

STAFF PROFILE CONTENT BRIEF

https://www.dut.ac.za/faculty/applied_sciences



Lecturer

Title & Name: Mrs Pinkie Ntola

Qualification & Institution: MTech Chemistry. DUT

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Campus: Steve Biko

Area of Expertise: Catalysis, Heterogeneous catalysis, Material science, Electron microscopy.

Bio: My research field is Catalysis, heterogeneous catalysis. My research focuses mostly on in-depth characterization of heterogeneous catalysts, specifically metal oxides. Emphasis has been on the synthesis using novel techniques and characterization using XRD with Rietveld refinement and a significant focus on electron microscopy. This looks into the materials science aspect. Applications include oxidative dehydrogenation (ODH) of alkanes using molecular oxygen. I am also involved in the department as a Work intergraded learning (WIL) coordinator and a secretary of the chemistry department advisory board. My active engagement in the co-ordination of Work Integrated Learning with the Chemical & Allied Industries at a regional and national level also entails being a liaison between the University and the Chemical industry in South Africa, organizing and planning advisory board meetings, establishing new relations with industry and placing students in industry for the completion of their diplomas.

Academic Interests: Synthesis of heterogeneous catalysts, Materials science, Electron microscopy, XRD and Rietveld refinement, Paraffin oxidation. My teaching portfolio includes Chemistry I, Analytical Chemistry I, Analytical Chemistry Practical III, Applied Inorganic Chemistry, Inorganic chemistry IV, and Inorganic chemistry V

Subject Expertise: Chemistry I, Analytical Chemistry II Practical (Gas Chromatography), Analytical Chemistry III Practical (Gas chromatography), Analytical Chemistry IV Practical (Gas Chromatography-Hyphenated Techniques), Organic Chemistry II and III, Physical Science I, Chemistry Projects III and IV.

Academic Interests: Students Experiential Learning, Wet Chemistry and Instrumental Analysis (Gas Chromatography), Liase with Industry (Advisory Board).

Research and Innovation focus: Capsaicin in Cayenne Pepper (HPLC), Quality Assessment of frying oils in formal and informal sector (Fatty Acid Methyl Esters by Chromatography), analysis of Petroleum products by Gas Chromatography.

Research Links:

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Research Gate: https://www.researchgate.net/profile/Pinkie_Sobantu