



ENGINEERING AND TECHNICAL TRAINING

Road Pavement Design and Construction

5 day course

Classroom, online or in-house

Course overview

A road fails from the bottom upward, and the potholes a authority spends its budget patching are usually the visible end of a subgrade or drainage problem nobody addressed. This course works from the layers up. Delegates work through traffic loading and the equivalent standard axle that converts a mixed traffic stream into a design input. Subgrade assessment follows, including California bearing ratio and the moisture regime that changes it. Pavement structures are covered for flexible and rigid options, with layer thickness selection against the design traffic. Materials for subbase and base are addressed, including gravel, crushed stone and stabilisation with cement or lime. Drainage is treated as a structural element rather than an accessory, since water is the primary cause of failure. Construction control follows: layer thickness, compaction and level tolerance. Rigid pavement jointing is covered. The course closes on pavement condition assessment, on rehabilitation options and on choosing between overlay and reconstruction.

What you will learn

- Convert mixed traffic into a design loading
- Assess subgrade strength and its moisture regime
- Select flexible or rigid pavement structures and layer thicknesses
- Specify subbase and base materials, including stabilisation
- Design drainage as a structural element
- Control layer thickness, compaction and levels during construction
- Assess pavement condition and choose between overlay and reconstruction

Who should attend

- Roads engineers at authorities and consultancies
- Site engineers on road construction contracts
- Materials engineers and technicians
- Contractors delivering pavement works
- Maintenance managers responsible for road networks

Course outline

- 01 Failure begins at the bottom
- 02 Traffic loading and equivalent axles
- 03 Subgrade assessment and moisture
- 04 Flexible and rigid pavement structures
- 05 Subbase and base materials
- 06 Stabilisation with cement and lime
- 07 Drainage as a structural element
- 08 Construction control, jointing and rehabilitation choices

Upcoming dates



Dates	Venue	Format	Fee per delegate
2 to 6 November 2026	Durban, South Africa	Classroom	R19,950
23 to 27 November 2026	Maputo, Mozambique	Classroom	USD 1,325
21 to 25 December 2026	Gaborone, Botswana	Classroom	R19,950
15 to 19 February 2027	Online	Online	R8,500

Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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