STATS 210 Statistical Theory (15 points)

Taught: Both Semesters, City Campus

Prerequisites: STATS 125 or equivalent.

Corequisites: 15 points from MATHS 208, 250 or equivalent.

Assessment: Final exam 75%, test 7%, tutorials 8%, assignments 10%, or final exam 100%. Must obtain at least 70% in coursework to qualify for plussage, and at least 50% in the final exam to pass.

Textbooks: Notes distributed in class.

For advice: Stephanie Budgett (Semester 1: s.budgett@auckland.ac.nz), Rachel Fewster (Semester 2: r.fewster@auckland.ac.nz)

STATS 210 is an accessible introduction to the theory underlying data analysis methods taught in other statistics courses. It is aimed at students who enjoy maths and are interested in probability and statistics. It is useful for students who aim to specialize in Statistics or Mathematics, and for those who wish to gain a better understanding of statistical modelling in other quantitative disciplines such as Biology, Econometrics, Engineering Science, Finance, Operations Research, and Psychology. STATS 210 is a prerequisite for STATS 310 and admission to a postgraduate degree in Statistics. Students majoring in Statistics must take either STATS 125 or STATS 210.

Students lacking the prerequisite may be considered for direct entry to STATS 210 if they can demonstrate they have achieved high grades in related mathematical subjects. Students wishing to apply for direct entry should send their transcript to the advisors listed above.

Topics studied include: Probability, discrete and continuous distributions, likelihood and estimation, hypothesis testing, statistical modelling.