

Upper Level Courses in Statistics 2009-2010

Stats 3A03 Applied Regression Analysis with SAS Fall

Introduction to SAS; linear regression model; least squares method; model fitting and diagnostics; influential analysis; model building; one-way and two-way ANOVA; applications.

Stats 3CI3 Computational Methods for Inference Winter Dr. P. Macdonald

Linear and non-linear likelihood inference; model-free methods; Bayesian concepts and methods; applications.

Stats 3D03 Mathematical Statistics I Fall Dr. A. Canty

Sampling distributions, limiting distributions; maximum likelihood methods; sufficiency and its statistical inference implications; pivotal quantities; interval estimation; tests of hypotheses, optimality.

Stats 3H03 Actuarial Mathematics II Winter Dr. D. Lozinski

Multiple life functions, multiple decrement models, valuation theory for pension plans.

Stats 3J04 Probability and Statistics for Engineering Fall Dr. P. Macdonald

Introduction to probability, data analysis, statistical inference, regression, correlation and analysis of variance, applications to civil and environmental engineering.

Stats 3N03 Statistical Methods for Engineering Fall Dr. P. Macdonald

Introduction to probability, data analysis, statistical inference, regression, correlation and analysis of variance.

Stats 3S03 Survey Sampling Fall Dr. R. Zhu

Survey design; simple random sampling; stratified sampling; proportional allocation; ratio estimation; cluster sampling; systematic sampling and sample size determination. A project associated with current research is required.

Stats 3U03 Stochastic Processes Fall Dr S. Feng

Random walk, Markov chains, discrete and continuous parameter Markov processes, branching processes, birth and death processes, queuing processes.

Stats 3Y03 Statistical Analysis for Engineering Winter Dr. P. Macdonald

Introduction to probability, univariate and multivariate random variables and their distributions, statistical estimation and inference, regression and correlation, decision making, applications.

Stats 4A03 Time Series Fall Dr. R. Viveros

Stationary, auto-regressive and moving-average series, Box-Jenkins methods, trend and seasonal effects, tests for white noise, estimation and forecasting methods, introduction to time series in the frequency domain.

Stats 4D03 Intermediate Probability Theory Winter Dr. S. Feng

Construction of probability spaces and random variables, integration, conditional expectation, law of large numbers, convergence of series, weak convergence, characteristic functions and central limit theorems, martingales.

Stats 4F03 Categorical Data Analysis Winter Dr. A. Sarr

Two-way and three-way contingency tables, logistic regression, loglinear models for contingency tables, collapsibility, ordinal associations, multicategory logit models.

Stats 4M03 Multivariate Analysis Fall Dr. R. Viveros

Multivariate distributions: Normal, Wishart, T2 and others; regression, correlation, factor analysis, general linear hypothesis.

Stats 4P03 Advanced Applied Statistics Winter T.B.A.

Statistical computing; statistical software packages; working with large data sets; exploratory data analysis; graphical methods; statistical consulting practice.