

MSc Applied Statistics with Specialisation in Actuarial Science – SH544

1. Aims and Objectives

The MSc in Applied Statistics with Specialisation in Actuarial Science will serve a growing need for highly trained professionals in the Statistical and Actuarial sciences who possess the skills to analyse data with a view to provide support for informed decision making, and for addressing problems involving uncertainty in government, finance, insurance and business.

The objectives of the MSc Applied Statistics with Specialisation in Actuarial Science are:

- (i) To provide postgraduate training to students in specialised application areas of statistics and actuarial science.
- (ii) To strengthen students' quantitative skills by providing them with a solid foundation and a mastery of advanced statistical and actuarial techniques.
- (iii) To enhance students' ability to use software, computer simulations and datamining techniques to find solutions to problems arising in planning and decision-making.
- (iv) To prepare students for research in government, finance, insurance and business.

2. General Entry Requirements

Successful completion of an undergraduate degree with

- at least a Second Class or 50%, whichever is applicable or
- a GPA not less than 2.5 out of 4 or equivalent, from a recognised higher education institution

OR alternative qualifications acceptable to the University of Mauritius

3. Programme Requirements

A degree in Statistics, Mathematics, Actuarial Science with strong coverage of statistics/econometrics and actuarial studies.

Or equivalent qualifications acceptable to the University of Mauritius.

Consideration can also be given to students having strong quantitative background in relevant field.

4. General and Programme Requirements - Special Cases

The following may be deemed to have satisfied the general and programme requirements for admission:

- (i) Applicants who do not satisfy any of the requirements as per Regulations 2 and Regulation 3 above but who submit satisfactory evidence of having passed examinations, which are deemed by the Senate to be equivalent to any of those listed.
- (ii) Applicants who do not satisfy any of the requirements as per Regulations 3 above but who in the opinion of Senate submit satisfactory evidence of the capacity and attainments requisite to enable them to pursue the programme proposed.
- (iii) Applicants who hold a full practising professional qualification obtained by examination.

5. Programme Duration

The programme will be offered on a part-time basis.

	Normal (Yrs)	Maximum (Yrs)
Master's Degree:	2	4
Postgraduate Diploma:	2	4

6. Credits per Year

As per University Regulation

7. Minimum Credits Required for Awards

	Core Modules	Dissertation	Electives	Total
Master's Degree	18 credits	9 credits	12 credits	39 credits
Postgraduate Diploma	18 credits	-	6 credits	24 credits

8. Assessment

Students are required to register for modules, which they intend to follow in a given semester/year.

Each module will carry 100 marks and will be assessed as follows (unless otherwise specified) : written examination of 3- hours duration for modules with 6 credits and 2 hours duration for modules with 3 credits.

The continuous assessment will count for 30 - 40% of the overall percentage mark of the module(s), except for a Programme of Studies where the structure makes for other specific provision(s). Continuous assessment may be based on seminars and/or assignments and should include at least one class test.

Written examinations for all modules will be carried out at the end of the semester in which they are taught (unless stated otherwise)

An overall total of 40% for combined continuous assessment and written examination components would be required to pass a module, without minimum thresholds within the individual continuous assessment and written examination.

Students are required to submit work for continuous assessment by due dates. Failure to do so will normally incur penalties.

All modules carry their own credit value

Submission Deadlines for Dissertation

- First Draft: End of July in the Final Year
- Final Copy: Last working day of August in the final Year by 4 p.m at latest
Three copies of the dissertation (two spiral-bound copies and one soft copy in a single PDF text file on electronic storage media) should be submitted to the Faculty/Centre Registry and **in addition, a soft copy of the dissertation in a single PDF text file should be uploaded on the "Turnitin' Platform", in the final assignment submission link indicated by the Programme/Project Coordinator.**

9. Choice of Electives

Students will be required to submit their choice of Electives in order of priority by the middle of Semester 1 of Year 1.

The University reserves the right not to offer a given elective module if the critical number of students is not attained and/or if there are resource constraints. Additional electives may also be offered, depending on availability of resources.

10. List of Modules

Code	Module Name	Hrs/Wk	Credits
<u>CORE</u>			
STAT 5124	Modelling Time Series and Longitudinal Data ¹	3+0	3
STAT 5125	Survey Methods and Survey Data Analysis ¹	3+0	3
STAT 5127	Multivariate Methods ¹	3+0	3
STAT 5220	Data Mining ²	3+0	3
STAT 5226	Statistical Inference and Computational Methods ²	3+0	3
STAT 5227	Stochastic Processes ²	3+0	3
STAT 6000	Dissertation	-	9
<u>ELECTIVES</u>			
DFA 6221	Finance and Financial Reporting for Actuarial Science ²	3+0	3
STAT 6120	Statistical Methods for Insurance ¹	3+0	3
STAT 6020Y	Life Contingencies	3+0	6
STAT 6022Y	Statistical Finance	3+0	6
ECON 5122	International and Global Affairs ¹	3+0	3

NOTE:

¹: Taught and examined in first semester

²: Taught and examined in the second semester

12 Programme Plan

YEAR 1

Code Core	Module Name	Hrs/Wk L+P	Credits
STAT 5124	Modelling Time Series and Longitudinal Data ¹	3	3
STAT 5125	Survey Methods and Survey Data Analysis ¹	3	3
STAT 5127	Multivariate Methods ¹	3	3
STAT 5220	Data Mining ²	3	3
STAT 5226	Statistical Inference and Computational Methods ²	3	3
STAT 5227	Stochastic Processes ²	3	3

Year 2

Code Electives	Module Name	Hrs/Wk L+P	Credits
	The number of electives must be chosen such that the number of credits equals to 12 . <i>The modules can be chosen from the following list :</i>		12
DFA 6221	Finance and Financial Reporting for Actuarial Science ²	3	3
STAT 6120	Statistical Methods for Insurance ¹	3	3
STAT 6020Y	Life Contingencies	3	6
STAT 6022Y	Statistical Finance	3	6
ECON 5122	International and Global Affairs ¹	3	3
Dissertation			
STAT 6000	Dissertation (To be submitted at the end of Semester 2)		9

NOTE:¹: Taught and examined in first semester²: Taught and examined in the second semester

- (i) Electives will be offered subject to availability of minimum number of students and Faculty resources.
- (ii) Dissertation will be handed in at the end of the second semester.