



## ENGINEERING AND TECHNICAL TRAINING

# Production Engineering

5 day course

Classroom, online or in-house

## Course overview

This course covers the engineering of a manufacturing operation: how a product is made, at what rate, at what cost and to what quality. Delegates work through process selection and planning, tooling and fixture design, line balancing and capacity calculation, work measurement and standard times, layout and material flow, and the cost model that connects an engineering decision to a unit cost. Automation and its justification are covered, along with the practical constraints of manufacturing in African markets, including supply lead times, spares availability and the effect of both on how much automation is sensible.

## What you will learn

- Select and plan a manufacturing process for a given product
- Design tooling and fixtures appropriate to the volume
- Balance a line and calculate realistic capacity
- Carry out work measurement and set standard times
- Design layout and material flow
- Connect an engineering decision to unit cost
- Justify automation against volume, cost and supportability

## Who should attend

- Production and manufacturing engineers
- Industrial engineers
- Operations managers and supervisors
- Process and quality engineers
- Graduate engineers entering manufacturing

## Course outline

- 01 Process selection and planning
- 02 Tooling and fixture design against volume
- 03 Line balancing and capacity calculation
- 04 Work measurement and standard times
- 05 Layout and material flow
- 06 Unit cost modelling
- 07 Automation and its justification
- 08 Supply lead time and supportability constraints

## Upcoming dates

| Dates                          | Venue                   | Format    | Fee per delegate |
|--------------------------------|-------------------------|-----------|------------------|
| 16 to 20 November 2026         | Online                  | Online    | R8,500           |
| 23 to 27 November 2026         | Cape Town, South Africa | Classroom | R19,950          |
| 30 November to 4 December 2026 | Accra, Ghana            | Classroom | USD 1,325        |

## 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](http://www.afrisciencegroup.com), email [info@afriScience.co.za](mailto:info@afriScience.co.za), or WhatsApp us on **+27 63 479 1136**.

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