

3.1.10.1 BComHons (Mathematical Statistics): Focus on Data Science

Interdepartmental and interfaculty collaboration

The Department of Statistics and Actuarial Science and the Division for Computer Science in the Faculty of Science jointly present this programme.

Admission requirements

- A bachelor's degree with a combined average mark of at least 65% for the third-year modules in Mathematical Statistics, and a satisfactory mark in Computer Science up to at least second-year level.

This programme is presented jointly by the Department of Statistics and Actuarial Science and the Division for Computer Science of the Department of Mathematical Sciences in the Faculty of Science. Consequently, you must be admitted to postgraduate study by both the Department of Statistics and Actuarial Science and the Division for Computer Science.

Selection

The number of students selected will be influenced by, among other things, staff capacity and the availability of resources within the departments, as well as academic merit and University transformation objectives (within the Division of Computer Science and the Department of Statistics and Actuarial Science). As staff capacity and resources may fluctuate from year to year, the number of students selected can also differ from year to year.

If the Computer Science and Mathematical Statistics background of the applicant is deemed insufficient after a case-by-case determination by the Division of Computer Science and the Department of Statistics and Actuarial Science, the departments may require an additional departmental assessment on third year level Computer Science and Mathematical Statistics topics.

Students may also be required to complete additional undergraduate Stellenbosch University Computer Science and Mathematical Statistics modules along with their honours studies.

Programme structure

You must choose coursework modules from both of the Department of Statistics and Actuarial Science and the Division for Computer Science and complete a research assignment from the Department of Statistics and Actuarial Science.

Programme content

Programme module

You must earn a total of at least 120 credits for this programme.

Code	Module	Credits	Module Name	Semester
22853	778	120	Mathematical Statistics	Both

Below follow only the modules presented by the Department of Statistics and Actuarial Science. For details on modules presented by the Division for Computer Science, please consult the Yearbook part for Science. Note that some of the modules presented by Computer Science are compulsory.

Please also note:

The research assignment is compulsory. You must complete it under supervision and submit it examination.

Compulsory modules (48 credits)

Code	Module	Credits	Module Name	Semester
13074	723	6	Introduction to R Programming	1
11228	791	30	Research Assignment: Mathematical Statistics	Both
13360	771	12	Statistical Learning Theory	2

Elective modules (at least 72 credits)

You must take the modules from Computer Science into account when you choose your elective modules.

Please note:

Some of the modules listed below may not be offered in a specific year and some modules may also be offered in different semesters from the ones listed below, depending on circumstances in the Department. Please contact the Department to find out which modules will be available.

Code	Module	Credits	Module Name	Semester
10394	711	12	Bayesian Statistics	1
13361	771	12	Mathematical Statistics for Data Science	1
10602	715	12	Multivariate Statistical Analysis A	1
10603	745	12	Multivariate Statistical Analysis B	2
65250	718	12	Stochastic Simulation	1
10751	747	12	Time Series Analysis	2

Please note the following prerequisite:

Multivariate Statistical Analysis A 715(12) is a prerequisite for Multivariate Statistical Analysis B 745(12).

Postgraduate Programmes

1. General information for all postgraduate programmes

The information in this section applies to most of the postgraduate programmes and is not repeated for each programme, so please read it through carefully. Exceptions and deviations are, however, indicated at the individual programmes.

1.1 Postgraduate programmes in the Faculty

The table below lists the postgraduate programmes up to master's level by the department, school or centre where they are offered. The campus or facility is indicated in italics where necessary. All departments, schools and centres also offer a PhD programme. For more on the PhD, see the doctoral section at the end of this chapter.

Africa Centre for HIV/Aids Management
PGDip (HIV/Aids Management)
MPhil (HIV/Aids Management)
Centre for Sustainability Transitions (CST)
PGDip (Sustainable Development)
MPhil (Sustainable Development)
Department of Business Management
PGDip (Marketing)
BComHons (Business Management)
MCom (Business Management)
Department of Economics
BComHons (Economics)
BComHons (Economics and Mathematical Statistics) [with the Department of Statistics and Actuarial Science]
MCom (Economics)
Department of Industrial Psychology
PGDip (Strategic Human Resource Management)
BComHons (Human Resource Management)
BComHons (Industrial Psychology)
MCom (Human Resource Management)
MCom (Industrial Psychology)
Department of Logistics
PGDip (Transport and Logistics)
BComHons (Logistics Management)
BComHons (Operations Research)
BComHons (Transport Economics)
MCom (Logistics Management)
MCom (Operations Research)
MCom (Transport Economics)
Department of Statistics and Actuarial Science
PGDip (Actuarial Science)
BComHons (Actuarial Science)
BComHons (Economics and Mathematical Statistics) [with the Department of Economics]
BComHons (Financial Risk Management)
BComHons (Mathematical Statistics)
BComHons (Statistics)
MCom (Actuarial Science)
MCom (Financial Risk Management)
MCom (Mathematical Statistics)
MCom (Statistics)

School of Accountancy
PGDip (Accounting)
BComHons (Management Accounting)
BAccHons
MCom (Computer Auditing)
MCom (Financial Accounting)
MCom (Management Accounting)
MCom (Taxation)
MAcc (Auditing)
MAcc (Financial Accounting)
MAcc (Taxation)
School of Public Leadership (SPL), <i>Bellville Park</i>
PGDip (Environmental Management) <i>Stellenbosch</i>
PGDip (Public Finance Management)
BComHons (Public and Development Management)
BPubAdminHons
MCom (Public and Development Management)
M (Public Administration)
MPhil (Environmental Management) <i>Stellenbosch</i>
Stellenbosch Business School, <i>Bellville Park</i>
PGDip (Business Management and Administration)
PGDip (Development Finance)
PGDip (Financial Planning)
PGDip (Futures Studies)
PGDip (Leadership Development)
PGDip (Project Management)
MPhil (Development Finance)
MPhil (Futures Studies)
MPhil (Management Coaching)
MBA

1.2 Undergraduate module requirements for postgraduate programmes

In Appendix C to this Yearbook part, you will find a table showing the minimum module requirements for admission to certain postgraduate programmes. Review this table to determine whether you meet the requirements for the postgraduate programme you wish to follow.

1.3 Selection

Every postgraduate programme in the Faculty is potentially a selection programme since the capacity of the relevant department determines the number of students that can be accommodated in each programme. This means that selection happens when more candidates apply than the department can accommodate in a specific programme. There are, however, also programmes where selection always happens, regardless of how many candidates apply. Departments may choose to list specific requirements and criteria at the relevant programme entries below or on their website or in the programme brochure.

1.4 Postgraduate assessment and examination

- Assessment is determined at modular level; therefore, consult the relevant module framework for more information.
- For the Faculty postgraduate assessment rules, you can consult the Faculty website at www.sun.ac.za/ems and look under "Current students" and then "General information" to find the link "EMS Postgraduate Assessment Rules".
- For more information and the general rules on assessment, see Part 1 (General Rules) of the Yearbook, under "Assessments and Promotions".

- For the general specifications for assignments, theses, and dissertations, consult the section "Postgraduate Qualifications" in Part 1 (General Rules) of the Yearbook.
- For specific information relating to the assignment, thesis or dissertation for an individual programme, consult the programme administrator or leader or relevant programme documentation.

1.5 Pass requirements for postgraduate programmes

The pass mark for postgraduate programmes is 50% and to pass with distinction you need 75%. More detailed information on pass requirements for individual programmes is available from the relevant programme administrator or leader.

1.6 Different campuses and facilities

Some postgraduate programmes are presented by the Stellenbosch Business School or the School for Public Leadership, both of which are on the Bellville Park campus of the University. The School of Public Leadership also presents classes at the Sustainability Institute at Lynedoch. The place where a particular diploma programme will be presented, if not Stellenbosch campus, is indicated below for each individual Programme under "Programme structure".

Disclaimer:

The content above comes from the 2024 Economic and Management Sciences Yearbook. Make sure to consult the full **Economic and Management Sciences Yearbook** to see this extract in context and to check if there have been any changes. Take special note of additional information in the yearbook under section **1. General information for all postgraduate programmes.**