Compulsory modules (84 credits)

| Code | Module | Credits | Module Name | Semester |
| :--- | :--- | :--- | :--- | :--- |
| 13074 | 723 | 6 | Introduction to R Programming | 1 |
| 10602 | 715 | 12 | Multivariate Statistical Analysis A | 1 |
| 10603 | 745 | 12 | Multivariate Statistical Analysis B | 2 |
| 11228 | 791 | 30 | Research Assignment: Mathematical Statistics | Both |
| 65250 | 718 | 12 | Stochastic Simulation | 1 |
| 10751 | 747 | 12 | Time Series Analysis | 2 |

Please note the following prerequisite:
Multivariate Statistical Analysis A 715(12) is a prerequisite for Multivariate Statistical Analysis B 745(12).
Elective modules (at least 36 credits)

| Code | Module | Credits | Module Name | Semester |
| :--- | :--- | :--- | :--- | :--- |
| 10394 | 711 | 12 | Bayesian statistics | 1 |
| 10408 | 712 | 12 | Biostatistics | 1 |
| 11922 | 724 | 12 | Capita Selecta in Mathematical Statistics A | 1 |
| 11923 | 754 | 12 | Capita Selecta in Mathematical Statistics B | 2 |
| 10440 | 713 | 12 | Experimental Design | 1 |
| 13361 | 771 | 12 | Mathematical Statistics for Data Science | 1 |
| 10705 | 742 | 12 | Sampling Techniques | 1 |
| 13360 | 771 | 12 | Statistical Learning Theory | 2 |
| 10636 | 746 | 12 | Survival Analysis | 2 |

### 3.1.10.1 BComHons (Mathematical Statistics): Focus on Data Science

## Interdepartmental and interfaculty collaboration

The Department of Statistics and Actuarial Science and the Division for Computer Science in the Faculty of Science jointly present this programme.

## Admission requirements

- A bachelor's degree with a combined average mark of at least $65 \%$ for the third-year modules in Mathematical Statistics, and a satisfactory mark in Computer Science up to at least second-year level.
This programme is presented jointly by the Department of Statistics and Actuarial Science and the Division for Computer Science of the Department of Mathematical Sciences in the Faculty of Science. Consequently, you must be admitted to postgraduate study by both the Department of Statistics and Actuarial Science and the Division for Computer Science.


## Selection

The number of students selected will be influenced by, among other things, staff capacity and the availability of resources within the departments, as well as academic merit and University transformation objectives (within the Division of Computer Science and the Department of Statistics and Actuarial Science). As staff capacity and resources may fluctuate from year to year, the number of students selected can also differ from year to year.
If the Computer Science and Mathematical Statistics background of the applicant is deemed insufficient after a case-by-case determination by the Division of Computer Science and the Department of Statistics and Actuarial Science, the departments may require an additional departmental assessment on third year level Computer Science and Mathematical Statistics topics.
Students may also be required to complete additional undergraduate Stellenbosch University Computer Science and Mathematical Statistics modules along with their honours studies.

## Programme structure

You must choose coursework modules from both of the Department of Statistics and Actuarial Science and the Division for Computer Science and complete a research assignment from the Department of Statistics and Actuarial Science.

