

BSc (Hons) Statistics (Part-Time) – SH 425

1. Context and Objectives

The demand for professional statisticians has continued to grow in all sectors of the economy over the years. This programme is therefore designed to prepare students for careers as professional statisticians within government and in a wide range of organisations including the private sector, para-statal bodies and NGO's.

Many of the skills taught on the programme, such as survey methods and data analysis using specialist statistical software, are in great demand by employers in the government and private sectors. The programme will thus equip students with the specialist skills and knowledge which are fundamental to conducting professional statistical work.

The BSc (Hons) Statistics (Part-Time) will be taught by experienced academics and professional statisticians working in the government and private sectors.

The objectives of the BSc(Hons) Statistics (Part-Time) are to:

- Provide understanding of the fundamental concepts in all areas of statistics.
- Acquire the core skills in the organisation and interpretation of data, and in the formulation and solution of the statistical problems.
- Develop students' ability to reason logically and their capacity for statistical reasoning and thinking.
- Provide skills in the use and application of statistical softwares.
- Prepare students for postgraduate studies in the field of Statistics.

2. Learning Outcomes

On the completion of the programme, the students should be able to:

- Examine a set of data, to choose and carry out suitable methods of analysis, to answer questions from non-statistical users and to present the analysis and conclusions.
- Use specialised statistical packages for modelling and analysis.
- Solve practical problems in planning and conducting surveys and experiments.
- Identify common sources of secondary data and suggest ways of using them in the face of constrained resources.
- Interpret theoretical and empirical findings involving statistical methods and models.

3. Teaching and Learning Methods

As far as possible, a blended approach will be used. These might include among others: face to face lectures, e-learning (moodle), problem based learning, case studies, document analysis, practical lab sessions (where applicable), assignments, seminars, tutorials, open learning materials, textbooks and independent study as well as collaborative learning.

4. Entry Requirements

General Entry Requirements

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

Programme Requirements

Credit in English at SC/GCE 'O' Level and Passes in two "A" level subjects including Mathematics. Preference will be given to candidates having at least a "B" in Mathematics

5. Programme Duration

| | Normal | Maximum |
|--------|---------|---------|
| Degree | 4 Years | 7 Years |

6. Minimum LCCS credits required for Degree Award: 200

Breakdown is as follows:

| Core Taught Modules | Electives | Project/Dissertation |
|---------------------|-----------|----------------------|
| 174 | 6 | 20 |

| Modules | LCCS Credits |
|------------------|--------------|
| Core | |
| STAT | 162 |
| ECON | 12 |
| Dissertation | 20 |
| Electives | 6 |
| Total | 200 |

| Year | LCCS Credits |
|--------------|--------------|
| 1 | 48 |
| 2 | 42 |
| 3 | 48 |
| 4 | 62 |
| Total | 200 |

7. Assessment and Deadlines

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

The continuous assessment will count for 40 – 50% of the overall percentage mark of the module(s) except for the module:

| Module Code | Module Name | Continuous Assessment | Examination |
|--------------------|---------------------------------------|------------------------------|--------------------|
| STAT 3032Y(5) | Statistical Computing and Data Mining | 60% | 40% |

The written examination will count for 50-60% of the overall percentage marks of the modules.

Continuous assessment may be based on seminars and/or assignments and should include at least two (2) assignments/tests per module.

Written examinations for all modules, will be carried out at the end of the academic year except for semester modules (unless otherwise stated).

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.

Submission Deadline for Dissertation

Final copy: Last week 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.

8. List of Modules – BSc (Hons) Statistics (Part Time)

| CODE | MODULE NAME | CONTACT HRS | SELF-STUDY HRS | OTHER LEARNING ACTIVITIES HRS | LCCS CREDITS |
|---------------|---|-------------|----------------|-------------------------------|--------------|
| CORE | | | | | |
| STAT 1030Y(1) | Mathematical Statistics | 60 | 120 | 180 | 12 |
| STAT 1120(1) | Data Collection | 30 | 60 | 90 | 6 |
| STAT 1243(1) | Practical Data Analysis | 30 | 60 | 90 | 6 |
| STAT 1121(1) | Introduction to Probability | 30 | 60 | 90 | 6 |
| STAT 1040Y(1) | Statistical Methods | 60 | 120 | 180 | 12 |
| ECON 1001(1) | Economics for Statisticians | 30 | 60 | 90 | 6 |
| STAT 2115(3) | Index Numbers, Economic and Social Indicators | 30 | 60 | 90 | 6 |
| STAT 2215(3) | Further Probability | 30 | 60 | 90 | 6 |
| STAT 2120(3) | Statistical Inference I | 30 | 60 | 90 | 6 |
| STAT 2118(3) | Elements of Official Statistics | 30 | 60 | 90 | 6 |
| STAT 2012Y(3) | Survey Sampling and Estimation | 60 | 120 | 180 | 12 |
| ECON 3101(5) | The Mauritian Economic Environment | 30 | 60 | 90 | 6 |
| STAT 3030Y(5) | Probability Distributions | 60 | 120 | 180 | 12 |
| STAT 3114(5) | Statistical Inference II | 30 | 60 | 90 | 6 |
| STAT 3017Y(5) | Generalised Linear Models and Survival Analysis | 60 | 120 | 180 | 12 |
| STAT 3221(5) | Design and Analysis of Experiments | 30 | 60 | 90 | 6 |
| STAT 3031Y(5) | Stochastic Processes | 60 | 120 | 180 | 12 |
| STAT 3034Y(5) | Time Series and Forecasting | 60 | 120 | 180 | 12 |
| STAT 3115(5) | Multivariate Analysis | 30 | 60 | 90 | 6 |

| | | | | | |
|------------------|---------------------------------------|----|-----|-----|----|
| STAT 3116(5) | Further Applied Statistics | 30 | 60 | 90 | 6 |
| STAT 3032Y(5) | Statistical Computing and Data Mining | 60 | 120 | 180 | 12 |
| STAT 3000Y(5) | Dissertation | - | | | 20 |
| ELECTIVES | CHOOSE 6 LCCS CREDITS FROM | | | | |
| ECON 3021(5) | Econometric Analysis | 30 | 60 | 90 | 6 |
| STAT 3235(5) | Medical Statistics | 30 | 60 | 90 | 6 |

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

9. Programme Plan – BSc (Hons) Statistics (Part Time)

YEAR 1

| CODE CORE | MODULE NAME | CONTACT HRS | SELF-STUDY HRS | OTHER LEARNING ACTIVITIES HRS | LCCS CREDITS |
|------------------|--|--------------------|-----------------------|--------------------------------------|---------------------|
| STAT 1030Y(1) | Mathematical Statistics | 60 | 120 | 180 | 12 |
| STAT 1120(1) | Data Collection ¹ | 30 | 60 | 90 | 6 |
| STAT 1243(1) | Practical Data Analysis ² | 30 | 60 | 90 | 6 |
| STAT 1121(1) | Introduction to Probability ¹ | 30 | 60 | 90 | 6 |
| STAT 1040Y(1) | Statistical Methods | 60 | 120 | 180 | 12 |
| ECON 1001(1) | Economics for Statisticians ² | 30 | 60 | 90 | 6 |
| | SUB TOTAL | | | | 48 |

YEAR 2

| CODE CORE | MODULE NAME | CONTACT HRS | SELF-STUDY HRS | OTHER LEARNING ACTIVITIES HRS | LCCS CREDITS |
|------------------|--|--------------------|-----------------------|--------------------------------------|---------------------|
| STAT 2115(3) | Index Numbers, Economic and Social Indicators ² | 30 | 60 | 90 | 6 |
| STAT 2215(3) | Further Probability ² | 30 | 60 | 90 | 6 |
| STAT 2120(3) | Statistical Inference I ¹ | 30 | 60 | 90 | 6 |
| ECON 3101(5) | The Mauritian Economic Environment ² | 30 | 60 | 90 | 6 |
| STAT 2118(3) | Elements of Official Statistics ¹ | 30 | 60 | 90 | 6 |
| STAT 2012Y(3) | Survey Sampling and Estimation | 60 | 120 | 180 | 12 |
| | SUB TOTAL | | | | 42 |

YEAR 3

| CODE CORE | MODULE NAME | CONTACT HRS | SELF-STUDY HRS | OTHER LEARNING ACTIVITIES HRS | LCCS CREDITS |
|------------------|---|--------------------|-----------------------|--------------------------------------|---------------------|
| STAT 3030Y(5) | Probability Distributions | 60 | 120 | 180 | 12 |
| STAT 3114(5) | Statistical Inference II ² | 30 | 60 | 90 | 6 |
| STAT 3017Y(5) | Generalised Linear Models and Survival Analysis | 60 | 120 | 180 | 12 |
| STAT 3221(5) | Design and Analysis of Experiments ¹ | 30 | 60 | 90 | 6 |
| STAT 3031Y(5) | Stochastic Processes | 60 | 120 | 180 | 12 |
| | SUB TOTAL | | | | 48 |

YEAR 4

| CODE CORE | MODULE NAME | CONTACT HRS | SELF-STUDY HRS | OTHER LEARNING ACTIVITIES HRS | LCCS CREDITS |
|------------------|---|--------------------|-----------------------|--------------------------------------|---------------------|
| STAT 3034Y(5) | Time Series and Forecasting | 60 | 120 | 180 | 12 |
| STAT 3115(5) | Multivariate Analysis ¹ | 30 | 60 | 90 | 6 |
| STAT 3116(5) | Further Applied Statistics ¹ | 30 | 60 | 90 | 6 |
| STAT 3032Y(5) | Statistical Computing and Data Mining | 60 | 120 | 180 | 12 |
| STAT 3000Y(5) | Dissertation | | | | 20 |
| ELECTIVES | Choose 6 LCCS CREDITS from | | | | |
| ECON 3021(5) | Econometric Analysis ² | 30 | 60 | 90 | 6 |
| STAT 3235(5) | Medical Statistics ² | 30 | 60 | 90 | 6 |
| | SUB TOTAL | | | | 62 |
| | TOTAL | | | | 200 |

Note: ¹- Modules taught and examined in Semester 1.

²- Modules taught and examined in Semester 2.