



UNIVERSITY OF  
KWAZULU-NATAL™  
INYUVESI  
YAKWAZULU-NATALI

**EXTENDED  
LEARNING**

## Foundation Physics



Durban

OUR WORLD IS CHANGING...SHOULDN'T YOU?



# Foundation Physics

## About this programme:

There is an inherent need to increase the number of Science, Technology, Engineering and Mathematics graduates in Higher Education.

The Foundation Physics programme aims to enhance the competencies of students in Physics to the level of that required for entry into science-related degrees at UKZN. Students who otherwise may not have had the opportunity to study science-related fields will have the chance to do so after successfully completing this programme, provided that the applicant meets the other qualifying criteria of the University. Applicants also need to enquire directly with the relevant College before completing this programme.

## How you will benefit. You will learn to:

- Identify and solve problems in Physics which require responsible decisions made by using critical and creative thinking
- Organise and manage one's learning of Physics and activities effectively which will enable you to evaluate your own performance and that of others and to take responsibility for your actions
- Demonstrate an understanding of how Physics can help in explaining the world around us as a set of related systems and by recognising that problem solving contexts do not exist in isolation
- Discover and explore a variety of strategies employed at tertiary level which will not only enable you to have a deeper understanding of Physics, but which will also assist in studying other subjects
- Effectively collect, analyse, organise and evaluate information related to Physics
- Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written text
- Use physics and technology effectively, showing responsibility towards the environment and health of others
- Work effectively with others as a member of a team, group, organisation or community

## Key focus areas:

- Basic properties of matter
- Scalars and vectors
- Motion in 1 and 2 dimensions
- Newton's laws of motion and gravitation
- Electrostatics and current electricity

## Who should attend:

Students who did not make the entry requirements for a BSc ENG, BSc degree or for the BSc (Augmented) degree

## Entrance requirements:

- a) NSC degree pass with a minimum of 28 points and Maths Level 3 (40%), Physical Science Level 3 (40%) and English Level 4 (50%)
- b) Senior Certificate with full matriculation endorsement, should contact UEL directly to see if eligible.

## Facilitators include:



### Dr Juggy Govender

Dr Govender has extensive experience in Physics education, having taught high school Physical Science, as senior lecturer in Physics at Springfield College of Education, as Physical Science subject advisor in the Department of Education, and lecturer in Physics at University of

KwaZulu-Natal. He was a past examiner and moderator of matriculation Physical Science papers and is currently one of the two Umalusi external moderators for the NSC Physics exams set by the DBE, IEB and SACAI examining bodies. He has co-authored the Mastering Physical Science Grade 12 textbook, and is the co-author of physics textbooks designed for the Cameroon and Nigerian high schools. His fields of expertise includes Physics Education, Cosmology and General. He holds BSc, BSc (Honours, Physics), BSc (Honours, Maths), MSc (Physics), PhD (Physics), Secondary Teachers Diploma qualifications.



### Professor Naven Chetty

Naven has a PhD in Experimental Physics from the University of KwaZulu-Natal. He was awarded the College of Agriculture, Engineering and Science distinguished teacher award in 2014. He is currently the Head of the Science and Engineering Access Programme at UKZN. He was instrumental in developing this

foundation physics module. His passion is teaching and he enthusiastically enlightens students about the wonders of Physics.

## Programme fee:

The programme fee of R9 950 (incl. VAT) covers tuition and instruction material

## Duration:

3 Weeks

## Dates:

For updated start dates, please contact us or see our website: [www.ukznextendedlearning.com](http://www.ukznextendedlearning.com)

## Contact:

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