years of research, practical experience in the roads and aviation industry, and their involvement in university courses related to transport engineering.

Course content

	Airport Layout and Basic Planning
	Air Traffic Demand Forecasting Basics.
	Airport Pavement Design and Materials
	Airport Pavement Construction
	Airport Pavement Management System
	Airport Pavement Maintenance & Rehabilitation

Learning outcomes

Upon successful completion of this course, delegates will acquire a comprehensive understanding of the fundamental aspects of airport engineering, with a specific focus on key areas. These include airport layout and basic planning, air traffic movement and forecasting, airport pavement structural design and analysis, airport pavement construction, maintenance, and rehabilitation, as well as the airport pavement management system.



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Who should enrol?

Transport planners, engineers, airport operations and technical staff and managers, regulators and inspectors, project managers.

Course delivery mode options:

Contact sessions in Pretoria

Entry requirements:

A relevant educational background in engineering, civil engineering, aviation, or a related field may be required. This could include a diploma, a bachelor's degree or equivalent. A minimum level of professional experience in the engineering or aviation industry.

 **Course date**
15–19 July 2024

 **Programme fees**

Face to face: R14 375.00 (VAT incl.)

Course fees include all course material, refreshments and lunch during contact days. Course fees must be paid in full 14 days prior to course start dates. Proof of payment can be submitted to enrolments@enterprises.up.ac.za

Accreditation and certification

Enterprises University of Pretoria (Pty) Ltd is wholly owned by the University of Pretoria. As a public higher education institution, the University of Pretoria functions in accordance to the Higher Education Act 101 of 1997. Enterprises University of Pretoria offers short courses on behalf of the University and these short courses are not credit-bearing, and do not lead to formal qualifications on the National Qualifications Framework (NQF) – unless stated otherwise. Delegates who successfully complete a short course and comply with the related assessment criteria (where applicable) are awarded certificates of successful completion and/or attendance by the University of Pretoria.



Registration and enquiries

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Programme leader

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Course presenters



Prof Joseph Anochie Boateng; Course leader, University of Pretoria
Expertise: Transport Infrastructure



Dr Ssamula Bridget; Engineering Council South Africa
Expertise: Transport Planning



Dr Emile Horak; Kubu Consultancy & Research Associate, University of Pretoria
Expertise: Transport Infrastructure



Mr Tlotlego Maloka; South African Civil Aviation Authority
Expertise: Airport facilities

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