UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Economic and Management Sciences

Fakulteit Ekonomiese en Bestuurswetenskappe
Lefapha la Disaense tša Ekonomi le Taolo

BCom (Statistics and Data Science)

Make today matter

What does the programme entail?

The three-year BCom (Statistics and Data Science) degree programme trains students in the science of extracting information from data. This qualification equips statisticians for employment in data science environments and increases the scope of possible jobs they could consider in practically any industry. It lays the foundation for scientifically accountable conclusions, planning and estimation.

Structure of the programme

Core modules (compulsory)

Note: All first-year students take the compulsory fundamental modules on academic information management and academic literacy for EMS.

1st year	2nd year	Final year
▪ Statistics **or** Mathematical statistics ▪ Economics ▪ Financial accounting ▪ Business management ▪ Informatics (accounting software)	▪ Statistics **or** Mathematical statistics ▪ Communication management	▪ Statistics **or** Mathematical statistics

Elective modules

1st year	2nd year	Final year
▪ Mathematics ▪ Informatics ▪ Financial management ▪ Economics ▪ Computer science	▪ Mathematics ▪ Informatics ▪ Agricultural economics ▪ Actuarial mathematics ▪ Economics ▪ Business accounting ▪ Introduction to moral and political philosophy	▪ Mathematics ▪ Agricultural economics ▪ Actuarial mathematics ▪ Economics ▪ Business accounting

What makes this programme unique?

UP Statistics and Mathematical Statistics students can obtain Statistical Analysis Software (SAS) certification from SAS, an international statistical software developer (www.sas.com), for:

- Introduction to statistical learning
- Statistical learning
- Introduction to big data analytics
- Big data analytics

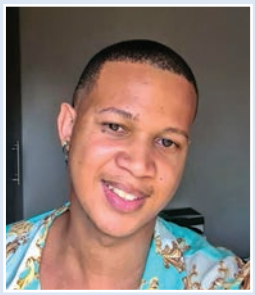
This programme also enhances students' understating of statistics, which is a vital part of modern life and business and is used daily to make sense of the world around us. For example, it helps them to understand how social media platforms personalise content and suggestions for different people.

This programme is jointly presented with the UP Faculty of Natural and Agricultural Sciences.

Who are the ideal candidates?

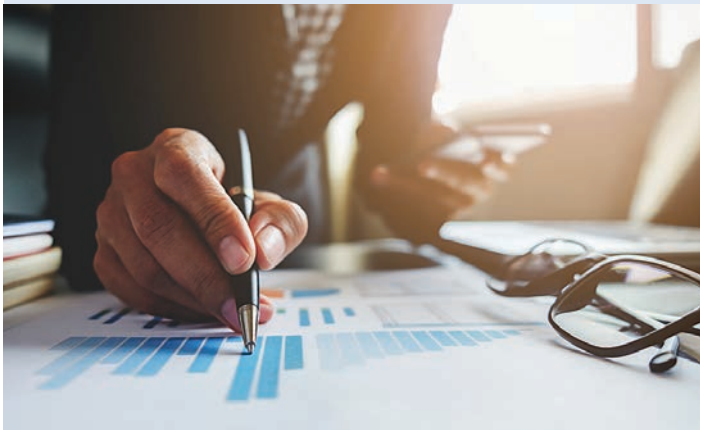
Characteristics of students who excel in this programme are:

- Strong numerical skills
- Interest in computers and computer programming
- Logical reasoning ability
- Interest in planning and in analysing problems
- Good language and communication skills
- Strong problem-solving skills
- Inquisitive
- Innovative
- Team player
- Critical thinking skills
- Agile mind
- Adaptability



'Throughout my life I have been preoccupied with numbers and probabilities. I have often wondered about whether we can predict what will happen to humanity in the near future, how fast our population is growing, and even what the next winning Lotto numbers might be. I chose to study BCom (Statistics and Data Science) as it gives me the opportunity to gain the analytical skills needed to better understand what is happening now and might happen in the future. Studying statistics has given me a broad knowledge of data science principles and coding languages. Modules such as Applications in Data Science, Statistics and Economics have dramatically improved my mathematical skills, which also impacts the logical decisions I make in my everyday life. In fact, it has taught me how to read between the lines.'

Cayelaem Jantjies – BCom (Statistics and Data Science)



Disclaimer: Refer to the faculty brochure at www.up.ac.za/programmes > Undergraduate

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(continues)

Career opportunities

Insurance
- Determining a fair premium based on the risk an insured person poses to the insurance company and predicting claims
- Analysing client profiles in order to identify the need for new products

Consumer science
- Understanding consumers' behaviour and preferences
- Predicting demand for a product
- Identifying profitable locations for new outlets

Banking and finance
- Fraud detection
- Analysing and forecasting trends
- Pricing strategies

Spatial statistics
- Advising the mining industry on sampling strategies to provide information about the characteristics of natural deposits and monetary gains to be made
- Analysing patterns where crimes are committed

Government
- Advising decision makers on matters concerning the environment, economic and social development, health, education and infrastructure

Minimum admission requirements

Programmes	Minimum requirements for NSC/IEB for 2024		
	Achievement level		APS
	English Home Language or English First Additional Language	Mathematics	
BCom (Statistics and Data Science) [3 years]	5	5	**32**
Careers: Data scientists, statistical analysts in several industries, researchers, consultants and lecturers			

Note: Accounting at school is not a subject requirement for any of the BCom and BAdmin programmes.

Contact information | **Website** www.up.ac.za/statistics

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