

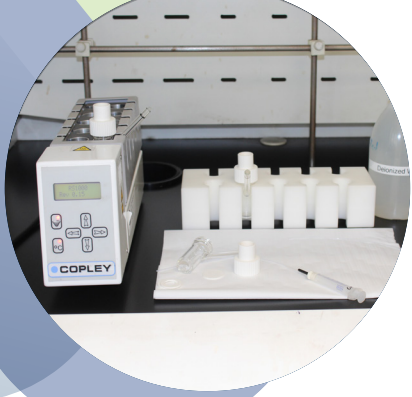
SOUTHERN AFRICAN BIOMANUFACTURING TRAINING HUB

science, technology & innovation

Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA

CSIR
Touching lives through innovation

SOUTHERN AFRICAN
BIOMANUFACTURING TRAINING HUB



The CSIR-hosted **Southern African Biomanufacturing Training Hub (SA-BTH)** is pleased to announce the commencement of a course titled: Encapsulation technologies: From concept to application (I-BTH04), scheduled to start on **Wednesday, 3 March 2027** as part of its Strengthening Biomanufacturing Capabilities in Southern Africa (BIOcapSA) programme, supported by KfW Development Bank.

The programme aims to support training and development in the biomanufacturing sector, focusing on developing a skilled and competent workforce in Africa.

ENCAPSULATION TECHNOLOGIES: FROM CONCEPT TO APPLICATION

The SA-BTH's goal in providing this course is to help grow and develop the biomanufacturing sector in Africa through cutting-edge training in partnership with local and international stakeholders.

The course is offered to African researchers, scientists, manufacturers, industry professionals, engineers, postgraduate students and other key stakeholders involved in the development and scale-up of biomanufacturing processes and products.

A key aspect of this programme is to provide theoretical and hands-on training and skills development through presentations, demonstrations and hands-on activities.

Participants will develop an understanding of how encapsulation technologies support the formulation and delivery of bio-based products. This programme is aligned with a number of other initiatives that focus on establishing vibrant biomanufacturing industries in Africa.

COURSE DESCRIPTION

The **Encapsulation technologies: From concept to application** course provides foundational knowledge of nano- and micro-encapsulation technologies and their use in improving the stability, protection and controlled release of active ingredients across the pharmaceutical, cosmetic, food, agrochemical and biotechnology sectors.

This course will be delivered using an on-site model of applied and advanced knowledge transfer in the form of classroom-based lectures, hands-on training and demonstrations.

KEY AREAS OF DEVELOPMENT INCLUDE:

- Nanoemulsions and microemulsions;
- Supercritical CO_2-based encapsulation systems;
- Formulation principles and techniques;
- Characterisation methods; and
- Process optimisation approaches.



COURSE DATE AND DURATION

DATES: 3 – 4 MARCH 2027

DURATION: Two days at the CSIR Pretoria campus from 08:00 - 16:00.

COURSE DELIVERY

The course is delivered using a hybrid format to transfer advanced knowledge, which includes:

- Demonstrations;
- Classroom-based lectures; and
- Hands-on training.



COST AND FINANCING

Please note that a maximum of 20 South African candidates will be selected. For selected participants, the funding package includes:

- All course fees;
- For 8 selected participants outside Gauteng, travel expenses (flights and accommodation for on-site training, one return ground transport service from the airport to the accommodation and daily transport from the accommodation to the CSIR (designated course venue) will be provided;
- For these participants, one return ground transport service from the airport to the accommodation; and dDaily ground transport from the accommodation to the CSIR (designated course venue) will be provided

Subsistence and travel allowance will not be covered.

WHO SHOULD ATTEND?

Preference will be given to the following candidates:

- Current staff in the biomanufacturing sector requiring skills expansion or upgrading;
- Scientists and researchers working in biotechnology and life sciences;
- Graduate or postgraduate students in biotechnology, pharmaceutical sciences, chemistry and related disciplines; and
- New or developing staff entering the biomanufacturing sector.

Young South African women are encouraged to apply. Participation will only be available to candidates holding a BTech, Advanced Diploma, Diploma or Bachelor's degree in biotechnology, pharmaceutical sciences, chemistry and related disciplines.

For enquiries, please email **BIDC@csir.co.za**

IMPORTANT DATES

- **DEADLINE FOR SUBMISSION OF APPLICATIONS: 15 DECEMBER 2026**
- **SELECTED CANDIDATES WILL BE NOTIFIED BY 15 JANUARY 2027**

APPLICATIONS should be submitted by completing the application form available.

