



ENGINEERING AND TECHNICAL TRAINING

Asphalt Technology and Surfacing Operations

3 day course

Classroom, online or in-house

Course overview

Asphalt is placed hot, compacted within a closing window and judged for years afterwards, so the difference between a surfacing that lasts and one that ravels is often a temperature reading and a roller pass. This course focuses on that window. Delegates work through bitumen and its behaviour, penetration grade, viscosity, ageing and the modification that changes performance. Mix types are covered across continuously graded, gap graded, stone mastic and porous asphalt, with where each belongs. Mix design follows, including binder content optimisation and voids. Plant production is addressed: aggregate drying, mixing temperature and the overheating that damages binder. Transport and temperature loss are covered. Paving is addressed practically, covering paver speed, mat thickness, joints and segregation. Compaction is treated in detail, including roller patterns and the temperature at which compaction stops being effective. Surface treatments and seals follow. The course closes on defects, on their causes and on recycling asphalt.

What you will learn

- Explain bitumen behaviour, grading, ageing and modification
- Select a mix type appropriate to the road and traffic
- Optimise binder content and voids in mix design
- Control plant production temperatures without damaging binder
- Manage transport and temperature loss to the paver
- Pave and compact within the effective temperature window
- Apply surface treatments, diagnose defects and recycle asphalt

Who should attend

- Asphalt plant operators and supervisors
- Surfacing foremen and paving crews
- Materials technicians in road construction
- Roads engineers supervising surfacing contracts
- Contractors delivering asphalt works

Course outline

- 01 A temperature reading and a roller pass
- 02 Bitumen behaviour and modification
- 03 Mix types and where each belongs
- 04 Mix design, binder content and voids
- 05 Plant production and overheating
- 06 Transport and temperature loss
- 07 Paving, joints and segregation
- 08 Compaction, seals, defects and recycling

Upcoming dates



Dates	Venue	Format	Fee per delegate
4 to 6 November 2026	Cape Town, South Africa	Classroom	R14,950
16 to 18 December 2026	Online	Online	R6,500
24 to 26 February 2027	Johannesburg, South Africa	Classroom	R14,950
17 to 19 March 2027	Port Louis, Mauritius	Classroom	USD 995

Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** 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**.

AfriScience Group | +27 61 536 6531 | info@afriScience.co.za | Pretoria, Gauteng, South Africa