Majors: Statistics
Statistics (specialisation in Data Science)
Statistics (specialisation in Finance and Business Statistics)

Programme requirements of current cohort
(for reference by propective students only)
[Current students should refer here.]

#NUSStatistics

Levels	Major Requirements	Cum MCs
Level 1000 (16 MCs)	Pass – ST1131 Introduction to Statistics *or* ST1232 Statistics for Life Sciences – MA1101R Linear Algebra I – MA1102R Calculus – CS1010/—E/—S/—X Programming Methodology	16
Level 2000 (16–17 MCs)	Pass – ST2131/MA2216 Probability – ST2132 Mathematical Statistics – ST2137 Computer Aided Data Analysis – MA2311 Techniques in Advanced Calculus *or* MA2104 Multivariable Calculus *or* MA2108/—S Mathematical Analysis I/— (S)	32–33
Level 3000 (28–29 MCs)	Pass – ST3131 Regression Analysis – ST3236/MA3238 Stochastic Processes I – Three other modules from ST32xx (except ST328x) or ST4xxx modules – Two additional modules from ST32xx (except ST328x), ST4xxx, List A or List B modules	60–62
Level 4000 (32–33 MCs)	Pass – ST4199 Honours Project in Statistics – ST4231 Computer Intensive Statistical Methods – ST4233 Linear Models – Two other modules from ST4xxx modules – One additional module from ST4xxx, ST5xxx or List B modules	92–94

Summary of Requirements	B.Sc. *	B.Sc. (Hons.) *
University Requirements	20 MCs	20 MCs
Faculty Requirements **	8 MCs	8 MCs
Major Requirements	60–62 MCs	92–94 MCs
Unrestricted Elective Modules	30–32 MCs	38–40 MCs
Total	120 MCs	160 MCs

* Students will be eligible for Honours if they have:
a. Fulfilled the requirements of one major at B.Sc. level; and
b. Obtained a minimum overall CAP of 3.20 on completion of 100 MCs or more.

Students who choose not to proceed to Honours even though they are eligible may exit from the programme and graduate with a B.Sc. degree after satisfying graduation requirements at B.Sc. level.

** Faculty requirements of 12 MCs and 16 MCs [required for the B.Sc. and B.Sc. (Hons.) programmes respectively] are partially fulfilled through the reading of CS/MA modules within the major. Students undertaking the B.Sc. and B.Sc. (Hons.) programmes are required to fulfil the remaining 8 MCs of Faculty requirements from any two (2) of the following subject groups: Chemical Sciences, Life Sciences, Physical Sciences and Multidisciplinary & Interdisciplinary Sciences; but not from the following groups: Computing Sciences and Mathematical & Statistical Sciences.

List A
A list of level 3000 Statistics-recognised modules

List B
A list of level 4000 Statistics-recognised modules

[Turn over for information on specialisation]

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#NUSStatistics

Honours students majoring in Statistics have the option to qualify for specialisation in (A) **Data Science** or (B) **Finance and Business Statistics**.

(A) To be awarded a specialisation in **Data Science**, at least 24 MCs of the required 92–94 MCs given in the above **Major Requirements** table must belong to the following two lists, with at least 8 MCs from list DS 1:

DS 1

ST3240	Multivariate Statistical Analysis
ST3248	Statistical Learning I
CS3244	Machine Learning †
ST4248	Statistical Learning II

† Students who wish to read these modules would have to read *additional* pre-requisite modules and should consult the Faculty/Department for academic advice on their study plans.

DS 2

ST3247	Simulation
CS3210	Parallel Computing †
MA3252	Linear and Network Optimisation
ST4234	Bayesian Statistics
CS4231	Parallel and Distributed Algorithms †
DSA4211	High-Dimensional Statistical Analysis
DSA4212	Optimisation for Large-Scale Data-Driven Inference
MA4268	Mathematics for Visual Data Processing †

(B) To be awarded a specialisation in **Finance and Business Statistics**, at least 24 MCs of the required 92–94 MCs given in the above **Major Requirements** table must belong to the following two lists, with at least 8 MCs from each of the lists:

FBS 1

ST3233	Applied Times Series Analysis
ST3234	Actuarial Statistics
ST3246	Statistical Models for Actuarial Science
MA3269	Mathematical Finance I
ST4245	Statistical Methods for Finance
MA4269	Mathematical Finance II

FBS 2

ST3232	Design and Analysis of Experiments
ST3239	Survey Methodology
ST3242	Introduction to Survival Analysis
ST3244	Demographic Methods
ST4238	Stochastic Processes II


Click on the module codes for module information