UNIVERSITY OF MAURITIUS

Faculty of Social Sciences and Humanities

Department of Economics and Statistics

BSc (Hons) Actuarial Studies

Programme Document

University of Mauritius
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BSc (Hons) Actuarial Studies- SH 309

1. Objectives

The programme is intended to provide students with the necessary skills to start a career in the insurance and risk assessment industries. Above all, it provides the students the necessary background to be able to pursue further studies in the actuarial field. Businesses as well as individuals confront hazards on a daily basis. Actuarial science provides the insurance business with the tools to develop products that afford protection from such hazards. It also provides Governments with insight into the impact of changing demography on the cost of social protection. It draws upon a variety of disciplines such as statistics, economics, finance and information technology.

2. General Entry Requirements

In accordance with the University General Entry Requirements for admission to undergraduate degree Programmes.

3. Programme Requirements

Minimum of 3 'A' levels with grade A in Mathematics and at least grade B in any 2 other subjects.

4. Programme Duration

	Normal	**Maximum**
Degree	3 Years	5 Years

5. Minimum Credits Required for Degree Award: 106

Breakdown as follows:

Credits from			**Total**
Core Taught Modules	**Dissertation**	**Electives**	
93	10	3	106

Modules	**Credits**
Core	
Statistics	63
Economics	21
Finance and Accounting	6
Law	3
Dissertation	10
Electives	3
Total	**106**

6. Credits per Year

As per University Regulations.

7. Assessment

Each module will be assessed over 100 marks with details as follows (unless otherwise specified):

Assessment will be based on a written examination of 2 to 3 hour. Written examinations for all modules, except for DE modules and some semester modules, whether taught in semester 1 or in semester 2 or both, will be carried out at the end of the academic year (unless stated otherwise).

The continuous assessment will count for 20 – 30% of the overall percentage mark of the module(s). Continuous assessment may be based on seminars and/or assignments and should include at least two (2) assignments/tests per module. There will be a compulsory class test for all modules taught in semester 1 at the end of semester 1 of the given academic year unless stated otherwise in the Programme Structure.

An overall total of 40% for combined continuous assessment and written examination components would be required to pass the module, without minimum thresholds within the individual continuous assessment and written examination. The same criterion will apply for modules being assessed jointly. Note that an overall mark for the two modules will be considered and not the individual marks for each of the two modules.

All students should keep a portfolio of all coursework for their respective programme of studies and same should be made available upon request, to the Faculty/Centre Examination Office. In case students fail to submit the Portfolio to the External Examiners through the Faculty/Centre Examination Office, a penalty of 10% on all Continuous Assessment marks obtained shall apply.

8. Submission Deadline for Dissertation

Final copy: Last Working day of March of the Academic Year by 4.00 p.m at latest.

Submission: 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. List of Modules – BSc (Hons) Actuarial Studies

Code	Module Name	Hrs/Wk	Credits
CORE		**L+P**	
DFA 1056Y(1)	Finance and Financial Reporting	3 + 0	6
ECON 1030Y(1)	Economics for Business	3 + 0	6
STAT 1105(1)	Introduction to Actuarial Science	3 + 0	3
STAT 1010Y(1)	Mathematics for Actuarial Science	3 + 0	6
ECON 1212(1)	Principles of Financial Economics	3 + 0	3
STAT 1011Y(1)	Statistical Methods	3 + 0	6
STAT 2105(3)	Financial Mathematics	3 + 0	3
STAT 2103(3)	Introduction to Time Series Analysis	3 + 0	3
ECON 2101(3)	Investment Analysis 1	3 + 0	3
STAT 2106(3)	Linear Models	3 + 0	3
STAT 2204(3)	Generalised Linear Models	3 + 0	3
LAWS 2299(3)	Legal Aspects of Business and Finance	3 + 0	3
STAT 2009Y(3)	Probability and Statistical Inference	3 + 0	6
STAT 2202(3)	Applied Stochastic Processes	3 + 0	3
STAT 2203(3)	Survival Analysis	3 + 0	3
STAT 3018Y(5)	Actuarial Models	3 + 0	6
STAT 3019Y(5)	Bayesian Inference and Credibility Theory	3 + 0	6
STAT 3020Y(5)	Advanced Statistical Methods	3 + 0	6
ECON 3020Y(5)	Advanced Financial Economics	3 + 0	6
STAT 3021Y(5)	Contingencies	3 + 0	6
STAT 3000Y(5)	Dissertation		10
ECON 2205(3)	Actuarial Finance	3 + 0	3
ELECTIVES			
ECON 2206(3)	International Financial Markets and Environment	3 + 0	3
STAT 3202(5)	Demographic Methods	3 + 0	3
ECON 2233(3)	Applied Econometrics for Business	3 + 0	3
STAT 3102(5)	Sample Design and Survey methods	3 + 0	3

Note 1 : Offering of electives would be subject to availability of resources and critical mass. The Department reserves the right to offer additional electives.

10. Programme Plan – BSc (Hons) Actuarial Studies

YEAR 1

Code CORE	Module Name	Hrs/Wk L+P	Credits
DFA 1056Y(1)	Finance and Financial Reporting	3 + 0	6
ECON 1030Y(1)	Economics for Business	3 + 0	6
STAT 1105(1)	Introduction to Actuarial Science [1]	3 + 0	3
STAT 1010Y(1)	Mathematics for Actuarial Science	3 + 0	6
ECON 1212(1)	Principles of Financial Economics [2]	3 + 0	3
STAT 1011Y(1)	Statistical Methods	3 + 0	6
		Total	**30**

YEAR 2

Code CORE	Module Name	Hrs/Wk L+P	Credits
STAT 2105(3)	Financial Mathematics [1]	3 + 0	3
STAT 2103(3)	Introduction to Time Series Analysis [1]	3 + 0	3
ECON 2101(3)	Investment Analysis 1 [1]	3 + 0	3
STAT 2106(3)	Linear Models [1]	3 + 0	3
STAT 2204(3)	Generalised Linear Models II [2]	3 + 0	3
STAT 2009Y(3)	Probability and Statistical Inference	3 + 0	6
STAT 2202(3)	Applied Stochastic Processes [2]	3 + 0	3
STAT 2203(3)	Survival Analysis [2]	3 + 0	3
LAWS 2299(3)	Legal Aspects of Business and Finance [1]	3 + 0	3
ECON 2205(3)	Actuarial Finance [2]	3 + 0	3
ELECTIVES: Choose ONE from:			
ECON 2206(3)	International Financial Markets and Environment [2]	3 + 0	3
STAT 3202(5)	Demographic Methods [2]	3 + 0	3
ECON 2233(3)	Applied Econometrics for Business	3 + 0	3
STAT 3102(5)	Sample Design and Survey Methods [2]	3 + 0	3
		Total	**36**

YEAR 3

Code CORE	Module Name	Hrs/Wk L+P	Credits
STAT 3018Y(5)	Actuarial Models	3 + 0	6
STAT 3019Y(5)	Bayesian Inference and Credibility Theory	3 + 0	6
STAT 3020Y(5)	Advanced Statistical Methods	3 + 0	6
ECON 3020Y(5)	Advanced Financial Economics	3 + 0	6
STAT 3021Y(5)	Contingencies	3 + 0	6
STAT 3000Y(5)	Dissertation		10
		Total	**40**

[1] – Modules taught in Semester 1and examined in semester 1
[2] – Modules taught in Semester 2 and examined in semester

BSc (Hons) Actuarial Studies

Accreditation by Subject Agreement

A student who is awarded the BSc (Hons) Actuarial Studies may be awarded exemptions from those individual subjects for which their module marks reach the standard set by the Independent Examiner. The relevant modules are:

University module	**Exemption subject**
STAT2105 Financial Mathematics	CT1 Financial Mathematics
STAT2106 Linear Models STAT1101Y Statistical Methods STAT2009Y Probability and Statistical Inference	CT3 Probability and Mathematical Statistics
STAT2202 Applied Stochastic Processes STAT2203 Survival Analysis	CT4 Models
STAT3021Y Contingencies	CT5 Contingencies
STAT2204 Generalised Linear Models II STAT2103 Introduction to Time Series Analysis STAT3019Y Bayesian Inference and Credibility Theory STAT3020Y Advanced Statistical Methods	CT6 Statistical Methods
ECON1030Y Economics for Business	CT7 Business Economics
STAT3018Y Actuarial Models ECON3020Y Advanced Financial Economics	CT8 Financial Economics