# **BComHons (Economics and Mathematical Statistics)**

# Interdepartmental and interfaculty collaboration

The Department of Statistics and Actuarial Science and the Department of Economics jointly offer this programme.

#### **Admission requirements**

- You must be accepted for honours studies in both the Department of Economics and the Department of Statistics and Actuarial Science, with the following requirements for each:
  - Department of Economics: at least 65% average for Economics 3,
  - Department of Statistics and Actuarial Science: at least 65% average for Mathematical Statistics 3;
- Grade 12 Mathematics at least 70%.

# Application procedure and closing date

Apply at <u>www.sun.ac.za/pgstudies</u>. For South African applicants, the closing date is **31 October** of the year before your intended studies, and for international applicants, it is **30 September**.

## **Duration of programme and starting date**

*Duration:* One year, full-time. You must complete the programme within three years. If you do not, you will have to repeat the compulsory modules.

Starting date: Early January.

## **Enquiries**

Programme coordinator: Prof Dieter von Fintel

**Department of Economics** 

Tel: 021 808 2242

E-mail: <u>dieter2@sun.ac.za</u>
Website: www.ekon.sun.ac.za

## **Programme structure**

The coursework component consists of four modules each from Mathematical Statistics and Economics and a further two modules that may come from any of the two departments. The research component is a compulsory assignment consisting of a statistical application in a field of economics. Both departments supervise the assignment.

This programme requires full-time class attendance.

#### **Programme content**

# Programme module

You must complete a total of at least 164 credits for this programme.

Code	Module	Credits	Module Name	Semester
56928	779	164	Economics and Mathematical Statistics	Both

You must complete modules to a minimum of 54 credits from Economics and 48 credits from Mathematical Statistics. For a further 20 credits, you must choose two modules from Economics and/or Mathematical Statistics. The assignment counts 42 credits. See the programme outline below.

## Please note:

- You must complete the first semester of a year module to be allowed to do the second semester.
- The semester in which the modules are presented may change at short notice from year to year.

# Compulsory modules (98 or 110 credits)

Note that you can choose between some modules.

Code	Module	Credits	Module Name	Semester
10430	871	20	Econometrics	1
10595	771	12	Macroeconomics	2
10605	771	12	Microeconomics	1
10602	715	12	Multivariate Statistical Analysis A* and	1
10603	745	12	Multivariate Statistical Analysis B* or	2
65250	718	12	Stochastic Simulation	1
11217	772	42	Research Assignment: Economics and Mathematical	Both
			Statistics (statistical application)	

<sup>\*</sup> Multivariate Statistical Analysis A 715(12) is a prerequisite for Multivariate Statistical Analysis B 745(12)

#### Elective modules in Economics

- Choose at least 10 credits and at most 40 credits.
- Not all the modules are not necessarily offered every year.
- Note that all the modules marked with an asterisk (\*) are normally offered only every second year. You must contact the Department of Economics to find out which modules will be presented in a specific year.

Code	Module	Credits	Module Name	Semester
10742	771	10	Applied Macroeconomics I	Both
10743	772	10	Applied Macroeconomics II	Both
10745	771	10	Applied Microeconomics I	Both
10746	771	10	Applied Microeconomics II	Both
10635	771	10	Development Economics	1
10436	771	10	Economic History	1
10432	771	10	Economics of Education I	2
10434	771	10	Economics of Technological Change*	2

59617	771	10	Environmental Economics*	1
12228	771	10	Financial Economics	2
13469	771	10	Health Economics*	2
11263	771	10	Industrial Organisation	2
64041	771	10	Institutional Economics*	1
10554	771	10	International Finance	1
10555	771	10	International Trade Theory and Policy	1
51861	771	10	Labour Economics*	2
64033	771	10	Monetary Economics	2
11143	771	10	Public Economics	2

# Elective modules in Mathematical Statistics

- If you choose compulsory modules 715 and 745 (Multivariate Statistical Analysis A and B) above, you must choose at least 24 credits and at most 48.
- If you choose compulsory module 718 (Stochastic Simulation), you must choose at least 36 credits and at most 60 credits.

Code	Module	Credits	Module Name	Semester
10408	712	12	Biostatistics	1
58777	741	12	Data Mining	1
10636	746	12	Survival Analysis	2
13360	771	12	Statistical Learning Theory	2
10751	747	12	Time Series Analysis	2

# Please note:

Data Mining 741(12) is a prerequisite for Statistical Learning Theory 771(12).