

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
FACULTY OF SCIENCE

LECTURER – SUPPORT IN FIRST YEAR PHYSICS LABORATORIES

SCHOOL OF PHYSICS

The School of Physics, the largest in the country, engages in internationally competitive research within very diverse fields, some emerging and some established, including experimental and theoretical high energy physics, namely string theory, phenomenology, gravitation and cosmology, materials physics, experimental and theoretical condensed matter physics, nuclear physics, astronomy, astrophysics and astro-particle physics, photonics, space propulsion and physics education. The School hosts two DSI-NRF Chairs and is home to the Materials Physics Research Institute with significant experimental infrastructure, the Mandelstam Institute for Theoretical Physics, the Institute of Collider Particle Physics, the Wits Centre for Astrophysics, the Nuclear Structure Research Group, and the WitsQ Research Group focused on quantum technologies. Currently, the Gauteng Node of the National Institute of Theoretical and Computational Sciences (NITheCS) operates from the School. In addition, the School has an active teaching programme that reaches over 4000 students annually. The School also hosts the The WITS Anglo American Digital Dome (WAADD) an exciting newly reimagined high-technical, multi-disciplinary digital research and innovation facility to support the academic projects of teaching, research, innovation, postgraduate training, education, science engagement and community service.

More information can be found here: <https://www.wits.ac.za/physics/>.

Job Summary

To supervise and facilitate the running of the Physics 1st year teaching laboratories including laboratory practicals/experiments for the Science, Engineering and Health Sciences classes. This includes liaising with Academic co-ordinators for the setting up of laboratory experiments, training of laboratory technicians and demonstrators, and the development of new experiments and lecture demonstrations for the 1st year Physics classes. In addition, the successful candidate is expected to pursue research, teach, supervise postgraduate students, and participate in the administration of the School, Faculty and University.

Key Performance Areas

- Oversees the smooth operation of the 1st year teaching laboratories including supervising laboratory technicians.
- Training of laboratory demonstrators and staff in the safe use of the Physics experimental setups. Provide technical support during laboratory sessions.
- Ensure that the equipment and apparatus used for experiments are in a good working condition.
- Maintain sufficient stocks of equipment and consumables to accommodate the large number of students. To replace and upgrade equipment where necessary. A stocktake is required after each teaching block.
- Must be able to diagnose and repair faulty equipment and apparatus, including electronic components. Work together with the School of Physics technical team.
- Develop new experiments and lecture demonstrations through engagement with Lab co-ordinators and lecturers.
- Write and/or update laboratory manuals and procedures.
- Maintain and upgrade existing lecture demonstrations and assist to facilitate use in lectures and outreach events.
- Ensure that the University's Occupational Health and Safety (OHS) policies and procedures are followed.
- Carry out administrative, tutoring and lecturing duties as required by the Head of School.
- Work independently or in teams on research projects to maintain publications.

Key Competencies

- Planning and organisational skills to ensure smooth operation of the 1st year labs.
- Experience and understanding of Physics experiments.
- Good technical and problem-solving skills with a good understanding of electronics.
- Ability to work independently to strict deadlines.
- Strong troubleshooting and multitasking skills.
- Experience in lecturing 1st year Physics courses.

Minimum Requirements

PhD in Physics with a minimum of 2 years' experience in teaching/ teaching laboratories. Postdoctoral research experience with a publication record and involvement in the supervision of postgraduate students are an ***added advantage***.

Applications: Submit a cover letter accompanied by a detailed curriculum vitae indicating research experience, teaching and research portfolio, certified copies of all educational qualifications and identity document and the names and email addresses of three referees.

To apply: External applicants are invited to apply by registering their profile on the Wits iRecruitment platform located at <https://irec.wits.ac.za> and submitting applications. Internal applicants are invited to apply directly on Oracle by following the path: iWits /Self Service Applications /"Apply for a job".

Enquiries: For further information, you can contact, the Head of School, Professor Deena Naidoo: Deena.Naidoo@wits.ac.za.

Closing date: Friday, 17 October 2025

The University reserves the right not to make an appointment and continue searching after the closing date and only short-listed candidates will be contacted.

"The University is committed to employment equity. Preference will be given to appointable applicants from underrepresented designated groups in terms of the relevant employment equity plan and policies of the university".

 **Committed to excellence and equity**