

# Career Profile: High School Mathematics Teacher

High school mathematics is a key subject in which there are many challenges. Some of these challenges are in part due to the shortage of mathematics and science teachers in South Africa which has been a problem over a long period. This has resulted in pupils reaching the higher grades without a sound mathematics foundation. The shortage of well qualified graduates in mathematics and science is having an adverse effect on business and industry and undermines the country's economic growth and global competitiveness. The teaching of mathematics is therefore a priority area and there is a great need for well qualified, innovative and dedicated mathematics teachers.

Professional mathematics teachers must not only be able to have a thorough understanding of mathematics but they must also be able to use a variety of learning and teaching approaches and methods to help their students develop a sound understanding of mathematical concepts. Mathematics teachers have to be good communicators and be able to explain things simply and clearly. It is critical that the teacher is in touch with the student's starting point and that s/he understands why a student's solution to a problem is incorrect so that s/he is able to guide students to find acceptable ways of solving mathematical problems.

## Education Requirements

### National Senior Certificate (NSC)

For a career in mathematics teaching students are advised to select Mathematics and to add to this a selection from the designated subjects. These are subjects that are particularly suitable for tertiary study.

### National Diploma / BTech

**Bachelor of Education (Senior phase & FET) – BEd (Senior phase & FET) (4 years)** - A four year degree programme that focuses on preparing teachers for the senior phase and FET.

#### Offered at:

- [North-West University](#)<sup>1</sup> (Faculty of Education - Mafikeng Campus)
- [Tshwane University of Technology](#)<sup>2</sup> (Department of Educational Studies)
- [UNISA](#)<sup>3</sup> (College of Human Sciences - Bachelor of Education)
- [University of Limpopo](#)<sup>4</sup> (School Of Education)

<sup>1</sup> <http://www.uniwest.ac.za/faculties/edu/programmes.html>

<sup>2</sup> [http://www.tut.ac.za/Students/facultiesdepartments/humanities/departments/Documents/edu\\_studies.pdf](http://www.tut.ac.za/Students/facultiesdepartments/humanities/departments/Documents/edu_studies.pdf)

<sup>3</sup> [http://brochure.unisa.ac.za/brochure/showprev.aspx?d=1\\_2\\_3&f=p\\_02615](http://brochure.unisa.ac.za/brochure/showprev.aspx?d=1_2_3&f=p_02615)

- [University of Pretoria](#)<sup>5</sup> (Faculty of Education)
- [University of the Witwatersrand](#)<sup>6</sup> (Education Department)
- [University of Venda](#)<sup>7</sup> (Teacher Education)

### Specializations offered:

The various universities and universities of technology offer different emphases on the senior & FET phase with mathematics.

#### North-West University

**Bachelor degree:** BEd (Senior & FET phase grades 11-12) (4 years)

#### Tshwane University of Technology

**Bachelor degree:** BEd (Intermediate & senior phase) (4 years)

**Diploma/Certificate:** Advanced Certificate in Education (ACE) (Department of Maths, Science & Technology)

#### UNISA

**Bachelor degree:** BEd (Senior & FET phase) (4 years)

#### University of Limpopo

**Bachelor degree:** BEd (not for this phase)

**Diploma/Certificate:** Advanced Certificate in Education (ACEM) (Mathematics)

#### University of Pretoria

**Bachelor degree:** BEd (Senior phase & FET phase) (4 years)

**Diploma/Certificate:** Postgraduate Certificate in Education (PGCE) (Senior phase) (FET phase) (1 year)

#### University of the Witwatersrand

**Bachelor degree:** BEd (Senior Phase & FET: Mathematics) (4 years)

**Diploma/Certificate:** Advanced Certificate in Education (ACE) (Upgrading Mathematics)

## Admission requirements

As admission requirements vary from one institution to another, find out what the specific requirements are by checking on the website and contacting the university if you have any queries.

## Possible Employers

- Provincial departments of education
- Public schools

---

<sup>4</sup> [http://www.ul.ac.za/index.php?Entity=School%20Main%20Menu&school\\_id=2](http://www.ul.ac.za/index.php?Entity=School%20Main%20Menu&school_id=2)

<sup>5</sup> <http://web.up.ac.za/default.asp?ipkCategoryID=43>

<sup>6</sup> <http://web.wits.ac.za/Academic/Humanities/Education/Undergraduate/>

<sup>7</sup> [http://www.univen.ac.za/human\\_social\\_sciences/teacher\\_education.html](http://www.univen.ac.za/human_social_sciences/teacher_education.html)

- Private schools

## Find out more

Find out more about pre-school teaching, bursaries and jobs:

- A stimulating article by [Prof. Mamokgethi Setati](#) Associate Professor of Mathematics Education, Wits University, AMESA National President.
- [Education in South Africa Today](#) – Long term vision is necessary to achieve excellence in maths
- An interesting website on [maths and science](#).
- [UNISA brochure](#) on careers in education and training.

## Are you suited to this career?

This quick quiz can help you to identify whether you are suited for this occupation.

Quiz	Yes	No
Are you good at mathematics?		
Do you enjoy finding solutions to problems?		
Are you able to encourage and invite others to participate?		
Are you a good listener?		
Are you able to communicate well and explain things simply and clearly?		
Are you patient, tolerant and tactful?		
Are you able to see things from another person's perspective?		
Do you find it easy to be creative and come up with new ways of doing something?		
Are you supportive and encouraging?		
Do you enjoy working with young people?		

If you have mainly yes answers it may be an indication that this is an occupation to consider.