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## The transition from high school Physics to first-year Physics: How well prepared are our students?

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Premature withdrawal from university due to academic failure has the potential to present problems to both students and educators. The demand from industry for a larger pool of science and engineering graduates in South Africa is in line with international norms. This state of affairs is compounded by a shrinking pool of good quality school leavers. For the desired growth in graduate numbers to occur, physics educators are required to respond effectively through curriculum reform to optimize success and retention of students at first year level. The research project in this regard aims to investigate the level of preparedness in relation to Physics I students and to identify key success factors in this course. This course is compulsory for most first year science students and is largely perceived as difficult in comparison with other first year courses. More students are pursuing Physical Science at school and consequently study science, engineering and technology at universities (DoE, 2010) and University of Johannesburg is no exception. For many students, the first year at university represents a transition during which a variety of academic and social challenges are encountered. To this end, students' entry-level preparedness was investigated through analysis of their high school examination results, administration of a diagnostic test and first year university assessment results. The results reveal that high school examination results appear not to be the only independent factor characterising students' readiness for first year physics studies at university.

**Level (Hons, MSc, &nbsp; PhD, other)?**

Other

**Consider for a student &nbsp; award (Yes / No)?**

No

**Would you like to &nbsp; submit a short paper &nbsp; for the Conference &nbsp; Proceedings (Yes / No)?**

Yes

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