

BACHELOR OF SCIENCE IN MATHEMATICAL AND STATISTICAL SCIENCES (3227)

B.55 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 and Statistical Sciences)**

B.55.1 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 33 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 5 (60-69%) in Mathematics and
 - level 4 (50-59%) in Physical Science or
 - level 4 (50-59%) 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.55.2 Admission requirements for applicants who matriculated before 2008

- (a) Unless Senate decides otherwise, no person shall be admitted to any of the programmes for the BSc degree without having obtained a full matriculation or age exemption. Furthermore, no person shall be admitted to any of the BSc programmes if he/she has not obtained a pass in Mathematics and either Physical Science or Biology at Higher grade with at least a D symbol or at Standard grade with at least a C symbol.

OR

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

B.55.3 Alternate admission

Alternate admission does not apply to this programme.

B.56 SELECTION

As only a limited number of students can be admitted to the programmes, applicants will be subject to a selection procedure. At the end of the first quarter of the academic year there will be a further selection of students to follow the Mathematics modules MAT105 or MAT103.

B.57 DURATION

Unless Senate decides otherwise, the minimum duration of the curriculum is 3 years with a maximum permitted registration time of 5 years.

B.58 CURRICULUM

Mathematics Stream

B.58.1 Level 1

Module Name	Alpha Code	Cred
Compulsory (select all groups)		
Group 1 (select all modules)		
Mathematics 105 OR	MAT105	30
Mathematics 103 AND	MAT103	15
Mathematics 104	MAT104	15
Statistics 111	STA111	15
Statistics 121	STA121	15
Group 2 (select 1 module)		
Computing Fundamentals	COS114	15
Computing Fundamentals	COS124	15
Group 3 (select 1 module)		
English for Educational Development 117	EED117	15
English for Educational Development 127	EED127	15
	Sub-total	90
Electives (select 1 group)		
Group 1 (select all modules)		
Mathematics 112	APM112	15
Applied Mathematics 123	APM123	15
Group 2 (select all modules)		
Physics 111	PHY111	15
Physics 121	PHY121	15
Group 3 (select all modules)		
Physics 116 (N)	PHY116	15
Physics 126 (N)	PHY126	15
	Sub-total	30
	Total	120

B.58.2 Level 2

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.58.3 Level 3

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 (may not be selected with STA333)	STA331	30
Statistics 332	STA332	30
Statistics 333 (may not be selected with STA331)	STA333	30
	Sub-total	60
	Total	120
	FINAL TOTAL	360

Statistics Stream**B.58.4 Level 1**

Module Name	Alpha Code	Cred
Compulsory (select all groups)		
Group 1 (select all modules)		
Mathematics 105 OR	MAT105	30
Mathematics 103 and	MAT103	15
Mathematics 104	MAT104	15
Statistics 111	STA111	15
Statistics 121	STA121	15
Group 2 (select 1 module)		
Computing Fundamentals	COS114	15
Computing Fundamentals	COS124	15
Group 3 (select 1 module)		
English for Educational Development 117	EED117	15
English for Educational Development 127	EED127	15
	Sub-total	90
Electives (select electives to the value of 30 credits)		
Group 1 (select all modules)		
Physics 116	PHY116	15
Physics 126	PHY126	15
Group 2 (select all modules)		
Economics 151	ECO151	10
Economics 152	ECO152	10
Management 131 or	MAN131	15
Management 132	MAN132	15
Group 3		
Computer Science 101	COS101	30
	Sub-total	30
	Total	120

B.58.5 Level 2

Module Name	Alpha Code	Cred
Compulsory (select all modules)		
Statistics 211	STA211	20
Statistics 221	STA221	20
Mathematics 211	MAT211	20
	Sub-total	60

Electives (select modules to the value of 60 credits)**Group 1 (select all modules)**

Computer Science 211	CSC211	20
Computer Science 212	CSC212	20

Group 2

Mathematics 221 (compulsory for Honours in Statistics)	MAT221	20
Mathematics 212	MAT212	20
Physics 217	PHY217	20
Physics 227	PHY227	20

Group 3 (select all modules)

Economics 231	ECO231	10
Economics 232	ECO232	10
Economics 235	ECO235	10
Economics 241	ECO241	10
Economics 242 (Pre-requisite for Economics 311)	ECO242	10

Sub-total 60**Total** 120**B.58.6 Level 3**

Module Name	Alpha Code	Cred
Compulsory (select 1 group)		
Group 1		
Statistics 331 (compulsory for Honours in Statistics)	STA331	30
Statistics 332 (compulsory for Honours in Statistics)	STA332	30
Group 2		
Statistics 333	STA333	30
Statistics 332	STA332	30
	Sub-total	60

Electives (select 1 group)**Group 1 (select 2 modules)**

Mathematics 311	MAT311	30
Mathematics 321	MAT321	30
Mathematics 312	MAT312	30
Mathematics 322	MAT322	30

Group 2 (select all modules)

Computer Science 311	CSC311	30
Computer Science 312	CSC312	30

Group 3 (select 4 modules) Compulsory

Economics 331	ECO331	15
Economics 332	ECO332	15

Select two of:

Economics 335	ECO335	15
Economics 336	ECO336	15
Economics 311 (Required for Honours in Economics)	ECO311	15
Economics 334	ECO334	15

Sub-total 60**Total** 120**FINAL TOTAL** 360

B.59 ASSESSMENT

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

B.59.1 Subminima

Modules in which a practical component is taken, a sub-minimum of 40% is required in the practical part.

B.59.2 Weight of practical component

B.59.2.1 The percentage of the total marks allocated to the practical examination where it forms part of the theory evaluation shall not exceed 50%.

B.59.2.2 For the purpose of promotion, the practical modules shall not be credited independently of the theory modules of a particular subject.

B.59.3 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.59.4 Re-evaluation of practical modules

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

B.60 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.60.1.1 Level 1

A student shall be admitted to the second year of study when 90 credits have been obtained of the 120 credits required in the first year of study and when all prerequisites for admission to the second year level modules have been met.

B.60.1.2 Level 1 with MAT103

Notwithstanding, students who are registered for MAT103 require 75 of the 105 available credits and when all pre-requisites for admission to second year level modules must be met. Students should note that decanting may extend the degree by one year.

B.60.2 Level 2

Promotion to the third year of study will be allowed when at least a total of 200 credits have been obtained after the second year of study and when all 120 credits of the first year of the curriculum have been obtained.

B.61 ADVANCE REGISTRATION

B.61.1 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.61.2 Level 1

The maximum number of credits a year level 1 student may anticipate is 40 credits, on obtaining at least 75 credits at year level 1.

B.61.3 Level 2

B.61.3.1 The maximum number of credits a year level 2 student may anticipate is 60 credits, on obtaining at least 80 credits at year level 2.

B.61.3.2 Please Note: Students are advised to complete all first year modules before proceeding to 3rd year level.

B.62 RENEWAL OF REGISTRATION

B.62.1 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.62.2 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.62.3 Please Note: This rule may only be invoked once in the entire duration of the degree programme.

B.63 SPECIAL REQUIREMENTS FOR THE PROGRAMME

B.63.1 Modules from other faculties

B.63.1.1 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 or in the case of Statistics students who will be allowed to take Economics as a subject in their programme.

B.63.1.2 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.63.1.3 Computer Literacy in Science (CLS) and English for Educational Development (EED): These are compulsory, credit bearing modules, comprising one semester module for Computer Literacy and one semester module for EED.

B.63.2 Exemption from CLS and/or EED

Students, who have developed these skills already, may apply to the Faculty for exemption from this requirement subject to the general rules of the university. The process to determine their level of competency in these modules may involve one or more assessment events. When exempted, such students must replace these modules with other modules of their choice to the same credit value.

B.63.3 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.63.3.1 Chemistry: (CHE114 and CHE124) OR (CHE116 and CHM126).

B.63.3.2 Physics: (PHY111 and PHY121) OR (PHY116 and PHY126) OR (PHY112 and PHY113 and PHY116) OR (PHY151 and PHY152).

B.63.4.3 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.63.4.4 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.63.4.5 Students who obtained credits prior to 1999 will not be allowed to obtain credits for the equivalent modules as offered from 1999.

B.63.5 Endorsed Degree

B.63.5.1 In order to obtain an “endorsed degree” one must obtain at least 240 credits in the core modules of the degree.

B.63.5.2 Those 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.