

Empowering the Future: The Role of Technical Education in Shaping a Skilled Workforce

1 July 2025





SCHOOLS OF SPECIALISATION

Concept of Schools of Specialisation

The Schools of Specialisation Programme seeks to nurture the development of top talent in South Africa across five key disciplines thus producing the country's future generation of leaders.

By nurturing the system's most distinctive learners, the SoS Programme will assist in addressing critical skill shortages in South Africa. These schools offer a highly specialised curriculum and will target the top performing learners and learners that show potential in a particular discipline across the province.

We have identified 35+1 schools as schools of specialisation





BACKGROUND

- The school was established in 1976 as a Technical Skills Centre catering for primary school boys.
- It was converted in 1998 to a Comprehensive School, offering a few technical subjects.
- The school was launched on the 20th August 2019 as a School of Specialisation with a Focus on Transport, Manufacturing & Logistics by the MEC for Education in Gauteng Hon. Panyaza Lesufi.
- The School is a Full STEAM School (Science, Technology, Engineering, Arts & Mathematics).

<u>Learner Numbers</u>:

Boys: 747 Girls: 849 Total Learners: 1596

STAFF COMPOSITION





DESCRIPTION	NUMBER
Principal	1
Deputy Principals	2
Departmental Heads	9
Educators	49
Support Staff (General Assistants, Drivers, Administrators)	22
Food Handlers, Security, Admin Interns	12
Security Workshop Assistants	4 2
Educator Assistants	17
TOTAL	118





School of Specialisation

- The Curriculum has been developed to align with School of Specialisation
 Foci All learners are participating in SOS Related Curriculum/Subjects.
- A large number of learners are involved in Multi Certification Programs from Grade 8 – 12.
- All Grade 8 & 9 learners participate in Project Based Learning (PBL), to enhance their entrepreneurship skills and to promote critical thinking and innovation amongst learners.
- The school introduced VOC-subjects in the GET-phase.
 (Agricultural Studies, Digital Technology, Mechanical, Electrical and Civil Technology)
- Introduced a formal apprenticeship program accredited by merSETA the vision of seamless transition between school and the world of work has been realised.
- Excellent relationship with the community of Kathorus.



SPECIALISATION IMPLEMENTATION

Compulsory to do the following subjects:

- Mathematics / Technical Mathematics (Grade 11 & 12) / Mathematics (grade 10)
- Physical Science / Technical Science
- NO Mathematical Literacy
- Engineering Graphics and Design
- CAT / Agricultural Technology / Agricultural Management Practice / Maritime Economics
 / Agricultural Science / Life Sciences / Design
- Learners can select from the following engineering subjects:

Engineering Subjects - FET			
Mechanical Technology	Civil Technology	Electrical Technology	
AutomotiveFitting and MachiningWelding and Metal work	ConstructionWoodworkingServices (Plumbing)	• Power Systems	



How do we ensure academic performance?

- Extended school day
- Skilled and motivated staff-members
- 7-day school week (depends on the grade)
- Public Private Partnerships with Business Community and Universities.
- Majority of learners are part of specific academic programs for example Actom.



Multi -Certification Programme

Swimming

- Grade 8 and 9 completed level 1 (basic water safety) and level 2 (learn to swim) in November 2024
- New cohort of 255 grade 8's training commenced in term 1.
- Grade 10-learners commenced with level 3 training in term 1.
- Grade 11-learners commenced with level 1 training in term 2.









Drone RPC

- 2024 Group:
 - 3 learners completed theory and language proficiency examination.
 - Radio examination in February 2025.
 - 9 learners to complete their RPC training between March and April 2025.
- 2025 Group:

15 new cadets (Grade 11)

- Waiting for ROC to be registered as TC















Funded by Investec

All grade 8 and 9 learners are part of the program.

Entrepreneurship incorporated in all GET learning areas.









K53 Learner Drivers Program

- Grade 11 & 12-learners are attending K53 classes.
- School assists learners with theoretical training on laptops after which they are trained on the simulator. After passing the test on a simulator they are allowed to practice in the truck with the instructor until they meet the minimum requirements to attempt their drivers license.
- Most of our overaged (18 years and older) left school pose a challenge for us.
- Approval was granted by GDE to procure a car to include code B drivers licenses as part of the program.
- <u>New Sites</u>: Soshanguve Engineering SoS, Dr. Molefi Oliphant, UJ Metropolitan SoS, Magaliesburg Agricultural SoS.
- Up to date 324 learners obtained their drivers licenses through this program.



DRIVING SCHOOL K 53











Plumbing

- · Participation:
- · Grade 10: 55 learners
- · Grade 11: 50 learners
- · KESOS has a registered plumbing facilitator
- KESOS is the only school where the workshop is accredited as trade test center by QCTO.
- Responsibility of the school:
- To register the Learner(s) on QCTO system.
- · To compile and submit Learner progress reports once the assessment is completed.
- To submit the learner(s) attendance register monthly and timeously.
- To compile and submit a closeout report to IOPSA on each Learner(s) at the end of the Programme.
- To ensure that Learner(s) are certified at QCTO upon completion of the Programme.







PLUMBER

Professional body has registered designations linked to the below qualifications.

MASTER PLUMBER
NFQ 5 Including various skills programs

Including various skills programs to ensure specialisation and change in industry.

SPECIALISATIONS
Solar
Heat Pump
Waterwise Plumber

NFQ 4 OCCUPATIONAL CERTIFICATE (PLUMBING)
This could be split in part qualification.

NFQ 3 PLUMBER HAND SKILLS

NFQ 2 REPAIR WATER AND DRAIN PIPES

General education credits can shorten further training.

Plan to assess learners and record results.

















Agriculture

- Educator Training:
- · Educators upskilling -

Occupational Trainers (accreditation by AgriSeta).

- Learner to be trained on Specialised Crop Production NQF 1-2
 - Module 1 Farming Essentials & Safety
 - Module 2 Hydroponic Production Systems
 - Module 3 Agri-business & Marketing
 - Module 4 Sustainable Farming Processes









ACTOM PARTNERSHIP

 Actom (PTY) LTD is the largest manufacturer and supplier of electro-mechanical equipment in Sub-Saharan Africa











merSETA Apprenticeship Programme

- Currently 96 apprentices employed by the school.
- Field of Specialisation: Automotive, Welding, Fitting & Machining and Electrical.









Motus

Motor Technician Training:

- Mercedes Benz Bedfordview, Constantia Kloof, Rivonia, The Glen
- Mercedes Benz Commercial
- Volvo South Africa Commercial











SPECIALISATION IMPLEMENTATION







Mandarin as Foreign Language

SCHOOL	NUMBER OF LEARNERS	ACCREDITED QUALIFICATION
Katlehong Engineering School of Specialisation	140	HSK level test The HSK, officially short for Hanyu Shuiping Kaoshi (汉语水平考试), is an internationalized standard test for non-native Chinese speakers to assess the Mandarin they use in their daily, academic, and professional lives.

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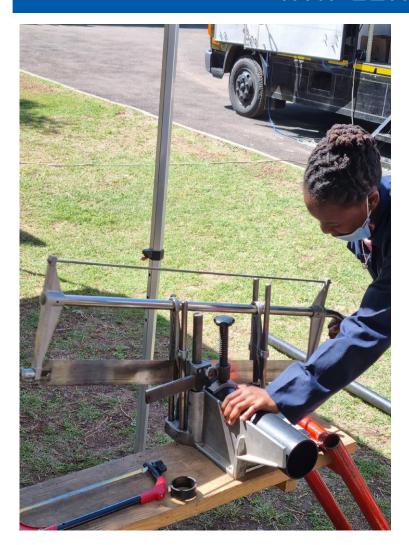
Barloworld Caterpillar







IMPLEMENTATION

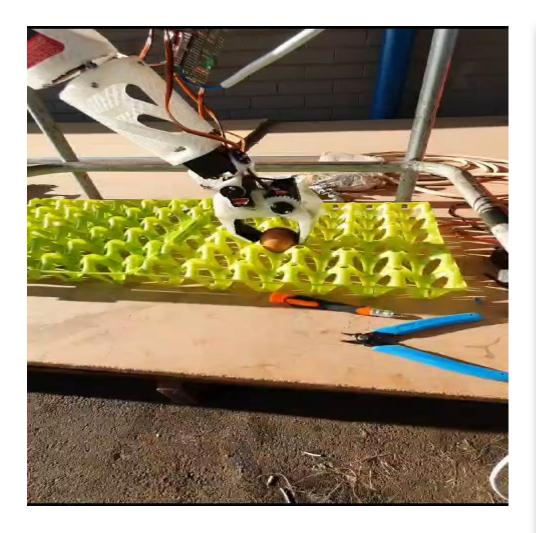






IMPLEMENTATION



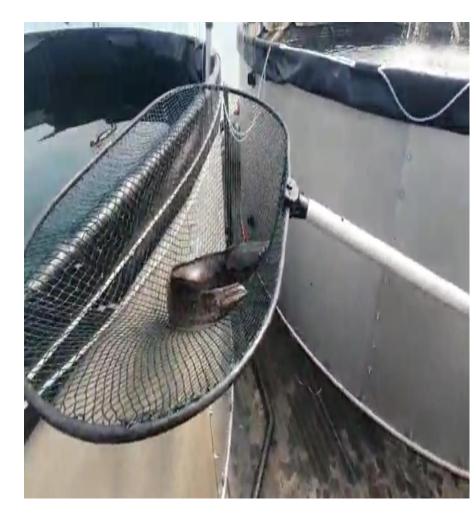






IMPLEMENTATION





Agriculture





NFT System:







"If you are working on something exciting that you really care about, you don't have to be pushed. The vision pulls you."

~Steve Jobs