Major in Statistics

The Department of Statistics and Applied Probability in NUS offers an undergraduate major in Statistics. Honours students in this major have the option to specialize either in Data Science or in Finance and Business Statistics.

A brief outline of the modules offered by the department for this major is as follows.

**Level 1000**

*Introduction to Statistics* provides students with the basic concepts in statistics.

**Level 2000**

Students at the second year will learn programming languages, for example the popular software package R that statisticians use, by taking *Computer Aided Data Analysis*. They will also take *Probability* and *Mathematical Statistics*, which provide a foundation for higher-level modules.

**Level 3000 and 4000**

Students at their third and honours year will take modules on important statistical techniques like *Simulation* and *Regression Analysis*, and also modules that have important applications:

2. Data science: *Multivariate Statistical Analysis, Data Mining, Bayesian Statistics, High-dimensional Statistical Analysis, Optimization for Large-Scale Data-Driven Inference*
3. Medical and public health data: *Demographic Methods, Introduction to Survival Analysis, Statistical Method in Epidemiology, Survey Methodology*

The modules *Categorical Data Analysis, Computer Intensive Statistical Methods, Nonparametric Statistics* teach students statistical tools to handle specific types of data.

Students will also be matched, based on their interest, to a supervisor to do a final year project, if they progress to the honours year.