

BACHELOR OF SCIENCE IN MATHEMATICAL AND STATISTICAL SCIENCES (3031)

B.145 ADMISSION

Unless Senate decides otherwise, candidates will be required to meet the following criteria to be enrolled for the degree: **Bachelor of Science - BSc (Mathematical & Statistical Sciences)**

B.145.1 Admission requirements for applicants who matriculated from 2008

- (a) The National Senior Certificate for Bachelor's Degree study plus a score of no less than 27 points calculated according to the University's approved points system, as well as the following specific subject requirements:
- level 4 (50-59%) in English (home or first additional language) and
 - level 3 (40-49%) in Another Language (home or first additional language) and
 - level 3 (40-49%) in Mathematics and
 - level 3 (40-49%) in Physical Science or
 - level 3 (40-49%) in Life Sciences or
 - level 4 (50-59%) in Information Technology

OR

- (b) A qualification or level of competence which the Senate of the University has deemed to be equivalent to the requirements stipulated in (a) above.

B.145.2 Admission requirements for applicants who matriculated before 2008

- (a) Senate, upon recommendation of the faculty, may admit students with a full Matriculation exemption with Mathematics and either Science or Biology at Higher Grade with an E-symbol or Standard Grade with a D-symbol.

OR

- (b) a qualification or level of competence which the Senate of the University has deemed to be equivalent to the requirements stipulated in (a) above.

Please note: In order to determine the level of competency, the Faculty may subject students applying for equivalent status, to one or more assessment events.

B.145.3 Alternate admission

Alternate admission requirements for applicants according to Recognition of Prior Learning (RPL)

Students who completed the NSC in 2008 or thereafter, but have not obtained endorsements, will be considered for alternative admission after the age of 23. Such candidates will be required to complete a RPL portfolio development course and submit to a process where relevant learning and/or experience will be assessed.

Candidates who are 23 or older and do not have a matriculation certificate or NSC, but who might have obtained other qualifications or experience that may be deemed to be equivalent to admission criteria for particular study programmes, will also be required to complete a RPL portfolio development course or an RPL portfolio process as agreed and to submit to a process where such learning, qualification and/or experience will be assessed.

B.146 SELECTION

As only a limited number of students can be admitted to the programmes, applicants will be subject to a selection procedure.

B.147 DURATION

Unless Senate decides otherwise, the minimum prescribed time to complete the degree is 4 years full-time study but shall not exceed 6 years of full-time study.

B.148 CURRICULUM

Mathematics Stream

B.148.1 Level 1

Module Name	Alpha Code	Cred
Compulsory (select all modules)		
Mathematics 151(SF)	MAM151	15
Physics 151(SF)	PHY151	15
Introduction to Science	ISC153	30
	Sub-total	60

B.148.2 Level 2

Module Name	Alpha Code	Cred
Compulsory (select all modules)		
Mathematics 152 (SF)	MAM152	15
Statistics 111	STA111	15
Statistics 121	STA121	15
Electives (select at least one module)		
Mathematics 112	APM112	15
Mathematics 123	APM123	15
Physics 152 (SF)	PHY152	15
	Sub-total	60

B.148.3 Level 3

Module Name	Alpha Code	Cred
Compulsory (select all modules)		
Mathematics 211	MAT211	20
Mathematics 221	MAT221	20
	Sub-total	40
Electives (select 4 modules)		
Mathematics 212	MAT212	20
Mathematics 232	MAT232	20
Statistics 211	STA211	20
Statistics 221	STA221	20
Physics 212	PHY212	20
Physics 222	PHY222	20
Physics 217	PHY217	20
Physics 227	PHY227	20
	Sub-total	80
	Total	120

B.148.4 Level 4

Module Name	Alpha Code	Cred
Compulsory (select all groups)		
Group 1 (select all modules)		
Mathematics 311	MAT311	30
Group 2 (select 1 module)		
Mathematics 321	MAT321	30
Mathematics 322	MAT322	30
Mathematics 312	MAT312	30
	Sub-total	60
Electives (select 2 modules)		
Mathematics 321 (only if not selected in the compulsory list)	MAT321	30
Mathematics 322 (only if not selected in the compulsory list)	MAT322	30
Mathematics 312 (only if not selected in the compulsory list)	MAT312	30
Statistics 331 (cannot be taken with STA333)	STA331	30
Statistics 332	STA332	30
Statistics 333 (cannot be taken with STA331)	STA333	30
	Sub-total	60
	Total	120
	Final Total	360

Statistics Stream**B.148.5 Level 1**

Module Name	Alpha Code	Cred
Compulsory (select all modules)		
Mathematics 151(SF)	MAM151	15
Physics 151(SF)	PHY151	15
Introduction to Science	ISC153	30
	Sub-total	60

B.148.6 Level 2

Module Name	Alpha Code	Cred
Compulsory (select all modules)		
Mathematics 152 (SF)	MAM152	15
Statistics 111	STA111	15
Statistics 121	STA121	15
Electives (select 1 module)		
Mathematics 112	APM112	15
Mathematics 123	AMP123	15
Physics 152 (SF)	PHY152	15
	Sub-total	60

B.148.7 Level 3

Module Name	Alpha Code	Cred
Compulsory (select all)		
Statistics 211	STA211	20
Statistics 221	STA221	20
	Sub-total	40
Electives (select 4 modules)		
Mathematics 211 (compulsory for an Honours in Statistics)	MAT211	20
Mathematics 221 (compulsory for an Honours in Statistics)	MAT221	20
Mathematics 212	MAT212	20
Mathematics 232	MAT232	20
Physics 217	PHY217	20
Physics 227	PHY227	20
	Sub-total	80
	Total	120

B.148.8 Level 4

Module Name	Alpha Code	Cred
Compulsory (select 1 group)		
Group 1		
Statistics 331 (compulsory for an Honours in Statistics)	STA331	30
Statistics 332 (compulsory for an Honours in Statistics)	STA332	30
Group 2		
Statistics 333	STA333	30
Statistics 332	STA332	30
	Sub-total	60
Electives (select 2 modules)		
Mathematics 311	MAT311	30
Mathematics 312	MAT312	30
Mathematics 321	MAT321	30
Mathematics 322	MAT322	30
	Sub-total	60
	Total	120
	FINAL TOTAL	360

B.149 ASSESSMENT

Assessment is generally governed by Rule A5 as stipulated in the General Calendar: General Information Part 1 in addition to the following:

B.149.1 Subminima

Except where otherwise indicated, modules in which a practical component is taken require a sub-minimum of 40% in the practical component.

B.149.2 Weight of practical component

B.149.2.1 The percentage of the total marks allocated to the practical examination where it forms part of the theory evaluation shall not exceed 50%.

B.149.2.2 For the purpose of promotion, the practical modules shall not be credited independently of the theory modules of a particular subject.

B.149.3 Final mark

Except where otherwise indicated, the final mark shall be obtained by means of a system of continuous evaluation, which will differ from subject to subject, combined with examinations as indicated in the University's Assessment Policy.

B.149.4 Re-evaluation of practical modules

No re-evaluation will be allowed for practical modules that are evaluated on a continuous basis.

B.150 PROMOTION RULES

Unless Senate decides otherwise and with due regard to Rule A.3.2.3 or unless specified differently for the programme concerned, the following will apply:

B.150.1 Level 1

No student shall be promoted to study level 2 unless 45 credits have been obtained and when all pre-requisites for admission to level 2 modules have been met.

B.150.2 Level 2

No student shall be promoted to study level 3 unless 90 credits have been obtained at Level 2 and all pre-requisites for admission to level 3 modules have been met.

B.150.3 Level 3

No student shall be promoted to study level 4 unless 200 credits have been obtained and all required modules prescribed for study levels one and two have been successfully completed.

B.151 ADVANCE REGISTRATION

B.151.1 Notwithstanding the above, a student who has not obtained sufficient credits to promote, may register for subject modules at the higher level in anticipation of promotion in the following year, provided all pre-requisites for the higher level module have been met and no time-table clashes will occur as a result of this registration.

B.151.2 Level 1

The maximum number of credits a year level 1 student may anticipate is 30 credits or one full year course, on passing 2 of 3 courses at year level 1.

B.151.3 Level 2

The maximum number of credits a year level 2 student may anticipate is 40 credits, on obtaining at least 30 credits at year level 2, and completing all courses at level 1. Total credits registered may not exceed 90.

B.151.4 Level 3

The maximum number of credits a year level 3 student may anticipate is 30 credits, on obtaining at least 80 credits at year level 3, and completing all courses at level 1 and 2. Total credits registered may not exceed 90.

B.151.5 Please Note: Students are advised to complete all first year modules (level 1 and level 2) before proceeding to 3rd year courses (level 4).

B.152 RENEWAL OF REGISTRATION

B.152.1 The renewal of registration will be governed by the Rule A.3.2.3, as stipulated in the University Calendar: General Information Part 1.

B.152.2 Unless Senate decides otherwise, students who are academically refused in terms of rule A.3.2.3 may apply in writing to the Dean to be re-admitted if they can provide evidence of extenuating circumstances which have prevented them from doing justice to the course AND can show that these circumstances have changed to the extent that success upon re-registration can reasonably be expected.

B.152.3 Please Note: This rule may only be invoked once in the entire duration of the degree programme.

B.153 SPECIAL REQUIREMENTS FOR THE PROGRAMME

B.153.1 Modules from other Faculties

B.153.1.1 A maximum of 30 credits in modules from other faculties will be permitted, except in the case of Computer Science students who will be allowed to take Information Systems as a subject in their programme.

B.153.1.2 At least 100 of the total number of credits obtained at second and third year level shall be in one and the same programme.

B.153.2 Restriction on choice of modules

The following limitations apply as regard to modules that can be credited towards obtaining a degree or certificate. Credit will not be granted for:

B.153.2.1 Chemistry: (CHE114 and CHE124) OR (CHE116 and CHM126).

B.153.2.2 Physics: (PHY111 and PHY121) OR (PHY116 and PHY126) OR (PHY112 and PHY113 and PHY116) OR (PHY151 and PHY152).

B.153.2.3 Mathematics: In the case of Mathematics a student will only be credited for either MAT105 OR MAM115 OR (MAT103 and MAT104) OR (MAM151 and MAM152).

B.153.2.4 Statistics: In the case of Statistics a student will only be credited for either STA111 or STA125 or STA151 or BUS131 or BUS132 or STA141 or STA142.

B.153.2.5 Students who obtained credits prior to 1999 will not be allowed to obtain credits for the equivalent modules as offered from 1999.

B.154. Endorsed Degree

B.154.1 In order to obtain an “endorsed degree” one must obtain at least 240 credits in the core modules of the degree.

B.154.2 Those who do who do not fulfill this criterion may be awarded with a BSc degree (not endorsed) provided they have completed 130 credits in a major subject (i.e. at first, second and third year level) and have accumulated a total of 360 credits, with at least 120 credits at each year level.