



# EXTENDED PROGRAMME (VUT)

BY MATHAPELO MOLETSANE

## VAAL UNIVERSITY OF TECHNOLOGY (VUT)

**Vision**

- To be a university that leads in innovative knowledge and quality technology education.

**Mission**

To produce employable graduates who can make an impact in society by:

- Adopting cutting edge technology and teaching methods,
- Creating a scholarly environment conducive for knowledge creation, learning and innovation; and,
- Developing a Programme Qualification Mix (PQM) that meets the needs of society in Africa and beyond.

## CHALLENGES FACED BY STUDENTS IN HIGHER EDUCATION.

Challenges facing higher education	South Africa
Global issues of relevance	South Africa
Low pass rates	Very low pass rates (around 15% graduate in time)
Low enrolment of minority group students	Participation rates of previously excluded Black African students around 13%
Lower pass rates amongst low income, minority group students	Over 60,000 Black African students graduate in time, less than 5% of this cohort obtain a degree
Students not adequately prepared in high school	Students not adequately prepared in high school
Increased demand for graduates in the knowledge economy results in a rapidly expanding labour force with unprecedented levels of diversity and large numbers of first generation students	Widening access and an increased demand for graduates in the knowledge economy lead to unprecedented levels of diversity and many first generation students

Table 1: Comparison of Challenges Facing Higher Education in the United States and South Africa

## EXTENDED PROGRAMME

- The purpose of foundational provision (extended curriculum) is to improve the academic performance of students who are at risk due to their educational backgrounds.
- The key role of the extended qualification is therefore, to support educationally disadvantaged students who are underprepared despite meeting minimum admission criteria, by enabling them to be placed on an extended curriculum that will give them the academic foundations for successfully completing their studies.

## The student performance doing Mathematics in SA Schools and Higher Education Institute

Year	No wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2013	241 509	142 666	59.1	97 790	40.5
2014	225 458	130 523	58.3	79 050	35.1
2015	263 903	129 481	49.1	84 297	31.9
2016	266 810	135 958	51.1	89 084	33.5

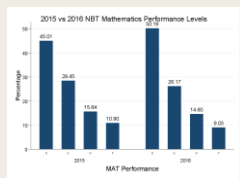
## NBT RESULTS 2016

### 2016 NBT Mathematics Performance Levels by Citizenship (n = 39,644)

Performance Level	South African (%)	non-South African (%)
B (Basic)	50.00	42.00
IL (Intermediate Lower)	28.00	28.00
IU (Intermediate Upper)	18.00	18.00
P (Proficient)	8.00	10.00
P+ (Proficient+)	0.00	0.00

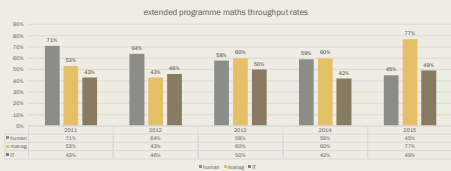
B = Basic; IL = Intermediate Lower; IU = Intermediate Upper; P = Proficient

## NBT 2015 VS 2016 LEVELS



Domain	Number of students in NBT performance levels	Assessment of need
<b>Basic</b>		
Academic Literacy	4	If admitted, these students will face severe learning challenges. VUT should develop and provide intensive intervention strategies to assist them.
Quantitative Literacy	223	
<b>Mathematics</b>	<b>476</b>	
<b>Intermediate Lower</b>		
Academic Literacy	527	These students will need intensive support which might include but is not limited to extended degree programmes.
Quantitative Literacy	458	
<b>Mathematics</b>	<b>197</b>	
<b>Intermediate Upper</b>		
Academic Literacy	233	These students will need appropriate support in the form of extended degree programmes, extra lectures, extra tutorials and additional courses related to the academic literacy, quantitative literacy and mathematics demands of the courses they are studying.
Quantitative Literacy	97	
<b>Mathematics</b>	<b>36</b>	
<b>Proficient</b>		
Academic Literacy	23	These students are likely to cope with the AL, QL and MAT demands of conventional curricula.
Quantitative Literacy	9	
<b>Mathematics</b>	<b>3</b>	

## VUT EXTENDED PROGRAMME THROUGHPUTS



## LEARNING DESIGNS

- Learning by design approach is an attempt to imagine and test innovative tools and learning environments in which the blackboard, textbooks and tests are increased and at times replaced by digital technologies (Cope, Kalantzia, 2005).
- The following are examples of different forms of e-learning: Stand-alone course, virtual-classroom courses, learning games and simulations, embedded e-learning, blended learning, mobile learning as well as knowledge management (Horton, 2006).

## RECOMMENDATIONS

- to increase success for the students, it is important to recognize that in order to be successful, we need to look beyond just ourselves.
- lecturers attend professional development and certification first and students be taught skills relevant to their entry into the programme,
- We also need to incorporate the tools to be used such as tablets or laptops as part of stationary needed for learners, as well as lecturers because it can't be expected of them to increase on their daily expenses for such especially if they can't afford them.